

DELIVERABLE 2.5

HANDBOOK

Based on results evaluation of *Vicia faba* L.,
Pisum sativum L., and *Vigna unguiculata* L.
broad gene pool

LEAD BENEFICIARY: AREI

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HANDBOOK

Based on results evaluation of *Vicia faba L.*, *Pisum sativum L.*, and *Vigna unguiculata L.* broad gene pool

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SUMMARY

Germplasm collections constitute a useful source of plant material for the study of genetic variability for plant breeders. Thus, the assessment of genetic diversity is fundamental for revealing the germplasm collections likely to be integrated in plant breeding programmes. The project EUROLEGUME aims to explore and evaluate the European pea, faba bean, and cowpea genetic resources in order to develop new varieties for food and feed.

The present handbook summarizes results on screening of broad gene pool of 100 faba beans, 100 faba beans, 104 field pea and 68 cowpea landraces, old varieties, and unexplored varieties from different origin, collected and evaluated in Task 2.1 of Eurolegume project during 2014-2016 with the purpose to gain valuable information, which can be used by Gene banks, breeders, and researchers, in the context of several challenges that agriculture systems are facing, such as climate change and a consequent fast erosion of natural resources. The need of new cultivars adapted to these challenges is an urgent matter.

1. OBJECTIVES

One of the main objectives in EUROLEGUME is to source genetic resources of cowpea (*Vigna unguiculata* L.), faba bean (*Vicia faba* L.), and pea (*Pisum sativum* L.), currently underexplored and underexploited, which could display valuable features for site specific biotic and abiotic conditions.

During the first 24 months of the project, it was completed the collection of available genotypes throughout Europe, gathering the seeds, which were shared between partners to develop a comprehensive characterization.

The present document includes the summarized results of evaluation of genotypes exchanged between partners, with indication of the characterization regarding:

- i) Description of main characteristics (descriptors) of accessions;
- ii) Evaluation of the plants performance, according to evaluated parameters in different macroclimatic zones.

2. INTRODUCTION

Family Leguminosae constitutes the third largest family of flowering plants, including more than 750 genera and 20000 species. During centuries a broad gene pool of legumes has been developed, including local landraces, mass selections from landraces, open pollinated populations, synthetics, inbred lines, hybrids, and cultivars (Duc et al., 2010). Genetic resources are accumulated in 1750 gene bank collections worldwide. Collections include more than 7 million crop accessions, out of which legumes are around 1 million. From these, in Europe around 33000 accessions of pea, broad bean, and cowpea have been registered in the Plant Genetic Resources database of the European Cooperative Program (ECPGR) being available for agronomical and research use. However, a relatively large number of landraces, local varieties have not been collected yet ([Genesys, 2016](#)). This situation notices the large amount of unexploited material of these legume species, which have not been evaluated ([Carvalho et al., 2017](#)).

Traditionally, investments in breeding programs have been lower in legumes than in cereals (Fouad et al., 2013; Duc et al., 2015b); as a result, limited numbers of registered legume cultivars are available. The current situation in agriculture clearly shows the need to introduce new legume varieties. The improvement of desired traits related to the sustainability of legume crops under the current agro-climatic conditions is required. In this sense, the successful application of breeding programs to get this objective strongly depends on the existing genetic variation, being urgent to evaluate the available local genetic resources to collect the variability required to achieve this goal. Thus, local genetic resources represent important sources for genetic variability, as they contain valuable co-adapted genes for future cultivation practices, higher yield, and better compositional quality (Harlan, 1975). Indeed, previous investigations revealed that local landraces constitute valuable pool of donors for breeding programs due to the large diversity on the genetic information on plant features of interest, such as adaptability and performance stability under non-favorable environmental conditions.

The present handbook summarizes results on screening of broad gene pool of 100 faba beans, 104 field pea and 68 cowpea landraces, old varieties, and unexplored varieties from different origin, collected and evaluated in Task 2.1 of Eurolegume project during 2014-2016 with the purpose to gain valuable information, which can be used by Gene banks, breeders, and researchers, in the context of several challenges that agriculture systems are facing, such as climate change and a consequent fast erosion of natural resources. The need of new cultivars adapted to these challenges is an urgent matter

3. INTEGRATED AND COORDINATED TASKS

This Handbook is based on the work done in Task 2.1 “Sourcing and characterization of genetic diversity of local genetic resources of cowpea (*Vigna unquiculata* (L.) Walp.) faba bean (*Vicia faba* L.), and pea (*Pisum sativum* L.)”

Partners contributing to the development of the tasks foreseen in WP2 are University of Trás-os-Montes e Alto Douro (UTAD, P1, Portugal), Pure Horticultural Research Centre (PHRC, P3, Latvia), Institute of Agricultural Resources and Economics (AREI, P4, Latvia), Estonian Crops Research Institute (ECRI, P6, Estonia), Agricultural University of Tirana (AUT, P7, Albania), The Swedish Research institute (RISE, P8, Sweden), Technique University of

Cartagena (UPCT, P10 Spain), National Institute for Agricultural and Veterinarian Research (INIAV, P11, Portugal), University of Natural Resources and Life Sciences (BOKU, P12, Austria), Agricultural University of Athens (AUA, P13, Greece), and Norwegian Institute of Bioeconomy Research (NIBIO, P14, Norway).

During 2014, 2015, and 2016, PHRC, AREI, ECRI, AUT, and INIAV established field experiments aimed to characterize and evaluate faba bean accessions collected from diverse countries and institutions around Europe in the frame of EUROLEGUME. The partners UTAD, NIBIO, and RISE contributed to the EUROLEGUME collection by gathering local national genetic resources.

PART I

Faba bean (*Vicia faba* L.)

4. MATERIAL AND METHODS

4.1. Plant material included in the field trials

100 faba bean genotypes (*Vicia faba* var. *major* and *Vicia faba* var. *minor*) accessions were collected from January 2014 to June 2016. Faba bean genotypes were obtained from southern (Portugal, Albania, Greece, and Spain) and northern Europe (Estonia, Latvia, Norway, and Sweden) gene bank collections, farmers, hobby gardeners, and Non-Governmental Organizations (NGOs).

Preliminary screening of collected accessions was performed under different agro-climatic conditions. The inclusion of the collected genotypes in the preliminary screening was conditioned by two main criteria: **1)** Local genetic resources (landraces) without proper previous evaluation; and **2)** genetic resources (varieties, breeding lines) with some potentially good traits, although presenting a gap of information on valuable descriptors, especially grain quality. Genotypes having enough amount of seeds, were exchanged between South and North partners to evaluate them under very diverse growing conditions to assess the stability and influence of agro-environmental features on particular traits.

4.2. Experimental locations for faba bean screening trials

Field experiments done for faba bean were arranged in five locations across Europe between 2014 and 2016: under Northern agroclimatic conditions: **1)** in the experimental fields of Institute of Agricultural Resources and Economics (AREI, Latvia) (57°18'57"N, 25°20'19"E, 123 m altitude); **2)** at Pure Horticultural Research Centre (PHRC, Latvia); **3)** at Estonian Crops Research Institute (ECRI, Estonia) (58°769'N; 26°400'E); and under Southern Europe agroclimatic conditions **4)** at National Institute for Agricultural and Veterinarian Research (INIAV, Portugal) (38°53'N, 7°09'W, 208 m altitude), **5)** at

Agricultural University of Tirana (AUT, Albania) ($41^{\circ}21'35''N$, $19^{\circ}46'28''E$, 71 m altitude) and 6) at Agricultural University of Athens (AUA, Greece) ($38^{\circ}23'51''N$, $23^{\circ}05'41''E$, 95 m a.s.l., Kopais) for faba bean

4.3. Experimental design

The field trials envisaging evaluation purposes were set up in randomized complete block design. The plot size was 2- 3 m². The sowing rate was 10-14 seeds per m² for *Vicia faba* var. *major* varieties and 30-40 seeds per m² for *Vicia faba* var. *minor* varieties, both at 50 x 15 cm plants spacing. Traditional cultural practices for sowing, harvesting, and conventional crop management were used in each institution. No seed treatment neither fungicide were applied.

4.4. Evaluated traits

Broad range of faba bean traits were studied according to “Key access and utilization descriptors for faba bean genetic resources” (Bioversity)¹. Evaluation results according to the most important traits for breeding purposes are included in current Handbook:

- *Flower ground color*: ground color of standard petal (flag) (1-white, 2-violet, 3-dark brown, 4 light brown, 5-pink, 6-red, 7- yellow, 8- other);
- *Anthocyanin coloration on standard petal*: (0-absent, 1-small, 2-medium, 3-large);
- *Ground color of testa (seed coat)*: observed immediately after harvest (within one month after harvest) (1 - black, 2 - dark brown, 3 - light brown, 4 – light green, 5 - dark green, 6 - red, 7 - violet, 8 - yellow, 9 - white, 10 - grey, 11- other);
- *Pod shattering*: 0 – non shattering (wrinkled pod type), 1 –shattering;
- *Growth habit*: 1 –determinate, i.e. stems with terminal inflorescence; 2- semi-determinate, i.e. without terminal inflorescence, 3- indeterminate;
- *Plants: height (PHG)* (cm): The observation made at near maturity. Measured in cm from the ground to the top of plant, for 10 plants per plot and the mean and standard deviation has calculated.
- *Days to flowering (DFL)*: Days from sowing to 50% plants at flowering initiation stage.
- *Days to pod maturity (DPM)*: Days from sowing until 90% of the pods have mature seeds.
- *Resistance to lodging (RL)*: Trait was scored at near maturity stage (3-low, 5-medium, 7 – high).

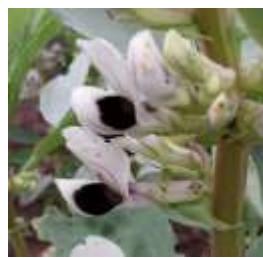
¹

http://www.bioversityinternational.org/uploads/tx_news/Key_access_and_utilization_descriptors_for_faba_bean_genetic_resources_1331.pdf. Assesed 27th of May, 2016;

- *Number of pods per node (NPN)*: Mean number of pods on the second pod-bearing node and standard deviation of 5 plants.
- *Number of seeds per pod (NSP)*: Mean and standard deviation of 10 typical dry pods.
- *Seed: average seed weight per plant (SWP)*: Average and standard deviation of 10-15 randomly chosen plants from plot.
- *Seed: 100 seed weight (SW) (g)*: Average weight of 2 samples of 100 randomly chosen seeds.
- *Protein content (PRO) (% dm)*: Kjeldahl method.
- *Incidence of Aphids (*Aphis spp.*) (IA)*: Visually evaluated at flowering stage and near maturity stage. Scored from 1 to 9 (1 – no damage observed, 9 – all plants damaged).
- *Incidence of Seed weevils (*Bruchus spp.*) (ISW)*: Percentage of damaged seeds after harvest.
- *Incidence of Chocolate spot (*Botrytis fabae*) (ICS)*: Visually evaluated at flowering stage and near maturity stage. Scored from 1 to 9 (1 – no damage observed, 9 – all plants damaged).
- *Incidence of Ascochyta blight (*Ascochyta fabae*) (IAB)*: Visually evaluated at flowering stage and near maturity stage. Scored from 1 to 9 (1 – no damage observed, 9 – all plants damaged).
- *Incidence of Rust (*Uromyces fabae*) (IR)*: Visually evaluated at flowering stage and near maturity stage. Scored from 1 to 9 (1 – no damage observed, 9 – all plants damage)

To represent phenotypic variation of traits under different agroclimatic conditions, minimum, maximum, and average values for each of the considered traits were included in the handbook.

FUEGO	
	Collecting number (EUROLEGUME database) FB01
	Genus, specie, subtaxa <i>Vicia faba</i> var. minor
	Common crop name Field beans
	Accession name Fuego
	Acquisition date 2014
	Country of origin Germany
	Location of collecting site, latitude, altitude Unknown
	Or: Donor institution RISE, Sweden
	Donor accession number
	Biological status Commercial cultivar
	Flower color Petal ground color – 1- white
	Seed color 3 – light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

LOCAL GENOTYPE VF_001 (DŽŪKSTES)	
	Collecting number (EUROLEGUME database) FB02
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Broad beans
	Accession name Local genotype VF_001 (Džūkstes)
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°47'29"N 23°14'39"E, 45 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_001
	Biological status Landrace
	Flower color Petal ground color – 1- white, anthocyanin - 1- small
	Seed color 8 – yellow
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ²		
	Min	Max	Mean
Plants height (cm)	74.0	113.0	90.9
Days to flowering	44	57	52
Days to pod maturity	107	140	126
Length of flowering period	19	37	28
Resistance to lodging	3	9	8
100 seed weight (g)	47.1	77.8	62.1
Numbers of pods per node	1.2	3.7	2.2
Number of seeds per pod	2.9	3.7	3.3
Average seed weight per plant (g)	14.56	56.64	25.79
Protein content (%)	29.5	30.7	30.2
Incidence of Aphids	1	1	1
Incidence with Chocolate spot	1	3	1
Incidence with Ascochyta blight	1	3	1
Incidence with Rust	1	5	2

²AREI (2014, 2015 and 2016) and ECRI (2015 and 2016)

Traits	Northern conditions ³			Southern conditions ⁴		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	45.0	95.4	76.4	85.9	139.2	112.5
Days to flowering	37	57	47	90	91	91
Days to pod maturity	100	132	115	174	202	188
Length of flowering period	19	33	26	73	84	79
Resistance to lodging	3	9	6	9	9	9
100 seed weight (g)	99.0	150.3	131.1	81.9	93.6	87.5
Numbers of pods per node	1.0	2.0	1.3	-	-	1.1
Number of seeds per pod	2.1	3.3	2.8	1.6	2.1	1.8
Average seed weight per plant (g)	7.04	60.95	25.99	3.97	5.79	4.88
Protein content (%)	30.4	35.7	32.4	-	-	31.1
Incidence of Aphids	1	4	2	-	-	3
Incidence with Chocolate spot	1	5	3	-	-	-
Incidence with Ascochyta blight	1	5	3	-	-	-
Incidence with Rust	1	7	3	-	-	-

³AREI (2014, 2015 and 2016) and ECRI (2015 and 2016)

⁴INIAV (2015 and 2016)

LOCAL GENOTYPE VF_002 (ZAIGAS)							LOCAL GENOTYPE VF_003 (SĀREMĀ)								
	Collecting number (EUROLEGUME database)	FB03						Collecting number (EUROLEGUME database)	FB04						
Genus, specie, subtaxa	<i>Vicia faba</i> var. major						Genus, specie, subtaxa	<i>Vicia faba</i> var. major							
Common crop name	Broad beans						Common crop name	Broad beans							
Accession name	Local genotype VF_002 (Zaigas)						Accession name	Local genotype VF_003 (Sāremā)							
Acquisition date	2014						Acquisition date	2014							
Country of origin	Latvia						Country of origin	Estonia							
Location of collecting site, latitude, altitude	57°03'643''N; 22°921'536''E, 57 m						Location of collecting site, latitude, altitude	Kuresaare market							
Or: Donor institution	PHRC, Latvia						Or: Donor institution	PHRC, Latvia							
Donor accession number	VF_002						Donor accession number	VF_003							
Biological status	Landrace						Biological status	Landrace							
Flower color	Petal ground color – 1- white, anthocyanin - 1- small						Flower color	Petal ground color – 1- white, anthocyanin - 0- absent							
Seed color	3 – light brown						Seed color	3 – light brown							
Pod shattering	1 - shattering						Pod shattering	0 - non-shattering							
Growth habit	3 - indeterminate						Growth habit	3 - indeterminate							
Traits		Northern conditions ⁵			Southern conditions ⁶			Traits		Northern conditions ⁷			Southern conditions ⁸		
		Min	Max	Mean	Min	Max	Mean			Min	Max	Mean	Min	Max	Mean
Plants height (cm)		57.5	110.5	80.7	96.3	148.6	122.4	Plants height (cm)		64.8	96.3	80.8	94.5	158.8	126.7
Days to flowering		39	57	47	90	94	92	Days to flowering		39	57	48	90	94	92
Days to pod maturity		100	128	114	174	200	187	Days to pod maturity		105	128	117	174	200	187
Length of flowering period		19	41	31	73	81	77	Length of flowering period		19	41	32	73	81	77
Resistance to lodging		3	9	6	9	9	9	Resistance to lodging		3	9	7	9	9	9
100 seed weight (g)		86.0	166.6	124.9	87.7	90.4	89.0	100 seed weight (g)		93.0	146.0	118.8	72.2	98.4	85.3
Numbers of pods per node		0.9	2.2	1.2	-	-	1.0	Numbers of pods per node		1.0	1.8	1.3	-	-	1.1
Number of seeds per pod		2.3	3.7	3.0	1.9	2.4	2.1	Number of seeds per pod		2.6	3.6	3.1	1.6	2.6	2.1
Average seed weight per plant (g)		2.04*	30.00	19.03	5.59	6.54	6.06	Average seed weight per plant (g)		7.36*	39.11	19.53	1.46	7.28	4.37
Protein content (%)		30.6	33.6	31.8	-	-	29.2	Protein content (%)		31.9	33.7	32.6	-	-	29.3
Incidence of Aphids		1	5	2	-	-	3	Incidence of Aphids		1	3	2	-	-	3
Incidence with Chocolate spot		1	8	3	-	-	-	Incidence with Chocolate spot		1	5	2	-	-	-
Incidence with Ascochyta blight		1	4	2	-	-	-	Incidence with Ascochyta blight		1	5	2	-	-	-
Incidence with Rust		1	5	2	-	-	-	Incidence with Rust		1	7	3	-	-	-
Remarks		*Under very dry conditions during pot formation					Remarks		*Under very dry conditions during pot formation						

⁵AREI, ECRI and PHRC (2014, 2015 and 2016)

⁶INIAV (2015 and 2016)

⁷AREI, ECRI (2014, 2015 and 2016) and PHRC (2014 and 2015)

⁸INIAV (2015 and 2016)

LOCAL GENOTYPE VF_004 (PUNTUŁA TUMŠĀS)		
	Collecting number (EUROLEGUME database)	FB05
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Broad beans
	Accession name	Local genotype VF_004 (Puntuła tumšās)
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°25'27"N 25°54'24"E, 153 m
	Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_004
	Biological status	Landrace
	Flower color	Petal ground color – 1- white, anthocyanin - 1- small
	Seed color	3 – light brown, 2 - dark brown
	Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate

LOCAL GENOTYPE VF_005 (CĒRES)		
	Collecting number (EUROLEGUME database)	FB06
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Broad beans
	Accession name	Local genotype VF_005 (Cēres)
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°25'27"N 25°54'24"E
	Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_005
	Biological status	Landrace
	Flower color	Petal ground color – 1- white, anthocyanin - 1- small
	Seed color	3 – light brown, 2 - dark brown
	Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate

Traits	Northern conditions ⁹			Southern conditions ¹⁰		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	53.0	104.5	86.0	91.3	147.0	119.2
Days to flowering	39	57	48	90	101	96
Days to pod maturity	105	128	119	174	200	187
Length of flowering period	17	41	32	73	74	74
Resistance to lodging	3	9	6	9	9	9
100 seed weight (g)	88.0	151.1	117.3	63.4	69.6	66.5
Numbers of pods per node	1.0	2.0	1.3	-	-	1.1
Number of seeds per pod	2.8	3.2	3.0	1.6	1.9	1.7
Average seed weight per plant (g)	7.04*	53.94	26.14	3.82	4.44	4.13
Protein content (%)	30.3	34.8	32.3	-	-	30.8
Incidence of Aphids	1	3	1	-	-	3
Incidence with Chocolate spot	1	5	3	-	-	-
Incidence with Ascochyta blight	1	5	3	-	-	-
Incidence with Rust	1	5	3	-	-	-
Remarks	*Under very dry conditions during pot formation					

⁹AREI, ECRI and PHRC (2014, 2015 and 2016)

¹⁰INIAV (2015 and 2016)

Traits	Northern conditions ¹¹		
	Min	Max	Mean
Plants height (cm)	60.0	110.0	88.3
Days to flowering	42	57	48
Days to pod maturity	105	128	119
Length of flowering period	21	42	33
Resistance to lodging	3	9	6
100 seed weight (g)	50.0	146.3	106.4
Numbers of pods per node	1.0	1.3	1.0
Number of seeds per pod	2.4	3.6	3.0
Average seed weight per plant (g)	2.16*	54.87	25.89
Protein content (%)	30.3	32.7	31.6
Incidence of Aphids	1	8	2
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	6	2
Incidence with Rust	1	5	2
Remarks	*Under very dry conditions during pot formation		

¹¹AREI, ECRI (2014, 2015 and 2016) and PHRC (2014)

BAUSKA		
	Collecting number (EUROLEGUME database)	FB07
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
	Common crop name	Field beans
	Accession name	Bauska
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	Petal ground color – 1- white, anthocyanin – 1 - small
	Seed color	3 – light brown, 2 - dark brown
	Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate

PRIEKULU 32		
	Collecting number (EUROLEGUME database)	FB08
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
	Common crop name	Field beans
	Accession name	Priekulu 32
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_007
	Biological status	Landrace
	Flower color	Petal ground color – 1- white, anthocyanin - 1- small
	Seed color	3 – light brown, 7 - violet
	Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate

Traits	Northern conditions ¹²			Southern conditions ¹³		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	86.5	121.4	110.0	112.6	169.2	140.9
Days to flowering	50	61	55	100	115	108
Days to pod maturity	112	132	121	174	202	188
Length of flowering period	20	29	25	60	63	62
Resistance to lodging	7	9	8	9	9	9
100 seed weight (g)	41.0	67.8	55.3	34.3	39.1	36.7
Numbers of pods per node	1.2	2.5	1.9	-	-	1.5
Number of seeds per pod	3.1	4.3	3.5	1.9	2.6	2.3
Average seed weight per plant (g)	4.30*	22.11	14.03	2.67	12.77	7.72
Protein content (%)	30.7	32.3	31.7	-	-	27.9
Incidence of Aphids	3	4	4	-	-	3
Incidence with Chocolate spot	1	4	2	-	-	-
Incidence with Ascochyta blight	1	5	2	-	-	-
Incidence with Rust	1	3	2	-	-	-
Remarks	*Under very dry conditions during pot formation					

¹²AREI (2014, 2015 and 2016) and PHRC (2014)

¹³NIAV (2015 and 2016)

Traits	Northern conditions ¹⁴		
	Min	Max	Mean
Plants height (cm)	72.5	127.5	99.6
Days to flowering	41	61	50
Days to pod maturity	112	132	121
Length of flowering period	19	48	36
Resistance to lodging	3	9	6
100 seed weight (g)	54.0	90.4	68.4
Numbers of pods per node	1.0	1.9	1.6
Number of seeds per pod	2.5	6.5	3.6
Average seed weight per plant (g)	2.11*	36.92	21.06
Protein content (%)	30.5	33.1	31.8
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	4	2
Incidence with Rust	1	5	2
Remarks	*Under very dry conditions during pot formation		

¹⁴ AREI, ECRI (2014, 2015, and 2016) and PHRC (2014)

LOCAL GENOTYPE VF_008 (PUNTUŁA GAIŠĀS)		
	Collecting number (EUROLEGUME database)	FB09
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Broad beans
	Accession name	Local genotype VF_008 (Puntuła gaišās)
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°25'27"N 25°54'24"E, 153 m
	Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_008
	Biological status	Landrace
	Flower color	Petal ground color – 1 - white, anthocyanin - 0 - absent
	Seed color	3 – light brown
	Pod shattering	1 – shattering
	Growth habit	3 – indeterminate

LOCAL GENOTYPE VF_009 (IRAS)		
	Collecting number (EUROLEGUME database)	FB10
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Broad beans
	Accession name	Local genotype VF_009 (Iras)
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°03'643"N; 22°921'536"E, 57 m
	Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_009
	Biological status	Landrace
	Flower color	Petal ground color – 1 - white, anthocyanin - 1- small
	Seed color	3 – light brown
	Pod shattering	1 – shattering
	Growth habit	3 – indeterminate

Traits	Northern conditions ¹⁵		
	Min	Max	Mean
Plants height (cm)	46.8	113.3	87.7
Days to flowering	37	48	48
Days to pod maturity	105	128	118
Length of flowering period	21	48	33
Resistance to lodging	3	9	6
100 seed weight (g)	85.5	146.2	107.8
Numbers of pods per node	1.0	1.5	1.2
Number of seeds per pod	2.0	3.1	2.7
Average seed weight per plant (g)	5.92*	27.80	19.38
Protein content (%)	30.0	33.8	32.1
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	4	2
Incidence with Rust	1	7	2
Remarks	*Under very dry conditions during pot formation		

¹⁵AREI, ECRI (2014, 2015 and 2016) and PHRC (2014)

Traits	Northern conditions ¹⁶		
	Min	Max	Mean
Plants height (cm)	68.0	102.0	81.4
Days to flowering	38	61	48
Days to pod maturity	112	128	118
Length of flowering period	20	39	30
Resistance to lodging	3	9	6
100 seed weight (g)	109.0	153.7	128.5
Numbers of pods per node	1	1	1
Number of seeds per pod	2.2	3.6	3.0
Average seed weight per plant (g)	15.44*	38.10	27.14
Protein content (%)	28.6	33.6	31.6
Incidence of Aphids	1	8	2
Incidence with Chocolate spot	1	7	3
Incidence with Ascochyta blight	1	7	3
Incidence with Rust	1	7	2
Remarks	*Under very dry conditions during pot formation		

¹⁶AREI, ECRI (2014, 2015 and 2016) and PHRC (2014)

TOLEA	
	Collecting number (EUROLEGUME database) FB11
	Genus, specie, subtaxa <i>Vicia faba</i> var. minor
	Common crop name Field beans
	Accession name Tolea
	Acquisition date 2014
	Country of origin Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution AREI, Latvia	
Donor accession number —	
Biological status Landrace	
Flower color Petal ground color – 1 - white, anthocyanin – 1 - small	
Seed color 3 – light brown	
Pod shattering 0 - non-shattering	
Growth habit 3 - indeterminate	

LIELPLATONES	
	Collecting number (EUROLEGUME database) FB12
	Genus, specie, subtaxa <i>Vicia faba</i> var. minor
	Common crop name Field beans
	Accession name Lielplatones
	Acquisition date 2014
	Country of origin Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution PHRC, Latvia	
Donor accession number —	
Biological status Old variety	
Flower color Petal ground color – 1 - white, anthocyanin - 0 -absent	
Seed color 3 – light brown, 2-dark brown	
Pod shattering 0 - non-shattering	
Growth habit 3 - indeterminate	

Traits	Northern conditions ¹⁷			Southern conditions ¹⁸		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	81.0	125.0	107.0	109.7	141.8	125.8
Days to flowering	39	61	52	100	106	103
Days to pod maturity	105	132	122	174	200	187
Length of flowering period	20	53	37	63	69	66
Resistance to lodging	3	9	7	-	-	9
100 seed weight (g)	49.0	79.1	64.0	39.1	43.7	41.4
Numbers of pods per node	1.2	2.4	1.7	-	-	0.7
Number of seeds per pod	2.5	3.6	3.0	2.1	2.5	2.3
Average seed weight per plant, g	1.80*	39.74	17.23	3.88	5.48	4.68
Protein content (%)	30.3	32.8	32.2	-	-	29.4
Incidence of Aphids	1	4	2	-	-	3
Incidence with Chocolate spot	1	5	3	-	-	-
Incidence with Ascochyta blight	1	5	2	-	-	-
Incidence with Rust	1	5	2	-	-	-
Remarks	*Under very dry conditions during pot formation					

¹⁷AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2014 and 2015)

¹⁸NIAV (2015 and 2016)

Traits	Northern conditions ¹⁹			Southern conditions ²⁰		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	103.8	135.0	115.0	-	-	171.0
Days to flowering	40	61	53	-	-	109
Days to pod maturity	112	132	125	-	-	204
Length of flowering period	21	45	35	-	-	69
Resistance to lodging	3	9	6	-	-	9
100 seed weight (g)	37.2	49.8	41.9	-	-	29.9
Numbers of pods per node	1.9	2.4	2.1	-	-	1.5
Number of seeds per pod	3.2	4.2	3.7	-	-	3
Average seed weight per plant (g)	3.50*	42.29	23.14	-	-	8.15
Protein content (%)	30.6	33.5	32.2	-	-	28.0
Incidence of Aphids	1	7	3	-	-	3
Incidence with Chocolate spot	1	6	3	-	-	-
Incidence with Ascochyta blight	1	6	2	-	-	-
Incidence with Rust	1	5	3	-	-	-
Remarks	*Under very dry conditions during pot formation					

¹⁹AREI, ECRI (2015 and 2016) and PHRC (2014)

²⁰NIAV (2016)

VALMIERA	
	Collecting number (EUROLEGUME database) FB13
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Valmiera
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_012
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin – 1 - small
Seed color	3 – light brown, 2 – dark brown
Pod shattering	1 - shattering
Growth habit	3 - indeterminate

PRIEKULU 32	
	Collecting number (EUROLEGUME database) FB14
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Priekulu 32
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	Petal ground color – 1- white, anthocyanin – 1 - small
Seed color	3 – light brown
Pod shattering	1 - shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ²¹			Southern conditions ²²		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	82.0	117.5	102.0	106.2	151.6	128.9
Days to flowering	41	61	52	100	106	103
Days to pod maturity	110	132	121	174	202	188
Length of flowering period	27	44	36	63	72	67,5
Resistance to lodging	3	9	6	-	-	9
100 seed weight (g)	41.4	67.8	56.1	32.4	39.1	35.7
Numbers of pods per node	1.4	2.1	1.8	-	-	1.7
Number of seeds per pod	3.0	3.9	3.3	2.2	2.4	2.3
Average seed weight per plant (g)	3.91*	34.83	20.11	2.84	5.05	3.95
Protein content (%)	28.6	32.0	30.8	-	-	29.3
Incidence of Aphids	1	3	2	-	-	3
Incidence with Chocolate spot	1	5	3	-	-	-
Incidence with Ascochyta blight	1	3	1	-	-	-
Incidence with Rust	1	5	2	-	-	-
Remarks	*Under very dry conditions during pot formation					

²¹AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2014)

²²INIAV (2015 and 2016)

Traits	Northern conditions ²³			Southern conditions ²⁴		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	87.0	129.5	104.0	102.2	161.8	132.0
Days to flowering	43	54	48	93	106	100
Days to pod maturity	112	132	125	174	204	189
Length of flowering period	28	48	38	70	72	71
Resistance to lodging	3	9	7	-	-	9
100 seed weight (g)	54.0	79.4	65.1	39.3	43.1	41.2
Numbers of pods per node	1.2	1.8	1.5	-	-	1.3
Number of seeds per pod	2.8	3.6	3.3	2.2	2.5	2.4
Average seed weight per plant (g)	10.99	45.33	23.64	2.47	6.03	4.25
Protein content (%)	29.6	31.7	30.7	-	-	27.9
Incidence of Aphids	1	1	1	-	-	3
Incidence with Chocolate spot	1	5	3	-	-	-
Incidence with Ascochyta blight	1	6	2	-	-	-
Incidence with Rust	1	5	2	-	-	-
Remarks	*Under very dry conditions during pot formation					

²³AREI and ECRI (2014, 2015 and 2016)

²⁴INIAV (2015 and 2016)

PRIEKUĻU VIETĒJĀS	
	Collecting number (EUROLEGUME database) FB15
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>minor</i>
Common crop name	Field beans
Accession name	Priekuļu vietējās
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin – 2 - medium
Seed color	2 – dark brown, 7- violet
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

VALMIERA	
	Collecting number (EUROLEGUME database) FB16
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>minor</i>
Common crop name	Field beans
Accession name	Valmiera
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Unknown
Flower color	Petal ground color – 1 - white, anthocyanin – 1 - small
Seed color	3 – light brown, 2 –dark brown
Pod shattering	1 - shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ²⁵			Southern conditions ²⁶		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	85.3	124.5	109.1	120.2	158.2	139.2
Days to flowering	43	61	53	100	113	107
Days to pod maturity	112	132	123	174	202	188
Length of flowering period	26	47	35	62	63	63
Resistance to lodging	3	9	6	-	-	9
100 seed weight (g)	42.4	67.3	55.0	34.0	34.6	34.3
Numbers of pods per node	1.0	2.2	1.8	-	-	1.4
Number of seeds per pod	2.8	4.1	3.4	1.4	2.4	1.9
Average seed weight per plant (g)	2.36*	51.49	22.12	2.11	2.93	2.52
Protein content (%)	29.4	32.0	30.9	-	-	31.5
Incidence of Aphids	1	3	2	-	-	3
Incidence with Chocolate spot	1	4	2	-	-	-
Incidence with Ascochyta blight	1	3	2	-	-	-
Incidence with Rust	1	5	2	-	-	-
Remarks	*Under very dry conditions during pot formation					

²⁵AREI and ECRI (2014, 2015 and 2016), and PHRC (2014)

²⁶NIAV (2015 and 2016)

Traits	Northern conditions ²⁷		
	Min	Max	Mean
Plants height (cm)	90.8	105.0	97.5
Days to flowering	46	55	50
Days to pod maturity	108	132	122
Length of flowering period	27	39	33
Resistance to lodging	5	9	7
100 seed weight (g)	42.1	65.0	55.4
Numbers of pods per node	1.5	2.2	1.7
Number of seeds per pod	2.7	3.8	3.2
Average seed weight per plant (g)	7.51	18.50	12.95
Protein content (%)	31.0	31.2	31.1
Incidence of Aphids	1	1	1
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	4	3
Incidence with Rust	1	3	2

²⁷AREI (2014, 2015 and 2016) and ECRI (2014)

FB 395							FB 2939								
	Collecting number (EUROLEGUME database)	FB17						Collecting number (EUROLEGUME database)	FB18						
	Genus, specie, subtaxa	Vicia faba var. minor						Genus, specie, subtaxa	Vicia faba var. major						
	Common crop name	Field beans						Common crop name	Broad beans						
	Accession name	Fb 395						Accession name	Fb 2939						
	Acquisition date	2014						Acquisition date	2014						
	Country of origin	Portugal						Country of origin	Portugal						
	Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m						Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m						
	Or: Donor institution	INIAV, Portugal						Or: Donor institution	INIAV, Portugal						
	Donor accession number	Fb 395						Donor accession number	Fb 2939						
	Biological status	Landrace						Biological status	Landrace						
	Flower color	—						Flower color	Petal ground color – 1 - white, anthocyanin – 0 - absent						
	Seed color	—						Seed color	4 – light green, 3 – light brown						
	Pod shattering	0 - non-shattering						Pod shattering	0 - non-shattering						
	Growth habit	3 - indeterminate						Growth habit	3 - indeterminate						
Traits		Northern conditions ²⁸			Southern conditions ²⁹			Traits		Northern conditions ³⁰			Southern conditions ³¹		
		Min	Max	Mean	Min	Max	Mean			Min	Max	Mean			
Plants height (cm)		75.3	88.1	81.0	79.2	145.8	112.5	Plants height (cm)		67.8	84.2	74.7	76.5		
Days to flowering		53	70	60	100	109	105	Days to flowering		52	70	60	100		
Days to pod maturity		116	140	128	174	196	185	Days to pod maturity		105	128	119	174		
Length of flowering period		6	28	20	55	63	59	Length of flowering period		4	29	19	58		
Resistance to lodging		3	9	6	-	-	9	Resistance to lodging		3	9	6	-		
100 seed weight (g)		58.3	77.5	69.3	69.7	83.5	76.6	100 seed weight (g)		66.3	126.9	105.8	104.0		
Numbers of pods per node		1.2	1.8	1.6	-	-	1.3	Numbers of pods per node		1.2	2.0	1.4	-		
Number of seeds per pod		2.3	3.2	2.7	1.8	2.1	2.0	Number of seeds per pod		1.5	3.7	2.5	2.0		
Average seed weight per plant (g)		8.68*	20.03	13.39	9.11	15.34	12.23	Average seed weight per plant (g)		2.44*	13.74	8.41	7.64		
Protein content (%)		28.8	34.5	31.5	-	-	30.7	Protein content (%)		25.6	31.6	28.7	-		
Incidence of Aphids		1	4	2	-	-	3	Incidence of Aphids		1	5	3	-		
Incidence with Chocolate spot		1	5	3	-	-	-	Incidence with Chocolate spot		1	5	2	-		
Incidence with Ascochyta blight		1	5	3	-	-	-	Incidence with Ascochyta blight		1	5	3	-		
Incidence with Rust		1	2	1	-	-	-	Incidence with Rust		1	3	1	-		
Remarks		*Under very dry conditions during pot formation						Remarks		*Under very dry conditions during pot formation					

²⁸AREI (2014, 2015 and 2016); ECRI and PHRC (2014)

²⁹INIAV (2015 and 2016)

³⁰AREI (2014, 2015 and 2016); ECRI (2014) and PHRC (2014 and 2015)

³¹INIAV (2015 and 2016)

FB 3268		FB 3293	
	Collecting number (EUROLEGUME database)	FB19	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	FB20
	Common crop name	Broad beans	Genus, specie, subtaxa
	Accession name	Fb 3268	Common crop name
	Acquisition date	2014	Accession name
	Country of origin	Portugal	Acquisition date
	Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m	Country of origin
	Or: Donor institution	INIAV, Portugal	Location of collecting site, latitude, altitude
	Donor accession number	Fb 3268	Or: Donor institution
	Biological status	Landrace	Donor accession number
	Flower color	—	Biological status
	Seed color	—	Flower color
	Pod shattering	1 - shattering	Seed color
	Growth habit	3 - indeterminate	Pod shattering
			Growth habit

Traits	Northern conditions ³²			Southern conditions ³³		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	61.0	88.7	71.9	53.7	105.0	79.4
Days to flowering	49	73	57	100	106	103
Days to pod maturity	118	128	123	174	196	185
Length of flowering period	18	32	24	58	63	61
Resistance to lodging	3	9	6	-	-	9
100 seed weight (g)	99.9	154.9	122.0	95.7	112.5	104.1
Numbers of pods per node	1.0	2.4	1.4	-	-	1.2
Number of seeds per pod	1.6	3.2	2.7	1.9	2.0	2.0
Average seed weight per plant (g)	6.35*	41.17	21.63	15.91	19.07	17.49
Protein content (%)	28.7	32.4	29.8	-	-	29.6
Incidence of Aphids	1	3	2	-	-	3
Incidence with Chocolate spot	1	5	2	-	-	-
Incidence with Ascochyta blight	1	5	3	-	-	-
Incidence with Rust	1	2	1	-	-	-
Remarks	*Under very dry conditions during pot formation					

³²AREI (2014, 2015 and 2016); ECRI and PHRC (2014)

³³INIAV (2015 and 2016)

Traits	Northern conditions ³⁴			Southern conditions ³⁵		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	52.3	84.5	68.3	61.7	107.6	84.7
Days to flowering	47	57	52	97	100	99
Days to pod maturity	119	132	126	174	196	185
Length of flowering period	17	28	21	49	63	56
Resistance to lodging	3	9	7	-	-	9
100 seed weight (g)	135.3	151.3	145.0	151.5	184.9	168.2
Numbers of pods per node	1.1	1.7	1.4	-	-	1.4
Number of seeds per pod	2.1	2.6	2.2	1.3	1.8	1.6
Average seed weight per plant (g)	12.65	22.80	18.63	9.57	24.10	16.84
Protein content (%)	28.7	32.8	30.5	-	-	28.9
Incidence of Aphids	1	7	3	-	-	3
Incidence with Chocolate spot	1	6	3	-	-	-
Incidence with Ascochyta blight	1	6	3	-	-	-
Incidence with Rust	1	5	2	-	-	-

³⁴AREI (2014, 2015 and 2016); ECRI and PHRC (2014)

³⁵INIAV (2015 and 2016)

FAVEL							JÖGEVA						
	Collecting number (EUROLEGUME database)	FB21						Collecting number (EUROLEGUME database)	FB22				
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor						Genus, specie, subtaxa	<i>Vicia faba</i> var. minor				
	Common crop name	Field beans						Common crop name	Field beans				
	Accession name	Favel						Accession name	Jögeva				
	Acquisition date	2014						Acquisition date	2014				
	Country of origin	Portugal						Country of origin	Estonia				
	Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m altitude						Location of collecting site, latitude, altitude	58°769'N; 26°400'E				
	Or: Donor institution	INIAV, Portugal						Or: Donor institution	ECRI, Estonia				
	Donor accession number	—						Donor accession number	EST43				
	Biological status	Commercial variety						Biological status	Commercial variety				
	Flower color	Petal ground color – 1 - white, anthocyanin – 0 - absent						Flower color	Petal ground color – 1 - white, anthocyanin – 1 - small				
	Seed color	3 – light brown						Seed color	3 – light brown				
	Pod shattering	0 - non-shattering						Pod shattering	0 - non-shattering				
	Growth habit	3 - indeterminate						Growth habit	3 - indeterminate				
Traits		Northern conditions ³⁶			Southern conditions ³⁷			Traits		Northern conditions ³⁸			Southern conditions ³⁹
		Min	Max	Mean	Min	Max	Mean			Min	Max	Mean	
Plants height (cm)		50.5	91.0	78.1	86.3	148.8	117.6	Plants height (cm)		77.5	114.5	92.9	108.4
Days to flowering		41	65	52	100	112	106	Days to flowering		36	54	45	93
Days to pod maturity		107	140	119	174	202	188	Days to pod maturity		113	128	119	174
Length of flowering period		13	39	22	52	63	58	Length of flowering period		22	40	33	70
Resistance to lodging		3	9	5	-	-	9	Resistance to lodging		3	9	7	9
100 seed weight (g)		57.00	117.06	88.02	80.60	88.50	84.55	100 seed weight (g)		59.74	90.25	74.47	40.95
Numbers of pods per node		1.0	2.4	1.6	-	-	1.4	Numbers of pods per node		1.0	1.6	1.3	-
Number of seeds per pod		2.3	3.8	2.8	1.9	2.4	2.2	Number of seeds per pod		2.5	3.5	3.0	1.7
Average seed weight per plant (g)		3.84*	31.16	12.92	8.33	16.08	12.21	Average seed weight per plant (g)		7.13	49.69	20.73	1.17
Protein content (%)		30.3	31.7	30.9	-	-	28.3	Protein content (%)		29.2	31.8	30.0	-
Incidence of Aphids		1	4	2	-	-	3	Incidence of Aphids		1	1	1	3
Incidence with Chocolate spot		1	5	3	-	-	-	Incidence with Chocolate spot		1	5	2	-
Incidence with Ascochyta blight		1	5	2	-	-	-	Incidence with Ascochyta blight		1	3	2	-
Incidence with Rust		1	7	3	-	-	-	Incidence with Rust		1	7	2	-
Remarks		*Under very dry conditions during pot formation											

³⁶AREI, ECRI (2014, 2015 and 2016) and PHRC (2014)

³⁷INIAV (2015 and 2016)

³⁸AREI and ECRI (2014, 2015 and 2016)

³⁹INIAV (2015 and 2016)

RUSSKIE CHERNYE 'POLLI'	
	Collecting number (EUROLEGUME database) FB23
	Genus, specie, subtaxa <i>Vicia faba</i> var. <i>minor</i>
	Common crop name Field beans
	Accession name Russkie chernye 'Polli'
	Acquisition date 2014
	Country of origin Estonia
	Location of collecting site, latitude, altitude 58°769'N; 26°400'E
	Or: Donor institution ECRI, Estonia
	Donor accession number EST1515
	Biological status Old cultivar
	Flower color Petal ground color – 1 - white, anthocyanin - 2 - medium
	Seed color 1 - black
	Pod shattering 1 - shattering
	Growth habit 3 - indeterminate

ARLA	
	Collecting number (EUROLEGUME database) FB24
	Genus, specie, subtaxa <i>Vicia faba</i> var. <i>minor</i>
	Common crop name Field beans
	Accession name Arla
	Acquisition date 2014
	Country of origin Sweden
	Location of collecting site, latitude, altitude Unknown
	Or: Donor institution Nordic Gene Bank
	Donor accession number NGB8680
	Biological status Unknown
	Flower color Petal ground color – 1 - white, anthocyanin – 1 - small
	Seed color 3 – light brown, 7- violet
	Pod shattering 1 - shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁴⁰			Southern conditions ⁴¹		
	Min	Max	Mean	Min	Max	Mean
Plants height (cm)	59.5	117.0	86.2	97.1	152.8	125.0
Days to flowering	41	61	49	93	94	94
Days to pod maturity	106	128	118	174	204	189
Length of flowering period	27	40	35	70	81	76
Resistance to lodging	3	9	7	-	-	9
100 seed weight (g)	52.0	90.0	70.6	46.4	48.1	47.2
Numbers of pods per node	1.0	1.9	1.4	-	-	1.4
Number of seeds per pod	2.3	3.7	3.1	1.9	2.2	2.1
Average seed weight per plant (g)	2.27*	34.38	17.39	4.13	7.31	5.72
Protein content (%)	29.51	32.69	30.99	-	-	29.79
Incidence of Aphids	1	5	3	-	-	3
Incidence with Chocolate spot	1	6	2	-	-	-
Incidence with Ascochyta blight	1	5	3	-	-	-
Incidence with Rust	1	5	3	-	-	-
Remarks	*Under very dry conditions during pot formation					

⁴⁰AREI, ECRI (2014, 2015 and 2016) and PHRC (2014 and 2015)

⁴¹NIAV (2015 and 2016)

Traits	Northern conditions ⁴²		
	Min	Max	Mean
Plants height (cm)	81.0	117.5	94.8
Days to flowering	41	55	48
Days to pod maturity	100	130	120
Length of flowering period	21	43	34
Resistance to lodging	3	9	8
100 seed weight (g)	32.2	61.0	48.1
Numbers of pods per node	1.4	2.2	1.7
Number of seeds per pod	2.7	3.4	3.1
Average seed weight per plant (g)	7.95	49.44	17.83
Protein content (%)	32.20	34.20	33.13
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	3	1
Incidence with Rust	1	3	2

⁴²AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

AURORA		PRIMUS	
	Collecting number (EUROLEGUME database)	FB25	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor	Genus, specie, subtaxa
	Common crop name	Field beans	Common crop name
	Accession name	Aurora	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Sweden	Country of origin
	Location of collecting site, latitude, altitude	Unknown	Location of collecting site, latitude, altitude
	Or: Donor institution	Nordic Gene Bank	Or: Donor institution
	Donor accession number	NGB13121	Donor accession number
	Biological status	Unknown	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin - 3 -large	Flower color
	Seed color	3 – light brown, 7 - violet	Seed color
	Pod shattering	1 - shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁴³		
	Min	Max	Mean
Plants height (cm)	80.0	123.5	100.6
Days to flowering	41	57	52
Days to pod maturity	100	132	120
Length of flowering period	26	40	32
Resistance to lodging	7	9	8
100 seed weight (g)	37.8	62.7	49.8
Numbers of pods per node	1.4	2.4	1.9
Number of seeds per pod	3.2	4.0	3.6
Average seed weight per plant (g)	2.20	59.42	21.49
Protein content (%)	31.5	32.2	31.0
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	2

⁴³AREI (2014, 2015 and 2016); ECRI (2016) and PHRC (2015)

Traits	Northern conditions ⁴⁴		
	Min	Max	Mean
Plants height (cm)	90.5	138.5	118.7
Days to flowering	43	61	54
Days to pod maturity	115	133	126
Length of flowering period	27	51	37
Resistance to lodging	3	9	7
100 seed weight (g)	40.0	50.5	45.2
Numbers of pods per node	1.0	2.4	1.9
Number of seeds per pod	2.8	3.9	3.4
Average seed weight per plant (g)	15.95	48.20	24.24
Protein content (%)	31.2	33.1	32.1
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	2

⁴⁴AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

SVING		VEGA		
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB27 <i>Vicia faba</i> var. minor Field beans Sving 2014 Sweden Unknown	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB28 <i>Vicia faba</i> var. minor Field beans Vega 2014 Sweden Unknown
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	Nordic Gene Bank NGB4020 Old variety Petal ground color – 1 - white, anthocyanin - 2 - medium 3 – light brown, 9- white 0 - non-shattering 3 - indeterminate	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	Nordic Gene Bank NGB9288 Old variety Petal ground color – 1 - white, anthocyanin - 2 - medium 3 – light brown 0 - non-shattering 3 - indeterminate

Traits	Northern conditions ⁴⁵		
	Min	Max	Mean
Plants height (cm)	86.9	117.3	106.8
Days to flowering	46	55	49
Days to pod maturity	119	132	126
Length of flowering period	21	35	28
Resistance to lodging	7	9	8
100 seed weight (g)	51.4	76.1	63.7
Numbers of pods per node	1.3	1.6	1.4
Number of seeds per pod	2.5	3.7	3.3
Average seed weight per plant (g)	11.60	23.09	18.35
Protein content (%)	29.9	33.0	31.4
Incidence of Aphids	1	1	1
Incidence with Chocolate spot	1	1	1
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	1	1

⁴⁵AREI (2014, 2015 and 2016)

Traits	Northern conditions ⁴⁶		
	Min	Max	Mean
Plants height (cm)	85.4	136.5	112.4
Days to flowering	41	57	50
Days to pod maturity	105	133	120
Length of flowering period	20	53	37
Resistance to lodging	3	9	6
100 seed weight (g)	39.7	55.5	49.6
Numbers of pods per node	1.5	2.1	1.8
Number of seeds per pod	3.1	3.8	3.4
Average seed weight per plant (g)	10.34	41.09	22.22
Protein content (%)	30.7	32.4	31.6
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	2

⁴⁶AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

ARNE		GLÖMSTA	
	Collecting number (EUROLEGUME database)	FB29	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Broad beans	Common crop name
	Accession name	Arne	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Sweden	Country of origin
	Location of collecting site, latitude, altitude	Unknown	Location of collecting site, latitude, altitude
	Or: Donor institution	Nordic Gene Bank	Or: Donor institution
	Donor accession number	NGB24293	Donor accession number
	Biological status	Old variety	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin – 1 - small	Flower color
	Seed color	3 – light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁴⁷		
	Min	Max	Mean
Plants height (cm)	83.0	119.5	101.1
Days to flowering	38	56	49
Days to pod maturity	112	140	129
Length of flowering period	23	44	33
Resistance to lodging	3	9	7
100 seed weight (g)	109.4	154.0	130.5
Numbers of pods per node	1.0	1.4	1.2
Number of seeds per pod	2.5	3.7	3.3
Average seed weight per plant (g)	17.97	50.66	33.36
Protein content (%)	30.0	32.1	30.6
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁴⁷AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

Traits	Northern conditions ⁴⁸		
	Min	Max	Mean
Plants height (cm)	87.0	102.9	93.8
Days to flowering	41	56	49
Days to pod maturity	109	140	126
Length of flowering period	20	43	30
Resistance to lodging	3	9	7
100 seed weight (g)	96.7	157.5	130.4
Numbers of pods per node	1.0	1.4	1.2
Number of seeds per pod	3.3	3.8	3.5
Average seed weight per plant (g)	22.66	48.89	31.36
Protein content (%)	30.9	32.6	31.5
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	3	1
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	3

⁴⁸AREI (2014, 2015, and 2016) ECRI and PHRC (2015 and 2016)

KÄRRA	
	Collecting number (EUROLEGUME database) FB31
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Kärra
Acquisition date	2014
Country of origin	Sweden
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Nordic Gene Bank
Donor accession number	NGB17897
Biological status	Old variety
Flower color	Petal ground color – 1 - white, anthocyanin – 1 - small
Seed color	2 – dark brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

NYLANDS NISSE	
	Collecting number (EUROLEGUME database) FB32
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Nylands Nisse
Acquisition date	2014
Country of origin	Sweden
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Nordic Gene Bank
Donor accession number	NGB17889
Biological status	Old variety
Flower color	Petal ground color – 1 - white, anthocyanin - 2 - medium
Seed color	3 – light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ⁴⁹		
	Min	Max	Mean
Plants height (cm)	86.0	130.5	101.2
Days to flowering	39	55	48
Days to pod maturity	112	140	123
Length of flowering period	21	40	31
Resistance to lodging	3	9	7
100 seed weight (g)	70.2	101.7	91.1
Numbers of pods per node	1.0	1.8	1.3
Number of seeds per pod	2.0	3.4	3.0
Average seed weight per plant (g)	16.60	48.36	27.85
Protein content (%)	30.2	33.4	31.7
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	7	3

⁴⁹ AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

Traits	Northern conditions ⁵⁰		
	Min	Max	Mean
Plants height (cm)	64.0	111.0	95.2
Days to flowering	38	56	49
Days to pod maturity	100	140	121
Length of flowering period	18	42	29
Resistance to lodging	3	9	6
100 seed weight (g)	79.1	139.3	110.8
Numbers of pods per node	1.0	1.7	1.3
Number of seeds per pod	2.5	3.7	3.2
Average seed weight per plant (g)	16.51	36.64	24.10
Protein content (%)	31.7	33.0	32.1
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	3

⁵⁰ AREI (2014, 2015 and 2016); ECRI and PHRC (2015 and 2016)

ROMFARTUNA		SÖDERGÅRDEN	
	Collecting number (EUROLEGUME database)	FB33	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Broad beans	Common crop name
	Accession name	Romfartuna	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Sweden	Country of origin
	Location of collecting site, latitude, altitude	Unknown	Location of collecting site, latitude, altitude
	Or: Donor institution	Nordic Gene Bank	Or: Donor institution
	Donor accession number	NGB17889	Donor accession number
	Biological status	Old variety	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin – 2 - medium	Flower color
	Seed color	3 - light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁵¹		
	Min	Max	Mean
Plants height (cm)	58.5	108.5	90.0
Days to flowering	35	55	46
Days to pod maturity	109	128	119
Length of flowering period	19	42	28
Resistance to lodging	3	9	6
100 seed weight (g)	77.4	105.8	93.4
Numbers of pods per node	1.3	1.7	1.5
Number of seeds per pod	1.3	2.8	2.4
Average seed weight per plant (g)	7.04	57.10	2.36
Protein content (%)	29.9	32.9	31.7
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	7	3

⁵¹AREI (2014, 2015 and 2016); ECRI and PHRC (2015 and 2016)

Traits	Northern conditions ⁵²		
	Min	Max	Mean
Plants height (cm)	53.0	119.1	80.8
Days to flowering	35	54	46
Days to pod maturity	105	140	121
Length of flowering period	18	40	26
Resistance to lodging	3	9	7
100 seed weight (g)	70.0	133.8	101.0
Numbers of pods per node	1.0	2.6	1.4
Number of seeds per pod	2.6	3.4	3.0
Average seed weight per plant (g)	12.15	36.45	25.12
Protein content (%)	30.9	32.6	31.6
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	2	1
Incidence with Rust	1	7	3

⁵²AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

SOLBERGA	
	Collecting number (EUROLEGUME database) FB35
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Broad beans
	Accession name Solberga
	Acquisition date 2014
	Country of origin Sweden
	Location of collecting site, latitude, altitude Unknown
	Or: Donor institution Nordic Gene Bank
	Donor accession number NGB13473
	Biological status Old variety
	Flower color Petal ground color – 1 - white, anthocyanin – 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

GERD	
	Collecting number (EUROLEGUME database) FB36
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Broad beans
	Accession name Gerd
	Acquisition date 2014
	Country of origin Sweden
	Location of collecting site, latitude, altitude Unknown
	Or: Donor institution Nordic Gene Bank
	Donor accession number NGB11731
	Biological status Old variety
	Flower color Petal ground color – 1 - white, anthocyanin – 0 - absent
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁵³		
	Min	Max	Mean
Plants height (cm)	72.6	120.5	94.5
Days to flowering	40	55	48
Days to pod maturity	100	140	121
Length of flowering period	21	39	29
Resistance to lodging	3	9	7
100 seed weight (g)	75.5	102.7	88.4
Numbers of pods per node	1.0	1.6	1.2
Number of seeds per pod	2.7	3.2	3.0
Average seed weight per plant (g)	14.48	43.79	25.01
Protein content (%)	31.4	34.0	32.2
Incidence of Aphids	1	2	5
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	7	3

⁵³AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

Traits	Northern conditions ⁵⁴		
	Min	Max	Mean
Plants height (cm)	78.8	92.8	88.5
Days to flowering	45	54	49
Days to pod maturity	105	128	119
Length of flowering period	22	23	23
Resistance to lodging	3	9	7
100 seed weight (g)	85.0	123.8	97.9
Numbers of pods per node	1.3	1.4	1.4
Number of seeds per pod	2.3	3.1	2.9
Average seed weight per plant (g)	23.40	26.66	25.08
Protein content (%)	31.5	33.3	32.4
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	1	1	1
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	5	2

⁵⁴AREI (2014, 2015 and 2016) and PHRC (2015 and 2016)

GUBBESTAD		LÖVÅNGER	
	Collecting number (EUROLEGUME database)	FB37	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>major</i>	Genus, specie, subtaxa
	Common crop name	Broad beans	Common crop name
	Accession name	Gubbestad	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Sweden	Country of origin
	Location of collecting site, latitude, altitude	Unknown	Location of collecting site, latitude, altitude
	Or: Donor institution	Nordic Gene Bank	Or: Donor institution
	Donor accession number	NGB11722	Donor accession number
	Biological status	Old variety	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin – 2 - medium	Flower color
	Seed color	4 - light green, 3 – light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁵⁵		
	Min	Max	Mean
Plants height (cm)	59.0	96.0	74.2
Days to flowering	38	55	47
Days to pod maturity	105	128	118
Length of flowering period	19	41	29
Resistance to lodging	3	9	7
100 seed weight (g)	81.1	128.7	107.3
Numbers of pods per node	1.0	1.4	1.3
Number of seeds per pod	2.0	2.9	2.7
Average seed weight per plant (g)	19.16	63.74	30.18
Protein content (%)	31.8	34.7	33.6
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	2
Incidence with Ascochyta blight	1	2	1
Incidence with Rust	1	5	2

⁵⁵AREI (2014, 2015 and 2016); ECRI and PHRC (2015 and 2016)

Traits	Northern conditions ⁵⁶		
	Min	Max	Mean
Plants height (cm)	75.0	115.0	92.8
Days to flowering	40	55	48
Days to pod maturity	100	128	118
Length of flowering period	21	44	31
Resistance to lodging	3	9	7
100 seed weight (g)	36.4	63.7	51.0
Numbers of pods per node	1.0	2.3	1.8
Number of seeds per pod	2.9	3.7	3.4
Average seed weight per plant (g)	7.96	55.73	22.89
Protein content (%)	31.2	36.0	33.9
Incidence of Aphids	1	5	2
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	1	5	3

⁵⁶AREI (2014, 2015 and 2016); ECRI (2015 and 2016) and PHRC (2015)

GLORIA	
	Collecting number (EUROLEGUME database) FB39
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Gloria
Acquisition date	2014
Country of origin	Germany
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	RISE, Sweden
Donor accession number	-
Biological status	Old variety
Flower color	Petal ground color – 1 - white, anthocyanin -2 - medium
Seed color	3- light brown
Pod shattering	1 - shattering
Growth habit	3 - indeterminate

LOCAL GENOTYPE VF_014 (VECAUCES)	
Collecting number (EUROLEGUME database)	FB40
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Local genotype VF_014 (Vecaucses)
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_014
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin -2 - medium
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ⁵⁷		
	Min	Max	Mean
Plants height (cm)	90.0	105.9	98.0
Days to flowering	48	60	54
Days to pod maturity	127	128	128
Length of flowering period	13	26	20
Resistance to lodging	5	9	7
100 seed weight (g)	53.2	53.7	53.4
Numbers of pods per node	1.8	2.1	1.9
Number of seeds per pod	3.2	3.8	3.5
Average seed weight per plant (g)	12.15	18.48	15.32
Protein content (%)	32.9	33.0	32.9
Incidence of Aphids	1	1	1
Incidence with Chocolate spot	1	1	1
Incidence with Ascochyta blight	1	1	1
Incidence with Rust	5	5	5

⁵⁷ AREI (2015 and 2016)

Traits	Northern conditions ⁵⁸		
	Min	Max	Mean
Plants height (cm)	81.2	121.7	100.2
Days to flowering	53	57	55
Days to pod maturity	105	115	108
Length of flowering period	-	-	-
Resistance to lodging	5	7	6
100 seed weight (g)	40.0	60.0	51.0
Numbers of pods per node	1.2	1.9	1.6
Number of seeds per pod	3.2	3.4	3.3
Average seed weight per plant (g)	0.52*	12.8	6.66
Protein content (%)	30.8	31.0	30.9
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	5
Incidence with Ascochyta blight	-	-	6
Incidence with Rust	-	-	6
Remarks	*Under very dry conditions during pot formation		

⁵⁸ PHRC (2014, 2015 and 2016)

BG 787699		BG 145002	
	Collecting number (EUROLEGUME database)	FB164	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor	FB166
	Common crop name	Field beans	Genus, specie, subtaxa
	Accession name	BG 787699	Common crop name
	Acquisition date	2015	Accession name
	Country of origin	Albania	Acquisition date
	Location of collecting site, latitude, altitude	unknown	Country of origin
	Or: Donor institution	Gene bank of Albania	Location of collecting site, latitude, altitude
	Donor accession number	BG 787699	Or: Donor institution
	Biological status	Landrace	Donor accession number
	Flower color	Petal ground color – 1 - white	Biological status
	Seed color	3 - light brown	Flower color
	Pod shattering	0 - non-shattering	Seed color
	Growth habit	1 - determinate	Pod shattering
			Growth habit

Traits	Southern conditions ⁵⁹		
	Min	Max	Mean
Plants height (cm)	132.0	160.9	146.5
Days to flowering	23	95	59
Days to pod maturity	135	215	175
Length of flowering period	37	40	39
Resistance to lodging	-	-	5
100 seed weight (g)	41.5	62.9	52.2
Numbers of pods per node	-	-	2.0
Number of seeds per pod	-	-	2.8
Average seed weight per plant (g)	17.50	20.10	18.80
Protein content (%)	-	-	34.0
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	5

⁵⁹ AUT (2015 and 2016)

Traits	Southern conditions ⁶⁰		
	Min	Max	Mean
Plants height (cm)	-	-	207.0
Days to flowering	-	-	97
Days to pod maturity	-	-	215
Length of flowering period	-	-	38
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	32.0
Numbers of pods per node	-	-	2.0
Number of seeds per pod	-	-	-
Average seed weight per plant (g)	-	-	9.10
Protein content (%)	-	-	-
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶⁰ AUT (2015)

BG 146003	
Collecting number (EUROLEGUME database)	FB167
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	BG 146003
Acquisition date	2015
Country of origin	Albania
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Gene bank of Albania
Donor accession number	BG 146003
Biological status	Landrace
Flower color	Petal ground color – 1 - white
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	1 - determinate

BG 789701	
Collecting number (EUROLEGUME database)	FB169
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Field beans
Accession name	BG 789701
Acquisition date	2015
Country of origin	Albania
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Gene bank of Albania
Donor accession number	BG 789701
Biological status	Landrace
Flower color	Petal ground color – 1 - white
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	1 - determinate

Traits	Southern conditions ⁶¹		
	Min	Max	Mean
Plants height (cm)	125.0	148.7	136.9
Days to flowering	26	95	61
Days to pod maturity	141	215	178
Length of flowering period	40	40	40
Resistance to lodging	5	5	5
100 seed weight (g)	43.5	44.0	43.8
Numbers of pods per node	2.0	2.0	2.0
Number of seeds per pod	-	-	3.5
Average seed weight per plant (g)	12.30	40.0	26.15
Protein content (%)	-	-	31.5
Incidence of Aphids	5	5	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶¹ AUT (2015 and 2016)

Traits	Southern conditions ⁶²		
	Min	Max	Mean
Plants height (cm)	130.0	137.6	133.8
Days to flowering	23	93	58
Days to pod maturity	140	215	178
Length of flowering period	42	42	42
Resistance to lodging	5	5	5
100 seed weight (g)	104.0	113.6	108.8
Numbers of pods per node	2.0	2.0	2.0
Number of seeds per pod	-	-	3.6
Average seed weight per plant (g)	25.00	35.00	30.00
Protein content (%)	-	-	33.6
Incidence of Aphids	5	5	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶² AUT (2015 and 2016)

BG 793710	
Collecting number (EUROLEGUME database)	FB170
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	BG 793710
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Gene bank of Albania
Donor accession number	BG 793710
Biological status	Landrace
Flower color	Petal ground color – 1 - white
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	1 - determinate

BG 144001	
Collecting number (EUROLEGUME database)	FB171
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	BG 144001
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	Unknown
Or: Donor institution	Gene bank of Albania
Donor accession number	BG 144001
Biological status	Landrace
Flower color	Petal ground color – 1 - white
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	1 - determinate

Traits	Southern conditions ⁶³		
	Min	Max	Mean
Plants height (cm)	130.0	141.7	135.9
Days to flowering	25	95	60
Days to pod maturity	140	215	178
Length of flowering period	40	40	40
Resistance to lodging	5	5	5
100 seed weight (g)	64.6	68.0	66.3
Numbers of pods per node	2.0	2.0	2.0
Number of seeds per pod	-	-	3.4
Average seed weight per plant (g)	30.00	31.10	30.55
Protein content (%)	-	-	31.1
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	5	5	5

⁶³ AUT (2015 and 2016)

Traits	Southern conditions ⁶⁴		
	Min	Max	Mean
Plants height (cm)	-	-	107.4
Days to flowering	-	-	93
Days to pod maturity	-	-	215
Length of flowering period	-	-	42
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	53.4
Numbers of pods per node	-	-	2
Number of seeds per pod	-	-	-
Average seed weight per plant (g)	-	-	10.50
Protein content (%)	-	-	-
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	5

⁶⁴ AUT (2015)

NO PRIEKULU VIETĒJĀM TUMŠĀS IZDAL.	
	Collecting number (EUROLEGUME database) FB173
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>minor</i>
Common crop name	Field beans
Accession name	No Priekuļu vietējām tumšās izdal.
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°03'643"N; 22°921'536"E, 57 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_013/t
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 3 - large
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 – indeterminate

VF_016 (ILZĪTES)	
	Collecting number (EUROLEGUME database) FB176
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>major</i>
Common crop name	Broad beans
Accession name	Ilzītes
Acquisition date	2015
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°03'643"N; 22°921'536"E, 57 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_016
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 2 - medium
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	1 - indeterminate

Traits	Northern conditions ⁶⁵		
	Min	Max	Mean
Plants height (cm)	104.3	105.0	104.7
Days to flowering	57	61	59
Days to pod maturity	112	125	119
Length of flowering period	-	-	-
Resistance to lodging	3	5	4
100 seed weight (g)	46.0	65.0	55.5
Numbers of pods per node	2.0	2.2	2.1
Number of seeds per pod	2.6	2.9	2.8
Average seed weight per plant (g)	1.36*	18.90	10.13
Protein content (%)	31.6	34.1	32.8
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	-	-	3
Incidence with Ascochyta blight	-	-	4
Incidence with Rust	-	-	4
Remarks	*Under very dry conditions during pot formation		

⁶⁵ PHRC (2014 and 2015)

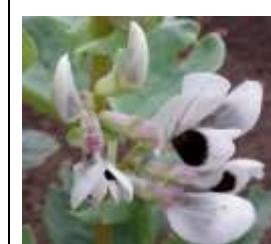
Traits	Northern conditions ⁶⁶		
	Min	Max	Mean
Plants height (cm)	-	-	86.6
Days to flowering	-	-	53
Days to pod maturity	-	-	123
Length of flowering period	-	-	-
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	145.0
Numbers of pods per node	-	-	1.2
Number of seeds per pod	-	-	3.7
Average seed weight per plant (g)	-	-	24.90
Protein content (%)	-	-	30.4
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶⁶ PHRC (2015)

VF_017 (MĀRĪTES TUMŠĀS)	
Collecting number (EUROLEGUME database)	FB177
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Mārītes tumšās
Acquisition date	2015
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°03'643"N; 22°921'536"E, 57 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_017
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 2 - medium
Seed color	7 - violet
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate



VF_018 (MĀRĪTES GAIŠĀS)	
Collecting number (EUROLEGUME database)	FB178
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Mārītes gaišās
Acquisition date	2015
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°03'643"N; 22°921'536"E, 57 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_018
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 2 - medium
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate



Traits	Northern conditions ⁶⁷		
	Min	Max	Mean
Plants height (cm)	94.8	97.4	96.1
Days to flowering	46	53	50
Days to pod maturity	115	130	123
Length of flowering period	-	-	
Resistance to lodging	3	7	5
100 seed weight (g)	56.9	140.0	98.5
Numbers of pods per node	1.0	1.9	1.5
Number of seeds per pod	-	-	3.6
Average seed weight per plant (g)	-	-	26.50
Protein content (%)	31.0	32.0	31.5
Incidence of Aphids	1	7	4
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶⁷ PHRC (2015 and 2016)

Traits	Northern conditions ⁶⁸		
	Min	Max	Mean
Plants height (cm)	80.4	93.3	86.9
Days to flowering	46	50	48
Days to pod maturity	100	109	105
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	159.6	160.0	159.8
Numbers of pods per node	1.3	2.2	1.8
Number of seeds per pod	3.6	3.7	3.7
Average seed weight per plant (g)	-	-	34.80
Protein content (%)	31.2	31.8	31.5
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶⁸ PHRC (2015 and 2016)

VF_019 (STOLIPINS)		VF_020 (JADČENKO)	
	Collecting number (EUROLEGUME database)	FB179	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Broad beans	Common crop name
	Accession name	Stolipins	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Latvia	Country of origin
	Location of collecting site, latitude, altitude	56° 18' 0" N, 26° 43' 0" E	Location of collecting site, latitude, altitude
	Or: Donor institution	PHRC, Latvia	Or: Donor institution
	Donor accession number	VF_019	Donor accession number
	Biological status	Landrace	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Flower color
	Seed color	3 - light brown, 7- violet	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁶⁹		
	Min	Max	Mean
Plants height (cm)	-	-	49.8
Days to flowering	-	-	50
Days to pod maturity	-	-	100
Length of flowering period	-	-	-
Resistance to lodging	-	-	7
100 seed weight (g)	-	-	125.0
Numbers of pods per node	-	-	1.6
Number of seeds per pod	-	-	3.4
Average seed weight per plant (g)	-	-	17.30
Protein content (%)	-	-	33.1
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁶⁹ PHRC (2015)

Traits	Northern conditions ⁷⁰		
	Min	Max	Mean
Plants height (cm)	64.8	82.0	73.4
Days to flowering	50	51	51
Days to pod maturity	103	115	109
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	164.70	170.00	167.35
Numbers of pods per node	1.4	1.5	1.5
Number of seeds per pod	3.2	3.3	3.3
Average seed weight per plant (g)	-	-	26.70
Protein content (%)	30.8	33.7	32.2
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁰ PHRC (2015 and 2016)

VF_022 (BIKŠIS)		VF_026 (OZOLA)	
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB182 <i>Vicia faba</i> var. major Field beans Bikšis 2014 Latvia 56°36'23"N 24°31'20"E, 35 m	
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_022 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown, 4- light green, 7- violet 0 - non-shattering 3 - indeterminate	
Northern conditions ⁷¹		Northern conditions ⁷²	
Traits	Min	Max	Mean
Plants height (cm)	60.8	71.8	66.3
Days to flowering	46	50	48
Days to pod maturity	100	109	105
Length of flowering period	-	-	-
Resistance to lodging	5	7	6
100 seed weight (g)	113.7	155.0	134.4
Numbers of pods per node	1.0	1.1	1.1
Number of seeds per pod	3.0	3.4	3.2
Average seed weight per plant (g)	-	-	35.50
Protein content (%)	31.8	34.7	33.3
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷¹ PHRC (2015 and 2016)

⁷² PHRC (2015 and 2016)

VF_027 (GASPAROVIČA)	
	Collecting number (EUROLEGUME database) FB187
Genus, specie, subtaxa <i>Vicia faba</i> var. major	Common crop name Broad beans
Accession name Gasparoviča	Acquisition date 2014
Country of origin Latvia	Location of collecting site, latitude, altitude 55°52'30"N 26°32'8"E, 105 m
Or: Donor institution PHRC, Latvia	Donor accession number VF_027
Biological status Landrace	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color 3 - light brown	Pod shattering 0 - non-shattering
Growth habit 3 - indeterminate	

VF_028 (VASIĻJEVA)	
	Collecting number (EUROLEGUME database) FB188
Genus, specie, subtaxa <i>Vicia faba</i> var. major	Common crop name Broad beans
Accession name Vasiljeva	Acquisition date 2014
Country of origin Latvia	Location of collecting site, latitude, altitude 55°52'30"N 26°32'8"E, 105 m
Or: Donor institution PHRC, Latvia	Donor accession number VF_028
Biological status Landrace	Flower color Petal ground color – 1 - white, anthocyanin - 2 - medium
Seed color 3 - light brown	Pod shattering 1 - shattering
Growth habit 3 - indeterminate	

Traits	Northern conditions ⁷³		
	Min	Max	Mean
Plants height (cm)	78.0	90.0	84.0
Days to flowering	50	51	51
Days to pod maturity	109	112	111
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	131.1	145.0	138.1
Numbers of pods per node	1.2	1.6	1.4
Number of seeds per pod	2.5	2.9	2.7
Average seed weight per plant (g)	-	-	34.80
Protein content (%)	30.8	32.2	31.5
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷³ PHRC (2015 and 2016)

Traits	Northern conditions ⁷⁴		
	Min	Max	Mean
Plants height (cm)	91.8	102.0	96.9
Days to flowering	46	50	48
Days to pod maturity	112	115	114
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	130.0	141.6	135.8
Numbers of pods per node	1.2	1.4	1.3
Number of seeds per pod	3.00	3.2	3.1
Average seed weight per plant (g)	-	-	33.40
Protein content (%)	31.4	32.6	32.0
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁴ PHRC (2015 and 2016)

SAULĪTE (VF_029)	
	Collecting number (EUROLEGUME database) FB189
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Saulīte
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	55°52'30"N 26°32'8"E, 105 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_029
Biological status	Landrace
Flower color	Unknown
Seed color	Petal ground color – 1 - white, anthocyanin - 2 - medium
Pod shattering	3 - light brown
Growth habit	1 - shattering
Growth habit	3 - indeterminate

KUPLE (VF_031)	
	Collecting number (EUROLEGUME database) FB191
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Broad beans
Accession name	Kuple
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°41'41"N 25°16'30"E, 47 m
Or: Donor institution	PHRC, Latvia
Donor accession number	VF_031
Biological status	Landrace
Flower color	Unknown
Seed color	Petal ground color – 1 - white, anthocyanin - 1 - small
Pod shattering	3 - light brown
Growth habit	0 - non-shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ⁷⁵		
	Min	Max	Mean
Plants height (cm)	-	-	76.0
Days to flowering	-	-	50
Days to pod maturity	-	-	112
Length of flowering period	-	-	-
Resistance to lodging	-	-	7
100 seed weight (g)	-	-	120.0
Numbers of pods per node	-	-	1.8
Number of seeds per pod	-	-	3.4
Average seed weight per plant (g)	-	-	29.50
Protein content (%)	-	-	32.0
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁵ PHRC (2015)

Traits	Northern conditions ⁷⁶		
	Min	Max	Mean
Plants height (cm)	-	-	86.6
Days to flowering	-	-	44
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	112.9
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	2.7
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.3
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁶ PHRC (2016)

KALNINA (VF_032)	
	Collecting number (EUROLEGUME database) FB192
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Broad beans
	Accession name Kalnina
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°41'41"N 25°16'30"E, 47 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_032
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 2 - medium
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

MELECE (VF_033)	
	Collecting number (EUROLEGUME database) FB193
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Broad beans
	Accession name Melece
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°25'14"N 27°02'55"E, 200 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_033
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 1 - shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁷⁷		
	Min	Max	Mean
Plants height (cm)	56.6	91.7	74.2
Days to flowering	43	50	47
Days to pod maturity	105	109	107
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	155.4	175.0	165.2
Numbers of pods per node	1.4	1.5	1.5
Number of seeds per pod	3.5	3.7	3.6
Average seed weight per plant (g)	-	-	36.00
Protein content (%)	33.1	33.2	33.2
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁷ PHRC (2015 and 2016)

Traits	Northern conditions ⁷⁸		
	Min	Max	Mean
Plants height (cm)	-	-	85.8
Days to flowering	-	-	53
Days to pod maturity	-	-	112
Length of flowering period	-	-	-
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	160.0
Numbers of pods per node	-	-	1.2
Number of seeds per pod	-	-	3.0
Average seed weight per plant (g)	-	-	32.50
Protein content (%)	-	-	30.6
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁷⁸ PHRC (2015)

PĒTERSONS (VF_034)			KAÑEPE (VF_036)		
	Collecting number (EUROLEGUME database)	FB194		Collecting number (EUROLEGUME database)	FB196
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major		Genus, specie, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Broad beans		Common crop name	Broad beans
	Accession name	Pētersons		Accession name	Kañepe
	Acquisition date	2014		Acquisition date	2014
	Country of origin	Latvia		Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°25'14"N 27°02'55"E, 200 m		Location of collecting site, latitude, altitude	56°29'58"N 25°52'42"E
	Or: Donor institution	PHRC, Latvia		Or: Donor institution	PHRC, Latvia
	Donor accession number	VF_034		Donor accession number	VF_036
	Biological status	Landrace		Biological status	Landrace
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small		Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color	3 - light brown		Seed color	3 - light brown
	Pod shattering	0 - non-shattering		Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate		Growth habit	3 - indeterminate

Traits	Northern conditions ⁷⁹			Traits	Northern conditions ⁸⁰		
	Min	Max	Mean		Min	Max	Mean
Plants height (cm)	-	-	90.2	Plants height (cm)	-	-	92.7
Days to flowering	-	-	46	Days to flowering	-	-	43
Days to pod maturity	-	-	109	Days to pod maturity	-	-	109
Length of flowering period	-	-	-	Length of flowering period	-	-	
Resistance to lodging	-	-	3	Resistance to lodging	-	-	3
100 seed weight (g)	-	-	147.8	100 seed weight (g)	-	-	150.8
Numbers of pods per node	-	-	1.8	Numbers of pods per node	-	-	1.5
Number of seeds per pod	-	-	3.4	Number of seeds per pod	-	-	3.8
Average seed weight per plant (g)	-	-	-	Average seed weight per plant (g)	-	-	
Protein content (%)	-	-	30.7	Protein content (%)	-	-	31.2
Incidence of Aphids	-	-	1	Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-	Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-	Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-	Incidence with Rust	-	-	-

⁷⁹ PHRC (2016)

⁸⁰ PHRC (2016)

INDĀNE (VF_037)		ZARINA (VF_038)		
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB197 <i>Vicia faba</i> var. major Broad beans Indāne 2014 Latvia 56°29'58"N 25°52'42"E	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB198 <i>Vicia faba</i> var. major Broad beans Zarina 2014 Latvia 56°29'58"N 25°52'42"E
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_037 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown, 7 - violet 0 - non-shattering 3 - indeterminate	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_038 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown, 7 - violet 1 - shattering 3 - indeterminate

Traits	Northern conditions ⁸¹		
	Min	Max	Mean
Plants height (cm)	-	-	72.7
Days to flowering	-	-	46
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	169.7
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	2.8
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	32.0
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸¹ PHRC (2016)

Traits	Northern conditions ⁸²		
	Min	Max	Mean
Plants height (cm)	-	-	87.7
Days to flowering	-	-	46
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	148.6
Numbers of pods per node	-	-	1.2
Number of seeds per pod	-	-	4.2
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.9
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸² PHRC (2016)

TOMASE (VF_042)		AHMADULINA (VF_043)	
	Collecting number (EUROLEGUME database)	FB202	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Broad beans	Common crop name
	Accession name	Tomase	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Latvia	Country of origin
	Location of collecting site, latitude, altitude	56°32'06"N 21°09'58"E, 20 m	Location of collecting site, latitude, altitude
	Or: Donor institution	PHRC, Latvia	Or: Donor institution
	Donor accession number	VF_042	Donor accession number
	Biological status	Landrace	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Flower color
	Seed color	3 - light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ⁸³		
	Min	Max	Mean
Plants height (cm)	69.6	83.0	76.3
Days to flowering	46	50	48
Days to pod maturity	105	109	107
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	135.0	161.3	148.2
Numbers of pods per node	1.2	1.4	1.3
Number of seeds per pod	3.6	4.1	3.9
Average seed weight per plant (g)	-	-	27.80
Protein content (%)	31.5	32.6	32.0
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸³ PHRC (2015 and 2016)

Traits	Northern conditions ⁸⁴		
	Min	Max	Mean
Plants height (cm)	53.6	85.9	69.8
Days to flowering	50	50	50
Days to pod maturity	100	122	111
Length of flowering period	-	-	-
Resistance to lodging	7	9	8
100 seed weight (g)	157.4	165.0	161.2
Numbers of pods per node	1.3	2.0	1.7
Number of seeds per pod	3.5	4.1	3.8
Average seed weight per plant (g)	-	-	22.00
Protein content (%)	31.2	33.5	32.3
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁴ PHRC (2015 and 2016)

KAIRE (VF_046)		MITREVICA 1 (VF_047)	
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB206 <i>Vicia faba</i> var. major Broad beans Kaire 2014 Latvia 56°51'04"N 26°13'10"E	
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_046 Landrace Petal ground color – 1 - white, anthocyanin - 2 - medium 3 - light brown 1 - shattering 3 - indeterminate	
			Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude
			FB207 <i>Vicia faba</i> var. major Broad beans Mitrevica 1 2014 Latvia 56°28'47"N 23°23'25"E
			Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit
			PHRC, Latvia VF_047 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown, 7 - violet 0 - non-shattering 3 - indeterminate

Traits	Northern conditions ⁸⁵		
	Min	Max	Mean
Plants height (cm)	70.8	86.2	78.5
Days to flowering	46	50	48
Days to pod maturity	105	115	110
Length of flowering period			
Resistance to lodging	3	7	5
100 seed weight (g)	152.3	160.0	156.2
Numbers of pods per node	1.6	1.7	1.7
Number of seeds per pod	3.5	3.6	3.6
Average seed weight per plant (g)			40.10
Protein content (%)	33.1	33.1	33.1
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁵ PHRC (2015 and 2016)

Traits	Northern conditions ⁸⁶		
	Min	Max	Mean
Plants height (cm)	-	-	96.7
Days to flowering	-	-	43
Days to pod maturity	-	-	109
Length of flowering period	-	-	
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	178.9
Numbers of pods per node	-	-	1.2
Number of seeds per pod	-	-	3.3
Average seed weight per plant (g)	-	-	
Protein content (%)	-	-	32.9
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁶ PHRC (2016)

VEIDE 1 (VF_048)		MITREVICA 2 (VF_049)		
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB208 <i>Vicia faba</i> var. major Broad beans Veide 1 2014 Latvia 56°28'47"N 23°23'25"E	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB209 <i>Vicia faba</i> var. major Broad beans Mitrelica 2 2014 Latvia 56°28'47"N 23°23'25"E
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_048 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown 0 - non-shattering 3 - indeterminate	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_049 Landrace Petal ground color – 1 - white, anthocyanin - 2 - medium 3 - light brown 0 - non-shattering 3 - indeterminate

Traits	Northern conditions ⁸⁷		
	Min	Max	Mean
Plants height (cm)	-	-	73.5
Days to flowering	-	-	46
Days to pod maturity	-	-	115
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	150.5
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	4.4
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.9
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁷ PHRC (2016)

Traits	Northern conditions ⁸⁸		
	Min	Max	Mean
Plants height (cm)	-	-	74.4
Days to flowering	-	-	43
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	140.8
Numbers of pods per node	-	-	1.3
Number of seeds per pod	-	-	3.6
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	30.8
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁸ PHRC (2016)

MITREVICA 3 (VF_050)	
	Collecting number (EUROLEGUME database) FB210
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Field beans
Accession name	Mitrevica 3
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	56°28'47"N 23°23'25"E
	Or: Donor institution PHRC, Latvia Donor accession number VF_050 Biological status Landrace Flower color Petal ground color – 1 - white, anthocyanin - 1 - small Seed color 3 - light brown Pod shattering 0 - non-shattering Growth habit 3 - indeterminate

VEIDE 2 (VF_051)	
	Collecting number (EUROLEGUME database) FB211
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Field beans
Accession name	Veide 2
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	56°28'47"N 23°23'25"E
	Or: Donor institution PHRC, Latvia Donor accession number VF_051 Biological status Landrace Flower color Petal ground color – 1 - white, anthocyanin - 1 - small Seed color 3 - light brown Pod shattering 0 - non-shattering Growth habit 3 - indeterminate

Traits	Northern conditions ⁸⁹		
	Min	Max	Mean
Plants height (cm)	-	-	77.3
Days to flowering	-	-	44
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	182.9
Numbers of pods per node	-	-	1
Number of seeds per pod	-	-	3
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	32.2
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁸⁹ PHRC (2016)

Traits	Northern conditions ⁹⁰		
	Min	Max	Mean
Plants height (cm)	-	-	100.4
Days to flowering	-	-	5
Days to pod maturity	-	-	115
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	184.9
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	3.5
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.4
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁰ PHRC (2016)

VEIDE 3 (VF_052)	
	Collecting number (EUROLEGUME database) FB212
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Veide 3
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°28'47"N 23°23'25"E
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_052
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 1 - shattering
	Growth habit 3 - indeterminate

MITREVICA 4 (VF_053)	
	Collecting number (EUROLEGUME database) FB213
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Mitrevica 4
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°28'47"N 23°23'25"E
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_053
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 1 - shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁹¹		
	Min	Max	Mean
Plants height (cm)	-	-	70.6
Days to flowering	-	-	46
Days to pod maturity	-	-	109
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	174.8
Numbers of pods per node	-	-	1.0
Number of seeds per pod	-	-	3.5
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.4
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹¹ PHRC (2016)

Traits	Northern conditions ⁹²		
	Min	Max	Mean
Plants height (cm)	61.8	93.9	77.9
Days to flowering	48	49	49
Days to pod maturity	100	115	108
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	125.0	131.3	128.2
Numbers of pods per node	1.5	1.8	1.7
Number of seeds per pod	3.3	3.4	3.4
Average seed weight per plant (g)	-	-	28.70
Protein content (%)	30.6	32.6	31.6
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹² PHRC (2015 and 2016)

RUNČA (VF_054)		IVULĀNS (VF_056)		
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB214 <i>Vicia faba</i> var. major Field beans Runča 2014 Latvia 55°53'42"N 27°09'54"E	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB216 <i>Vicia faba</i> var. major Field beans Ivulāns 2014 Latvia 56°30'23"N 27°19'50"E
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_054 Landrace Petal ground color – 1 - white, anthocyanin - 2 - medium 3 - light brown 0 - non-shattering 3 - indeterminate	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_056 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown 0 - non-shattering 3 - indeterminate

Traits	Northern conditions ⁹³		
	Min	Max	Mean
Plants height (cm)	65.6	96.7	81.2
Days to flowering	46	50	48
Days to pod maturity	109	112	111
Length of flowering period	-	-	-
Resistance to lodging	5	7	6
100 seed weight (g)	167.2	195.0	181.1
Numbers of pods per node	1.0	1.3	1.2
Number of seeds per pod	2.8	3.5	3.2
Average seed weight per plant (g)	-	-	28.50
Protein content (%)	31.2	34.8	33.0
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹³ PHRC (2015 and 2016)

Traits	Northern conditions ⁹⁴		
	Min	Max	Mean
Plants height (cm)	67.0	86.4	76.7
Days to flowering	46	53	50
Days to pod maturity	109	112	111
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	165.0	174.6	169.8
Numbers of pods per node	1.1	1.2	1.2
Number of seeds per pod	3.3	4.0	3.7
Average seed weight per plant (g)	-	-	31.30
Protein content (%)	31.0	33.1	32.0
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁴ PHRC (2015 and 2016)

SILARAŠA (VF_057)	
	Collecting number (EUROLEGUME database) FB217
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Silaraša
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°30'23"N 27°19'50"E, 158 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_057
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

BIRJUKOVS (VF_059)	
	Collecting number (EUROLEGUME database) FB219
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Birjukovs
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°23'07"N 28°07'19"E, 120 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_059
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁹⁵		
	Min	Max	Mean
Plants height (cm)	-	-	74.6
Days to flowering	-	-	46
Days to pod maturity	-	-	115
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	165.6
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	3.4
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.5
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁵ PHRC (2016)

Traits	Northern conditions ⁹⁶		
	Min	Max	Mean
Plants height (cm)	55.6	74.2	64.9
Days to flowering	46	50	48
Days to pod maturity	105	122	114
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	125.0	140.3	132.7
Numbers of pods per node	1.2	1.4	1.3
Number of seeds per pod	3.4	3.9	3.7
Average seed weight per plant (g)	-	-	33.40
Protein content (%)	32.1	32.5	32.3
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁶ PHRC (2015 and 2016)

ČERPINSKA (VF_060)		VAIVODE-ŠULCE (VF_061)	
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB220 <i>Vicia faba</i> var. major Field beans Čerpinska 2014 Latvia 57°2'9"N 22°54'25"E, 57 m	
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_060 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown 0 - non-shattering 3 - indeterminate	
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	FB221 <i>Vicia faba</i> var. major Field beans Vaivode-Šulce 2014 Latvia 56°14'48"N 26°33'59"E, 105 m	
	Or: Donor institution Donor accession number Biological status Flower color Seed color Pod shattering Growth habit	PHRC, Latvia VF_061 Landrace Petal ground color – 1 - white, anthocyanin - 1 - small 3 - light brown 1 - shattering 3 - indeterminate	

Traits	Northern conditions ⁹⁷		
	Min	Max	Mean
Plants height (cm)	71.8	81.0	76.4
Days to flowering	46	53	50
Days to pod maturity	109	116	113
Length of flowering period	-	-	-
Resistance to lodging	3	5	4
100 seed weight (g)	160.0	164.3	162.2
Numbers of pods per node	1.2	1.4	1.3
Number of seeds per pod	3.2	3.3	3.3
Average seed weight per plant (g)	-	-	31.60
Protein content (%)	32.9	33.5	33.2
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁷ PHRC (2015 and 2016)

Traits	Northern conditions ⁹⁸		
	Min	Max	Mean
Plants height (cm)	65.2	90.5	77.9
Days to flowering	46	50	48
Days to pod maturity	100	109	105
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	140.0	159.3	149.7
Numbers of pods per node	1.4	1.6	1.5
Number of seeds per pod	2.5	3.1	2.8
Average seed weight per plant (g)	-	-	25.30
Protein content (%)	31.0	32.0	31.5
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁸ PHRC (2015 and 2016)

ŠEKERUKA (VF_062)	
	Collecting number (EUROLEGUME database) FB222
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Šekeruka
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°26'39"N 21°35'42"E, 60 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_062
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

GRĪSLE (VF_063)	
	Collecting number (EUROLEGUME database) FB223
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Grīsle
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 56°26'39"N 21°35'42"E, 60 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_063
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ⁹⁹		
	Min	Max	Mean
Plants height (cm)	64.6	81.6	73.1
Days to flowering	109	112	111
Days to pod maturity	46	50	48
Length of flowering period	-	-	-
Resistance to lodging	5	7	6
100 seed weight (g)	135.0	138.7	136.9
Numbers of pods per node	1.8	1.9	1.9
Number of seeds per pod	3.4	3.4	3.4
Average seed weight per plant (g)	-	-	36.90
Protein content (%)	31.5	32.7	32.1
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

⁹⁹ PHRC (2015 and 2016)

Traits	Northern conditions ¹⁰⁰		
	Min	Max	Mean
Plants height (cm)	-	-	82.1
Days to flowering	-	-	46
Days to pod maturity	-	-	115
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	152.2
Numbers of pods per node	-	-	1.2
Number of seeds per pod	-	-	4.2
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	30.6
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹⁰⁰ PHRC (2016)

KIBILDA (VF_065)	
	Collecting number (EUROLEGUME database) FB225
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Kibilda
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°2'9"N 22°54'25"E, 57 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_065
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 1 - small
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

KUČĀNES (VF_066)	
	Collecting number (EUROLEGUME database) FB226
	Genus, specie, subtaxa <i>Vicia faba</i> var. major
	Common crop name Field beans
	Accession name Kučānes
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°2'9"N 22°54'25"E, 57 m
	Or: Donor institution PHRC, Latvia
	Donor accession number VF_066
	Biological status Landrace
	Flower color Petal ground color – 1 - white, anthocyanin - 2 - medium
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Northern conditions ¹⁰¹		
	Min	Max	Mean
Plants height (cm)	-	-	81.3
Days to flowering	-	-	46
Days to pod maturity	-	-	115
Length of flowering period	-	-	-
Resistance to lodging	-	-	3
100 seed weight (g)	-	-	142.7
Numbers of pods per node	-	-	1.4
Number of seeds per pod	-	-	4.4
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	31.6
Incidence of Aphids	-	-	1
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹⁰¹ PHRC (2016)

Traits	Southern conditions ¹⁰²		
	Min	Max	Mean
Plants height (cm)	-	-	153.4
Days to flowering	-	-	106
Days to pod maturity	-	-	204
Length of flowering period	-	-	69
Resistance to lodging	-	-	9
100 seed weight (g)	-	-	84.7
Numbers of pods per node	-	-	1.1
Number of seeds per pod	-	-	3.0
Average seed weight per plant (g)	-	-	6.37
Protein content (%)	-	-	29.1
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹⁰² INIAV (2016)

IGAUNU	
	Collecting number (EUROLEGUME database) FB227
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>major</i>
Common crop name	Field beans
Accession name	Igauņi
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°03'7"643"N; 22°921'536"E, hobby gardener
Or: Donor institution	PHRC
Donor accession number	VF_067
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

IERASTE MAIJA 1	
	Collecting number (EUROLEGUME database) FB229
Genus, specie, subtaxa	<i>Vicia faba</i> var. <i>minor</i>
Common crop name	Field beans
Accession name	Ieraste Maija 1
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener
Or: Donor institution	AREI
Donor accession number	
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - shattering

Traits	Northern conditions ¹⁰³		
	Min	Max	Mean
Plants height (cm)	62.6	78.2	70.4
Days to flowering	46	50	48
Days to pod maturity	100	109	105
Length of flowering period	-	-	-
Resistance to lodging	3	7	5
100 seed weight (g)	115.0	124.6	119.8
Numbers of pods per node	1.3	1.6	1.5
Number of seeds per pod	3.3	3.5	3.4
Average seed weight per plant (g)	-	-	33.30
Protein content (%)	32.4	33.1	32.8
<i>Incidence of Aphids</i>	1	5	3
<i>Incidence with Chocolate spot</i>	-	-	-
<i>Incidence with Ascochyta blight</i>	-	-	-
<i>Incidence with Rust</i>	-	-	-

¹⁰³ PHRC (2015 and 2016)

Traits	Northern conditions ¹⁰⁴		
	Min	Max	Mean
Plants height (cm)	91.5	104.2	97.8
Days to flowering	42	56	49
Days to pod maturity	122	128	125
Length of flowering period	20	35	28
Resistance to lodging	5	9	7
100 seed weight (g)	75.0	76.2	75.6
Numbers of pods per node	1.4	1.7	1.6
Number of seeds per pod	2.6	2.9	2.8
Average seed weight per plant (g)	13.13	21.30	17.22
Protein content (%)	-	-	31.6
<i>Incidence of Aphids</i>	-	-	3
<i>Incidence with Chocolate spot</i>	3	5	4
<i>Incidence with Ascochyta blight</i>	-	-	3
<i>Incidence with Rust</i>	1	3	2

¹⁰⁴ AREI (2015 and 2016)

IERASTE MAIJA 2		IERASTE MAIJA 3	
	Collecting number (EUROLEGUME database)	FB230	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor	FB231
	Common crop name	Field beans	Genus, specie, subtaxa
	Accession name	Ieraste Maija 2	Common crop name
	Acquisition date	2014	Accession name
	Country of origin	Latvia	Acquisition date
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m, hobby gardener	Country of origin
	Or: Donor institution	AREI	Location of collecting site, latitude, altitude
	Donor accession number		Or: Donor institution
	Biological status	Landrace	Donor accession number
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Biological status
	Seed color	3 - light brown	Flower color
	Pod shattering	1 - shattering	Seed color
	Growth habit	3 - indeterminate	Pod shattering
			Growth habit

Traits	Northern conditions ¹⁰⁵		
	Min	Max	Mean
Plants height (cm)	98.9	106.1	102.5
Days to flowering	43	55	49
Days to pod maturity	126	128	127
Length of flowering period	18	34	26
Resistance to lodging	5	9	7
100 seed weight (g)	73.5	76.7	75.1
Numbers of pods per node	1.0	2.0	1.5
Number of seeds per pod	2.4	2.6	2.5
Average seed weight per plant (g)	20.67	24.60	22.64
Protein content (%)	-	-	31.7
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹⁰⁵ AREI (2015 and 2016)

Traits	Northern conditions ¹⁰⁶		
	Min	Max	Mean
Plants height (cm)	88.1	104.2	96.2
Days to flowering	48	55	52
Days to pod maturity	126	140	133
Length of flowering period	19	24	22
Resistance to lodging	9	9	9
100 seed weight (g)	111.8	158.4	135.1
Numbers of pods per node	1.2	1.4	1.3
Number of seeds per pod	3.1	3.6	3.4
Average seed weight per plant (g)	19.28	36.60	27.94
Protein content (%)	-	-	32.7
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	3	2

¹⁰⁶ AREI (2015 and 2016)

IERASTE MAIJA 4	
Collecting number (EUROLEGUME database)	FB232
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Ieraste Maija 4
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m, hobby gardener
Or: Donor institution	AREI
Donor accession number	-
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

PURINS JANIS 1	
Collecting number (EUROLEGUME database)	FB233
Genus, specie, subtaxa	<i>Vicia faba</i> var. minor
Common crop name	Field beans
Accession name	Purins Janis 1
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener
Or: Donor institution	AREI
Donor accession number	-
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ¹⁰⁷		
	Min	Max	Mean
Plants height (cm)	85.2	106.1	95.7
Days to flowering	49	55	52
Days to pod maturity	126	140	133
Length of flowering period	19	20	20
Resistance to lodging	8	9	9
100 seed weight (g)	145.3	205.1	175.2
Numbers of pods per node	1.2	1.2	1.2
Number of seeds per pod	3.4	3.4	3.4
Average seed weight per plant (g)	25.18	26.82	26.00
Protein content (%)	-	-	33.4
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	3	3	3

¹⁰⁷ AREI (2015 and 2016)

Traits	Northern conditions ¹⁰⁸		
	Min	Max	Mean
Plants height (cm)	82.9	91.1	87.0
Days to flowering	49	55	52
Days to pod maturity	132	140	136
Length of flowering period	17	19	18
Resistance to lodging	8	9	9
100 seed weight (g)	-	-	185.8
Numbers of pods per node	1.0	1.0	1.0
Number of seeds per pod	3.2	3.6	3.4
Average seed weight per plant (g)	17.45	22.86	20.16
Protein content (%)	-	-	32.9
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	-	-	3

¹⁰⁸ AREI (2015 and 2016)

PURINS JANIS 2		IERASTE MAIJA 5	
	Collecting number (EUROLEGUME database)	FB234	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Field beans	Common crop name
	Accession name	Purins Janis 2	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Latvia	Country of origin
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener	Location of collecting site, latitude, altitude
	Or: Donor institution	AREI	Or: Donor institution
	Donor accession number		Donor accession number
	Biological status	Landrace	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Flower color
	Seed color	3 - light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ¹⁰⁹		
	Min	Max	Mean
Plants height (cm)	87.8	110.8	99.3
Days to flowering	48	56	52
Days to pod maturity	132	140	136
Length of flowering period	29	31	30
Resistance to lodging	9	9	9
100 seed weight (g)	98.2	140.5	119.4
Numbers of pods per node	1.2	1.9	1.6
Number of seeds per pod	3.0	3.1	3.1
Average seed weight per plant (g)	17.22	48.37	32.80
Protein content (%)	-	-	32.3
Incidence of Aphids	-	-	3
Incidence with Chocolate spot	1	5	3
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	-	-	3

¹⁰⁹ AREI (2015 and 2016)

Traits	Northern conditions ¹¹⁰		
	Min	Max	Mean
Plants height (cm)	82.8	87.8	85.3
Days to flowering	48	56	52
Days to pod maturity	132	140	136
Length of flowering period	26	26	26
Resistance to lodging	9	9	9
100 seed weight (g)	124.4	167.6	146.0
Numbers of pods per node	1.0	1.0	1.0
Number of seeds per pod	3.2	3.7	3.5
Average seed weight per plant (g)	22.98	24.83	23.91
Protein content (%)	-	-	28.9
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	-	-	3

¹¹⁰ AREI (2015 and 2016)

PURINS JANIS 3	
	Collecting number (EUROLEGUME database) FB236
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Field beans
Accession name	Purins Janis 3
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener
Or: Donor institution	AREI
Donor accession number	
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3- light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

BALODE V	
	Collecting number (EUROLEGUME database) FB237
Genus, specie, subtaxa	<i>Vicia faba</i> var. major
Common crop name	Field beans
Accession name	Balode V
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener
Or: Donor institution	AREI
Donor accession number	
Biological status	Landrace
Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small
Seed color	3 - light brown
Pod shattering	0 - non-shattering
Growth habit	3 - indeterminate

Traits	Northern conditions ¹¹¹		
	Min	Max	Mean
Plants height (cm)	82.3	86.4	84.4
Days to flowering	47	57	52
Days to pod maturity	122	140	131
Length of flowering period	25	25	25
Resistance to lodging	9	9	9
100 seed weight (g)	128.3	168.9	148.6
Numbers of pods per node	1.0	1.4	1.2
Number of seeds per pod	2.6	3.0	2.8
Average seed weight per plant (g)	19.20	22.69	20.95
Protein content (%)	-	-	31.4
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	-	-	3

¹¹¹ AREI (2015 and 2016)

Traits	Northern conditions ¹¹²		
	Min	Max	Mean
Plants height (cm)	-	-	75.6
Days to flowering	50	55	53
Days to pod maturity	122	140	131
Length of flowering period	19	27	23
Resistance to lodging	9	9	9
100 seed weight (g)	117.3	171.3	144.3
Numbers of pods per node	-	-	1
Number of seeds per pod	-	-	3
Average seed weight per plant (g)	-	-	13.78
Protein content (%)	-	-	31.3
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	3	3	3
Incidence with Rust	3	3	3

¹¹² AREI (2015 and 2016)

ASJA ZVEJNIECE		INĀRA ĶUZE 1	
	Collecting number (EUROLEGUME database)	FB238	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor	FB240
	Common crop name	Field beans	Genus, specie, subtaxa
	Accession name	Asja Zvejniece	Common crop name
	Acquisition date	2014	Accession name
	Country of origin	Latvia	Acquisition date
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener	Country of origin
	Or: Donor institution	AREI	Location of collecting site, latitude, altitude
	Donor accession number	-	Or: Donor institution
	Biological status	Landrace	Donor accession number
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Biological status
	Seed color	3 - light brown	Flower color
	Pod shattering	1 - shattering	Seed color
	Growth habit	3 - indeterminate	Pod shattering
			Growth habit

Traits	Northern conditions ¹¹³		
	Min	Max	Mean
Plants height (cm)	-	-	71.2
Days to flowering	-	-	54
Days to pod maturity	-	-	132
Length of flowering period	-	-	20
Resistance to lodging	-	-	9
100 seed weight (g)	-	-	121.6
Numbers of pods per node	-	-	1.3
Number of seeds per pod	-	-	3.2
Average seed weight per plant (g)	-	-	13.33
Protein content (%)	-	-	31.6
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	-	-	1
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹¹³ AREI (2015)

Traits	Northern conditions ¹¹⁴		
	Min	Max	Mean
Plants height (cm)	84.3	95.0	89.7
Days to flowering	46	55	51
Days to pod maturity	126	128	127
Length of flowering period	21	21	21
Resistance to lodging	8	9	8.5
100 seed weight (g)	129.2	130.4	129.8
Numbers of pods per node	1.0	1.6	1.3
Number of seeds per pod	2.6	2.7	2.7
Average seed weight per plant (g)	20.96	31.93	26.45
Protein content (%)	-	-	-
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	-	-	3
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	-	-	-

¹¹⁴ AREI (2015 and 2016)

INĀRA KUZE 2		AQUADULCE	
	Collecting number (EUROLEGUME database)	FB241	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. major	Genus, specie, subtaxa
	Common crop name	Field beans	Common crop name
	Accession name	Ināra Kuze 2	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Latvia	Country of origin
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m hobby gardener	Location of collecting site, latitude, altitude
	Or: Donor institution	AREI	Or: Donor institution
	Donor accession number	-	Donor accession number
	Biological status	Landrace	Biological status
	Flower color	Petal ground color – 1 - white, anthocyanin - 1 - small	Flower color
	Seed color	3 - light brown	Seed color
	Pod shattering	1 - shattering	Pod shattering
	Growth habit	3 - indeterminate	Growth habit

Traits	Northern conditions ¹¹³		
	Min	Max	Mean
Plants height (cm)	84.2	90.4	87.3
Days to flowering	45	55	50
Days to pod maturity	126	128	127
Length of flowering period	21	23	22
Resistance to lodging	8	9	9
100 seed weight (g)	110.74	130.51	120.63
Numbers of pods per node	1.0	1.7	1.4
Number of seeds per pod	2.5	3.0	2.8
Average seed weight per plant (g)	18.80	29.73	24.27
Protein content (%)	-	-	32.0
Incidence of Aphids	-	-	-
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	-	-	3
Incidence with Rust	-	-	1

¹¹⁵ AREI (2015 and 2016)

Traits	Southern conditions ¹¹⁶		
	Min	Max	Mean
Plants height (cm)	82.0	170.0	126.0
Days to flowering	76.0	95.0	85.5
Days to pod maturity	158	215	186.5
Length of flowering period	22	40	31
Resistance to lodging	5	5	5
100 seed weight (g)	151.0	190.0	170.5
Numbers of pods per node	1.0	2.0	1.5
Number of seeds per pod	4.0	7.0	5.5
Average seed weight per plant (g)	18.80	51.80	35.3
Protein content (%)	25.40	30.04	27.72
Incidence of Aphids	1	5	3
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	1	1

¹¹⁶ AUT (2015), AUA (2014 and 2015)

BG 148005		SKAPARI	
	Collecting number (EUROLEGUME database)	FB244	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vicia faba</i> var. minor	Genus, specie, subtaxa
	Common crop name	Field beans	Common crop name
	Accession name	BG 148005	Accession name
	Acquisition date	2015	Acquisition date
	Country of origin	Albania	Country of origin
	Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m	Location of collecting site, latitude, altitude
	Or: Donor institution	AUT, Albania	Or: Donor institution
	Donor accession number	BG 148005	Donor accession number
	Biological status	Landrace	Biological status
	Flower color	Petal ground color – 1- white	Flower color
	Seed color	3 - light brown	Seed color
	Pod shattering	0 - non-shattering	Pod shattering
	Growth habit	1 - determinate	Growth habit

Traits	Southern conditions ¹¹⁷		
	Min	Max	Mean
Plants height (cm)	-	-	71.8
Days to flowering	-	-	97
Days to pod maturity	-	-	215
Length of flowering period	-	-	38
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	47.5
Numbers of pods per node	-	-	2
Number of seeds per pod	-	-	-
Average seed weight per plant (g)	-	-	11.20
Protein content (%)	-	-	31.1
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	-

¹¹⁷ AUT (2015)

Traits	Southern conditions ¹¹⁸		
	Min	Max	Mean
Plants height (cm)	-	-	72.1
Days to flowering	-	-	97
Days to pod maturity	-	-	38
Length of flowering period	-	-	215
Resistance to lodging	-	-	5
100 seed weight (g)	-	-	150.0
Numbers of pods per node	-	-	2
Number of seeds per pod	-	-	-
Average seed weight per plant (g)	-	-	12.10
Protein content (%)	-	-	30.68
Incidence of Aphids	-	-	5
Incidence with Chocolate spot	-	-	-
Incidence with Ascochyta blight	-	-	-
Incidence with Rust	-	-	5

¹¹⁸ AUT (2015)

LEFKADA	
	Collecting number (EUROLEGUME database) FB244
	Genus, species, subtaxa <i>Vicia faba</i> var. minor
	Common crop name Field beans
	Accession name Lefkada
	Acquisition date 2014
	Country of origin Greece
	Location of collecting site, latitude, altitude 38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution AUA, Greece
	Donor accession number -
	Biological status Landrace
	Flower color Petal ground color – 1- white
	Seed color 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

MANI	
	Collecting number (EUROLEGUME database) FB245
	Genus, species, subtaxa <i>Vicia faba</i> var. minor
	Common crop name Field beans
	Accession name Mani
	Acquisition date 2014
	Country of origin Greece
	Location of collecting site, latitude, altitude 38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution AUA, Greece
	Donor accession number -
	Biological status Landrace
	Flower color Petal ground color – 1- white
	Seed color 2 – dark brown, 3 - light brown
	Pod shattering 0 - non-shattering
	Growth habit 3 - indeterminate

Traits	Southern conditions ¹²¹		
	Min	Max	Mean
Plants height (cm)	80	127	103.5
Days to flowering	76	94	85
Days to pod maturity	155	157	156
Length of flowering period	26	36	31
Resistance to lodging	5	5	5
100 seed weight (g)	60	62	61
Numbers of pods per node	1.7	2.2	1.9
Number of seeds per pod	2	5	3
Average seed weight per plant (g)	22.6	34.7	28.65
Protein content (%)	28.30	33.79	31.04
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	1	1

¹²¹ AUA (2014, 2015 and 2016)

Traits	Southern conditions ¹²²		
	Min	Max	Mean
Plants height (cm)	70	111	90.5
Days to flowering	76	88	82
Days to pod maturity	150	154	152
Length of flowering period	29	31	30
Resistance to lodging	5	5	5
100 seed weight (g)	151	153	152
Numbers of pods per node	1.4	1.9	1.7
Number of seeds per pod	2	5	4
Average seed weight per plant (g)	21.1	31.9	27.5
Protein content (%)	28.77	31.94	30.35
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	1	1

¹²² AUA (2014 and 2015)

ANDROS		
	Collecting number (EUROLEGUME database)	FB243
	Genus, species, subtaxa	<i>Vicia faba</i> var. major
	Common crop name	Field beans
	Accession name	Andros
	Acquisition date	2014
	Country of origin	Greece
	Location of collecting site, latitude, altitude	38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution	AUA, Greece
	Donor accession number	-
	Biological status	Landrace
	Flower color	Petal ground color – 1- white
	Seed color	3 - light brown
	Pod shattering	0 - non-shattering
	Growth habit	3 - indeterminate

Traits	Southern conditions ¹¹⁹		
	Min	Max	Mean
Plants height (cm)	79	120	97.1
Days to flowering	76	92	84
Days to pod maturity	150	154	152
Length of flowering period	29	31	30
Resistance to lodging	5	5	5
100 seed weight (g)	140	145	142.5
Numbers of pods per node	1.1	1.8	1.2
Number of seeds per pod	3	7	4
Average seed weight per plant (g)	19.1	31.3	25.2
Protein content (%)	27.7	31.41	29.55
Incidence of Aphids	1	3	2
Incidence with Chocolate spot	1	3	2
Incidence with Ascochyta blight	1	3	2
Incidence with Rust	1	1	1

¹¹⁹ AUA (2014 and 2015)

PART II

Pea (*Pisum sativum* L.)

5. MATERIAL AND METHODS

5.1. Plant material included in field trials

One hundred and four pea genotypes (*Pisum sativum* L.) accessions were gathered between January 2014 to December 2016. Pea genotypes were obtained from Southern (Portugal, Greece and Spain) or Northern Europe (Estonia, Latvia, Norway, and Sweden) regions; being gathered from local farmers, gene bank collections, Non-Governmental Organizations (NGOs), and hobby gardeners.

The preliminary screening performed to select genetic resources gathered in 2014 supported the selection of the accession, which were included in the evaluation procedures under different agro-climatic conditions. The inclusion of the collected genotypes in the preliminary screening was conditioned by two main criteria: **1)** Local genetic resources (landraces, old varieties, and commercial varieties) without proper previous evaluation; and **2)** Genetic resources (varieties, breeding lines) with some good traits, although presenting a gap of information on valuable descriptors, especially grain quality.

5.2. Experimental places for pea trials

Pea field experiments were developed at five locations: **1)** the experimental field of Institute of Agricultural Resources and Economics (AREI, Latvia) (57°18'57"N, 25°20'19"E, 123 m altitude), **2)** Estonian Crop Research institute (ECRI, Estonia) (58°769'N; 26°400'E), **3)** National Institute for Agricultural Research and Veterinary (INIAV, Portugal) (38°53'N, 7°09'W, 208 m altitude), **4)** Agricultural University of Tirana (AUT, Albania) (41°21'35"N, 19°46'28"E, 71 m altitude) and **5)** Agricultural University of Athens (AUA, 38°23'51"N, 23°05'41"E, 95 m a.s.l., Kopais).

5.3. Experimental design for pea trials

The field assays were set up as randomized complete block designs. The plot size for peas in all locations was 2-5 m², whilst sowing rate and plants spacing, according to traditional practices in northern and southern European countries, were 120 seeds per m² and 15 x 6 cm, respectively at AREI and ECRI, and 20 seeds per m² and 60 x 12 cm, respectively at INIAV and AUT. Traditional cultural practices for sowing, harvesting, and conventional crop management were used in each place. No seed treatment neither fungicide was applied.

5.4. Evaluated traits

Broad range of pea traits of were evaluated according to Protocol for Distinctness, Uniformity, and Stability Tests for *Pisum sativum* L. (UPOV)². Evaluation results according to the most important traits for breeding purposes are included in current Handbook:

- *Flower*: colour of standard (1- white, 2-pink).
- *Seed*: colour of cotyledon (1- green, 2- yellow, 3- orange, 4 – other).
- *Seed*: colour of testa (only varieties with plant anthocyanin coloration present):(1 – reddish brown, 2 - brown, 3 - brownish green).
- *Seed*: marbling of testa (varieties with atnthocianin only) (1 –absent, 9-present).
- *Growth type*: 1 - non dwarf, 2 – semi-leafless.
- *Days to flowering (DFL)*: Days from sowing to 10% plants at flowering initiation stage.
- *Length of flowering stage (LFL)*: Days from sowing to the stage when less than 10% of plants have flowers. Length of flowering stage was calculated as LFL-DFL.
- *Days to full ripening (DFR)*: Days from sowing to 50% of plants presenting pods with dry seeds.
- *Seed: average seed weight per plant (GY)* (g): Average and standard deviation of 10 randomly chosen plants from a single plot.
- *Seed: 100 seed weight (SW)* (g): Average weight of 2 samples of 100 randomly chosen seeds.
- *Protein content (PRO)* (% of dry weight (% dw)): Kjeldahl's method.

*Susceptibility to pod spot (*Ascoshyla pisi*) (DIS)*: Mean calculated on determinations developed on leaves of 5 plants per plot. The susceptibility assessed at the plant development stage 224-240 (Decimal code for the growth stages of pea by UPOV) and expressed in scores (1-very low 5% of plant leafs infected, 9 very high, > 75% of plant leafs infected).

² http://www.cpvo.europa.eu/documents/TP/agricoles/TP_007-1_PISUM_SATIVUM.pdf, asessed 27th of May 2014

- *Susceptibility to powdery mildew (*Erysiphe pisi*) (SPM)*: Mean calculated on determinations developed on leaves of 5 plants per plot. The susceptibility assessed at the plant development stage 224-240 (Decimal code for the growth stages of pea by UPOV) and expressed in scores (1-very low 5% of plant leafs infected, 9 very high, > 75% of plant leafs infected).
- *Susceptibility to downy mildew (*Perenospora pisi*) (SDM)*: Mean calculated on determinations developed on leaves of 5 plants per plot. The susceptibility assessed at the plant development stage 224-240 (Decimal code for the growth stages of pea by UPOV) and expressed in scores (1-very low 5% of plant leafs infected, 9 very high, > 75% of plant leafs infected).
- *Susceptibility to pulses rust (*Uromices ssp.*) (SPR)*: Mean calculated on determinations developed on leaves of 5 plants per plot. The susceptibility assessed in the plant development stage 224-240 (Decimal code for the growth stages of pea by UPOV) and expressed in scores (1-very low 5% of plant leafs infected, 9 very high, > 75% of plant leafs infected).
- *Plants: length (PLG)*: The observation made at mature green seed stage 240 (Decimal code for the growth stages of peas by UPOV). Measured from the ground to the top of plant, for 10 plants per plot and the mean and standard deviation has calculated.

Minimum, maximum, and average values for each trait were included in handbook.

CAMEOR		
	Collecting number (EUROLEGUME database)	P01
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Cameor
	Acquisition date	2014
	Country of origin	France
	Location of collecting site, latitude, altitude	unknown
	Or: Donor institution	Dr. Richard Thompson from INRA, FRANCE
	Donor accession number	—
	Biological status	Variety
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

ALMA		
	Collecting number EUROLEGUME database)(EUROLEGUME database)	P02
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Alma
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m altitude
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Variety
	Flower color	2 - pink
	Seed color	3 - brownish green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ²			Southern conditions ³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	35.3	47.4	41.4	-	-	29.3
Days to flowering	44	54	49	-	-	104
Days to full ripening	85	85	90	-	-	172
Length of flowering stage	10	17	14	-	-	40
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	16.37	19.35	18.24	-	-	15.30
Average seed weight per plant (g)	2.05	5.13	3.59	-	-	4.08
Protein content (%)	23.4	23.5	23.5	-	-	-
Susceptibility to pod spot	1	5	2	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	-	-	1	-	-	-

² AREI (2014, 2015 and 2016)

³ INIAV (2015)

Traits	Northern conditions ⁴			Southern conditions ⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	112.5	160.5	130.4	-	-	59.8
Days to flowering	58	70	66	-	-	162
Days to full ripening	97	120	106	-	-	10
Length of flowering stage	17	55	29	-	-	185
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	14.46	18.25	15.76	-	-	12.10
Average seed weight per plant (g)	4.12	6.21	5.19	-	-	0.85
Protein content (%)	23.0	25.3	24.1	-	-	-
Susceptibility to pod spot	3	3	3	-	-	-
Susceptibility to powdery mildew	1	5	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁴ AREI (2014, 2015 and 2016) and ECRI (2014)

⁵ INIAV (2015)

RETRIJA		
	Collecting number (EUROLEGUME database)	P03
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Retrija
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Variety
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	9 - present
	Growth type	1 - non dwarf

ROTA		
	Collecting number (EUROLEGUME database)	P04
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Rota
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Variety
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	9 - present
	Growth type	1 - non dwarf

Traits	Northern conditions ⁶			Southern conditions ⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	123.5	180.3	150.4	-	-	84.5
Days to flowering	52	62	58	-	-	119
Days to full ripening	97	120	105	-	-	189
Length of flowering stage	20	39	27	-	-	59
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	30.30	39.48	34.64	-	-	21.00
Average seed weight per plant (g)	1.76	7.50	5.09	-	-	10.79
Protein content (%)	23.1	24.2	23.7	-	-	24.7
Susceptibility to pod spot	3	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁶ AREI (2014, 2015 and 2016) and ECRI (2014)

⁷ INIAV (2015)

Traits	Northern conditions ⁸			Southern conditions ⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	125.7	186.0	161.1	-	-	94.4
Days to flowering	54	68	63	-	-	134
Days to full ripening	99	120	107	-	-	189
Length of flowering stage	26	46	35	-	-	42
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	11.44	14.80	13.16	-	-	9.20
Average seed weight per plant (g)	4.21	6.18	5.19	-	-	2.75
Protein content (%)	20.2	25.4	23.2	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁸ AREI (2014, 2015 and 2016) and ECRI (2014)

⁹ INIAV (2015)

VITRA	
	Collecting number (EUROLEGUME database) P05
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Vitra
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9 - present
Growth type	1 - non dwarf

LASMA	
	Collecting number (EUROLEGUME database) P06
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Lasma
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ¹⁰			Southern conditions ¹¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	131.5	162.5	142.5	-	-	107.5
Days to flowering	58	68	64	-	-	137
Days to full ripening	99	120	107	-	-	189
Length of flowering stage	22	46	34	-	-	41
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	12.19	19.59	16.05	-	-	9.10
Average seed weight per plant (g)	3.81	6.73	5.11	-	-	3.72
Protein content (%)	22.8	26.9	24.4	-	-	-
Susceptibility to pod spot	1	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	-
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁰ AREI (2014, 2015 and 2016) and ECRI (2014)

¹¹ INIAV (2015)

Traits	Northern conditions ¹²			Southern conditions ¹³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	89.8	143.5	109.4	-	-	101.6
Days to flowering	50	67	60	-	-	139
Days to full ripening	98	120	107	-	-	186
Length of flowering stage	18	47	29	-	-	37
Resistance to lodging	5	6	5,5	-	-	3
100 seed weight (g)	19.69	22.85	21.24	-	-	14.00
Average seed weight per plant (g)	4.65	10.82	7.41	-	-	11.96
Protein content (%)	18.8	26.9	23.1	-	-	24.1
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	-
Susceptibility to downy mildew			1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹² AREI (2014, 2015 and 2016) and ECRI (2014)

¹³ INIAV (2015)

SELGA	
	Collecting number (EUROLEGUME database) P07
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Selga
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	1 - absent
Growth type	1 - non dwarf

ZAIGA	
	Collecting number (EUROLEGUME database) P08
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Zaiga
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	1 - white
Seed color	1 - green
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ¹⁴			Southern conditions ¹⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	82.1	136.5	110.3	-	-	67.6
Days to flowering	52	61	56	-	-	105
Days to full ripening	98	116	106	-	-	178
Length of flowering stage	17	41	25	-	-	35
Resistance to lodging	5	6	6	-	-	3
100 seed weight (g)	21.03	27.62	24.49	-	-	24.20
Average seed weight per plant (g)	3.01	7.57	5.58	-	-	10.40
Protein content (%)	19.3	27.0	21.4	-	-	25.2
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁵ INIAV (2015)

Traits	Northern conditions ¹⁶			Southern conditions ¹⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	70.8	160.5	107.8	-	-	96.5
Days to flowering	50	66	56	-	-	105
Days to full ripening	93	120	104	-	-	186
Length of flowering stage	19	49	29	-	-	73
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	13.96	26.30	22.50	-	-	14.05
Average seed weight per plant (g)	2.28	6.61	3.94	-	-	17.41
Protein content (%)	18.7	27.4	22.5	-	-	24.6
Susceptibility to pod spot	3	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁶ AREI and ECRI (2014, 2015, and 2016)

¹⁷ INIAV (2015)

AINA		BAYAVA	
	Collecting number (EUROLEGUME database)	P09	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>	Genus, specie, subtaxa
	Common crop name	Pea	Common crop name
	Accession name	Aina	Accession name
	Acquisition date	2014	Acquisition date
	Country of origin	Latvia	Country of origin
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m	Location of collecting site, latitude, altitude
	Or: Donor institution	AREI, Latvia	Or: Donor institution
	Donor accession number	—	Donor accession number
	Biological status	Variety	Biological status
	Flower color	2 - pink	Flower color
	Seed color	2 - brown	Seed color
	Seed marbling	1 - absent	Seed marbling
	Growth type	1 - non dwarf	Growth type

Traits	Northern conditions ¹⁸			Southern conditions ¹⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	61.9	132.5	96.8	-	-	85.8
Days to flowering	52	66	61	-	-	117
Days to full ripening	93	116	102	-	-	189
Length of flowering stage	16	46	25	-	-	61
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	11.52	24.65	18.05	-	-	12.50
Average seed weight per plant (g)	1.21	4.18	2.85	-	-	11.29
Protein content (%)	17.8	23.0	21.2	-	-	26.5
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁹ INIAV (2015)

Traits	Northern conditions ²⁰			Southern conditions ²¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	84.0	168.0	119.7	-	-	79.1
Days to flowering	49	65	60	-	-	117
Days to full ripening	93	120	105	-	-	185
Length of flowering stage	11	46	23	-	-	37
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	11.20	20.12	14.27	-	-	9.30
Average seed weight per plant (g)	2.33	10.12	5.13	-	-	4.59
Protein content (%)	20.8	27.5	25.0	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

²⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

²¹ INIAV (2015)

CAPULOS		
	Collecting number (EUROLEGUME database)	P11
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Capulos
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Variety
	Flower color	2 - pink
	Seed color	3 - brownish green
	Seed marbling	9 - present
	Growth type	1 - non dwarf

K-4833 STENDES HERO		
	Collecting number (EUROLEGUME database)	P12
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4833 Stendes Hero
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	9 - present
	Growth type	1 - non dwarf

Traits	Northern conditions ²²			Southern conditions ²³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	94.8	131.9	118.1	-	-	87.1
Days to flowering	53	68	62	-	-	140
Days to full ripening	93	119	104	-	-	189
Length of flowering stage	24	64	39	-	-	41
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	9.10	15.26	12.57	-	-	9.20
Average seed weight per plant (g)	2.57	4.76	3.88	-	-	1.29
Protein content (%)	18.5	30.1	24.5	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

²² AREI (2014, 2015, and 2016) and ECRI (2014)

²³ INIAV (2015)

Traits	Northern conditions ²⁴			Southern conditions ²⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	87.0	118.5	107.4	-	-	9.9
Days to flowering	53	68	63	-	-	134
Days to full ripening	91	103	96	-	-	189
Length of flowering stage	14	49	25	-	-	42
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	13.94	24.08	19.48	-	-	12.00
Average seed weight per plant (g)	1.70	9.15	5.81	-	-	9.47
Protein content (%)	21.2	28.2	24.6	-	-	28.8
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

²⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

²⁵ INIAV (2015)

K-4822, VIETĒJAIS B/H		
	Collecting number (EUROLEGUME database)	P13
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-4822, Vietējais b/h
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-4827		
	Collecting number (EUROLEGUME database)	P14
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-4827
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ²⁶			Southern conditions ²⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	77.9	114.1	94.1	-	-	80.1
Days to flowering	50	53	61	-	-	111
Days to full ripening	93	118	103	-	-	183
Length of flowering stage	12	53	27	-	-	40
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	11.69	15.81	14.05	-	-	13.50
Average seed weight per plant (g)	2.22	4.48	2.97	-	-	16.74
Protein content (%)	13.2	26.8	21.6	-	-	25.4
Susceptibility to pod spot	1	5	4	-	-	
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	
Susceptibility to pulses rust	0	1	1	-	-	

²⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

²⁷ INIAV (2015)

Traits	Northern conditions ²⁸			Southern conditions ²⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	84.3	181.0	122.5	-	-	104.9
Days to flowering	49	65	57	-	-	111
Days to full ripening	93	122	105	-	-	189
Length of flowering stage	17	54	37	-	-	67
Resistance to lodging	3	6	4	-	-	3
100 seed weight (g)	11.12	20.10	16.31	-	-	12.20
Average seed weight per plant (g)	2.13	7.14	3.89	-	-	11.81
Protein content (%)	22.7	27.4	25.4	-	-	23.5
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

²⁸ AREI and ECRI (2014, 2015, and 2016)

²⁹ INIAV (2015)

K-4828	
	Collecting number (EUROLEGUME database) P15
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name k-4828
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Landrace
	Flower color 1 - white
	Seed color 2 - yellow
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

K-4819	
	Collecting number (EUROLEGUME database) P16
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name k-4819
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Landrace
	Flower color 1 - white
	Seed color 2 - yellow
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

Traits	Northern conditions ³⁰			Southern conditions ³¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	112.7	123.5	117.2	-	-	121.2
Days to flowering	52	65	58	-	-	117
Days to full ripening	93	118	103	-	-	189
Length of flowering stage	17	51	34	-	-	64
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	10.30	19.24	16.13	-	-	10.50
Average seed weight per plant (g)	2.79	7.95	5.81	-	-	12.00
Protein content (%)	21.9	29.2	24.5	-	-	26.8
Susceptibility to pod spot	3	5	4	-	-	
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	
Susceptibility to pulses rust	0	1	1	-	-	

³⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

³¹ INIAV (2015)

Traits	Northern conditions ³²			Southern conditions ³³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	64.3	116.5	100.3	-	-	123.1
Days to flowering	50	65	58	-	-	115
Days to full ripening	93	119	105	-	-	189
Length of flowering stage	11	56	33	-	-	66
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	10.70	16.05	14.20	-	-	10.30
Average seed weight per plant (g)	1.25	5.25	3.88	-	-	12.60
Protein content (%)	23.1	31.0	25.7	-	-	30.2
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

³² AREI, (2014, 2015, and 2016) and ECRI (2014)

³³ INIAV (2015)

K-4826		
	Collecting number (EUROLEGUME database)	P17
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4826
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-4829, PRIEKULU L-91		
	Collecting number (EUROLEGUME database)	P18
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4829, Priekulu L-91
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ³⁴			Southern conditions ³⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	141.7	156.5	148.5	-	-	119.0
Days to flowering	58	70	64	-	-	154
Days to full ripening	106	106	106	-	-	192
Length of flowering stage	24	52	34	-	-	27
Resistance to lodging	-	-	7	-	-	3
100 seed weight (g)	11.98	15.25	13.99	-	-	8.70
Average seed weight per plant (g)	4.85	12.71	9.95	-	-	2.02
Protein content (%)	23.9	27.1	26.0	-	-	-
Susceptibility to pod spot	5	5	5	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

³⁴ AREI (2014 and 2016) and ECRI (2014)

³⁵ INIAV (2015)

Traits	Northern conditions ³⁶			Southern conditions ³⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	85.0	157.5	105.8	-	-	86.9
Days to flowering	46	60	54	-	-	102
Days to full ripening	92	112	100	-	-	183
Length of flowering stage	12	40	24	-	-	62
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	14.06	23.55	19.20	-	-	16.50
Average seed weight per plant (g)	2.07	9.64	5.12	-	-	14.15
Protein content (%)	21.9	24.0	22.9	-	-	25.7
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

³⁶ AREI and ECRI (2014, 2015, and 2016)

³⁷ INIAV (2015)

K-4818, VIETEJIE		
	Collecting number (EUROLEGUME database)	P19
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4818, Vietejie
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	(
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-4170, PELUSKIS VIET.		
	Collecting number (EUROLEGUME database)	P20
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4170, Peluskis viet.
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	(
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	3 - brownish green
	Seed marbling	9 - present
	Growth type	1 - non dwarf

Traits	Northern conditions ³⁸			Southern conditions ³⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	90.8	215.0	134.4	-	-	124.6
Days to flowering	52	62	56	-	-	117
Days to full ripening	93	113	101	-	-	190
Length of flowering stage	13	50	31	-	-	64
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	12.09	23.60	18.52	-	-	10.80
Average seed weight per plant (g)	2.49	9.40	4.40	-	-	11.29
Protein content (%)	21.5	26.4	24.0	-	-	24.3
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	1	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

³⁸ AREI, ECRI (2014, 2015, and 2016)

³⁹ INIAV (2015)

Traits	Northern conditions ⁴⁰			Southern conditions ⁴¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	100.7	164.2	144.2	-	-	118.8
Days to flowering	60	70	66	-	-	157
Days to full ripening	99	118	106	-	-	192
Length of flowering stage	15	39	29	-	-	24
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	9.39	17.16	13.37	-	-	7.10
Average seed weight per plant (g)	2.61	8.34	5.74	-	-	2.02
Protein content (%)	18.0	27.7	24.0	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁴⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

⁴¹ INIAV (2015)

K-5738	
	Collecting number (EUROLEGUME database) P21
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-5738
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Breeding line
Flower color	2 - pink
Seed color	3- brownish green
Seed marbling	1 - absent
Growth type	1 - non dwarf

K-6389	
	Collecting number (EUROLEGUME database) P22
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-6389
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Breeding line
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9 - present
Growth type	1 - non dwarf

Traits	Northern conditions ⁴²			Southern conditions ⁴³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	112.0	173.0	145.8	-	-	144.1
Days to flowering	54	73	62	-	-	162
Days to full ripening	98	118	108	-	-	-
Length of flowering stage	24	31	28	-	-	192
Resistance to lodging	3	7	5	-	-	19
100 seed weight (g)	12.36	20.88	17.17	-	-	3
Average seed weight per plant (g)	3.53	8.63	6.56	-	-	10.30
Protein content (%)	21.4	27.1	23.8	-	-	0.7
Susceptibility to pod spot	3	5	5	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	-
Susceptibility to downy mildew	-	-	1	-	-	7
Susceptibility to pulses rust	0	1	1	-	-	-

⁴² AREI (2014, 2015, and 2016) and ECRI (2014)

⁴³ INIAV (2015)

Traits	Northern conditions ⁴⁴			Southern conditions ⁴⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	71.4	181.0	124.1	-	-	122.5
Days to flowering	52	74	62	-	-	123
Days to full ripening	93	102	103	-	-	189
Length of flowering stage	17	61	33	-	-	58
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	10.70	19.65	15.10	-	-	9.50
Average seed weight per plant (g)	1.32	6.22	4.00	-	-	9.09
Protein content (%)	21.0	27.3	24.0	-	-	30.3
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁴⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

⁴⁵ INIAV (2015)

K-5698	
	Collecting number (EUROLEGUME database) P23
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name k-5698
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Breeding line
	Flower color 1 - white
	Seed color 4 - other
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

K-5700	
	Collecting number (EUROLEGUME database) P24
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name k-5700
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Breeding line
	Flower color 2 - pink
	Seed color 2 - brown
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

Traits	Northern conditions ⁴⁶			Southern conditions ⁴⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	85.8	194.5	118.2	-	-	110.9
Days to flowering	49	70	58	-	-	154
Days to full ripening	93	123	103	-	-	189
Length of flowering stage	15	39	27	-	-	24
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	14.58	21.60	18.44	-	-	9.50
Average seed weight per plant (g)	1.57	7.13	4.37	-	-	3.54
Protein content (%)	21.2	27.3	24.0	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	5	2	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁴⁶ AREI and ECRI (2014, 2015, and 2016)

⁴⁷ INIAV (2015)

Traits	Northern conditions ⁴⁸			Southern conditions ⁴⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	106.5	160.5	137.0	-	-	122.8
Days to flowering	58	76	68	-	-	152
Days to full ripening	102	120	109	-	-	189
Length of flowering stage	17	46	29	-	-	28
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	9.66	15.40	12.83	-	-	6.80
Average seed weight per plant (g)	4.04	6.47	5.36	-	-	2.77
Protein content (%)	24.3	28.7	25.8	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	1	1	1	-	-	-

⁴⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

⁴⁹ INIAV (2015)

K-5720	
	Collecting number (EUROLEGUME database) P25
	Genus, specie, subtaxa <i>Pisum sativum</i> L.
	Common crop name Pea
	Accession name k-5720
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Breeding line
	Flower color 1 - white
	Seed color 2 - yellow
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

K-4825	
	Collecting number (EUROLEGUME database) P26
	Genus, specie, subtaxa <i>Pisum sativum</i> L.
	Common crop name Pea
	Accession name k-4825
	Acquisition date 2014
	Country of origin Latvia
	Location of collecting site, latitude, altitude 57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution AREI, Latvia
	Donor accession number —
	Biological status Variety
	Flower color 2 - pink
	Seed color 3 - brownish green
	Seed marbling 9 - present
	Growth type 1 - non dwarf

Traits	Northern conditions ⁵⁰			Southern conditions ⁵¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	98.0	143.0	116.2	-	-	90.1
Days to flowering	52	69	60	-	-	123
Days to full ripening	93	118	103	-	-	189
Length of flowering stage	14	36	25	-	-	55
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	14.55	27.00	21.32	-	-	12.8
Average seed weight per plant (g)	2.17	9.23	5.31	-	-	2.31
Protein content (%)	22.4	28.2	24.3	-	-	-
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	1	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	1	5	3	-	-	-

⁵⁰ AREI and ECRI (2014, 2015, and 2016)

⁵¹ INIAV (2015)

Traits	Northern conditions ⁵²			Southern conditions ⁵³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	89.5	140.0	108.6	-	-	100.0
Days to flowering	57	69	64	-	-	136
Days to full ripening	93	120	105	-	-	189
Length of flowering stage	12	55	27	-	-	42
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	17.17	23.48	20.71	-	-	14
Average seed weight per plant (g)	3.39	6.47	4.24	-	-	8.15
Protein content (%)	21.6	29.2	25.0	-	-	31.0
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁵² AREI (2014, 2015, and 2016) and ECRI (2014)

⁵³ INIAV (2015)

K-4821		
	Collecting number (EUROLEGUME database)	P27
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4821
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-4824		
	Collecting number (EUROLEGUME database)	P28
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4824
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁵⁴			Southern conditions ⁵⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	74.0	230.5	127.3	-	-	67.7
Days to flowering	52	69	63	-	-	119
Days to full ripening	93	122	105	-	-	180
Length of flowering stage	15	56	26	-	-	43
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	15.77	21.91	18.29	-	-	14.45
Average seed weight per plant (g)	0.77	8.41	3.38	-	-	12.00
Protein content (%)	22.3	30.5	26.8	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁵⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

⁵⁵ INIAV (2015)

Traits	Northern conditions ⁵⁶			Southern conditions ⁵⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	140.4	169.1	155.3	-	-	90.3
Days to flowering	58	69	65	-	-	123
Days to full ripening	102	122	109	-	-	185
Length of flowering stage	12	57	33	-	-	47
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	10.21	21.70	17.05	-	-	10.00
Average seed weight per plant (g)	2.83	7.96	5.39	-	-	0.15
Protein content (%)	21.6	28.7	25.3	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁵⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

⁵⁷ INIAV (2015)

K-4823, PRIEKULU LINIJA, PRIEKULU PELUSKIS		
	Collecting number (EUROLEGUME database)	P29
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4823, Priekulu linija, Priekulu peluskis
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	2 - pink
	Seed color	4 - other
	Seed marbling	1 - absent, violet spots on testa
	Growth type	1 - non dwarf

K-4171		
	Collecting number (EUROLEGUME database)	P30
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-4171
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁵⁸			Southern conditions ⁵⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	113.0	202.0	163.7	-	-	104.7
Days to flowering	58	73	64	-	-	157
Days to full ripening	104	120	110	-	-	185
Length of flowering stage	19	42	31	-	-	15
Resistance to lodging	3	6	4	-	-	3
100 seed weight (g)	10.71	24.20	15.38	-	-	7.33
Average seed weight per plant (g)	3.45	8.07	5.33	-	-	0.14
Protein content (%)	24.4	30.3	27.3	-	-	-
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁵⁸ AREI and ECRI (2014, 2015, and 2016)

⁵⁹ INIAV (2015)

Traits	Northern conditions ⁶⁰			Southern conditions ⁶¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	132.0	183.5	146.9	-	-	77.6
Days to flowering	58	71	64	-	-	168
Days to full ripening	104	112	108	-	-	192
Length of flowering stage	16	54	34	-	-	10
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	15.05	21.75	18.21	-	-	14.11
Average seed weight per plant (g)	6.16	10.89	7.94	-	-	0.66
Protein content (%)	23.4	31.0	27.2	-	-	-
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	5	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁶⁰ AREI and ECRI (2014, 2015, and 2016)

⁶¹ INIAV (2015)

K-4174, RAUNAS PELUSKIS		
	Collecting number (EUROLEGUME database)	P31
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-4174, Raunas peluskis
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	9 - present
	Growth type	1 - non dwarf

K-4172		
	Collecting number (EUROLEGUME database)	P32
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-4172
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁶²			Southern conditions ⁶³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	146.8	155.5	150.3	-	-	84.4
Days to flowering	58	72	67	-	-	154
Days to full ripening	98	120	107	-	-	189
Length of flowering stage	15	50	31	-	-	24
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	11.72	12.95	12.41	-	-	8.50
Average seed weight per plant (g)	3.27	5.82	4.11	-	-	1.14
Protein content (%)	24.4	30.4	26.6	-	-	-
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	-	-	-	-
Susceptibility to pulses rust	-	-	-	-	-	-

⁶² AREI (2014, 2015, and 2016) and ECRI (2014)

⁶³ INIAV (2015)

Traits	Northern conditions ⁶⁴			Southern conditions ⁶⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	137.3	296.0	188.1	-	-	94.7
Days to flowering	58	71	65	-	-	157
Days to full ripening	104	122	110	-	-	183
Length of flowering stage	5	51	27	-	-	15
Resistance to lodging	3	6	4	-	-	3
100 seed weight (g)	20.09	33.50	26.52	-	-	12.60
Average seed weight per plant (g)	6.13	10.77	8.95	-	-	1.45
Protein content (%)	21.6	28.5	25.1	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	3	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁶⁴ AREI and ECRI (2014, 2015, and 2016)

⁶⁵ INIAV (2015)

K-4831	
	Collecting number (EUROLEGUME database) P33
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-4831
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9-present
Growth type	1 - non dwarf

K-4906	
	Collecting number (EUROLEGUME database) P34
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-4906
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	4 - other
Seed marbling	1 –absent, violet spots on testa
Growth type	1 - non dwarf

Traits	Northern conditions ⁶⁶			Southern conditions ⁶⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	121.5	250.0	169.7		-	75.5
Days to flowering	58	68	65	-	-	128
Days to full ripening	100	124	109	-	-	189
Length of flowering stage	26	48	34	-	-	50
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	12.38	16.29	14.69	-	-	9.30
Average seed weight per plant (g)	3.34	12.77	6.38	-	-	0.90
Protein content (%)	23.1	29.4	26.9	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁶⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

⁶⁷ INIAV (2015)

Traits	Northern conditions ⁶⁸			Southern conditions ⁶⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	97.5	202.5	144.4	-	-	87.2
Days to flowering	53	76	66	-	-	164
Days to full ripening	92	124	105	-	-	192
Length of flowering stage	16	56	27	-	-	8
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	10.89	24.55	17.82	-	-	8.2
Average seed weight per plant (g)	2.36	15.07	6.26	-	-	0.91
Protein content (%)	22.5	27.9	24.9	-	-	-
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	-	-	-	-	-	-

⁶⁸ AREI and ECRI (2014, 2015, and 2016)

⁶⁹ INIAV (2015)

K-4903	
	Collecting number (EUROLEGUME database) P35
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-4903
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	2 - pink
Seed color	3 - brownish green
Seed marbling	1 –absent, violet spots on testa
Growth type	1 - non dwarf

K-6967	
	Collecting number (EUROLEGUME database) P36
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-6967
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ⁷⁰			Southern conditions ⁷¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	107.5	182.9	139.9	-	-	84.4
Days to flowering	66	82	72	-	-	168
Days to full ripening	102	102	110	-	-	192
Length of flowering stage	14	47	27	-	-	4
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	11.74	14.71	12.61	-	-	8.50
Average seed weight per plant (g)	2.63	9.50	7.33	-	-	0.84
Protein content (%)	22.3	26.3	24.8	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	5	5	5	-	-	-

⁷⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

⁷¹ INIAV (2015)

Traits	Northern conditions ⁷²			Southern conditions ⁷³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	94.1	179.5	134.7	-	-	86.3
Days to flowering	52	96	64	-	-	123
Days to full ripening	93	120	106	-	-	183
Length of flowering stage	5	44	29	-	-	47
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	14.27	20.70	17.95	-	-	10.50
Average seed weight per plant (g)	2.11	12.87	7.31	-	-	3.11
Protein content (%)	19.1	28.4	23.9	-	-	-
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁷² AREI and ECRI (2014, 2015, and 2016)

⁷³ INIAV (2015)

K-5703		
	Collecting number (EUROLEGUME database)	P37
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-5703
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-5699		
	Collecting number (EUROLEGUME database)	P38
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-5699
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁷⁴			Southern conditions ⁷⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	76.1	148.0	117.8	-	-	98.7
Days to flowering	58	70	66	-	-	154
Days to full ripening	93	106	99	-	-	183
Length of flowering stage	17	54	30	-	-	18
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	13.05	16.79	14.65	-	-	-
Average seed weight per plant (g)	1.57	5.17	3.62	-	-	-
Protein content (%)	20.4	28.5	25.5	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁷⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

⁷⁵ INIAV (2015)

Traits	Northern conditions ⁷⁶			Southern conditions ⁷⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	87.4	160.5	129.9	-	-	94.0
Days to flowering	57	68	62	-	-	157
Days to full ripening	93	120	106	-	-	189
Length of flowering stage	17	33	23	-	-	19
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	12.66	14.78	13.76	-	-	6.23
Average seed weight per plant (g)	1.56	7.13	4.72	-	-	0.34
Protein content (%)	18.5	27.9	23.7	-	-	-
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁷⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

⁷⁷ INIAV (2015)

K-5501		
	Collecting number (EUROLEGUME database)	P39
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-5501
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-5500		
	Collecting number (EUROLEGUME database)	P40
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-5500
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁷⁸			Southern conditions ⁷⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	83.5	155.5	125.2	-	-	95.2
Days to flowering	51	66	60	-	-	119
Days to full ripening	93	120	104	-	-	185
Length of flowering stage	20	38	29	-	-	57
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	14.34	17.99	15.98	-	-	8.10
Average seed weight per plant (g)	2.86	15.45	7.13	-	-	6.31
Protein content (%)	19.2	26.4	22.7	-	-	28.1
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁷⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

⁷⁹ INIAV (2015)

Traits	Northern conditions ⁸⁰			Southern conditions ⁸¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	72.7	102.5	93.4	-	-	81.1
Days to flowering	52	64	58	-	-	117
Days to full ripening	87	104	97	-	-	183
Length of flowering stage	17	31	23	-	-	59
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	14.23	19.02	15.99	-	-	9.50
Average seed weight per plant (g)	2.03	8.93	5.65	-	-	8.48
Protein content (%)	20.9	30.9	25.3	-	-	25.2
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁸⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

⁸¹ INIAV (2015)

K-6975		
	Collecting number (EUROLEGUME database)	P41
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-6975
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-6974		
	Collecting number (EUROLEGUME database)	P42
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	k-6974
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ⁸²			Southern conditions ⁸³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	70.0	116.5	95.8	-	-	83.4
Days to flowering	47	60	54	-	-	102
Days to full ripening	88	104	96	-	-	180
Length of flowering stage	13	38	22	-	-	37
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	20.70	27.75	23.61	-	-	23.10
Average seed weight per plant (g)	3.14	11.96	6.53	-	-	14.04
Protein content (%)	19.1	26.3	22.3	-	-	25.2
Susceptibility to pod spot	3	5	5	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	-
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁸² AREI (2014, 2015, and 2016) and ECRI (2014)

⁸³ INIAV (2015)

Traits	Northern conditions ⁸⁴			Southern conditions ⁸⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	86.0	113.7	105.0	-	-	97.3
Days to flowering	50	93	66	-	-	135
Days to full ripening	89	106	98	-	-	182
Length of flowering stage	17	43	25	-	-	37
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	12.73	17.56	15.72	-	-	9.45
Average seed weight per plant (g)	3.63	6.75	5.15	-	-	9.35
Protein content (%)	22.2	29.7	26.5	-	-	26.9
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	3	3	3	-	-	-

⁸⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

⁸⁵ INIAV (2015)

K-6969	
	Collecting number (EUROLEGUME database) P43
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-6969
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Breeding line
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	1 - absent
Growth type	1 - non dwarf

K-6968	
	Collecting number (EUROLEGUME database) P44
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	k-6968
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Breeding line
Flower color	1 - white
Seed color	1 - green
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ⁸⁶			Southern conditions ⁸⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	78.8	123.5	97.8	-	-	63.1
Days to flowering	52	93	67	-	-	119
Days to full ripening	93	116	104	-	-	183
Length of flowering stage	13	35	22	-	-	53
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	15.16	20.46	18.35	-	-	12.50
Average seed weight per plant (g)	2.54	6.61	4.81	-	-	7.10
Protein content (%)	19.8	25.9	22.2	-	-	26.9
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁸⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

⁸⁷ INIAV (2015)

Traits	Northern conditions ⁸⁸			Southern conditions ⁸⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	83.6	111.5	99.2	-	-	85.9
Days to flowering	47	90	63	-	-	107
Days to full ripening	93	116	104	-	-	183
Length of flowering stage	14	41	25	-	-	65
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	17.38	22.47	19.79	-	-	15.50
Average seed weight per plant (g)	3.96	11.49	6.29	-	-	15.56
Protein content (%)	21.0	28.0	23.9	-	-	25.8
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁸⁸ AREI (2014, 2015, and 2016) and ECRI (2015)

⁸⁹ INIAV (2015)

K-6970		
	Collecting number (EUROLEGUME database)	P45
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-6970
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

K-6973		
	Collecting number (EUROLEGUME database)	P46
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-6973
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	2 - pink
	Seed color	3 - brownish green
	Seed marbling	1 –absent, violet spots on testa
	Growth type	1 - non dwarf

Traits	Northern conditions ⁹⁰			Southern conditions ⁹¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	82.0	125.8	108.0	-	-	83.4
Days to flowering	49	90	63	-	-	117
Days to full ripening	93	108	101	-	-	180
Length of flowering stage	14	40	25	-	-	53
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	13.01	19.40	17.09	-	-	14.00
Average seed weight per plant (g)	2.89	6.64	5.24	-	-	15.15
Protein content (%)	19.7	25.2	21.4	-	-	24.6
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁹⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

⁹¹ INIAV (2015)

Traits	Northern conditions ⁹²			Southern conditions ⁹³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	64.7	90.0	71.6	-	-	61.2
Days to flowering	52	66	60	-	-	119
Days to full ripening	89	108	101	-	-	178
Length of flowering stage	3	45	19	-	-	43
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	14.51	21.70	19.28	-	-	20.10
Average seed weight per plant (g)	2.64	4.89	3.91	-	-	19.13
Protein content (%)	21.7	26.4	23.1	-	-	26.1
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁹² AREI and ECRI (2014, 2015, and 2016)

⁹³ INIAV (2015)

K-6972		
	Collecting number (EUROLEGUME database)	P47
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	k-6972
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Breeding line
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

BRUNO		
	Collecting number (EUROLEGUME database)	P48
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Bruno
	Acquisition date	2014
	Country of origin	Latvia
	Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
	Or: Donor institution	AREI, Latvia
	Donor accession number	—
	Biological status	Variety
	Flower color	2 - pink
	Seed color	2 - brown
	Seed marbling	9 -present
	Growth type	2 – semi-leafless

Traits	Northern conditions ⁹⁴			Southern conditions ⁹⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	46.4	75.5	62.2	-	-	61.1
Days to flowering	51	61	57	-	-	107
Days to full ripening	91	112	99	-	-	178
Length of flowering stage	9	44	19	-	-	40
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	15.53	22.60	19.29	-	-	19.45
Average seed weight per plant (g)	0.96	5.90	3.34	-	-	18.01
Protein content (%)	19.8	27.0	23.4	-	-	26.2
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁹⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

⁹⁵ INIAV (2015)

Traits	Northern conditions ⁹⁶			Southern conditions ⁹⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	59.1	160.5	86.1	-	-	66.3
Days to flowering	53	68	61	-	-	141
Days to full ripening	97	114	104	-	-	189
Length of flowering stage	16	47	27	-	-	35
Resistance to lodging	3	8	5	-	-	5
100 seed weight (g)	16.91	28.65	22.00	-	-	8.00
Average seed weight per plant (g)	3.28	11.87	6.28	-	-	6.74
Protein content (%)	23.9	26.2	25.2	-	-	31.5
Susceptibility to pod spot	1	7	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁹⁶ AREI and ECRI (2014, 2015, and 2016)

⁹⁷ INIAV (2015)

BALVA	
Collecting number (EUROLEGUME database)	P49
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Balva
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Variety
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

PUNTULA (NO SMILTENES)	
Collecting number (EUROLEGUME database)	P50
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Puntula (no Smiltenes)
Acquisition date	2014
Country of origin	Latvia
Location of collecting site, latitude, altitude	57°18'57"N, 25°20'19"E, 123 m
Or: Donor institution	AREI, Latvia
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9 - present
Growth type	1 - non dwarf

Traits	Northern conditions ⁹⁸			Southern conditions ⁹⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	84.9	139.4	119.6	-	-	97.6
Days to flowering	58	68	63	-	-	140
Days to full ripening	93	122	106	-	-	189
Length of flowering stage	7	48	29	-	-	36
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	9.60	31.46	16.86	-	-	8.80
Average seed weight per plant (g)	1.27	5.91	3.01	-	-	1.26
Protein content (%)	20.4	33.5	26.5	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

⁹⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

⁹⁹ INIAV (2015)

Traits	Northern conditions ¹⁰⁰		
	Min	Max	Mean
Plants length (cm)	120.0	143.0	129.2
Days to flowering	55	64	60
Days to full ripening	106	120	111
Length of flowering stage	23	27	25
Resistance to lodging	3	6	5
100 seed weight (g)	24.26	32.78	27.39
Average seed weight per plant (g)	3.85	9.93	6.32
Protein content (%)	21.9	24.1	23.1
Susceptibility to pod spot	3	3	3
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁰⁰ AREI (2014, 2015, and 2016)

GP 3491	
	Collecting number (EUROLEGUME database) P51
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Gp 3491
Acquisition date	2014
Country of origin	Portugal
Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m
Or: Donor institution	INIAV, Portugal
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	1 – absent, violet spots on testa
Growth type	1 - non dwarf

GP 3497	
	Collecting number (EUROLEGUME database) P52
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Gp 3497
Acquisition date	2014
Country of origin	Portugal
Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m
Or: Donor institution	INIAV, Portugal
Donor accession number	—
Biological status	Landrace
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9 - present
Growth type	1 - non dwarf

Traits	Northern conditions ¹⁰¹			Southern conditions ¹⁰²		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	104.1	145.0	119.2	-	-	98.1
Days to flowering	52	95	71	-	-	114
Days to full ripening	93	116	104	-	-	172
Length of flowering stage	8	57	24	-	-	26
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	20.42	34.07	26.11	-	-	22.85
Average seed weight per plant (g)	2.30	3.88	3.19	-	-	15.04
Protein content (%)	24.1	29.9	26.4	-	-	27.4
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁰¹AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁰²INIAV (2015)

Traits	Northern conditions ¹⁰³			Southern conditions ¹⁰⁴		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	109.5	147.4	122.4	-	-	114.3
Days to flowering	52	66	61	-	-	138
Days to full ripening	93	116	104	-	-	180
Length of flowering stage	7	47	20	-	-	34
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	19.32	35.04	28.19	-	-	16.70
Average seed weight per plant (g)	3.41	7.19	4.87	-	-	13.83
Protein content (%)	23.2	25.2	24.2	-	-	26.1
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	5	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁰³AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁰⁴INIAV (2015)

GP 3263	
	Collecting number (EUROLEGUME database) P53
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Gp 3263
Acquisition date	2014
Country of origin	Portugal
Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m
Or: Donor institution	INIAV, Portugal
Donor accession number	—
Biological status	Landrace
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

GRISEL	
	Collecting number (EUROLEGUME database) P54
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Grisel
Acquisition date	2014
Country of origin	Portugal
Location of collecting site, latitude, altitude	38°53'N, 7°09'W, 208 m
Or: Donor institution	INIAV, Portugal
Donor accession number	—
Biological status	Variety
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	2 - semi leafless

Traits	Northern conditions ¹⁰⁶			Southern conditions ¹⁰⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	94.5	194.0	121.9	-	-	74.6
Days to flowering	50	64	57	-	-	106
Days to full ripening	93	64	57	-	-	172
Length of flowering stage	10	43	23	-	-	41
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	20.75	29.56	25.22	-	-	19.70
Average seed weight per plant (g)	3.59	8.04	5.75	-	-	13.80
Protein content (%)	21.9	27.5	24.4	-	-	26.9
Susceptibility to pod spot	3	5	5	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁰⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁰⁷ INIAV (2015)

Traits	Northern conditions ¹⁰⁸			Southern conditions ¹⁰⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	47.5	68.5	58.9	-	-	53.9
Days to flowering	49	61	54	-	-	111
Days to full ripening	93	107	98	-	-	172
Length of flowering stage	10	43	19	-	-	25
Resistance to lodging	3	9	6	-	-	5
100 seed weight (g)	20.17	38.13	29.44	-	-	20.55
Average seed weight per plant (g)	3.03	10.18	5.96	-	-	12.69
Protein content (%)	21.6	26.1	23.3	-	-	25.1
Susceptibility to pod spot	1	5	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	5
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁰⁸ AREI (2014 and 2016) and ECRI (2014, 2015, and 2016)

¹⁰⁹ INIAV (2015)

KOLLASEKIRJU SÖÖDAHERNES		
	Collecting number (EUROLEGUME database)	P55
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Kollasekirju söödahernes
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST893
	Biological status	Landrace
	Flower color	2 - pink
	Seed color	3 - brownish green
	Seed marbling	9 - present
	Growth type	1 - non dwarf

EESTI KOLLANE SÖÖGIHERNES		
	Collecting number (EUROLEGUME database)	P56
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Eesti kollane söögihernes
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST894
	Biological status	Landrace
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹¹⁰			Southern conditions ¹¹¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	126.5	148.8	138.0	-	-	95.5
Days to flowering	59	70	66	-	-	147
Days to full ripening	99	120	108	-	-	29
Length of flowering stage	17	51	26	-	-	189
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	15.40	20.37	17.95	-	-	10.75
Average seed weight per plant (g)	3.80	8.24	6.23	-	-	2.58
Protein content (%)	25.2	26.1	25.5	-	-	-
Susceptibility to pod spot	3	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹¹⁰ AREI (2014, 2015, and 2016) and ECRI (2014 and 2015)

¹¹¹ INIAV (2015),

Traits	Northern conditions ¹¹²			Southern conditions ¹¹³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	96.5	174.5	127.0	-	-	92.5
Days to flowering	52	63	57	-	-	115
Days to full ripening	96	121	105	-	-	185
Length of flowering stage	23	38	32	-	-	63
Resistance to lodging	3	7	4	-	-	3
100 seed weight (g)	12.20	20.70	16.51	-	-	12.10
Average seed weight per plant (g)	4.44	11.44	8.14	-	-	12.34
Protein content (%)	22.5	28.4	25.7	-	-	25.9
Susceptibility to pod spot	1	3	3	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹¹² AREI and ECRI (2014, 2015, and 2016)

¹¹³ INIAV (2015)

MUHU KOHALIK	
	Collecting number (EUROLEGUME database) P57
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Muhu kohalik
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST895
Biological status	Landrace
Flower color	1 - white
Seed color	1 - green
Seed marbling	1 - absent
Growth type	1 - non dwarf

ESTI HALL	
	Collecting number (EUROLEGUME database) P58
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Eesti hall
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST2882
Biological status	Landrace
Flower color	1 - white
Seed color	1 - green
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ¹¹⁴			Southern conditions ¹¹⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	90.0	177.5	122.9	-	-	85.7
Days to flowering	50	62	57	-	-	117
Days to full ripening	92	118	100	-	-	183
Length of flowering stage	12	43	25	-	-	49
Resistance to lodging	3	6	4	-	-	3
100 seed weight (g)	11.42	23.92	15.53	-	-	10.50
Average seed weight per plant (g)	3.25	6.69	4.41	-	-	11.05
Protein content (%)	22.3	25.7	23.7	-	-	27.0
Susceptibility to pod spot	1	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹¹⁴ AREI and ECRI (2014, 2015, and 2016)

¹¹⁵ INIAV (2015)

Traits	Northern conditions ¹¹⁶			Southern conditions ¹¹⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	68.5	112.0	97.5	-	-	66.3
Days to flowering	50	64	58	-	-	111
Days to full ripening	93	106	104	-	-	185
Length of flowering stage	11	44	22	-	-	36
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	10.20	14.06	12.62	-	-	11.50
Average seed weight per plant (g)	2.51	11.80	5.68	-	-	10.77
Protein content (%)	21.3	26.7	23.8	-	-	27.5
Susceptibility to pod spot	3	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹¹⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

¹¹⁷ INIAV (2015)

HELE		
	Collecting number (EUROLEGUME database)	P59
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Hele
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST35
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

EHILKO		
	Collecting number (EUROLEGUME database)	P60
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Hilko
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST36
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹¹⁸			Southern conditions ¹¹⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	60.8	114.5	80.8	-	-	72.3
Days to flowering	52	66	59	-	-	123
Days to full ripening	96	106	102	-	-	192
Length of flowering stage	17	48	29	-	-	55
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	19.39	33.50	25.45	-	-	11.10
Average seed weight per plant (g)	4.08	9.28	6.04	-	-	18.85
Protein content (%)	18.7	27.8	23.5	-	-	27.2
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹¹⁸ AREI (2014 and 2016) and ECRI (2014, 2015, and 2016)

¹¹⁹ INIAV (2015),

Traits	Northern conditions ¹²⁰			Southern conditions ¹²¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	61.2	106.5	77.6	-	-	77.3
Days to flowering	52	66	61	-	-	123
Days to full ripening	96	116	105	-	-	189
Length of flowering stage	16	41	24	-	-	55
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	18.08	22.30	20.28	-	-	13.75
Average seed weight per plant (g)	4.58	7.36	5.80	-	-	16.70
Protein content (%)	18.8	27.5	22.9	-	-	27.2
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	7	3	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹²⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

¹²¹ INIAV (2015)

JÕGEVA KIRJU	
	Collecting number (EUROLEGUME database) P61
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Jõgeva kirju
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST37
Biological status	Advanced cultivar
Flower color	2 - pink
Seed color	2 - brown
Seed marbling	9 - present
Growth type	1 - non dwarf

KIIR	
	Collecting number (EUROLEGUME database) P62
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Kiir
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST38
Biological status	Advanced cultivar
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ¹²²			Southern conditions ¹²³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	93.8	160.0	124.9	-	-	108.5
Days to flowering	53	68	60	-	-	140
Days to full ripening	89	106	100	-	-	189
Length of flowering stage	8	42	25	-	-	38
Resistance to lodging	3	6	4	-	-	3
100 seed weight (g)	15.69	21.60	18.88	-	-	11.45
Average seed weight per plant (g)	2.08	8.56	5.66	-	-	10.82
Protein content (%)	20.9	29.6	25.5	-	-	31.4
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	7	3	-	-	7
Susceptibility to downy mildew	1	3	2	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹²² AREI, ECRI (2014, 2015, and 2016)

¹²³ INIAV (2015)

Traits	Northern conditions ¹²⁴			Southern conditions ¹²⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	76.5	203.0	132.4	-	-	107.2
Days to flowering	49	63	56	-	-	110
Days to full ripening	88	116	101	-	-	192
Length of flowering stage	17	39	27	-	-	68
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	22.06	32.40	26.81	-	-	14.20
Average seed weight per plant (g)	2.08	10.91	7.10	-	-	6.81
Protein content (%)	18.4	24.2	21.7	-	-	25.7
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	5	2	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹²⁴ AREI and ECRI (2014, 2015, and 2016)

¹²⁵ INIAV (2015)

KIRKE							MEHIS						
	Collecting number (EUROLEGUME database)	P63						Collecting number (EUROLEGUME database)	P64				
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>						Genus, specie, subtaxa	<i>Pisum sativum L.</i>				
	Common crop name	Pea						Common crop name	Pea				
	Accession name	Kirke						Accession name	Mehis				
	Acquisition date	2014						Acquisition date	2014				
	Country of origin	Estonia						Country of origin	Estonia				
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E						Location of collecting site, latitude, altitude	58°769'N; 26°400'E				
	Or: Donor institution	ECRI, Estonia						Or: Donor institution	ECRI, Estonia				
	Donor accession number	EST39						Donor accession number	P64				
	Biological status	Advanced cultivar						Biological status	Advanced cultivar				
	Flower color	2 - pink						Flower color	1 - white				
	Seed color	4 - other						Seed color	1 - green				
	Seed marbling	1 – absent, violet spots on testa						Seed marbling	1 - absent				
	Growth type	1 - non dwarf						Growth type	1 - non dwarf				
Traits		Northern conditions ¹²⁶			Southern conditions ¹²⁷			Traits		Northern conditions ¹²⁸			Southern conditions ¹²⁹
		Min	Max	Mean	Min	Max	Mean			Min	Max	Mean	
Plants length (cm)		44.5	84.5	61.0	-	-	47.2	Plants length (cm)		56.3	103.0	75.8	-
Days to flowering		49	60	54	-	-	105	Days to flowering		52	63	57	-
Days to full ripening		84	106	94	-	-	180	Days to full ripening		95	106	101	-
Length of flowering stage		11	46	21	-	-	35	Length of flowering stage		18	48	28	-
Resistance to lodging		3	8	6	-	-	3	Resistance to lodging		3	7	5	-
100 seed weight (g)		20.56	30.55	25.15	-	-	21.95	100 seed weight (g)		17.32	27.85	22.03	-
Average seed weight per plant (g)		2.45	7.47	5.30	-	-	15.89	Average seed weight per plant (g)		5.20	16.88	8.02	-
Protein content (%)		21.0	23.1	22.0	-	-	26.0	Protein content (%)		22.0	26.3	24.8	-
Susceptibility to pod spot		1	5	3	-	-	-	Susceptibility to pod spot		1	5	4	-
Susceptibility to powdery mildew		1	1	1	-	-	7	Susceptibility to powdery mildew		1	1	1	-
Susceptibility to downy mildew		1	1	1	-	-	-	Susceptibility to downy mildew		1	1	1	-
Susceptibility to pulses rust		0	1	1	-	-	-	Susceptibility to pulses rust		0	1	1	-

¹²⁶ AREI (2014 and 2016) and ECRI (2014, 2015, and 2016)

¹²⁷ INIAV (2015)

¹²⁸ AREI (2014 and 2016) and ECRI (2014, 2015, and 2016)

¹²⁹ INIAV (2015)

SEKO	
	Collecting number (EUROLEGUME database) P65
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Seko
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST41
Biological status	Advanced cultivar
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

VARKO	
	Collecting number (EUROLEGUME database) P66
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Varko
Acquisition date	2014
Country of origin	Estonia
Location of collecting site, latitude, altitude	58°769'N; 26°400'E
Or: Donor institution	ECRI, Estonia
Donor accession number	EST42
Biological status	Advanced cultivar
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

Traits	Northern conditions ¹³⁰			Southern conditions ¹³¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	43.7	79.5	63.9	-	-	55.4
Days to flowering	48	61	54	-	-	11
Days to full ripening	84	106	96	-	-	175
Length of flowering stage	15	43	25	-	-	30
Resistance to lodging	3	8	6	-	-	3
100 seed weight (g)	18.92	30.05	24.85	-	-	23.50
Average seed weight per plant (g)	1.46	11.22	6.41	-	-	18.11
Protein content (%)	18.5	25.1	22.6	-	-	25.2
Susceptibility to pod spot	1	3	2	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹³⁰ AREI (2014 and 2016) and ECRI (2014, 2015, and 2016)

¹³¹ INIAV (2015)

Traits	Northern conditions ¹³²			Southern conditions ¹³³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	80.9	148.8	111.9	-	-	87.4
Days to flowering	52	62	56	-	-	104
Days to full ripening	97	120	105	-	-	185
Length of flowering stage	17	36	27	-	-	60
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	20.41	23.83	22.30	-	-	18.70
Average seed weight per plant (g)	3.77	7.44	5.69	-	-	14.20
Protein content (%)	18.5	25.9	21.9	-	-	26.4
Susceptibility to pod spot	1	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹³² AREI (2014, 2015, and 2016) and ECRI (2014)

¹³³ INIAV (2015)

JÕGEVA JÕUD		
	Collecting number (EUROLEGUME database)	P67
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Jõgeva jõud
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST896
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

JÕGEVA ROHELINNE		
	Collecting number (EUROLEGUME database)	P68
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Jõgeva rohelinne
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST897
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹³⁴			Southern conditions ¹³⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	90.9	138.0	117.4	-	-	99.5
Days to flowering	52	63	58	-	-	117
Days to full ripening	96	119	105	-	-	185
Length of flowering stage	18	41	31	-	-	53
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	15.77	21.37	17.25	-	-	10.20
Average seed weight per plant (g)	3.35	9.38	5.47	-	-	13.35
Protein content (%)	19.3	28.5	24.7	-	-	27.2
Susceptibility to pod spot	1	3	2	-	-	
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	
Susceptibility to pulses rust	0	1	1	-	-	

¹³⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

¹³⁵ INIAV (2015)

Traits	Northern conditions ¹³⁶			Southern conditions ¹³⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	99.0	138.0	112.1	-	-	81.9
Days to flowering	51	64	58	-	-	115
Days to full ripening	98	120	106	-	-	189
Length of flowering stage	19	42	28	-	-	49
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	21.41	23.14	22.33	-	-	22.10
Average seed weight per plant (g)	4.77	5.38	5.06	-	-	17.43
Protein content (%)	18.6	26.2	22.6	-	-	23.9
Susceptibility to pod spot	3	3	3	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹³⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

¹³⁷ INIAV (2015)

AAMISEPP			HERKO		
	Collecting number (EUROLEGUME database)	P69		Collecting number (EUROLEGUME database)	P70
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>		Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea		Common crop name	Pea
	Accession name	Aamisepp		Accession name	Herko
	Acquisition date	2014		Acquisition date	2014
	Country of origin	Estonia		Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E		Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia		Or: Donor institution	ECRI, Estonia
	Donor accession number	EST70		Donor accession number	EST71
	Biological status	Advanced cultivar		Biological status	Advanced cultivar
	Flower color	1 - white		Flower color	1 - white
	Seed color	1 - green		Seed color	1 - green
	Seed marbling	1 - absent		Seed marbling	1 - absent
	Growth type	1 - non dwarf		Growth type	1 - non dwarf

Traits	Northern conditions ¹³⁸			Southern conditions ¹³⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	81.2	127.0	104.0	-	-	114.2
Days to flowering	50	58	54	-	-	106
Days to full ripening	97	120	106	-	-	189
Length of flowering stage	17	36	29	-	-	64
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	21.65	28.76	25.90	-	-	24.30
Average seed weight per plant (g)	2.74	8.14	5.06	-	-	11.23
Protein content (%)	23.8	29.7	25.8	-	-	29.3
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹³⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

¹³⁹ INIAV (2015)

Traits	Northern conditions ¹⁴⁰			Southern conditions ¹⁴¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	58.0	90.5	73.0	-	-	53.3
Days to flowering	51	65	60	-	-	115
Days to full ripening	96	116	97	-	-	185
Length of flowering stage	10	48	23	-	-	32
Resistance to lodging	5	7	6	-	-	3
100 seed weight (g)	17.62	23.98	21.89	-	-	23.90
Average seed weight per plant (g)	2.62	11.40	5.64	-	-	17.39
Protein content (%)	23.4	29.4	25.8	-	-	27.7
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴⁰ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁴¹ INIAV (2015)

LOOMING		
	Collecting number (EUROLEGUME database)	P71
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Looming
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	(
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

VALMA		
	Collecting number (EUROLEGUME database)	P72
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Valma
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST73
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁴²			Southern conditions ¹⁴³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	55.0	69.7	63.7	-	-	49.0
Days to flowering	55	67	63	-	-	115
Days to full ripening	96	106	100	-	-	189
Length of flowering stage	6	56	26	-	-	40
Resistance to lodging	-	-	7	-	-	3
100 seed weight (g)	15.96	19.30	17.95	-	-	17.60
Average seed weight per plant (g)	2.02	5.78	3.63	-	-	11.59
Protein content (%)	23.4	29.8	26.5	-	-	29.7
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	-	-	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴² AREI (2014 and 2016) and ECRI (2014)

¹⁴³ INIAV (2015)

Traits	Northern conditions ¹⁴⁴			Southern conditions ¹⁴⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	32.6	53.9	41.0	-	-	38.6
Days to flowering	44	50	46	-	-	99
Days to full ripening	91	105	96	-	-	185
Length of flowering stage	17	28	24	-	-	34
Resistance to lodging	-	-	7	-	-	3
100 seed weight (g)	17.16	24.68	19.83	-	-	20.50
Average seed weight per plant (g)	1.94	3.68	3.05	-	-	-
Protein content (%)	23.8	26.2	25.0	-	-	30.9
Susceptibility to pod spot	5	5	5	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴⁴ AREI (2014 and 2016) and ECRI (2014)

¹⁴⁵ INIAV (2015)

AMI		
	Collecting number (EUROLEGUME database)	P73
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Ami
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST609
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

ERME		
	Collecting number (EUROLEGUME database)	P74
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Erme
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	EST610
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁴⁶			Southern conditions ¹⁴⁷		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	59.4	75.0	66.0	-	-	57.5
Days to flowering	50	62	58	-	-	111
Days to full ripening	93	120	104	-	-	189
Length of flowering stage	11	44	23	-	-	28
Resistance to lodging	3	6	5	-	-	3
100 seed weight (g)	22.32	27.54	24.49	-	-	23.90
Average seed weight per plant (g)	3.88	8.34	5.44	-	-	15.21
Protein content (%)	22.4	28.5	24.9	-	-	28.9
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴⁶ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁴⁷ INIAV (2015)

Traits	Northern conditions ¹⁴⁸			Southern conditions ¹⁴⁹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	60.5	82.8	71.6	-	-	48.6
Days to flowering	44	54	51	-	-	105
Days to full ripening	93	116	102	-	-	172
Length of flowering stage	17	31	25	-	-	30
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	16.76	22.82	20.58	-	-	19.40
Average seed weight per plant (g)	4.00	7.32	5.32	-	-	16.80
Protein content (%)	22.4	26.3	23.9	-	-	26.9
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	5	3	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁴⁸ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁴⁹ INIAV (2015)

JÖGEVA VARAJANE 22		
Collecting number (EUROLEGUME database)	P75	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Jõgeva varajane 22	
Acquisition date	2014	
Country of origin	Estonia	
Location of collecting site, latitude, altitude	58°769'N; 26°400'E	
Or: Donor institution	ECRI, Estonia	
Donor accession number	EST611	
Biological status	Advanced cultivar	
Flower color	1 - white	
Seed color	1 - green	
Seed marbling	1 - absent	
Growth type	1 - non dwarf	

TASUJA		
Collecting number (EUROLEGUME database)	P76	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Tasuja	
Acquisition date	2014	
Country of origin	Estonia	
Location of collecting site, latitude, altitude	58°769'N; 26°400'E	
Or: Donor institution	ECRI, Estonia	
Donor accession number	EST612	
Biological status	Advanced cultivar	
Flower color	1 - white	
Seed color	1 - green	
Seed marbling	1 - absent	
Growth type	1 - non dwarf	

Traits	Northern conditions ¹⁵⁰			Southern conditions ¹⁵¹		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	27.9	48.0	37.9	-	-	35.5
Days to flowering	45	48	47	-	-	97
Days to full ripening	89	99	94	-	-	172
Length of flowering stage	23	24	24	-	-	67
Resistance to lodging	-	-	-	-	-	3
100 seed weight (g)	13.87	24.96	19.42	-	-	21.70
Average seed weight per plant (g)	0.53	3.12	1.83	-	-	10.80
Protein content (%)	-	-	27.0	-	-	29.1
Susceptibility to pod spot	-	-	5	-	-	-
Susceptibility to powdery mildew	-	-	1	-	-	5
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁵⁰ AREI and ECRI (2014 and 2015)

¹⁵¹ INIAV (2015)

Traits	Northern conditions ¹⁵²			Southern conditions ¹⁵³		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	43.8	56.0	51.6	-	-	42.9
Days to flowering	52	64	59	-	-	112
Days to full ripening	93	105	99	-	-	189
Length of flowering stage	13	49	26	-	-	35
Resistance to lodging	-	-	7	-	-	3
100 seed weight (g)	16.55	25.45	20.68	-	-	22.40
Average seed weight per plant (g)	2.82	8.22	4.70	-	-	14.86
Protein content (%)	24.8	28.4	26.6	-	-	-
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	-	-	1	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁵² AREI (2014 and 2016) and ECRI (2014)

¹⁵³ INIAV (2015)

VIRGE		
	Collecting number (EUROLEGUME database)	P77
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Virge
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	—
	Biological status	Advanced cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

MARGSUKKERERT BREMER		
	Collecting number (EUROLEGUME database)	P78
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Margsukkerert Bremer
	Acquisition date	2014
	Country of origin	Norway
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	NGB7125
	Biological status	Cultivar
	Flower colour	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁵⁴			Southern conditions ¹⁵⁵		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	49.6	156.7	81.1	-	-	56.6
Days to flowering	50	62	55	-	-	111
Days to full ripening	88	110	97	-	-	178
Length of flowering stage	11	23	18	-	-	36
Resistance to lodging	3	7	5	-	-	3
100 seed weight (g)	17.34	25.40	21.01	-	-	16.90
Average seed weight per plant (g)	3.83	5.83	4.57	-	-	13.62
Protein content (%)	21.9	27.9	24.7	-	-	27.2
Susceptibility to pod spot	3	5	4	-	-	-
Susceptibility to powdery mildew	1	3	2	-	-	7
Susceptibility to downy mildew	-	-	1	-	-	-
Susceptibility to pulses rust	0	1	1	-	-	-

¹⁵⁴ AREI (2014, 2015, and 2016) and ECRI (2014)

¹⁵⁵ INIAV (2015)

Traits	Northern conditions ¹⁵⁶			Southern conditions		
	Min	Max	Mean	Min	Max	Mean
Plants length (cm)	45.0	82.	56.3	-	-	-
Days to flowering	51	62	56	-	-	-
Days to full ripening	94	112	101	-	-	-
Length of flowering stage	5	29	17	-	-	-
Resistance to lodging	3	7	5	-	-	-
100 seed weight (g)	14.60	35.10	20.44	-	-	-
Average seed weight per plant (g)	3.31	11.00	6.13	-	-	-
Protein content (%)	24.1	25.5	24.8	-	-	-
Susceptibility to pod spot	1	1	1	-	-	-
Susceptibility to powdery mildew	1	1	1	-	-	-
Susceptibility to downy mildew	1	1	1	-	-	-
Susceptibility to pulses rust	1	1	1	-	-	-

¹⁵⁶ AREI (2014 and 2016) and ECRI (2015 and 2016)

ASLAUG		
https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lev=acc&rec=10778&lst=img&accide=2405	Collecting number (EUROLEGUME database)	P79
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Aslaug
	Acquisition date	2014
	Country of origin	Norway
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	NGB10778
	Biological status	Cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

JÆRERT		
	Collecting number (EUROLEGUME database)	P80
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Jærert
	Acquisition date	2014
	Country of origin	Norway
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	(
	Biological status	Landrace
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁵⁷		
	Min	Max	Mean
Plants length (cm)	59.1	65.3	61.4
Days to flowering	59	66	63
Days to full ripening	93	94	94
Length of flowering stage	9	10	10
Resistance to lodging	-	-	6
100 seed weight (g)	16.12	36.20	24.07
Average seed weight per plant (g)	1.14	3.95	2.67
Protein content (%)	25.9	29.9	27.9
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	1	1
Susceptibility to downy mildew	1	1	1
Susceptibility to pulses rust	1	1	1

¹⁵⁷ AREI (2014 and 2016) and ECRI (2015)

Traits	Northern conditions ¹⁵⁸		
	Min	Max	Mean
Plants length (cm)	90.6	157.0	121.0
Days to flowering	54	68	60
Days to full ripening	93	120	106
Length of flowering stage	21	37	28
Resistance to lodging	3	7	5
100 seed weight (g)	9.12	18.50	12.43
Average seed weight per plant (g)	3.79	6.70	5.35
Protein content (%)	22.1	27.2	25.4
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	3	1
Susceptibility to downy mildew	1	3	2
Susceptibility to pulses rust	1	1	1

¹⁵⁸ AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

LOM			ONKEL NIELS		
https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lev=acc&rec=20043&lst=img&accide=48702	Collecting number (EUROLEGUME database)	P81	https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lst=img&accnumtxt=NGB20045	Collecting number (EUROLEGUME database)	P82
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>		Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea		Common crop name	Pea
	Accession name	Lom		Accession name	Onkel Niels
	Acquisition date	2014		Acquisition date	2014
	Country of origin	Norway		Country of origin	Norway
	Location of collecting site, latitude, altitude	(Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)		Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	NGB20043		Donor accession number	NGB20045
	Biological status	Landrace		Biological status	Private cultivar
	Flower color	1 - white		Flower color	1 - white
	Seed color	1 - green		Seed color	1 - green
	Seed marbling	1 - absent		Seed marbling	1 - absent
	Growth type	1 - non dwarf		Growth type	1 - non dwarf

Traits	Northern conditions ¹⁵⁹		
	Min	Max	Mean
Plants length (cm)	-	-	16.8
Days to flowering	-	-	-
Days to full ripening	-	-	-
Length of flowering stage	-	-	-
Resistance to lodging	-	-	-
100 seed weight (g)	-	-	11.00
Average seed weight per plant (g)	-	-	1.07
Protein content (%)	-	-	-
Susceptibility to pod spot	-	-	-
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁵⁹ AREI (2014)

Traits	Northern conditions ¹⁶⁰		
	Min	Max	Mean
Plants length (cm)	107.1	166.0	133.8
Days to flowering	52	58	54
Days to full ripening	93	102	97
Length of flowering stage	15	33	26
Resistance to lodging	3	7	5
100 seed weight (g)	22.74	45.50	33.47
Average seed weight per plant (g)	2.90	11.72	6.71
Protein content (%)	24.8	27.2	26.0
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	1	1
Susceptibility to downy mildew	1	1	1
Susceptibility to pulses rust	1	1	1

¹⁶⁰ AREI (2014 and 2016) and ECRI (2015 and 2016)

MARIE		
https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lst=img&accnumtxt=NGB20121	Collecting number (EUROLEGUME database)	P83
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Marie
	Acquisition date	2014
	Country of origin	Norway
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	NGB20121
	Biological status	Private cultivar
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

RINGERIKSERT		
https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lst=img&accide=51175	Collecting number (EUROLEGUME database)	P84
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Ringeriksert
	Acquisition date	2014
	Country of origin	Norway
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via NIBIO)
	Donor accession number	NGB21659
	Biological status	Landrace
	Flower color	1 - white
	Seed color	1 - green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁶¹		
	Min	Max	Mean
Plants length (cm)	120.7	177.0	138.3
Days to flowering	51	66	58
Days to full ripening	93	120	106
Length of flowering stage	15	30	23
Resistance to lodging	3	6	4
100 seed weight (g)	21.40	45.90	28.77
Average seed weight per plant (g)	2.67	12.11	5.81
Protein content (%)	26.6	29.2	27.9
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	1	1	1
Susceptibility to pulses rust	1	1	1

¹⁶¹ AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

Traits	Northern conditions ¹⁶²		
	Min	Max	Mean
Plants length (cm)	116.9	204.5	145.7
Days to flowering	56	68	61
Days to full ripening	92	120	108
Length of flowering stage	19	43	33
Resistance to lodging	3	6	4
100 seed weight (g)	7.70	11.95	8.96
Average seed weight per plant (g)	1.32	11.30	4.63
Protein content (%)	23.4	27.7	25.8
Susceptibility to pod spot	3	3	3
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	1	1	1
Susceptibility to pulses rust	1	1	1

¹⁶² AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

ÖSTGÖTA GULÄRT		
	Collecting number (EUROLEGUME database)	P85
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Östgöta gulärt
	Acquisition date	2014
	Country of origin	Sweden
	Location of collecting site, latitude, altitude	(
https://sesto.Nordic Gene Bank.org/sesto/index.php?scp=ngb&thm=sesto&lst=img&accnumtxt=NGB13487	Or: Donor institution	Nordic Gene Bank (via RISE, Sweden)
	Donor accession number	NGB13487
	Biological status	Landrace
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

KLOSTER		
	Collecting number (EUROLEGUME database)	P87
	Genus, specie, subtaxa	<i>Pisum sativum</i> L.
	Common crop name	Pea
	Accession name	Kloster
	Acquisition date	2014
	Country of origin	Sweden
	Location of collecting site, latitude, altitude	(
	Or: Donor institution	Nordic Gene Bank (via RISE, Sweden)
	Donor accession number	NGB101744
	Biological status	Advanced Cultivar
	Flower color	1 - white
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁶³		
	Min	Max	Mean
Plants length (cm)	122.1	192.0	147.9
Days to flowering	56	67	60
Days to full ripening	93	119	108
Length of flowering stage	17	46	32
Resistance to lodging	3	6	4
100 seed weight (g)	11.90	18.60	15.08
Average seed weight per plant (g)	3.61	11.13	6.63
Protein content (%)	22.6	28.0	26.3
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	1	3	2
Susceptibility to pulses rust	-	-	1

¹⁶³ AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

Traits	Northern conditions ¹⁶⁴		
	Min	Max	Mean
Plants length (cm)	71.0	169.0	115.4
Days to flowering	50	63	56
Days to full ripening	89	120	102
Length of flowering stage	18	36	23
Resistance to lodging	3	6	4
100 seed weight (g)	11.92	19.05	15.55
Average seed weight per plant (g)	2.44	7.68	4.52
Protein content (%)	21.6	27.5	25.6
Susceptibility to pod spot	1	3	3
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	1	3	2
Susceptibility to pulses rust	-	-	1

¹⁶⁴ AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

ODALETT	
Collecting number (EUROLEGUME database)	P88
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Odalett
Acquisition date	2014
Country of origin	Sweden
Location of collecting site, latitude, altitude	(
Or: Donor institution	Nordic Gene Bank (via RISE, Sweden)
Donor accession number	NGB13138
Biological status	Advanced cultivar
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	1 - non dwarf

RIGEL	
Collecting number (EUROLEGUME database)	P89
Genus, specie, subtaxa	<i>Pisum sativum</i> L.
Common crop name	Pea
Accession name	Rigel
Acquisition date	2014
Country of origin	Sweden
Location of collecting site, latitude, altitude	(
Or: Donor institution	Nordic Gene Bank (via RISE, Sweden)
Donor accession number	NGB10663
Biological status	Advanced cultivar
Flower color	1 - white
Seed color	2 - yellow
Seed marbling	1 - absent
Growth type	2 – semi leafless

Traits	Northern conditions ¹⁶⁵		
	Min	Max	Mean
Plants length (cm)	64.5	101.0	76.1
Days to flowering	49	64	55
Days to full ripening	89	116	100
Length of flowering stage	17	25	20
Resistance to lodging	3	9	6
100 seed weight (g)	18.65	30.25	24.83
Average seed weight per plant (g)	3.64	10.99	7.08
Protein content (%)	18.6	23.5	21.2
Susceptibility to pod spot	1	3	3
Susceptibility to powdery mildew	1	5	2
Susceptibility to downy mildew	1	3	2
Susceptibility to pulses rust	1	1	1

¹⁶⁵ AREI (2014, 2015, and 2016) and ECRI (2015 and 2016)

Traits	Northern conditions ¹⁶⁶		
	Min	Max	Mean
Plants length (cm)	44.8	127.5	75.3
Days to flowering	47	63	55
Days to full ripening	89	108	99
Length of flowering stage	8	24	16
Resistance to lodging	8	9	9
100 seed weight (g)	18.77	21.72	20.04
Average seed weight per plant (g)	5.02	9.68	6.59
Protein content (%)	17.5	22.9	20.2
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	1	3	2
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁶⁶ AREI (2014, 2015, and 2016)

SVALÖF BUTTER	
	Collecting number (EUROLEGUME database) P90
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name Svalöf Butter
	Acquisition date 2014
	Country of origin Sweden
	Location of collecting site, latitude, altitude (
	Or: Donor institution Nordic Gene Bank (via RISE, Sweden)
	Donor accession number NGB102513
	Biological status Advanced Cultivar
	Flower color 1 - white
	Seed color 2 - yellow
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

TORSDAGS III	
	Collecting number (EUROLEGUME database) P91
	Genus, specie, subtaxa <i>Pisum sativum L.</i>
	Common crop name Pea
	Accession name Torsdags III
	Acquisition date 2014
	Country of origin Sweden
	Location of collecting site, latitude, altitude (
	Or: Donor institution Nordic Gene Bank (via RISE, Sweden)
	Donor accession number NGB2772
	Biological status Advanced Cultivar
	Flower color 1 - white
	Seed color 2 - yellow
	Seed marbling 1 - absent
	Growth type 1 - non dwarf

Traits	Northern conditions ¹⁶⁷		
	Min	Max	Mean
Plants length (cm)	107.5	180.0	143.9
Days to flowering	52	65	57
Days to full ripening	93	151	116
Length of flowering stage	26	46	35
Resistance to lodging	3	6	4
100 seed weight (g)	14.61	19.65	16.38
Average seed weight per plant (g)	2.37	9.70	6.13
Protein content (%)	24.6	26.7	25.4
Susceptibility to pod spot	1	1	1
Susceptibility to powdery mildew	1	5	2
Susceptibility to downy mildew	1	3	2
Susceptibility to pulses rust	1	1	1

¹⁶⁷ AREI (2014, 2015, and 2016) and ECRI (2015, 2016)

Traits	Northern conditions ¹⁶⁸		
	Min	Max	Mean
Plants length (cm)	105.0	139.0	123.0
Days to flowering	47	56	51
Days to full ripening	93	99	96
Length of flowering stage	22	36	29
Resistance to lodging	3	7	5
100 seed weight (g)	14.22	23.00	18.98
Average seed weight per plant (g)	3.33	15.97	8.62
Protein content (%)	23.1	24.1	23.6
Susceptibility to pod spot	1	3	2
Susceptibility to powdery mildew	1	1	1
Susceptibility to downy mildew	1	1	1
Susceptibility to pulses rust	1	1	1

¹⁶⁸ AREI (2014 and 2016) and ECRI (2015 and 2016)

ABG 14106


Collecting number (EUROLEGUME database)	P180
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	ABG 14106
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	-
Or: Donor institution	Genetic bank of Albania
Donor accession number	ABG 14106
Biological status	Traditional cultivar
Flower color	-
Seed color	2 - brown
Seed marbling	-
Growth type	1 - non dwarf

ABG 14005


Collecting number (EUROLEGUME database)	P181
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	ABG 14005
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	-
Or: Donor institution	Genetic bank of Albania
Donor accession number	ABG 14005
Biological status	Traditional cultivar
Flower color	-
Seed color	2 - brown
Seed marbling	-
Growth type	1 - non dwarf

Traits	Southern conditions ¹⁶⁹		
	Min	Max	Mean
Plants length (cm)	145.0	150.0	147.5
Days to flowering	70	140	105
Days to full ripening	135	205	170
Length of flowering stage	35	45	40
Resistance to lodging	-	-	-
100 seed weight (g)	17.60	20.80	19.20
Average seed weight per plant (g)	4.40	6.40	5.40
Protein content (%)	-	-	33.3
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁶⁹ AUT (2015 and 2016)

Traits	Southern conditions ¹⁷⁰		
	Min	Max	Mean
Plants length (cm)	134.0	140.0	137.0
Days to flowering	65	132	99
Days to full ripening	135	205	170
Length of flowering stage	20	48	34
Resistance to lodging	-	-	-
100 seed weight (g)	21.30	33.00	27.15
Average seed weight per plant (g)	6.70	9.30	8.00
Protein content (%)	-	-	-
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷⁰ AUT (2015 and 2016)

ABG 13904


Collecting number (EUROLEGUME database)	P185
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	ABG 13904
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	-
Or: Donor institution	Genetic bank of Albania
Donor accession number	ABG 13904
Biological status	Traditional cultivar
Flower color	-
Seed color	2 - brown
Seed marbling	-
Growth type	1 - non dwarf

ABG 13702


Collecting number (EUROLEGUME database)	P187
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	ABG 13702
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	-
Or: Donor institution	Genetic bank of Albania
Donor accession number	ABG 13702
Biological status	Traditional cultivar
Flower color	-
Seed color	1 - green
Seed marbling	-
Growth type	1 - non dwarf

Traits	Southern conditions ¹⁷¹		
	Min	Max	Mean
Plants length (cm)	135.0	141.0	138.0
Days to flowering	67	135	101
Days to full ripening	135	205	170
Length of flowering stage	38	40	39
Resistance to lodging	-	-	-
100 seed weight (g)	14.70	21.00	17.85
Average seed weight per plant (g)	-	-	35.10
Protein content (%)	4.3	18.4	11.3
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷¹ AUT (2015 and 2016)

Traits	Southern conditions ¹⁷²		
	Min	Max	Mean
Plants length (cm)	220.0	230.0	225.0
Days to flowering	70	140	105
Days to full ripening	135	205	170
Length of flowering stage	35	47	41
Resistance to lodging	-	-	-
100 seed weight (g)	15.50	17.10	16.30
Average seed weight per plant (g)	7.50	15.50	11.50
Protein content (%)	-	-	29.4
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷² AUT (2015 and 2016)

CEKIN AB	
	Collecting number (EUROLEGUME database) P192
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Cekin ab
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	-
Or: Donor institution	Genetic bank of Albania
Donor accession number	AUT 001
Biological status	Traditional cultivar
Flower color	-
Seed color	1 - green
Seed marbling	-
Growth type	1 - non dwarf

BIZELE E BELSHIT	
	Collecting number (EUROLEGUME database) P193
Genus, specie, subtaxa	<i>Pisum sativum L.</i>
Common crop name	Pea
Accession name	Bizele e belshit
Acquisition date	2014
Country of origin	Albania
Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m
Or: Donor institution	AUT, Albania
Donor accession number	AUT 002
Biological status	Traditional cultivar
Flower color	-
Seed color	1 - green
Seed marbling	-
Growth type	1 - non dwarf

Traits	Southern conditions ¹⁷³		
	Min	Max	Mean
Plants length (cm)	175.0	180.0	177.5
Days to flowering	59	129	94
Days to full ripening	135	205	170
Length of flowering stage	46	46	46
Resistance to lodging	-	-	-
100 seed weight (g)	20.80	28.50	24.65
Average seed weight per plant (g)	9.90	19.70	14.80
Protein content (%)	-	-	23.3
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷³ AUT (2015 and 2016)

Traits	Southern conditions ¹⁷⁴		
	Min	Max	Mean
Plants length (cm)	-	-	160.0
Days to flowering	-	-	117
Days to full ripening	-	-	205
Length of flowering stage	-	-	63
Resistance to lodging	-	-	-
100 seed weight (g)	-	-	26.60
Average seed weight per plant (g)	-	-	11.20
Protein content (%)	-	-	23.3
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷⁴ AUT (2015)

BIZELE E SHUSHICES		
Collecting number (EUROLEGUME database)	P194	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Bizele e shushices	
Acquisition date	2014	
Country of origin	Albania	
Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m	
Or: Donor institution	AUT, Albania	
Donor accession number	AUT 003	
Biological status	Traditional cultivar	
Flower color	-	
Seed color	1 - green	
Seed marbling	-	
Growth type	1 - non dwarf	

BIZELE E GJITHENGRENESHME		
Collecting number (EUROLEGUME database)	P196	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Bizele e gjithengreneshme	
Acquisition date	2014	
Country of origin	Albania	
Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m	
Or: Donor institution	AUT, Albania	
Donor accession number	AUT 005	
Biological status	Traditional cultivar	
Flower color	-	
Seed color	1 - green	
Seed marbling	-	
Growth type	1 - non dwarf	

Traits	Southern conditions ¹⁷⁵		
	Min	Max	Mean
Plants length (cm)	160.0	165.0	162.5
Days to flowering	63	119	91
Days to full ripening	135	205	170
Length of flowering stage	42	56	49
Resistance to lodging	-	-	-
100 seed weight (g)	26.50	32.50	29.50
Average seed weight per plant (g)	7.50	22.40	14.95
Protein content (%)	-	-	23.4
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷⁵ AUT (2015 and 2016)

Traits	Southern conditions ¹⁷⁶		
	Min	Max	Mean
Plants length (cm)	-	-	145.0
Days to flowering	-	-	61
Days to full ripening	-	-	135
Length of flowering stage	-	-	44
Resistance to lodging	-	-	-
100 seed weight (g)	-	-	26.50
Average seed weight per plant (g)	-	-	12.50
Protein content (%)	-	-	24.6
Susceptibility to pod spot	-	-	5
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	-
Susceptibility to pulses rust	-	-	-

¹⁷⁶ AUT (2015)

RAHEL		
	Collecting number (EUROLEGUME database)	P199
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Rahel
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	-
	Biological status	Traditional cultivar
	Flower color	-
	Seed color	2 - yellow
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

LEILI		
	Collecting number (EUROLEGUME database)	P200
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Leili
	Acquisition date	2014
	Country of origin	Estonia
	Location of collecting site, latitude, altitude	58°769'N; 26°400'E
	Or: Donor institution	ECRI, Estonia
	Donor accession number	-
	Biological status	Traditional cultivar
	Flower color	-
	Seed color	3 - brownish green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Northern conditions ¹⁷⁷		
	Min	Max	Mean
Plants length (cm)	59.5	68.5	64.00
Days to flowering	43	54	49
Days to full ripening	89	90	90
Length of flowering stage	15	26	21
Resistance to lodging	-	-	3
100 seed weight (g)	27.60	28.45	28.03
Average seed weight per plant (g)	5.49	5.55	5.52
Protein content (%)	-	-	21.0
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁷⁷ ECRI (2015 and 2016)

Traits	Northern conditions ¹⁷⁸		
	Min	Max	Mean
Plants length (cm)	77.5	91.0	84.3
Days to flowering	52	59	56
Days to full ripening	89	96	93
Length of flowering stage	19	25	22
Resistance to lodging	-	-	5
100 seed weight (g)	21.30	24.65	22.98
Average seed weight per plant (g)	5.05	6.45	5.75
Protein content (%)	-	-	22.7
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁷⁸ ECRI (2015 and 2016)

PINOKIO		
Collecting number (EUROLEGUME database)	P201	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Pinokio	
Acquisition date	2014	
Country of origin	-	
Location of collecting site, latitude, altitude	-	
Or: Donor institution	-	
Donor accession number	-	
Biological status	Cultivar	
Flower color	1 - white	
Seed color	2 - yellow	
Seed marbling	1 - absent	
Growth type	1 - non dwarf	

SKRAPARI		
Collecting number (EUROLEGUME database)	P209	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Skrapari	
Acquisition date	2014	
Country of origin	Albania	
Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m a	
Or: Donor institution	AUT, Albania	
Donor accession number	-	
Biological status	Landrace	
Flower color	-	
Seed color	2 - brown	
Seed marbling	1 - absent	
Growth type	1 - non dwarf	

Traits	Northern conditions ¹⁷⁹		
	Min	Max	Mean
Plants length (cm)	69.5	83.5	76.5
Days to flowering	53	59	56
Days to full ripening	95	95	95
Length of flowering stage	14	16	15
Resistance to lodging	-	-	3
100 seed weight (g)	29.00	29.10	29.05
Average seed weight per plant (g)	5.70	8.83	7.27
Protein content (%)	-	-	18.7
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁷⁹ ECRI (2015 and 2016)

Traits	Northern conditions ¹⁸⁰		
	Min	Max	Mean
Plants length (cm)	-	-	206.0
Days to flowering	-	-	143
Days to full ripening	-	-	205
Length of flowering stage	-	-	42
Resistance to lodging	-	-	-
100 seed weight (g)	-	-	-
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	-
Susceptibility to pod spot	-	-	-
Susceptibility to powdery mildew	-	-	5
Susceptibility to downy mildew	-	-	5
Susceptibility to pulses rust	-	-	-

¹⁸⁰ AUT (2015)

CEREMISHTI		
Collecting number (EUROLEGUME database)	P210	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Ceremishti	
Acquisition date	2014	
Country of origin	Albania	
Location of collecting site, latitude, altitude	41°21'35"N, 19°46'28"E, 71 m	
Or: Donor institution	AUT, Albania	
Donor accession number	-	
Biological status	Landrace	
Flower color	-	
Seed color	2 - brown	
Seed marbling	-	
Growth type	1 - non dwarf	

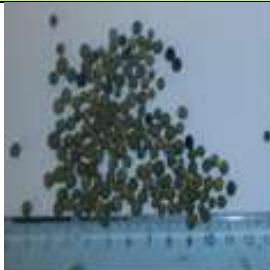
ONWARD		
Collecting number (EUROLEGUME database)	P202	
Genus, specie, subtaxa	<i>Pisum sativum</i> L.	
Common crop name	Pea	
Accession name	Onward	
Acquisition date	2014	
Country of origin	Greece	
Location of collecting site, latitude, altitude	38°23'51"N, 23°05'41"E, 95 m a.s.l.	
Or: Donor institution	AUA, Greece	
Donor accession number		
Biological status	Commercial variety	
Flower color	1 - white	
Seed color	2 - yellow	
Seed marbling	1 - absent	
Growth type	2-semi-leafless	

Traits	Southern conditions ¹⁸¹		
	Min	Max	Mean
Plants length (cm)	-	-	209.0
Days to flowering	-	-	143
Days to full ripening	-	-	-
Length of flowering stage	-	-	205
Resistance to lodging	-	-	42
100 seed weight (g)	-	-	-
Average seed weight per plant (g)	-	-	-
Protein content (%)	-	-	27.6
Susceptibility to pod spot	-	-	-
Susceptibility to powdery mildew	-	-	-
Susceptibility to downy mildew	-	-	5
Susceptibility to pulses rust	-	-	5

¹⁸¹ AUT (2015)

Traits	Southern conditions ¹⁸²		
	Min	Max	Mean
Plants length (cm)	59.7	82.8	71.25
Days to flowering	89	91	90
Days to full ripening	151	153	152
Length of flowering stage	27	31	29
Resistance to lodging	3	3	3
100 seed weight (g)	16.62	17.86	17.24
Average seed weight per plant (g)	7.50	15.50	11.5
Protein content (%)	35.58	36.84	36.21
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁸² AUA (2014 and 2015)

SCHINOUSA		
	Collecting number (EUROLEGUME database)	P207
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Schinousa
	Acquisition date	2014
	Country of origin	Greece
	Location of collecting site, latitude, altitude	38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution	AUA, Greece
	Donor accession number	
	Biological status	Landrace
	Flower color	2-pink
	Seed color	3 – brownish green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

ANDROS		
	Collecting number (EUROLEGUME database)	P206
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Andros
	Acquisition date	2014
	Country of origin	Greece
	Location of collecting site, latitude, altitude	38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution	AUA, Greece
	Donor accession number	
	Biological status	Landrace
	Flower color	2-pink
	Seed color	2 - brown
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Southern conditions ¹⁸³		
	Min	Max	Mean
Plants length (cm)	97.1	133.4	115.25
Days to flowering	92	96	94
Days to full ripening	147	154	150.5
Length of flowering stage	22	28	24
Resistance to lodging	3	3	3
100 seed weight (g)	5.76	7.44	6.6
Average seed weight per plant (g)	5.90	9.93	7.91
Protein content (%)	28.63	31.85	30.24
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁸³ AUA (2014 and 2015)

Traits	Southern conditions ¹⁸⁴		
	Min	Max	Mean
Plants length (cm)	106.8	146.6	126.7
Days to flowering	100	108	104
Days to full ripening	149	156	152.5
Length of flowering stage	21	24	22.5
Resistance to lodging	3	3	3
100 seed weight (g)	12.73	16.7	14.71
Average seed weight per plant (g)	7.84	11.92	9.88
Protein content (%)	28.83	32.58	30.70
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁸⁴ AUA (2014, 2015 and 2016)

AMORGOS		
	Collecting number (EUROLEGUME database)	P208
	Genus, specie, subtaxa	<i>Pisum sativum L.</i>
	Common crop name	Pea
	Accession name	Amorgos
	Acquisition date	2014
	Country of origin	Greece
	Location of collecting site, latitude, altitude	38°23'51"N, 23°05'41"E, 95 m a.s.l.
	Or: Donor institution	AUA, Greece
	Donor accession number	
	Biological status	Landrace
	Flower color	2-pink
	Seed color	3 – brownish green
	Seed marbling	1 - absent
	Growth type	1 - non dwarf

Traits	Southern conditions ¹⁸⁵		
	Min	Max	Mean
Plants length (cm)	94.2	126.9	110.55
Days to flowering	94	100	97
Days to full ripening	147	151	149
Length of flowering stage	26	29	27.5
Resistance to lodging	3	3	3
100 seed weight (g)	6.35	6.87	6.61
Average seed weight per plant (g)	5.97	9.77	7.87
Protein content (%)	28.77	31.94	30.35
Susceptibility to pod spot	-	-	1
Susceptibility to powdery mildew	-	-	1
Susceptibility to downy mildew	-	-	1
Susceptibility to pulses rust	-	-	1

¹⁸⁵ AUA (2014 and 2015)

PART III

Cowpea (*Vigna unguiculata* (L.) Walp.)

6. MATERIAL AND METHODS

6.1. Plant material included in field trials

Sixty-six cowpea genotypes (*Vigna unguiculata* (L.) Walp.) were gathered from January 2014 to December 2016. Cowpea genotypes were obtained from Southern Europe (Greece, Portugal, and Spain) collections, from local farmers, gene bank collections, Non-Governmental Organizations (NGOs), and hobby gardeners (**Table 1**).

Testing conditions	Country	Number of accessions collected and tested (including standard varieties)			
		UTAD	INIAV	AUA	UPCT
Mediterranean Basin	Portugal	30	30	20	8
	Greece	2	2	24	2
	Spain	10	10	10	5

The preliminary screening performed to select genetic resources gathered in 2014 supported the selection of accessions, which were further included in evaluation procedures under different agro-climatic conditions. The inclusions of the collected genotypes in the preliminary screening was conditioned by two main criteria: **1)** Local genetic resources (landraces) without proper previous evaluation; and **2)** Genetic resources (varieties and/or breeding lines) with some good traits, although presenting a gap of information on valuable descriptors, especially grain quality.

6.2. Experimental places for cowpea trials

Cowpea field experiments were developed at four locations: **1)** University of Trás-os-Montes e Alto Douro (UTAD, Portugal) (41°17'51"N, 07°44'12"W, 460 m altitude). In this location, 42 accessions from Portugal, Spain, and Greece were assessed; **2)** National Institute for Agricultural Research and Veterinary (INIAV, Portugal) (38°53'N, 7°09'W, 208 m altitude). In this location were evaluated 42 accessions from Portugal, Spain, and Greece; **3)** Agricultural University of Athens (AUA, Greece) (37°58'58.3"N, 23°42'24.6"E,

24 m altitude). At AUA, 54 accessions from Portugal, Greece, and Estonia (20, 24, and 10, respectively); and **4)** Technical University of Cartagena (UPCT, Spain) ($37^{\circ}04'15.6''N$, $0^{\circ}57'01.6''E$, 40 m altitude), in which 8 accessions from Portugal, 2 from Greece, and 5 from Spain were assessed. In all places, the variety 'IT-97K-499-35' (IITA, Nigeria) was used as a reference.

6.3. Experimental design for cowpea

The field trials were set up as randomized complete block designs with four (4) replications. The plot size was equal or higher than $2.4m^2$. Traditional cultural practices for sowing and harvesting, and conventional crop management were used. No seed treatment neither fungicide were applied. The sowing date was carried out between the last week of April and 15th of May.

6.4. Evaluated traits

Nine different traits of cowpea were evaluated according to Descriptors for Cowpea (IPBGR, 1983):

- Days to flowering: Number of days from sowing to stage when 50% of plants have begun to flower;
- Days to first mature pods: Number of days from sowing to stage when 50% of plants have the first mature pods
- Growth habitat: Scored at the beginning of flowering period. (1-Acute erect, 2-Erect, 3-semi-erect, 4-Intermediate, 5- semi-prostrate, 6-prostrate, 7- climbing).
- Seed yield: average seed weight per m^2 .
- 100 seed weight (g): Average weight of 2 samples of 100 seeds
- Pod length (cm): Mean of 15 mature pods
- Flower color (1 - white, 2 - violet, 3 -pink, 4 –other)
- Seed color (1 - white, 2 -beige, 3 - black, 4 -reddish brown, 5- other)
- Seed shape (1 - kidney, 2 - ovoid, 3 - crowder, 4 - globose, 5 – rhomboid)
- Protein content: Detected by Kjeldahl method. % of dry weight.

Cp 4877		Cp 4906		
	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	CP01 <i>Vigna unguiculata</i> (L.) Walp. Cowpea Cp 4877 January 2005 Portugal 38°03'33"N, 8°06'50"W, 134m	Collecting number (EUROLEGUME database) Genus, specie, subtaxa Common crop name Accession name Acquisition date Country of origin Location of collecting site, latitude, altitude	CP02 <i>Vigna unguiculata</i> (L.) Walp. Cowpea Cp 4906 April 2005 Portugal 40°00'28"N, 8°27'04"W, 198m
	Or: Donor institution Donor accession number Biological status Dominant use Flower color Seed color Eye color Growth habit Seed shape	INIAV, Portugal Cp 4877 Landrace Food, seeds White White Black Semi-erect Kidney	Or: Donor institution Donor accession number Biological status Dominant use Flower color Seed color Eye color Growth habit Seed shape	INIAV, Portugal Cp 4906 Landrace Food, seeds White White Black Semi-erect Kidney

Traits	Southern conditions ¹			Traits	Southern conditions ²		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	34.43	192.70	113.57	Plants length (cm)	30	110	70
Flowering period	Beginning of July	End of August	End of July	Flowering period	Beginning of July	Beginning of August	Middle of July
Full ripening period	End of July	Beginning of September	Middle of August	Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	17.40	33.15	27.47	100 seed weight (g)	21.35	29.45	24.80
Average seed weight per plant (g)	3.19	86.38	29.76	Average seed weight per plant (g)	22.65	88.84	43.38
Pod length (cm)	14.43	22.08	18.22	Pod length (cm)	8.17	16.33	12.51
Protein content (%)	20.1	29.2	25.6	Protein content (%)	22.27	26.21	24.54

¹ UTAD, INIAV, AUA and UPCT

² UTAD, INIAV and AUA

Cp 4924		
	Collecting number (EUROLEGUME database)	CP03
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 4924
	Acquisition date	October 2005
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	38°34'17"N, 7°54'48"W, 283m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 4924
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Intermediate
	Seed shape	Kidney

Cp 5024		
	Collecting number (EUROLEGUME database)	CP04
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5024
	Acquisition date	December 2005
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	38°53'27"N, 7°32'46"W, 332m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5024
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Intermediate
	Seed shape	Rhomboid

Traits	Southern conditions ³		
	Min	Max	Mean
Plants length (cm)	132.00	137.87	134.94
Flowering period	Middle of July	Middle of August	End July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	24.80	26.55	25.68
Average seed weight per plant (g)	24.55	45.67	35.11
Pod length (cm)	14.20	19.00	16.2
Protein content (%)	27.0	27.7	27.3

³ UTAD and INIAV

Traits	Southern conditions ⁴		
	Min	Max	Mean
Plants length (cm)	46.47	94.73	70.60
Flowering period	Middle of July	Beginning of August	End of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	22.60	26.20	24.40
Average seed weight per plant (g)	34.21	50.84	42.40
Pod length (cm)	13.00	17.00	15.00
Protein content (%)	24.8	25.9	25.3

⁴ UTAD and INIAV

FRADEL		
	Collecting number (EUROLEGUME database)	CP05
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Fradel
	Acquisition date	-
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5051
	Biological status	Variety
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Erect /Semi-erect
	Seed shape	Kidney

Cp 5128		
	Collecting number (EUROLEGUME database)	CP06
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5128
	Acquisition date	September 2007
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°59'17"N, 7°26'37"W, 406m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5128
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Absent
	Growth habit	Erect/semi-erect
	Seed shape	Globose

Traits	Southern conditions ⁵		
	Min	Max	Mean
Plants length (cm)	29.60	133.96	81.02
Flowering period	Beginning of July	End of August	End of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	13.56	23.73	20.32
Average seed weight per plant (g)	3.27	84.40	32.96
Pod length (cm)	13.71	16.97	16.18
Protein content (%)	23.9	28.9	26.9

Traits	Southern conditions ⁶		
	Min	Max	Mean
Plants length (cm)	32.07	48.56	37.48
Flowering period	Beginning of July	Beginning of August	Middle of July
Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	7.84	11.80	9.62
Average seed weight per plant (g)	20.19	62.41	38.36
Pod length (cm)	11.25	12.34	11.90
Protein content (%)	24.0	27.2	25.7

⁵ UTAD, INIAV, AUA and UPCT

Cp 5129			Cp 5131		
	Collecting number (EUROLEGUME database)	CP07		Collecting number (EUROLEGUME database)	CP08
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Cp 5129		Accession name	Cp 5131
	Acquisition date	September 2007		Acquisition date	September 2007
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°59'17"N, 7°26'37"W, 407m		Location of collecting site, latitude, altitude	39°59'17"N, 7°26'37"W, 409m
	Or: Donor institution	INIAV, Portugal		Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5129		Donor accession number	Cp 5131
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Black		Eye color	Brown
	Growth habit	Semi-erect		Growth habit	Erect/semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ⁷			Traits	Southern conditions ⁸		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	69.54	93.50	82.99	Plants length (cm)	48.73	78.75	59.66
Flowering period	Beginning of July	End of July	Middle of July	Flowering period	End of June	End of July	Middle of July
Full ripening period	End of July	Middle of August	Beginning of August	Full ripening period	End of July	Middle of August	Beginning of August
100 seed weight (g)	16.00	22.20	19.63	100 seed weight (g)	13.30	18.20	15.44
Average seed weight per plant (g)	25.64	49.88	35.04	Average seed weight per plant (g)	28.79	47.50	37.43
Pod length (cm)	14.21	15.11	14.66	Pod length (cm)	12.65	14.43	13.29
Protein content (%)	22.0	26.0	24.5	Protein content (%)	23.3	27.0	24.9

⁷ UTAD, INIAV and AUA

⁸ UTAD, INIAV and AUA

Cp 5553		
	Collecting number (EUROLEGUME database)	CP09
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5553
	Acquisition date	September 2013
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°48'19"N, 8°05'56"W, 252m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5553
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Brown
	Growth habit	Semi-erect
	Seed shape	Kidney

Cp 5556		
	Collecting number (EUROLEGUME database)	CP10
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5556
	Acquisition date	September 2013
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	37°47'15"N, 7°43'32"W, 159m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5556
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Erect/Semi-erect
	Seed shape	Kidney

Traits	Southern conditions ⁹		
	Min	Max	Mean
Plants length (cm)	36.70	256.61	111.17
Flowering period	End of June	End August	End of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	12.51	29.76	20.35
Average seed weight per plant (g)	5.93	121.95	34.83
Pod length (cm)	13.52	17.89	16.54
Protein content (%)	24.6	27.4	25.7

⁹ UTAD, INIAV, and AUA

Traits	Southern conditions ¹⁰		
	Min	Max	Mean
Plants length (cm)	44.58	77.00	62.83
Flowering period	Beginning of July	Beginning of August	End July
Full ripening period	End July	End of August	Middle of August
100 seed weight (g)	17.77	26.75	20.81
Average seed weight per plant (g)	12.80	34.48	23.60
Pod length (cm)	13.05	13.35	13.20
Protein content (%)	25.6	27.1	26.6

¹⁰ UTAD, INIAV, and AUA

Cp 5647			Cp 5648		
	Collecting number (EUROLEGUME database)	CP11		Collecting number (EUROLEGUME database)	CP12
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Cp 5647		Accession name	Cp 5648
	Acquisition date	February 2014		Acquisition date	February 2014
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°22'49"N, 7°53'59"W, 210m		Location of collecting site, latitude, altitude	39°27'51"N, 8°02'43"W, 45m
	Or: Donor institution	INIAV, Portugal		Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5647		Donor accession number	Cp 5648
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Brown		Eye color	Brown
	Growth habit	Erect		Growth habit	Erect/Semi-erect
	Seed shape	Kidney		Seed shape	Globose

Traits	Southern conditions ¹¹		
	Min	Max	Mean
Plants length (cm)	67.30	91.58	75.96
Flowering period	Beginning of July	Middle of August	End of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	13.10	20.88	18.03
Average seed weight per plant (g)	13.22	53.28	31.95
Pod length (cm)	13.09	14.93	14.01
Protein content (%)	22.7	27.00	25.5

¹¹ UTAD, INIAV and AUA

Traits	Southern conditions ¹²		
	Min	Max	Mean
Plants length (cm)	57.67	91.00	70.09
Flowering period	Beginning of July	End of July	Middle of July
Full ripening period	End of July	Middle of August	Beginning of August
100 seed weight (g)	17.20	21.84	20.01
Average seed weight per plant (g)	21.85	41.09	29.11
Pod length (cm)	12.91	16.02	14.47
Protein content (%)	24.6	27.8	26.3

¹² UTAD, INIAV and AUA

Cp 5650		
	Collecting number (EUROLEGUME database)	CP13
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5650
	Acquisition date	February 2014
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°26'41"N, 8°00'17"W, 87m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5650
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Brown
	Growth habit	Intermediate
	Seed shape	Kidney

Cp 5651		
	Collecting number (EUROLEGUME database)	CP14
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	Cp 5651
	Acquisition date	February 2014
	Country of origin	Portugal
	Location of collecting site, latitude, altitude	39°16'26"N, 8°00'47"W, 120m
	Or: Donor institution	INIAV, Portugal
	Donor accession number	Cp 5651
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	White
	Eye color	Brown
	Growth habit	Intermediate
	Seed shape	Kidney

Traits	Southern conditions ¹³		
	Min	Max	Mean
Plants length (cm)	51.45	57.80	54.63
Flowering period	Middle of July	End of August	Beginning of August
Full ripening period	End of July	Beginning of September	Middle August
100 seed weight (g)	18.90	19.55	19.23
Average seed weight per plant (g)	24.10	26.27	25.19
Pod length (cm)	13.60	22.80	17.80
Protein content (%)	26.8	27.6	27.2

¹³ UTAD and INIAV

Traits	Southern conditions ¹⁴		
	Min	Max	Mean
Plants length (cm)	49.50	73.60	61.55
Flowering period	Middle of July	End of August	Beginning of August
Full ripening period	End of July	Beginning of September	Middle August
100 seed weight (g)	16.90	19.10	18.00
Average seed weight per plant (g)	18.40	27.15	22.78
Pod length (cm)	9.50	16.00	13.47
Protein content (%)	26.6	27.3	27.0

¹⁴ UTAD and INIAV

Vg 47			Vg 48		
	Collecting number (EUROLEGUME database)	CP15		Collecting number (EUROLEGUME database)	CP16
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 47		Accession name	Vg 48
	Acquisition date	October 2013		Acquisition date	October 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°35'59"N, 6°53'59"W, 794m		Location of collecting site, latitude, altitude	40°48'04"N, 6°56'59"W, 663m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 47		Donor accession number	Vg 48
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Black		Eye color	Black
	Growth habit	Intermediate		Growth habit	Erect/Semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ¹⁵			Traits	Southern conditions ¹⁶		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	90.66	120.14	105.40	Plants length (cm)	56.73	94.53	75.63
Flowering period	Beginning of July	End of August	End of July	Flowering period	Beginning of July	End of August	End of July
Full ripening period	End of July	Beginning of September	Middle August	Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	25.80	28.75	27.28	100 seed weight (g)	20.90	26.45	23.68
Average seed weight per plant (g)	24.10	24.61	24.36	Average seed weight per plant (g)	22.05	25.25	23.65
Pod length (cm)	11.20	16.40	14.40	Pod length (cm)	12.00	15.60	13.77
Protein content (%)	26.0	27.6	26.8	Protein content (%)	20.1	26.7	23.4

¹⁵ UTAD and INIAV

¹⁶ UTAD and INIAV

Vg 50			Vg 51		
	Collecting number (EUROLEGUME database)	CP17		Collecting number (EUROLEGUME database)	CP18
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 50		Accession name	Vg 51
	Acquisition date	October 2013		Acquisition date	October 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°51'15"N, 7°08'22"W, 523m		Location of collecting site, latitude, altitude	40°50'58"N, 7°15'16"W, 580m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 50		Donor accession number	Vg 51
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Black		Eye color	Black
	Growth habit	Semi-erect		Growth habit	Semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ¹⁷		
	Min	Max	Mean
Plants length (cm)	53.53	103.17	74.14
Flowering period	Beginning of July	Middle of August	End of July
Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	15.90	24.85	21.29
Average seed weight per plant (g)	18.73	50.88	31.17
Pod length (cm)	13.33	15.58	14.46
Protein content (%)	20.2	26.1	23.5

¹⁷ UTAD, INIAV and AUA

Traits	Southern conditions ¹⁸		
	Min	Max	Mean
Plants length (cm)	70.40	104.20	87.30
Flowering period	Middle of July	Middle of August	Beginning of August
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	21.40	28.45	24.93
Average seed weight per plant (g)	19.33	31.91	25.62
Pod length (cm)	10.90	15.90	13.56
Protein content (%)	23.0	25.4	24.2

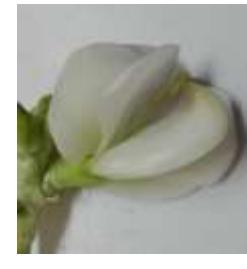
¹⁸ UTAD and INIAV

Vg 52			Vg 56		
	Collecting number (EUROLEGUME database)	CP19		Collecting number (EUROLEGUME database)	CP20
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 52		Accession name	Vg 56
	Acquisition date	October 2013		Acquisition date	October 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°48'45"N, 7°23'26"W, 770m		Location of collecting site, latitude, altitude	-
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 52		Donor accession number	Vg 56
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	Violet		Flower color	White
	Seed color	Beige		Seed color	White
	Eye color	Absent		Eye color	Black
	Growth habit	Erect		Growth habit	Semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ¹⁹			Traits	Southern conditions ²⁰		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	55.95	86.40	72.26	Plants length (cm)	58.24	132.50	89.11
Flowering period	End of June	Middle of August	Middle of July	Flowering period	End of June	Middle of August	End of July
Full ripening period	End July	End August	Middle of August	Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	17.80	20.84	19.69	100 seed weight (g)	16.85	22.89	20.46
Average seed weight per plant (g)	12.93	64.50	33.71	Average seed weight per plant (g)	21.28	68.50	39.88
Pod length (cm)	11.85	16.25	13.30	Pod length (cm)	12.85	16.22	14.48
Protein content (%)	23.5	27.5	25.4	Protein content (%)	22.2	26.0	24.4

¹⁹ UTAD, INIAV and AUA

²⁰ UTAD, INIAV and AUA

Vg 58			Vg 59		
	Collecting number (EUROLEGUME database)	CP21		Collecting number (EUROLEGUME database)	CP22
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 58		Accession name	Vg 59
	Acquisition date	November 2013		Acquisition date	November 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°17'07"N, 7°07'02"W, 607m		Location of collecting site, latitude, altitude	40°14'57"N, 7°17'22"W, 507m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 58		Donor accession number	Vg 59
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Brown		Eye color	Brown
	Growth habit	Erect		Growth habit	Erect
	Seed shape	Ovoid		Seed shape	Kidney

Traits	Southern conditions ²¹			Traits	Southern conditions ²²		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	35.87	50.66	43.27	Plants length (cm)	33.47	180.86	87.02
Flowering period	Beginning of July	End of July	Middle of July	Flowering period	End of June	End of August	End July
Full ripening period	End of July	Beginning of September	Middle of August	Full ripening period	Middle of July	Middle of September	Middle of August
100 seed weight (g)	13.60	19.20	16.40	100 seed weight (g)	12.80	18.43	15.51
Average seed weight per plant (g)	17.31	19.83	18.57	Average seed weight per plant (g)	4.14	69.69	26.84
Pod length (cm)	10.40	14.60	12.54	Pod length (cm)	11.73	16.54	15.09
Protein content (%)	18.8	25.4	22.1	Protein content (%)	20.2	28.1	24.8

²¹ UTAD and INIAV

²² UTAD, INIAV, AUA and UPCT

Vg 60			Vg 62		
	Collecting number (EUROLEGUME database)	CP23		Collecting number (EUROLEGUME database)	CP24
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 60		Accession name	Vg 62
	Acquisition date	November 2013		Acquisition date	November 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°22'00"N, 7°15'32"W, 1514m		Location of collecting site, latitude, altitude	40°17'52"N, 7°22'01"W, 511m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 60		Donor accession number	Vg 62
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Brown		Eye color	Green
	Growth habit	Semi-erect		Growth habit	Intermediate
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ²³		
	Min	Max	Mean
Plants length (cm)	29.60	136.83	64.76
Flowering period	End of June	Middle of August	Middle of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	15.30	19.69	17.24
Average seed weight per plant (g)	7.71	91.86	33.27
Pod length (cm)	10.52	16.75	14.92
Protein content (%)	20.2	27.8	24.1

²³ UTAD, INIAV, AUA and UPCT

Traits	Southern conditions ²⁴		
	Min	Max	Mean
Plants length (cm)	42.93	43.54	43.24
Flowering period	Beginning of July	Beginning of August	Middle of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	12.60	14.50	13.55
Average seed weight per plant (g)	22.01	157.23	89.62
Pod length (cm)	10.90	12.50	11.55
Protein content (%)	24.0	26.3	25.1

²⁴ UTAD and INIAV

Vg 63			Vg 65		
	Collecting number (EUROLEGUME database)	CP25		Collecting number (EUROLEGUME database)	CP26
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 63		Accession name	Vg 65
	Acquisition date	November 2013		Acquisition date	November 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	40°14'43"N, 7°35'35"W, 555m		Location of collecting site, latitude, altitude	41°19'25"N, 7°28'04"W, 766m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Food, seeds		Donor accession number	Vg 65
	Biological status	Vg 63		Biological status	Landrace
	Dominant use	Landrace		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Brown		Eye color	Black
	Growth habit	Erect		Growth habit	Erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ²⁵			Traits	Southern conditions ²⁶		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	41.20	50.80	46.00	Plants length (cm)	39.33	86.27	67.92
Flowering period	Beginning of July	End of July	Middle of July	Flowering period	Beginning of July	Beginning of August	Middle of July
Full ripening period	End of July	Beginning of September	Middle of August	Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	13.40	20.25	16.83	100 seed weight (g)	20.90	28.90	24.53
Average seed weight per plant (g)	18.32	27.25	22.79	Average seed weight per plant (g)	14.05	57.81	30.88
Pod length (cm)	12.00	15.20	13.43	Pod length (cm)	14.66	16.22	15.44
Protein content (%)	22.5	24.4	23.4	Protein content (%)	21.6	27.7	24.7

²⁵ UTAD and INIAV

²⁶ UTAD, INIAV and AUA

Vg 67			Vg 69		
	Collecting number (EUROLEGUME database)	CP27		Collecting number (EUROLEGUME database)	CP28
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 67		Accession name	Vg 69
	Acquisition date	November 2013		Acquisition date	November 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	41°17'52"N, 7°05'53"W, 247m		Location of collecting site, latitude, altitude	41°40'19"N, 6°45'43"W, 859m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 67		Donor accession number	Vg 69
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Black		Eye color	Black
	Growth habit	Erect		Growth habit	Erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ²⁷			Traits	Southern conditions ²⁸		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	66.53	131.08	90.29	Plants length (cm)	--	--	78.42
Flowering period	Beginning of July	End of July	Middle of July	Flowering period	--	--	Beginning of July
Full ripening period	End of July	Middle of August	Beginning of August	Full ripening period	--	--	End of July
100 seed weight (g)	22.80	30.85	26.87	100 seed weight (g)	--	--	24.47
Average seed weight per plant (g)	17.04	83.00	40.17	Average seed weight per plant (g)	--	--	56.25
Pod length (cm)	14.77	18.92	16.85	Pod length (cm)	--	--	15.74
Protein content (%)	21.0	27.6	24.7	Protein content (%)	--	--	22.96

²⁷ UTAD, INIAV and AUA

²⁸ AUA

Vg 72			Vg 73		
	Collecting number (EUROLEGUME database)	CP29		Collecting number (EUROLEGUME database)	CP30
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	Vg 72		Accession name	Vg 73
	Acquisition date	November 2013		Acquisition date	November 2013
	Country of origin	Portugal		Country of origin	Portugal
	Location of collecting site, latitude, altitude	41°16'57"N, 6°35'06"W, 726m		Location of collecting site, latitude, altitude	41°27'19"N, 7°00'30"W, 750m
	Or: Donor institution	UTAD, Portugal		Or: Donor institution	UTAD, Portugal
	Donor accession number	Vg 72		Donor accession number	Vg 73
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	White
	Seed color	White		Seed color	White
	Eye color	Black		Eye color	Black
	Growth habit	Semi-erect		Growth habit	Erect/Semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ²⁹			Traits	Southern conditions ³⁰		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	83.60	93.57	88.86	Plants length (cm)	36.70	144.13	85.09
Flowering period	Beginning of July	Middle of August	End of July	Flowering period	End of June	End of August	End of July
Full ripening period	End of July	End of August	Middle of August	Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	18.80	24.45	20.92	100 seed weight (g)	15.50	21.98	19.22
Average seed weight per plant (g)	19.87	39.38	28.08	Average seed weight per plant (g)	4.64	90.56	30.49
Pod length (cm)	14.25	16.32	15.29	Pod length (cm)	12.80	17.97	16.12
Protein content (%)	20.9	27.3	24.3	Protein content (%)	17.6	27.9	24.2

²⁹ UTAD, INIAV and AUA

³⁰ UTAD, INIAV, AUA and UPCT

BGE 022146			BGE 038474		
	Collecting number (EUROLEGUME database)	CP31		Collecting number (EUROLEGUME database)	CP32
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	BGE022146		Accession name	BGE038474
	Acquisition date			Acquisition date	-
	Country of origin	Spain		Country of origin	Spain
	Location of collecting site, latitude, altitude	37°00'35"N, 3°00'26"W, 1082m		Location of collecting site, latitude, altitude	-
	Or: Donor institution	CRF-INIA, Spain		Or: Donor institution	CRF-INIA, Spain
	Donor accession number	BGE022146		Donor accession number	BGE038474
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	White		Flower color	Violet
	Seed color	White		Seed color	Beige
	Eye color	Black/brown		Eye color	Absent
	Growth habit	Semi-prostrate		Growth habit	Climbing
	Seed shape	Kidney		Seed shape	Ovoid

Traits	Southern conditions ³¹			Traits	Southern conditions ³²		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	105.5	139.73	122.62	Plants length (cm)	73.38	266.11	191.66
Flowering period	Beginning of July	End of August	End of July	Flowering period	Beginning of July	End of August	End of July
Full ripening period	Beginning of August	Middle of September	Middle of August	Full ripening period	End of July	Middle of September	Middle of August
100 seed weight (g)	18.26	20.65	19.20	100 seed weight (g)	10.74	18.28	14.41
Average seed weight per plant (g)	18.51	71.50	47.90	Average seed weight per plant (g)	1.63	78.75	24.33
Pod length (cm)	15.65	17.69	16.62	Pod length (cm)	12.49	16.29	14.68
Protein content (%)	23.5	28.0	26.5	Protein content (%)	20.1	29.2	25.8

³¹UTAD, INIAV and AUA

³²UTAD, INIAV, AUA and UPCT

BGE 038477			BGE038478		
	Collecting number (EUROLEGUME database)	CP33		Collecting number (EUROLEGUME database)	CP34
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	BGE038477		Accession name	BGE038478
	Acquisition date	-		Acquisition date	-
	Country of origin	Spain		Country of origin	Spain
	Location of collecting site, latitude, altitude	36°36'51"N, 5°08'53"W, 769m		Location of collecting site, latitude, altitude	36°37'37"N, 5°10'11"W, 622m
	Or: Donor institution	CRF-INIA, Spain		Or: Donor institution	CRF-INIA, Spain
	Donor accession number	BGE038477		Donor accession number	BGE038478
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Food, seeds
	Flower color	Violet		Flower color	Violet
	Seed color	Beige		Seed color	Beige
	Eye color	Absent		Eye color	Absent
	Growth habit	Indeterminate		Growth habit	Erect
	Seed shape	Kidney		Seed shape	Ovoid

Traits	Southern conditions ³³		
	Min	Max	Mean
Plants length (cm)	37.96	107.53	72.75
Flowering period	Middle of July	End of August	Beginning of August
Full ripening period	Beginning of August	Beginning of September	Middle of August
100 seed weight (g)	12.00	14.35	12.82
Average seed weight per plant (g)	20.90	39.73	31.70
Pod length (cm)	13.48	16.18	14.83
Protein content (%)	29.3	29.5	29.4

³³ UTAD, INIAV and AUA

Traits	Southern conditions ³⁴		
	Min	Max	Mean
Plants length (cm)	84.68	290.71	203.29
Flowering period	Beginning of July	Beginning of September	Beginning of August
Full ripening period	Beginning of August	End of September	Beginning of September
100 seed weight (g)	10.60	19.92	15.22
Average seed weight per plant (g)	4.77	36.67	23.32
Pod length (cm)	10.84	19.45	15.92
Protein content (%)	23.5	30.9	28.2

³⁴ UTAD, INIAV, AUA and UPCT

BGE 038479	
	Collecting number (EUROLEGUME database) CP35
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea
	Accession name BGE038479
	Acquisition date -
	Country of origin Spain
	Location of collecting site, latitude, altitude 36°37'37"N, 5°10'11"W, 622m
	Or: Donor institution CRF-INIA, Spain
	Donor accession number BGE038479
	Biological status Landrace
	Dominant use Food, seeds
	Flower color Violet
	Seed color Reddish brown
	Eye color Absent
	Growth habit Intermediate
	Seed shape Kidney

BGE 039238	
	Collecting number (EUROLEGUME database) CP36
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Yard long bean
	Accession name BGE039238
	Acquisition date -
	Country of origin Spain
	Location of collecting site, latitude, altitude 37°36'52"N, 4°19'40"W, 462m
	Or: Donor institution CRF-INIA, Spain
	Donor accession number BGE039238
	Biological status Landrace
	Dominant use Food, pods
	Flower color Violet
	Seed color Black
	Eye color Absent
	Growth habit Climbing
	Seed shape Kidney

Traits	Southern conditions ³⁵		
	Min	Max	Mean
Plants length (cm)	105.30	268.72	180.67
Flowering period	Beginning of July	Beginning of September	Beginning of August
Full ripening period	End of July	Middle of September	End of August
100 seed weight (g)	11.59	17.21	14.16
Average seed weight per plant (g)	2.46	102.63	27.22
Pod length (cm)	13.79	28.22	21.44
Protein content (%)	22.2	31.6	28.0

³⁵UTAD, INIAV, AUA and UPCT

Traits	Southern conditions ³⁶		
	Min	Max	Mean
Plants length (cm)	128.42	250.00	182.62
Flowering period	Middle of July	Beginning of September	Middle of August
Full ripening period	End of July	Middle of September	End of August
100 seed weight (g)	10.50	29.37	16.86
Average seed weight per plant (g)	6.00	22.13	17.79
Pod length (cm)	48.06	50.86	49.46
Protein content (%)	27.0	29.0	27.9

³⁶ UTAD, INIAV and AUA

BGE 040000			BGE 040818		
	Collecting number (EUROLEGUME database)	CP37		Collecting number (EUROLEGUME database)	CP38
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Yard long bean		Common crop name	Yard long bean
	Accession name	BGE040000		Accession name	BGE040818
	Acquisition date	-		Acquisition date	-
	Country of origin	Spain		Country of origin	Spain
	Location of collecting site, latitude, altitude	37°37'32"N, 2°47'04"W, 679m		Location of collecting site, latitude, altitude	36°38'51"N, 5°55'27"W, 20m
	Or: Donor institution	CRF-INIA, Spain		Or: Donor institution	CRF-INIA, Spain
	Donor accession number	BGE040000		Donor accession number	BGE040818
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, pods		Dominant use	Food, pods
	Flower color	Violet		Flower color	Violet
	Seed color	Reddish brown		Seed color	Black
	Eye color	Absent		Eye color	Absent
	Growth habit	Climbing		Growth habit	Climbing
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ³⁷		
	Min	Max	Mean
Plants length (cm)	121.08	250.00	213.55
Flowering period	Beginning of July	Beginning of September	Beginning of August
Full ripening period	End of July	Middle of September	End of August
100 seed weight (g)	11.73	19.65	16.78
Average seed weight per plant (g)	9.78	72.50	27.35
Pod length (cm)	43.28	65.71	54.49
Protein content (%)	23.2	29.8	27.1

³⁷ UTAD, INIAV, AUA and UPCT

Traits	Southern conditions ³⁸		
	Min	Max	Mean
Plants length (cm)	126.58	250.00	192.19
Flowering period	Beginning of July	End of August	Beginning of August
Full ripening period	End of July	Middle of September	End August
100 seed weight (g)	20.9	22.10	21.67
Average seed weight per plant (g)	22.77	80.85	40.08
Pod length (cm)	28.33	35.00	31.67
Protein content (%)	26.4	31.3	29.1

³⁸ UTAD, INIAV and AUA

BGE 044375			IT-97K-499-35		
	Collecting number (EUROLEGUME database)	CP40		Collecting number (EUROLEGUME database)	CP41
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Yard long bean		Common crop name	Cowpea
	Accession name	BGE044375		Accession name	IT-97K-499-35
	Acquisition date	-		Acquisition date	--
	Country of origin	Spain		Country of origin	ITA, Nigeria
	Location of collecting site, latitude, altitude	42°19'55"N, 8°01'30"W, 122m		Location of collecting site, latitude, altitude	-
	Or: Donor institution	CRF-INIA, Spain		Or: Donor institution	University of Virginia
	Donor accession number	BGE044375		Donor accession number	IT-97K-499-35
	Biological status	Landrace		Biological status	Line (reference variety)
	Dominant use	Food, pods		Dominant use	Food, seeds
	Flower color	Violet		Flower color	White
	Seed color	Black		Seed color	White
	Eye color	Absent		Eye color	Black
	Growth habit	Climbing		Growth habit	Semi-erect
	Seed shape	Kidney		Seed shape	Rhomboid

Traits	Southern conditions ³⁹		
	Min	Max	Mean
Plants length (cm)	134.42	250.00	219.09
Flowering period	Beginning of July	Beginning of September	Beginning of August
Full ripening period	Beginning of August	Middle of September	End of August
100 seed weight (g)	11.00	15.38	13.73
Average seed weight per plant (g)	3.80	34.55	17.61
Pod length (cm)	50.93	84.61	64.24
Protein content (%)	22.0	32.4	28.3

³⁹ UTAD, INIAV, AUA and UPCT

Traits	Southern conditions ⁴⁰		
	Min	Max	Mean
Plants length (cm)	17.94	81.43	46.89
Flowering period	Beginning of July	End of August	End of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	14.93	21.18	18.28
Average seed weight per plant (g)	7.31	169.67	35.76
Pod length (cm)	10.27	17.46	14.79
Protein content (%)	19.6	28.9	24.8

⁴⁰ UTAD, INIAV, AUA and UPCT

Vi 4		
	Collecting number (EUROLEGUME database)	CP42
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Yard long bean
	Accession name	Vi 4
	Acquisition date	-
	Country of origin	Spain
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	UPCT
	Donor accession number	Vi 4
	Biological status	Landrace
	Dominant use	Food, pods
	Flower color	Violet
	Seed color	Reddish brown
	Eye color	Absent
	Growth habit	Climbing
	Seed shape	Kidney

AUA 1		
	Collecting number (EUROLEGUME database)	CP43
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 1
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 1
	Biological status	Landrace
	Dominant use	Food, seeds
	Flower color	White
	Seed color	Beige
	Eye color	Brown
	Growth habit	Semi-erect
	Seed shape	Kidney

Traits	Southern conditions ⁴¹		
	Min	Max	Mean
Plants length (cm)	108.58	250.00	170.93
Flowering period	Middle of July	Middle of August	End of July
Full ripening period	Beginning of August	Beginning of September	Middle of August
100 seed weight (g)	12.40	15.64	14.31
Average seed weight per plant (g)	9.75	48.75	29.07
Pod length (cm)	36.41	42.87	39.64
Protein content (%)	26.7	29.6	27.9

⁴¹UTAD, INIAV and AUA

Traits	Southern conditions ⁴²		
	Min	Max	Mean
Plants length (cm)	--	--	60.78
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	12.61
Average seed weight per plant (g)	--	--	30.16
Pod length (cm)	--	--	13.13
Protein content (%)	--	--	24.1

⁴²AUA

AUA 2			AUA 3		
	Collecting number (EUROLEGUME database)	CP44		Collecting number (EUROLEGUME database)	CP45
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	AUA 2		Accession name	AUA 3
	Acquisition date	-		Acquisition date	-
	Country of origin	Greece		Country of origin	Greece
	Location of collecting site, latitude, altitude	-		Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA		Or: Donor institution	AUA
	Donor accession number	AUA 2		Donor accession number	AUA 3
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Food, seeds		Dominant use	Unknown
	Flower color	White		Flower color	Violet
	Seed color	White		Seed color	Reddish brown
	Eye color	Absent		Eye color	Brown
	Growth habit	Erect		Growth habit	Semi-erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ⁴³			Traits	Southern conditions ⁴⁴		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	20.85	195.25	82.94	Plants length (cm)	--	--	18.60
Flowering period	End of June	Middle of August	End of July	Flowering period	--	--	Beginning of July
Full ripening period	End of July	Beginning of September	Middle of August	Full ripening period	--	--	End of July
100 seed weight (g)	13.50	18.96	15.37	100 seed weight (g)	--	--	14.80
Average seed weight per plant (g)	3.14	41.52	20.00	Average seed weight per plant (g)	--	--	9.51
Pod length (cm)	8.13	13.40	11.71	Pod length (cm)	--	--	12.49
Protein content (%)	23.3	27.7	25.9	Protein content (%)	--	--	25.7

⁴³ UTAD, INIAV, AUA and UPCT

⁴⁴ AUA

AUA 4	
	Collecting number (EUROLEGUME database) CP46
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea
	Accession name AUA 4
	Acquisition date -
	Country of origin Greece
	Location of collecting site, latitude, altitude -
	Or: Donor institution AUA
	Donor accession number AUA 4
	Biological status Landrace
	Dominant use Food, seeds
	Flower color White
	Seed color Reddish brown
	Eye color Brown
	Growth habit Erect
	Seed shape Kidney

AUA 5	
	Collecting number (EUROLEGUME database) CP47
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea
	Accession name AUA 5
	Acquisition date -
	Country of origin Greece
	Location of collecting site, latitude, altitude -
	Or: Donor institution AUA
	Donor accession number AUA 5
	Biological status Landrace
	Dominant use Unknown
	Flower color Violet
	Seed color Reddish brown
	Eye color Brown
	Growth habit Semi-erect
	Seed shape Kidney

Traits	Southern conditions ⁴⁵		
	Min	Max	Mean
Plants length (cm)	--	--	50.80
Flowering period	--	--	End of June
Full ripening period	--	--	End of July
100 seed weight (g)	--	--	20.30
Average seed weight per plant (g)	--	--	10.43
Pod length (cm)	--	--	10.64
Protein content (%)	--	--	22.8

⁴⁵AUA

Traits	Southern conditions ⁴⁶		
	Min	Max	Mean
Plants length (cm)	--	--	42.79
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	13.50
Average seed weight per plant (g)	--	--	13.41
Pod length (cm)	--	--	9.31
Protein content (%)	--	--	22.0

⁴⁶AUA

AUA 6		
	Collecting number (EUROLEGUME database)	CP48
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 6
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 6
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Erect
	Seed shape	Kidney

AUA 7		
	Collecting number (EUROLEGUME database)	CP49
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 7
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 7
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	White
	Seed color	Beige
	Eye color	Brown
	Growth habit	Semi-erect
	Seed shape	Kidney

Traits	Southern conditions ⁴⁷		
	Min	Max	Mean
Plants length (cm)	35.10	44.09	39.60
Flowering period			End of June
Full ripening period			Middle of July
100 seed weight (g)	16.79	18.00	17.40
Average seed weight per plant (g)	9.93	13.11	11.52
Pod length (cm)	10.56	11.34	10.95
Protein content (%)	23.8	23.9	23.8

⁴⁷AUA

Traits	Southern conditions ⁴⁸		
	Min	Max	Mean
Plants length (cm)	--	--	39.89
Flowering period	--	--	End of June
Full ripening period	--	--	End of July
100 seed weight (g)	--	--	23.80
Average seed weight per plant (g)	--	--	11.33
Pod length (cm)	--	--	10.49
Protein content (%)	--	--	25.2

⁴⁸AUA

AUA 8		AUA 9	
	Collecting number (EUROLEGUME database)	CP50	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.	Genus, specie, subtaxa
	Common crop name	Cowpea	Common crop name
	Accession name	AUA 8	Accession name
	Acquisition date	-	Acquisition date
	Country of origin	Greece	Country of origin
	Location of collecting site, latitude, altitude	-	Location of collecting site, latitude, altitude
	Or: Donor institution	AUA	Or: Donor institution
	Donor accession number	AUA 8	Donor accession number
	Biological status	Landrace	Biological status
	Dominant use	Unknown	Dominant use
	Flower color	White	Flower color
	Seed color	Beige	Seed color
	Eye color	Brown	Eye color
	Growth habit	Semi-erect	Growth habit
	Seed shape	Kidney	Seed shape

Traits	Southern conditions ⁴⁹		
	Min	Max	Mean
Plants length (cm)	--	--	43.05
Flowering period	--	--	Beginning of July
Full ripening period	--	--	Beginning of August
100 seed weight (g)	--	--	17.00
Average seed weight per plant (g)	--	--	9.77
Pod length (cm)	--	--	8.90
Protein content (%)	--	--	25.9

⁴⁹AUA

Traits	Southern conditions ⁵⁰		
	Min	Max	Mean
Plants length (cm)	--	--	27.03
Flowering period	--	--	Middle of July
Full ripening period	--	--	Middle of August
100 seed weight (g)	--	--	15.00
Average seed weight per plant (g)	--	--	9.97
Pod length (cm)	--	--	6.17
Protein content (%)	--	--	24.5

⁵⁰AUA

AUA 10		
	Collecting number (EUROLEGUME database)	CP52
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 10
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 10
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	Pink
	Seed color	Reddish brown
	Eye color	Absent
	Growth habit	Semi-prostrate
	Seed shape	Kidney

AUA 11		
	Collecting number (EUROLEGUME database)	CP53
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 11
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 11
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Erect
	Seed shape	Kidney

Traits	Southern conditions ⁵¹		
	Min	Max	Mean
Plants length (cm)	--	--	52.46
Flowering period	--	--	Beginning of July
Full ripening period	--	--	End of July
100 seed weight (g)	--	--	13.40
Average seed weight per plant (g)	--	--	9.93
Pod length (cm)	--	--	11.11
Protein content (%)	--	--	23.5

⁵¹ AUA

Traits	Southern conditions ⁵²		
	Min	Max	Mean
Plants length (cm)	--	--	50.54
Flowering period	--	--	Beginning of July
Full ripening period	--	--	End of July
100 seed weight (g)	--	--	22.30
Average seed weight per plant (g)	--	--	6.67
Pod length (cm)	--	--	11.36
Protein content (%)	--	--	27.0

⁵² AUA

AUA 12		
	Collecting number (EUROLEGUME database)	CP54
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 12
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 12
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	White
	Seed color	White
	Eye color	Black
	Growth habit	Erect
	Seed shape	Kidney

AUA 13		
	Collecting number (EUROLEGUME database)	CP55
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 13
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 13
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	Violet
	Seed color	Other
	Eye color	Black
	Growth habit	Semi-erect
	Seed shape	Kidney

Traits	Southern conditions ⁵³		
	Min	Max	Mean
Plants length (cm)	--	--	58.82
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	24.20
Average seed weight per plant (g)	--	--	15.40
Pod length (cm)	--	--	12.13
Protein content (%)	--	--	22.3

⁵³AUA

Traits	Southern conditions ⁵⁴		
	Min	Max	Mean
Plants length (cm)	--	--	50.99
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	14.90
Average seed weight per plant (g)	--	--	16.60
Pod length (cm)	--	--	12.65
Protein content (%)	--	--	23.9

⁵⁴AUA

AUA 14			AUA 15		
	Collecting number (EUROLEGUME database)	CP56		Collecting number (EUROLEGUME database)	CP57
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	AUA 14		Accession name	AUA 15
	Acquisition date	-		Acquisition date	-
	Country of origin	Greece		Country of origin	Greece
	Location of collecting site, latitude, altitude	-		Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA		Or: Donor institution	AUA
	Donor accession number	AUA 14		Donor accession number	AUA 15
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Unknown		Dominant use	Unknown
	Flower color	White		Flower color	White
	Seed color	White		Seed color	Beige
	Eye color	Brown		Eye color	Brown
	Growth habit	Erect		Growth habit	Erect
	Seed shape	Kidney		Seed shape	Kidney

Traits	Southern conditions ⁵⁵			Traits	Southern conditions ⁵⁶		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	--	--	52.94	Plants length (cm)	--	--	32.39
Flowering period	--	--	End of June	Flowering period	--	--	Beginning of July
Full ripening period	--	--	Middle of July	Full ripening period	--	--	End of July
100 seed weight (g)	--	--	12.80	100 seed weight (g)	--	--	16.20
Average seed weight per plant (g)	--	--	11.33	Average seed weight per plant (g)	--	--	9.40
Pod length (cm)	--	--	12.84	Pod length (cm)	--	--	9.81
Protein content (%)	--	--	23.8	Protein content (%)	--	--	22.3

⁵⁵AUA

⁵⁶AUA

AUA 16		AUA 17	
	Collecting number (EUROLEGUME database)	CP58	Collecting number (EUROLEGUME database)
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.	Genus, specie, subtaxa
	Common crop name	Cowpea	Common crop name
	Accession name	AUA 16	Accession name
	Acquisition date	-	Acquisition date
	Country of origin	Greece	Country of origin
	Location of collecting site, latitude, altitude	-	Location of collecting site, latitude, altitude
	Or: Donor institution	AUA	Or: Donor institution
	Donor accession number	AUA 16	Donor accession number
	Biological status	Landrace	Biological status
	Dominant use	Unknown	Dominant use
	Flower color	White	Flower color
	Seed color	Beige	Seed color
	Eye color	Brown	Eye color
	Growth habit	Semi-erect	Growth habit
	Seed shape	Kidney	Seed shape

Traits	Southern conditions ⁵⁷			Traits	Southern conditions ⁵⁸		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	--	--	33.79	Plants length (cm)	--	--	55.40
Flowering period	--	--	Beginning of July	Flowering period	--	--	End of June
Full ripening period	--	--	End of July	Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	20.10	100 seed weight (g)	--	--	14.60
Average seed weight per plant (g)	--	--	7.40	Average seed weight per plant (g)	--	--	12.47
Pod length (cm)	--	--	8.92	Pod length (cm)	--	--	12.69
Protein content (%)	--	--	24.9	Protein content (%)	--	--	25.0

⁵⁷ AUA

⁵⁸ AUA

AUA 18			AUA 19		
	Collecting number (EUROLEGUME database)	CP60		Collecting number (EUROLEGUME database)	CP61
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea		Common crop name	Cowpea
	Accession name	AUA 18		Accession name	AUA 19
	Acquisition date	-		Acquisition date	-
	Country of origin	Greece		Country of origin	Greece
	Location of collecting site, latitude, altitude	-		Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA		Or: Donor institution	AUA
	Donor accession number	AUA 18		Donor accession number	AUA 19
	Biological status	Landrace		Biological status	Landrace
	Dominant use	Unknown		Dominant use	Unknown
	Flower color	Violet		Flower color	White
	Seed color	Other		Seed color	White
	Eye color	Brown		Eye color	Brown
	Growth habit	Semi-erect		Growth habit	Erect
	Seed shape	Kidney		Seed shape	Ovoid

Traits	Southern conditions ⁵⁹			Traits	Southern conditions ⁶⁰		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	43.93	50.27	47.10	Plants length (cm)	--	--	79.42
Flowering period	End of June	Beginning of July	End of June	Flowering period	--	--	End of June
Full ripening period			End of July	Full ripening period	--	--	Middle of July
100 seed weight (g)	10.90	13.10	12.00	100 seed weight (g)	--	--	12.3
Average seed weight per plant (g)	12.20	48.62	30.41	Average seed weight per plant (g)	--	--	18.27
Pod length (cm)	9.11	11.11	10.11	Pod length (cm)	--	--	14.31
Protein content (%)	21.3	23.0	22.2	Protein content (%)	--	--	22.6

⁵⁹ AUA

⁶⁰ AUA

AUA 20		
	Collecting number (EUROLEGUME database)	CP62
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 20
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 20
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	Violet
	Seed color	Reddish brown
	Eye color	Brown
	Growth habit	Semi-erect
	Seed shape	Kidney

AUA 21		
	Collecting number (EUROLEGUME database)	CP63
	Genus, specie, subtaxa	<i>Vigna unguiculata</i> (L.) Walp.
	Common crop name	Cowpea
	Accession name	AUA 21
	Acquisition date	-
	Country of origin	Greece
	Location of collecting site, latitude, altitude	-
	Or: Donor institution	AUA
	Donor accession number	AUA 21
	Biological status	Landrace
	Dominant use	Unknown
	Flower color	Violet
	Seed color	Beige
	Eye color	Absent
	Growth habit	Erect/Semi-erect
	Seed shape	Kidney

Traits	Southern conditions ⁶¹		
	Min	Max	Mean
Plants length (cm)	19.23	63.02	36.19
Flowering period	Beginning of July	End of July	Middle of July
Full ripening period	End of July	End of August	Middle of August
100 seed weight (g)	16.10	19.11	17.17
Average seed weight per plant (g)	10.73	82.40	37.41
Pod length (cm)	9.59	14.90	12.30
Protein content (%)	24.4	30.3	26.6

⁶¹AUA

Traits	Southern conditions ⁶²		
	Min	Max	Mean
Plants length (cm)	40.20	194.36	116.92
Flowering period	End of June	Middle of August	Middle of July
Full ripening period	End of July	Beginning of September	Middle of August
100 seed weight (g)	12.80	18.85	14.32
Average seed weight per plant (g)	6.99	18.85	17.95
Pod length (cm)	12.39	15.45	14.23
Protein content (%)	23.7	28.0	26.3

⁶²UTAD, INIAV, AUA and UPCT

AUA 22	
	Collecting number (EUROLEGUME database) CP64
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea
	Accession name AUA 22
	Acquisition date -
	Country of origin Greece
	Location of collecting site, latitude, altitude -
	Or: Donor institution AUA
	Donor accession number AUA 22
	Biological status Landrace
	Dominant use Unknown
	Flower color White
	Seed color White
	Eye color Black
	Growth habit Semi-erect
	Seed shape Ovoid

AUA 23	
	Collecting number (EUROLEGUME database) CP65
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea
	Accession name AUA 23
	Acquisition date -
	Country of origin Greece
	Location of collecting site, latitude, altitude -
	Or: Donor institution AUA
	Donor accession number AUA 23
	Biological status Landrace
	Dominant use Unknown
	Flower color White
	Seed color Beige
	Eye color Black
	Growth habit Erect
	Seed shape Kidney

Traits	Southern conditions ⁶³		
	Min	Max	Mean
Plants length (cm)	--	--	50.36
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	17.90
Average seed weight per plant (g)	--	--	5.98
Pod length (cm)	--	--	12.08
Protein content (%)	--	--	25.1

⁶³ AUA

Traits	Southern conditions ⁶⁴		
	Min	Max	Mean
Plants length (cm)	--	--	90.05
Flowering period	--	--	End of June
Full ripening period	--	--	Middle of July
100 seed weight (g)	--	--	18.60
Average seed weight per plant (g)	--	--	26.00
Pod length (cm)	--	--	13.70
Protein content (%)	--	--	25.2

⁶⁴ AUA

AUA 24		Vi 13	
	Collecting number (EUROLEGUME database) CP66		Collecting number (EUROLEGUME database) CP71
	Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.		Genus, specie, subtaxa <i>Vigna unguiculata</i> (L.) Walp.
	Common crop name Cowpea		Common crop name Yard long bean
	Accession name AUA 24		Accession name Vi 13
	Acquisition date -		Acquisition date -
	Country of origin Italy		Country of origin Spain
	Location of collecting site, latitude, altitude -		Location of collecting site, latitude, altitude -
	Or: Donor institution AUA		Or: Donor institution RMS
	Donor accession number AUA 24	Donor accession number Vi 13	
	Biological status Commercial variety		Biological status Landrace
	Dominant use Food, seeds		Dominant use Food and feed
	Flower color White		Flower color Violet
	Seed color Beige		Seed color Black
	Eye color Black		Eye color Absent
	Growth habit Erect		Growth habit Climbing
	Seed shape Kidney		Seed shape Kidney

Traits	Southern conditions ⁶⁵			Traits	Southern conditions ⁶⁶		
	Min	Max	Mean		Min	Max	Mean
Plants length (cm)	--	--	68.53	Plants length (cm)	250.00	262.64	254.59
Flowering period	--	--	End of June	Flowering period	Beginning of July	Middle of August	End of July
Full ripening period	--	--	Middle of July	Full ripening period	Beginning of August	End of August	Middle of August
100 seed weight (g)	--	--	13.9	100 seed weight (g)	17.80	21.45	20.58
Average seed weight per plant (g)	--	--	19.27	Average seed weight per plant (g)	20.68	75.50	39.35
Pod length (cm)	--	--	14.90	Pod length (cm)	36.27	48.22	41.08
Protein content (%)	--	--	22.7	Protein content (%)	21.3	31.9	26.5

⁶⁵ AUA

⁶⁶ INIAV and UPCT

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