The hulless barley variety ‘Kornelija’ – high-quality wholegrain raw material for developing niche and functional products

In the rapidly growing dietary product market the biochemical properties of raw materials are key, especially those that preventively address or help mitigate the health problems of consumers.

Hulless barley variety ‘Kornelija’ have unique biochemical composition which is suitable for production of high-quality traditional products as well as specific dietary and functional product production.

### Advantages of the hulless barley variety ‘Kornelija’

**Agronomic**
- Early ripening and coarse grains
- Produce high quality grains also in low-input and organic farming system

**Processing**
- Excellent hullessness: ensures 10-12% higher grain product outcome from one ton of grains
- Saving resources on grain processing, keeping, and transportation: less waste and needs less energy consumption

### Basic chemical composition of ‘Kornelija’ grain, processed and cooked food products

<table>
<thead>
<tr>
<th>Product</th>
<th>Parameter</th>
<th>%</th>
<th>Product</th>
<th>Parameter</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain</td>
<td>Protein</td>
<td>20.84</td>
<td>β-glucans</td>
<td>6.15</td>
<td>Starch</td>
</tr>
<tr>
<td>Whole grain</td>
<td>Protein</td>
<td>20.19</td>
<td>β-glucans</td>
<td>5.14</td>
<td>Starch</td>
</tr>
<tr>
<td>Pot Barley</td>
<td>Protein</td>
<td>19.30</td>
<td>β-glucans</td>
<td>6.12</td>
<td>Starch</td>
</tr>
<tr>
<td>Flakes</td>
<td>Protein</td>
<td>20.39</td>
<td>β-glucans</td>
<td>5.93</td>
<td>Starch</td>
</tr>
<tr>
<td>Vaffles</td>
<td>Protein</td>
<td>16.4</td>
<td>β-glucans</td>
<td>4.92</td>
<td>Starch</td>
</tr>
</tbody>
</table>

Due to high-quality biochemical composition and nutritional value the hulless barley variety ‘Kornelija’ is positioned as a high-quality grain raw material to be used in the production of niche and functional food products.

### Activities of the Project

- Studying the properties of grain raw material/end products and optimizing the technological process of processing
- Preparing the commercialization offer and promoting it in priority markets

### Contacts for collaboration

- **Vita Sterna**
  vita.sterna@arei.lv
- **Andris Lismanis**
  andris.lismanis@arei.lv

### Collaboration

- Collaboration with the grain processing and food manufacturing companies
- Experimental development of the prototypes of new products
- Verifying the suitability of ‘Kornelija’ for various technological processes and opportunities in the development of new niche and functional products.

### References


### Acknowledgement