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

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Advantages of the hulless barley ‘Kornelija’

Agronomic
- Early ripening and coarse quality
- Environment preservation: produce high quality grains also in low-input sustainable farming system

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

Health
- High protein and fibre content at the same time
- Ensures the β-glucan content that other cereal crops are unable to ensure

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

The Comercialization Strategy developed for the high-quality hulless barley ‘Kornelija’

Activities of the Commercialization Strategy | Contacts for collaboration
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Strengthening and maintaining the protection of the plant breeders’ rights | Alberts Aučzīns
Transferring the plant breeder’s rights |
Carrying out field experiments to develop and test the technology | Mara Bleidere
Carrying out industrial research for transferring the technology to grain farming in practical production condition |
Preparing the commercialization offer and promoting it in priority markets | Andris Lissmanis
Studying the properties of grain raw material/end products and optimizing the technological process of processing | Vita Šterna

Collaboration with the grain processing and food manufacturing companies

The main conclusions from the first experimental development

Grains / flour of hulless barley ‘Kornelija’ can be successfully used for bread-making - adding to 30 – 40% , it is possible to obtain bread with good porosity and significantly improving the nutritional value of wheat bread. Bread enriched with barley grains has significantly higher dietary fibre, including β-glycans content, higher protein and fat content.

Barley is not good for bear processing because high protein content, but could be used for functional drink creation, Sprouted grains of ‘Kornelija’ could be added to foods to give the product specific taste and color, confectionary biscuits, breakfast cereals etc.

References


Acknowledgement