Annotation

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Technological estimation of grain varieties of barley, wheat and triticale for cereal production

Indexes of grain properties can be divided into two groups: the properties that are characteristic of this grain and properties that vary within the same grain. In the cereals sector the technological processing of grain should be improved towards obtaining maximum endosperm, increasing the yield of cereals of higher grades and improving their quality.

The aim of the research is to determine technological usefulness of grain of soft spring wheat of Trizo and Midac varieties, soft winter variety of Lazurna, spring triticale of Avatar variety and spring barley of Commandor and Svahor varieties under different growing conditions for production of "Poltavska", "Artek" cereal and pearl barley.

The research was conducted at the Department of Technology of storing and processing of grain at Uman National University of Horticulture and Production complex farm "Prolisok+" in Graniv village, Haisyn district, Vinnytsa region in 2013–2014. Conventional methods were used to determine the properties of grain.

According to the research of geometrical, physical and mechanical properties it was found out the technological suitability for the production of grain for groats.

The greatest linear dimensions were defined in the grain of soft winter variety of Lazurna. Grain of barley is different from wheat and triticale grains by the length of a grain which is bigger in about 1.4 and 2.2 times, however wheat grains surpass their sphericity. Weather conditions of 2013 growing year were considered as favorable by geometrical parameters for wheat and triticale grains and year of 2014 for barley grains. Significant difference in geometrical parameters was recorded by all physical-and-mechanical parameters of grain of spring barley of Svahor variety which was grown in the experimental field of "Prolisok +" farm of Vinnytsia region in 2014.

Technological properties of grain of wheat, triticale and barley are high enough. Cereals of studied grains are of good and excellent quality with typical taste for pearl cereals and "Poltavska" and with pleasant inherent smell, without strange smack and smell. Consistence, taste and colour of porridge influenced on the decrease of their quality.

Key words*: corn, wheat, triticale, barley, variety, technological properties.*