

Trush S.G.

WAYS AND METHODS OF SUGAR BEET HYBRIDS CREATING WITH IMPROVED TECHNOLOGICAL QUALITY OF RAW MATERIALS

The high-performance CMS sugar beet hybrids creating with improved technological properties of raw materials it is necessary to strengthen attention to the simultaneous increase of combining ability, yield and sugar content of initial breeding material, reducing the content of substances in tissues of roots which cause a beet processing plants increased loss of sugar molasses, physical and mechanical properties of roots improving.

For research is involved 9 CMS lines 4 – 5 generations bekrosov 6 narrowed pollinator population's polyspermous with different backgrounds and areas of productivity and 54 test hybrid sugar beet di- and triploid genome level. Elements of sugar beet raw material productivity and technological quality is evaluated in comparison to the standard – triploid hybrid Zluca.

The obtained results are show that the highest manufacturability materials characterized by highly sugary line ChS–12 Z, Z ChS-15 and ChS–37 Z. All three lines were created on the basis of raw materials highly sugary by multiple individual and family selections on complex genetic selection and commercially valuable signs.

The smallest loss of sugars in molasses is observed in high sugar polyspermous pollinators BR–6/2hZ and BR–8/4hZ. They are created by multiple individual and family selections root pedigree with high sugar content in tissues and therefore low in mineral elements.

Based on CMS 9 lines and 6 polyspermous pollinators we received 54 test sugar beet hybrids, which studied the previous strain testing at the station complex major agronomic traits. The analysis of quality testing is shows that most high-productivity hybrids was obtained on the basis of Raman-high sugar parental mating components. In these hybrids heterosis was observed on the basis of "Root yield" signs intermediate inheritance "sugar content" and a significant excess of the standard (hybrid Zluca) with a comprehensive feature "yield of sugar." They are also characterized by high technology of sugar beet.

Thus, the complex of multiple selections on the basis of the yield of root crops, sugar content, the content of α -amino nitrogen, sodium and potassium levels in the original parental forms are a spectacular way to improve the technological parameters of industrial raw hybrids. Using products such selections as parental components of hybrids is provides lower loss sugar molasses on 10,1 – 23,7% compared with the standard. Signs technological quality of sugar beet raw is quite stable and inherited.

Key words: sugar beet CMS hybrids, selection, materials, yield, sugar content, technological quality.