

## **Annotation**

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### ***Features inheritance of series quantitative traits of sugar-fodder hybrids in breeding line pollinators O-type in root crops form***

*To create a highly productive sugar beet hybrids should pay particular attention to the problem of simultaneous combination in the genotype of increased yield and sugar content, including in the raw materials at the stage of their selection processing, with a lower content in root crops of substances causing increased loss of sugar in the molasses. Therefore, it is important to proper selection of components of crossing to facilitate high manifestation of heterosis in hybrids of the first generation of the relevant traits. Achieving these requirements is impossible without expanding the gene pool of its culture and genetic study.*

*The purpose of our research was to obtain, by hybridization with fodder beet, new raw materials of sugar beet for further breeding line pollinators (O-types) to improve the shape of root crops and determine the types of inheritance (assessment of dominance (hp)) signs of „ yield capacity of root crops”, „ sugar content” and „ ash content” in these hybrid forms.*

*The results obtained showed differences between hybrids in the type of inheritance of traits performance. The yield capacity of root crops four sugar-fodder hybrids (selection numbers 403, 406, 407, 408) characterized by an intermediate type of inheritance ( $hp = 0,09 - 0,46$ ), four hybrids (402, 405, 410, 409) showed positive dominance ( $hp = 0,60 - 0,88$ ) and two hybrids (401, 404) – negative domination of this trait ( $hp = -0,56 - -0,60$ ). By the sugar content of most hybrids were characterized by an intermediate type of inheritance of the trait with index hp in the range of -0.50 to 0.38 and three hybrids (402, 405, 410) – the negative domination with index hp in the range of -0.57 to -0.53. The content of ash all hybrids showed intermediate inheritance of this trait (hp was in the range of -0.41 to 0.12).*

*The yield capacity of roots crops sugar-fodder hybrids exceeded average values of parental forms 15.6 %, the sugar content and ash content were lower by 5.8 and 3.1% respectively.*

*The research found the prevailing types of inheritance traits of productivity and technological quality of sugar-fodder hybrids of different genetic structure. Selected The best genotypes of plants with the best combination of yield capacity of root crops, sugar content and technological qualities of raw and root crop form for further breeding of parental components of CMS sugar beet hybrids.*

**Keywords:** *raw materials, sugar beet, fodder beet, sugar-fodder hybrid, hybridization, inheritance of quantitative traits, performance, heterosis effect, the degree of phenotypic dominance.*