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### **ESTIMATION OF FODDER BEET GENOTYPES FOR CREATING OF HIGH-PRODUCTIVE HYBRIDS**

Fodder beetroot hybrids developing with high productivity and resistance to the biotic and abiotic factors is based on using of the diversity wild and cultivated genetically close genotypes. To apply those genotypes to the breeding process is necessary to detect their biological and agricultural parameters, to find combinational ability.

For an estimation of generation genetic value the crossbreeding was realized on isolated areas with nutrition area 70 x 35 cm. On the sowings all of growth and development phases, seeds formation level, germination, level of phenotypic expression were registered. Combinational ability was investigated by studying the individual variability of original forms and by productivity of developed hybrids.

Seeds harvested from plants-pollinators were reproduced in the nursery. Best established samples of pollinators (accordingly to more yielding and with increased content of dry matter) were estimated in comparison with the group standard.

Beet roots length and diameter variability, the root immersion and root index were studied. It was shown that the roots length was in level from 17,6 to 32,4 cm, the root immersion - 13,0–19,0 cm. The index of fodder beet root was from 0,51 to 1,6.

There were identified four morphological groups by roots color and metric options: conical orange, orange-wide conical, yellow cylindrical, yellow wide-conical.

It was shown that between pairs of fodder beet genotypes exist selectiveness of influence by one to another as for root mass so for dry matter content it was observed the tendence: if the root mass increases dry matter content decreases. The mass of roots in the crossbreeding hybrid pairs was higher than the in average of population. The scale of variation in breeding material by weight of root crop varied from 711,2 to 1004,7 g, and the varieties of different origins – 996,0–723,7 g. The scale of variation for dry matter content was lower – from 10,0 to 15,6 %, the low percentage of dry matter in these varieties was noted (from 9,6 % to 12,7 %).