



## The effect of organic-mineral fertilization on the yield and quality of sugar beet in a long term experiment at Ezăreni – Iasi

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In the experiments conducted in Ezăreni - Iasi during 1986-2006 we observed the influence of Nitrogen fertilization (0-240 kg/ha) on a uniform P and K (P96 K96) and of organic fertilizers (manure, straw) on the fresh roots and the dry matter roots and the sugar contents in roots. The fertilization with N determined an important increase of fresh root yield and dry matter. Root yield (dry matter) (the average 1986-2006) had differentiated from 80.8 to 93.3 q/ha on soil background with manure, from 76.2 q/ha to 86.3 q/ha on the soil background with straw and from 68.9 q/ha to 86.4 q/ha in the mineral soil background. The increase in kg roots, dry matter /1 kg N decreased from 27.7 to 10.2 kg in soil background A, from 23.7 kg to 7.2 kg in the soil background B and from 16.2 kg to 7.3 kg/1 kg N, in the soil background NPK, while the nitrogen doses increased from 60 to 240 kg N/ha. The average yield registered during 21 years was: 319-431 q/ha of fresh roots, 68,9-94,6 q/ha of dry matter in roots and 55,0-77,6 q/ha sugar. The biggest values were registered in the manure backgrounds.