

KURANOCHI, TOSHIKAZU, Hokkaido Natl. Agric. Exp. Stn., Hitsujigaoka, Toyohira-ku, Sapporo 062, JAPAN. - Development of high sugar and high quality sugarbeet varieties in Japan.

In Japan, the purchasing system of sugarbeet was improved to the new one in 1986. In the system, a standard sugar content is determined. Sugarbeet roots of which sugar contents are higher(/lower) than standard, are purchased higher (/lower). Hence the cultivation area of high sugar or moderately high sugar varieties widely increased. And recently, the content of harmful non-sugars in roots, which disturb the crystallization of sucrose, became to be taken seriously. For that, several varieties with high sugar and high quality have been bred in Hokkaido Natl. Agric. Exp. Stn.. Simultaneously individual selection methods of quality, adding to high sugar, have been developed. "Mono hikari" is a variety with high yield and moderately high sugar. Greatest merit of it is high quality, and the content of non-sugars are lowest among varieties in Japan. "Mono white" is a variety with moderately high yield and high sugar. It was bred in international joint research. The content of non-sugars are low, but higher than "Mono hikari". In Hokkaido Natl. Agric. Exp. Stn., breeding for new varieties with high quality as "Mono hikari", with high sugar content as "Mono white", and with high root yield is going on.