

Ten Keys for Higher Sugarbeet Quality (Tip #4)

Narrow rows are one of the ten key components to improve sugarbeet quality.

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Narrow row research conducted by Michigan Sugar Company, Michigan State University Extension and Sugarbeet Advancement concludes that sugarbeet yields and quality can be improved by 2-4 tons per acre and by 0.3-0.5 percentage points of sucrose. Research from other growing areas has shown similar results. Sugarbeets planted in 20-22 inch rows will canopy faster and allow for capture of more sunlight which is converted to sugar. Research observations have shown when wide rows are 80 percent canopied, narrow rows will be 100 percent. An industry goal is to have sugarbeets canopied by June 21st, the longest day of the year.

Narrow rows also allow for higher beet populations than traditional 30 inch rows. For example, if a grower wants 48,000 plants per acre, it would require 200 beets per 100 foot of row in 22 inch rows compared to 275 beets per 100 foot in 30 inch rows. Narrow rows will generally produce a more uniform beet size which will allow for better topping and reduces the number of large beets that tend to be of lower quality. Narrow rows can reduce the need for replanting when poor emerging conditions and/or marginal stands are encountered.

Growing sugarbeets in narrow rows will also include other benefits including more efficient use of nutrients and water. More hair roots are exploring around the soil particles extracting nutrients. Also more tap roots are penetrating deep into the soil where additional water reserves may be drawn. Narrow rows will also offer an additional benefit of improved weed control from a more rapid and complete canopy. Many of the new varieties today have a small top and are more conducive for narrow rows.