

Stand Establishment

March 2006



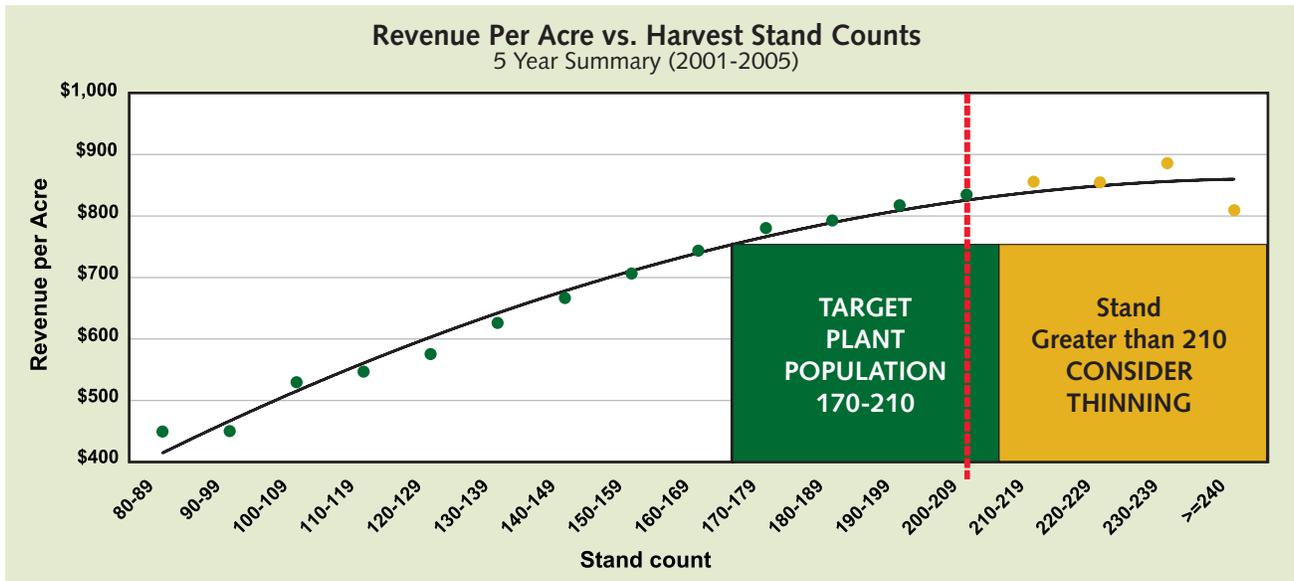
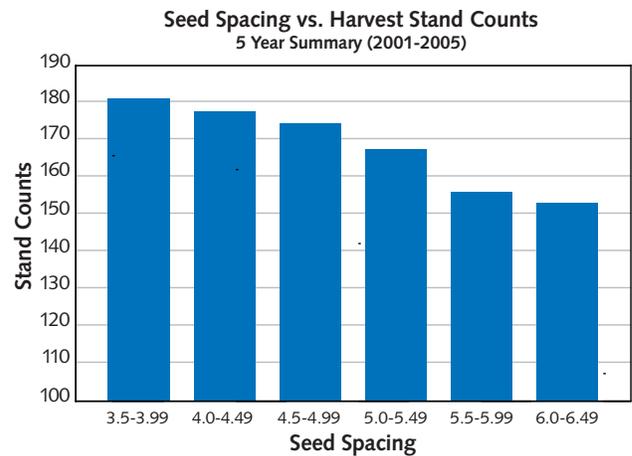
Stand Establishment is One of the Most Critical Production Practices to Maximize On-farm Profit from Sugarbeets

Achieving target plant populations maximizes yield and quality potential. At the same time, it decreases weed pressure, lowers weed control costs, and minimizes the likelihood of replanting.

The chart below depicts the relationship between stand count and revenue per acre from the American Crystal Sugar Company grower practices database.

This information indicates that for each additional 10 beets per 100 feet of row from 80 to 209, revenue per acre increases by \$34.68. For stand counts above 210, there is little or no benefit.

Select a seed spacing of less than five inches to achieve a plant population of 170-210 beets per 100 feet of row. Seed emergence averages 75 percent. Stand loss after emergence due to frost, wind, insects, pesticides and other factors ranges from 10-20 percent or greater.



YOUR WAY TO GROW

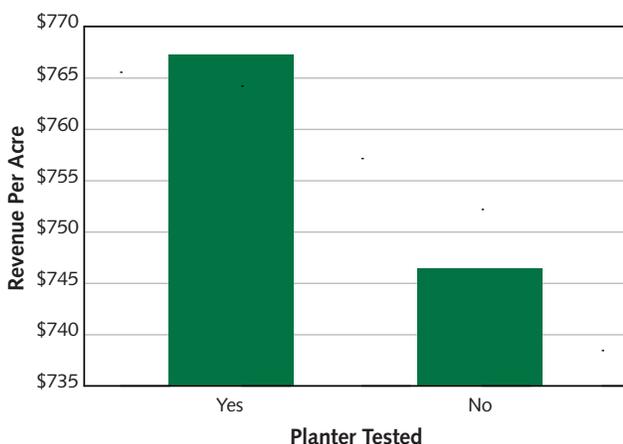
Fertility | Variety Selection | Stand Establishment | Weed Control | Disease and Insect Control | Harvest

Suggestions that may help you establish a profitable stand of sugarbeets

- Field shaping, drainage and leveling may provide big benefits to the eventual surviving stand from the effects of disease and water problems (see Drainage fact sheet).
- Manage crop residue.
- Consider ridge tilling (see Ridge Tilling fact sheet).
- Consider the use of cover cropping with a cereal grain for wind protection—cereal grains work best.
- Have your planter checked out on the planter test stand.
- Check seals and plates on vacuum planters.
- Replace worn parts; check cut-offs and star wheels on plate planters.
- Do not work soil ahead more than you can plant in a day.
- Work soil as shallow as possible, less than 1.5", to conserve moisture.
- Maintain a firm seedbed to insure good seed-to-soil contact.
- Deer tongs or stingers can help with overall roughness, which helps stop blowing topsoil on newly planted fields.
- Use starter fertilizer.
- Use insecticide—calibrate and band or spoon-apply to prevent stand loss.
- Use a shorter seed spacing when planting early—this is beneficial under adverse environmental conditions such as frost and wind.
- Plant at depth of .75 to 1.25 inches. Shallow planting, less than .75 inches, often results in uneven germination and emergence. Planting at depths greater than 1.5 inches almost always reduces emergence. Early planting should be shallower.
- Slow down—ideal planting speed is 3-4.5 mph.

The following is from the American Crystal Sugar Company grower practices database:

Revenue Per Acre – 5 Year Average (2001-2005)
Planter Test Stand Comparison



Same Field Photos Taken in Spring 2005



Wind damage due to little crop residue and no cover cropping.



Wind protection from cover crop.

For additional information, contact your agriculturist or extension specialist. See the Starter Fertilizer, Drainage and Ridge Tilling fact sheets. See Ag Notes #434, 456, 467, 473 and 475. Also see most past issues of the annual Sugarbeet Research and Extension Reports.

Web sites:
www.sbreb.org
www.crystalsugar.com

