

Nitrogen Adjustments for Sugar Beets

75

Crop Choice: SMBSC Beets

Southern MN Beet Sugar Coop Crop Choice

- A. Yield Goal is set and cannot be changed.
- B. Suggested Guideline is set at University. Other guidelines are not available.

Total N fertilizer recommendations are based upon the depth of the soil sample, the soil test nitrate-N level, the previous crop credit and having a minimum 65 lb N/acre in the top 24 inches of soil profile.

Total N recommendation based upon soil sample depths:

If 48" depth, then total N = 110 lb N/acre

If 42" depth, then total N = 100 lb N/acre

If 24" or 36" depth, then total N = 90 lb N/acre

Note: A minimum of 24" depth is required to get an N recommendation.

Previous crop credits based upon University guidelines

If soybeans, edible beans, peas then the N credit = 40 lb N/acre

If sweet corn, then the N credit = 20 lb N/acre

If alfalfa, then the N credit = 50 lb N/acre

A minimum 65 lb N/acre in the 0-24" profile is necessary for early canopy development, regardless of high levels of deep nitrogen.

Crop Choice: Sugar beets 130/100

Calculating Available Deep Nitrogen for Sample Depths Greater than 24":

If the sample depth is greater than 24", all the nitrogen in the 0-24" and 24-48" depth is subtracted from 130. If the sample depth is equal to 36", all the nitrogen in the 0-24" and 24-36" depth is subtracted from 115.

Example: 0-24" soil nitrate = 55 lb/a and 24-48" soil nitrate = 30 lb/a.

Suggested nitrogen application rate = $130 \text{ lb/ac} - (55 \text{ lb/a} + 30 \text{ lb/a}) = 45 \text{ lb/a}$

Calculating Available Deep Nitrogen for Sample of 24" depth:

If the sample depth is 24", all the nitrogen in the 0-24" is subtracted from 100.

Example: 0-24" soil nitrate = 55 lb/a.

Suggested nitrogen application rate = $100 \text{ lb/ac} - 55 \text{ lb/a} = 45 \text{ lb/a}$