



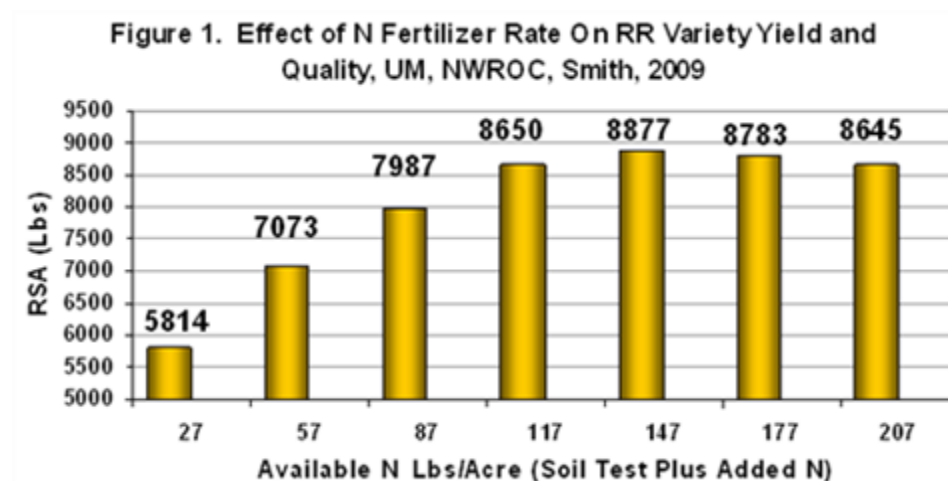
## 535 – N Fertility for Roundup Ready Varieties

March 9, 2010

The switch to Roundup Ready® sugarbeet varieties will be over 90% in 2010. Many have questioned if there is a need to change agronomic practices when planting Roundup Ready® varieties. Frequently asked questions have been 1) how much N fertilizer do they need 2) what seed spacing is best 3) are they more susceptible to diseases? The general consensus from researchers across the nation is beets are beets no changes needed.

### N Fertilization of Roundup Ready® Sugarbeet

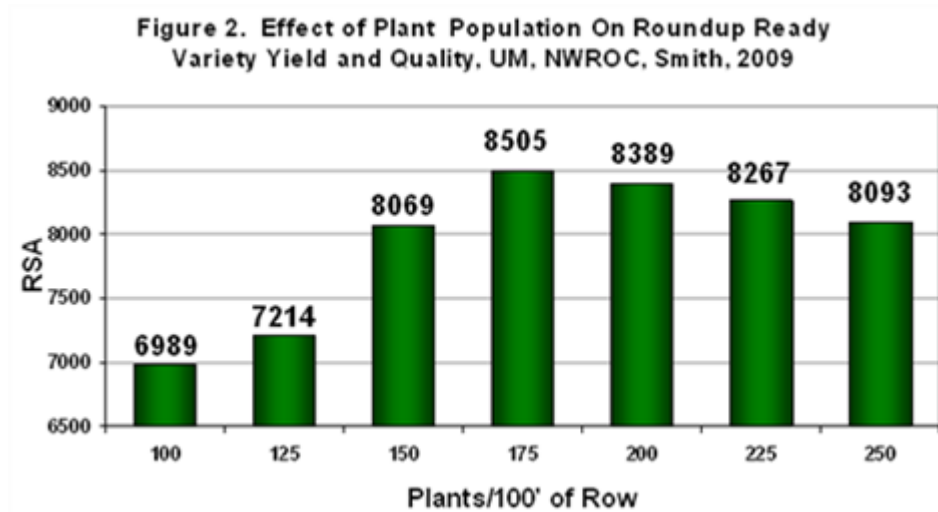
Dr. Larry Smith conducted a trial to evaluate N requirements of Roundup Ready® varieties in 2009. His conclusion was that there was no difference in N response compared to past research with conventional varieties.



### Conclusions:

- Maximum yields were at 117-147 lbs/A, close to recommended rates

- The Roundup Ready® varieties peaked at about the same rate of available N as conventional varieties
- Planted on May 14, 2009
- Data is an average from 4 Roundup Ready® varieties C-658, C-765, H-4012, B-87RR38
- N fertilization rate may vary based on soil type (See agriculturist for data)



#### Conclusions:

- Maximum RSA and Rev/A was achieved at 175 beets/100' row
- 200 beets/100' of row had only a slight detrimental effect
- Data shown is an average of two Roundup Ready® varieties C-658 and H-4010
- Grower practices database also shows maximum RSA at 175-200 beets/100'
- Planted May 18, 2009
- It may be necessary to thin very high plant populations

#### Stale Seedbed Planting Option

Will stale seedbed planting, that's planting without any spring tillage work in the RRV? Many factors will dictate if stale seedbed planting can be successful or not. Some of these factors include:

- Soil type
- Soil moisture conditions

- Previous crop
- Amount and type of residue present
- Planting equipment and attachments
- Seeding depth is usually shallower to hasten germination/emergence

**Table1. Sugarbeet yield and quality parameters from stale seedbed planting. Dr. L. Overstreet, NDSU, 2009**

Tillage Treatment	Yield (T/A)	Sugar (%)	Beet/100' June 16	RSA (lbs)	RST (lbs)	Rev/A (\$)
Conventional	38.7	14.6	184	10,186	263	1,029
Stale - No Residue Mgrs.	38.3	14.6	171	10,140	265	1,033
Stale with Residue Mgrs.	37.4	14.9	176	10,084	270	1,056
LSD	NS	NS	NS	NS	NS	NS

**Michigan sugarbeet growers** planted a total of 40,000 acres into stale seedbeds in 2009. That was about 35% of their acreage.

**Match variety to field.** Be sure variety disease characteristics match disease pressure in each field in 2010. Ask your agriculturist for a variety comparison chart they have available.