



## STOLLER ENTERPRISES, INC.

...World leader in crop nutrition...

### Why Do Rapidly Growing Potatoes Always Have Fewer Tuber Numbers?

Potatoes are usually planted in cool soil. They sprout and initially grow off of the food in the seed pieces. Early growth is slow. Growers worry about early growth. They desire to achieve "early row cover."

For the above reasons, growers apply liberal amounts of nitrogen in order to obtain early growth. Is this a wise practice? No.

Why?

When the soil warms, plants begin to rapidly grow. This growth is more rapid if rain or irrigation follows a dry spell.

What happened?

When potatoes grow very rapidly, the cause is related to two over-active hormones ... **Ethylene** activity moves Gibberellic acid out of the nodes to the terminal growing points.

**Gibberellic Acid** at the growing points cause auxins to move rapidly from the growing points to the roots.

PHOTOSYNTHATES (food from the leaves) MOVES IN THE OPPOSITE DIRECTION TO AUXIN.

More food goes to the growing point (faster tip growth) and less food moves to the roots (starves root growth) and reduced stolon initiation ... for tubers.

When tip growth slows down, (Gibberellic Acid activity is reduced) the plant will produce more tubers.

Rapidly growing plants will have fewer tubers. A "boxy" plant with a lot of branches will have many tubers.

How do we control the rapid growing plants, less "boxy" plants, and have more tubers?

Recommendation:

1. Seed treat 1 oz. per cwt of seed with STIMULATE
2. Apply 20 gallons per acre of Nitro Plus 9-0-0-7(Ca)-1&frac12;(Mg)-0.1(B) in the cover soil at planting
3. Apply 10 gallons per acre of Nitro Plus 9 plus 6 oz. per acre of STIMULATE every 20 days ... after flowering. Maintain this schedule until vine killing. Early dying and disease will be reduced.
4. Include 1 quart per acre of Nitrate Balancer in your foliar spray ... every 12-14 days.

Each gallon of Nitro Plus 9 contains 1 lb. per gallon of nitrogen. Regular nitrogen should be used to supplement that from Nitro Plus.

The above treatment is designed to control the activity of stress-induced ethylene and Gibberellic Acid activity. It is also designed to keep root growth active.

**“The above is easy to understand if you know The Language Of The Plant.”**

**Stoller Middle East**