



## STOLLER ENTERPRISES, INC.

*...World leader in crop nutrition...*

### AUXIN ACTIVITY

While attending the Plant Growth Regulator Meetings, it was reported that auxins have two different functions:

- Cell sizing (elongation)
- Cell division

Each formation has a different chemical pathway:

- Cell sizing requires  $K^+$
- Cell division requires  $Ca^{++}$

Physiological disorders (hollow heart in potatoes) in all crops may be caused by too much auxin + a lot of  $K^+$  without adequate  $Ca^{++}$ .

This may be the reason that nitrate nitrogen (increased auxin) and the lack of calcium will cause physiological disorders in plants and fruit.

It would then follow that the activity of Stimulate could be different...based on the ratio of potassium to calcium.

Stimulate + Nitro Plus or (N-Hib Ca Premix)  
Stimulate + SETT or (Calcium 5 S)  
will give more cell division and fewer physiological disorders.

Stimulate + high potassium soil  
will give more cell sizing (larger fruit).

Cell division is more important when fruit and storage tissue is young.

Cell sizing is more important when fruit or storage tissue is bulking (sizing).