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Nitrogen ... Angel and Devil - Page 1 of 2

NITROGEN ... ANGEL AND DEVIL

Good News: Nitrogen increases the levels of all hormones in the plant. Under normal conditions, this increases yields.

Bad News: Under stress conditions, high amounts of hormones (Caused by nitrogen) will become more easily unbalanced. This can cause yield reduction and

- Increase disease
- Increase lodging
- Increase "early dying"

It takes high levels of hormones to increase yields. Therefore, high rates of nitrogen may be necessary.

Question: "How do we protect plants when they have high levels of hormones ... during stress conditions?"

If we can figure out ways of protecting our plants against negative effects of nitrogen, we could use more nitrogen or gain more yield per pound of nitrogen used. This would also reduce pollution concerns.

In order to understand the negative effects of nitrogen, one must understand the balances between the five different hormones ... CYK, IAA, ETH, GA and ABA ... at different stages of growth.

Things to do:

1. Split nitrogen applications
2. Use ammoniacal or urea nitrogen ... not nitrate.
3. Balance the plant with these nutrients that will "fight" hormone imbalance
4. Calcium early and vegetative growth period. This is the most important one.
5. Boron at all stages of growth. This is the second most important one.
6. Potassium at the later stages of vegetative growth and during the reproductive stage. This is the third most important nutrient.
7. Magnesium is important during all stages of growth. This availability of the nutrient is deceiving. It is very important for controlling nitrogen (Grass Tetany).
8. Zinc, Manganese, Copper, Moly are important during the early stages of growth



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In order of importance for hormone stability where plants receive or make a lot of nitrogen ... during stress periods.

1. Calcium
2. Boron
3. Potassium (later growth stages)
4. Magnesium
5. Zinc, Manganese, Copper, Moly (early)

The above treatments should give more consistency of nitrogen performance ... and also efficacy of use.

Watch and learn The Language Of The Plant.