## Improving Plant Health... Increases Yield Potential... Soybeans, 2010

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When we speak of increasing yields, in reality, we are really speaking of increasing the crop's **yield potential**. Herbicides, insecticides and fungicides do not actually increase this potential, but help protect the already established yield potential of the crop. Irrigation has a direct effect on production and aids the crop in reaching the full potential that has been generated. But the crop must first generate good potential before the water and pesticides will benefit the crop. At **DeltAg** we focus on methods to generate a plant with increased potential. This is when moisture and pesticides really pay off. If you have soybean fields that are starting to bloom heavily or are further along and approaching R-3 to R-4, consider applications to actually increase that crop's overall plant health and yield potential. The goal is to hold more blooms, creating more pods on the plant that can potentially be carried to maturity.

Briefly listed below are four primary stages of crop development that impact crop potential.

- 1. Early Seedling Stress: Reduce stress at emergence and increase early growth. (Seed Coat and/or in-furrow PercPlus)
- **2. Root System Development:** Improve the root system early. (*PercPlus* @ 12-16 Oz with each glyphosate application to enhance the root system and build tolerance to glyphosate while avoiding manganese issues that could delay maturity and reduce yields.)
- **3. Hold More Blooms:** To hold more blooms is to set more pods during heavy blooming and fruiting. (*Boron Plus* @ 4-6 Oz as a foliar during heavy blooming)
- **4. More & Larger Pods:** Push the sizing process on the younger and later set pods. At R-3 &/or R-4, foliar apply **DeltAg CropKarb** @ 32 Oz (may be applied with fungicide).

## More Details on Pod Set and Sizing

- **3. Hold More Blooms:** This will generate more pods on the plant and increase yield potential. The first blooms to open are like the oldest children at the dinner table. They get fed first! It's the little guys or later blooms that are very susceptible to bloom shed. Every week there are new younger blooms trying to make it past that critical stage. The most valuable tool we have is foliar boron during heavy bloom. Boron works to improve translocation of sugars which means more energy to hold and feed young pods that have just dropped their blooms. **Boron Plus** at 4 to 6 ounces/acre applied twice has been shown to enhance bloom set and increase yields. 3rd to 5th trifoliant: **Boron Plus** at 4-6 Oz/acre in two applications 10 to 14 days apart
- **4. Size of Pods: Mid and Late Season Foliar Applications:** Help final yield by improving pod sizing. The goal is to improve overall plant health, building tolerance to disease, while pushing for increased pod counts in the upper (younger) portion of the plant. Most often, these applications are made with fungicides. However, multiple applications have proven more beneficial than one single application. *CropKarb* @ 32 Oz/acre includes *Boron Plus* for increased pod set, *PercPlus* for increased root activity, and *Nutri K* for enhanced sizing.

To improve overall plant health increases yield potential by allowing the plant to hold more blooms and size the additional pods that have been set.