



February 23, 2011

High Yield Strategy for Soybeans

AGRONOMY TOPIC OF THE WEEK

Variety selection in high yielding soybeans is one of the crucial first steps. It is important to match the right variety with the right ground, making sure it is agronomically correct. Choosing a consistently high yielding soybean, with disease and insect resistance specific to your field is essential. Adding soybean seed treatments, such as CruiserMaxx, provide a vigor effect on the soybeans, which in turn creates a healthier, disease and insect-free plant into the growing season. The use of inoculants introduce a large amount of Rhizobia, providing the plant with Nitrogen fixation, building maximum yield.

Fertility for high yielding soybeans is the next step. A simple plan would consider applying .8 lbs. of Phosphorus per bushel of soybeans and 1.4 lbs. of Potassium per bushel. For example, if your yield goal is 70 bushel soybeans, you would need 56 lbs. of P ($70 \times .8$) 98 lbs. of K (70×1.4), per acre. If your fields are grid sampled, be sure your analysis includes this. Another area of consideration is applying Nitrogen to soybeans.

With the development of glyphosate-resistant weeds, selecting a herbicide program is more critical than ever. The larger the weeds grow, the more yield loss becomes significant. When weeds grow too large, they compete for water, nutrients and sunlight, depriving the soybean plant. A pre-emerge herbicide followed by a post-application of glyphosate is strongly encouraged to eliminate this issue. Also, there are tank-mix partners that can be used with glyphosate, or other herbicides, for more control and residual.

As we strive to obtain higher yields, we cannot forget about Micronutrients. For specific needs, have your fields tissue sampled 5-7 days prior to spraying. This will tell us what nutrients are short and allow enough time to find a solution. Such Micronutrients may be copper, magnesium, zinc or boron. These can easily be corrected and piggy-backed with a herbicide application.

If we expect any living plant to give us a high return-on-investment, it needs to be healthy. In a high yield strategy a fungicide is a must. This can be added to a post-herbicide or insecticide application, between growth stages R1 and R3. Anything we can do to promote plant health will lead to higher yields.

Insect management is a key point when raising high yield soybeans. We must treat aphids not only by counts, but by how long they have been in the crop. If aphids have been infesting your soybeans for over 10 days, consider treating. Counting aphids and waiting to spray can adversely affect yield, especially in a dry year. Do not forget about Spider Mites, either; add the specific insecticide to control them.

There are other considerations when high yield soybeans are the goal, however we feel these are a few key points to begin to focus on. For further discussion or questions, contact your local Central Valley Agronomist.