

## **ASK THE AG TEAM, for the week of March 2, 2008**

Corn yields continue to increase –*by Wayne Flanary, Agronomy Specialist, MU Extension*

This past week, Dr. Bill Wiebold, University of Missouri Extension State Crop Specialist, showed corn yield data over decades of corn research how corn yields have increased. The data showed that the genetics that increased yield were from increased population and ability to handle stress.

The data he showed was very interesting in that corn breeders over time have spent time managing crop stresses and continuing to add traits which allow more plants per acre.

Those who are promoting biotechnology have given growers the impression that we will reach very high corn yields in the future. We may very well. But the data from this research indicates yield increases will be from genetic packages such as drought tolerance.

Using a low population planting, Weibold measured the yield of hybrid corn varieties that had been developed over the past few decades. The data did not show an increase in the yields of varieties modified over the years. If the genetics had altered to increase yield, the data would have indicated an increase in yield due to enhanced genetics. The advances made in biotechnology are seen in the plant's own resistance to environmental stress

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Fine-tuning soybean seeding rates –*by Wayne Flanary, Agronomy Specialist, MU Extension, Holt County*

As the price of soybean seed increases, growers want to have adequate stands but at the lowest price per acre they can plant. Research at MU indicates that stands in 30-inch and 15-inch rows can be as low as 110,000 plants per acre and maximize yields. These are uniform spaced plants. What is faced in most fields are gaps in stands and a variety of planting conditions.

The hard issue becomes how to adjust the seeding rate so the right amount of plants grow for maximum yields under different planting conditions and germination rates. No-till seeding rates should be higher than reduced tillage. Adjustments should be higher for lower germinating seed. Poor planting conditions also should be adjusted upward. Early planting dates with cool and wet soil conditions are also a situation in which seeding rates should be increased.

Typically at the Graves-Chapple Farm, soybeans are planted at a rate of 170,000 plants per acre. With residue issues and generally poor soil conditions, seeding rates are adjusted upward. Once planted, the stand will be established and it is generally not in the best interest to replant.

Research results indicate the seeding rates for both 15-inch and 30-inch rows should be the same. Many times growers will adjust rates for row spacing, but this is not necessary.

Seeding rates were much higher when drills were used to plant soybeans. Often drills did not cover seed well and depth control was imprecise. Seeding rates were increased to compensate. In addition, higher soybean populations provide a canopy which helps with weed control.

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Horticultural tidbits –from University of Missouri Extension

A good, economical way to trap whiteflies and aphids near your houseplants is to cut bright yellow cardboard or plastic and coat it with petroleum jelly. These insects are attracted to the bright color, and will become stuck when they land on the sticky surface. Insert the traps into the soil of your potted plants, or hang them nearby, and you'll quickly lower the number of those insect pests.

Looking for a good houseplant that will tolerate low light levels? Try the Chinese Evergreen. Its silver-splashed leaves will grow well even at low light levels, with a minimal amount of care. Just be sure the temperatures don't drop below 65 degrees. Use a soil mixture that drains well, and take care not to over-water.

Dormant oils are specially-prepared oils which are sprayed on fruit trees to control scale insects which can damage your trees during the growing season. I like to see them used in late winter, while the tree is still dormant, but well before leaves start to appear. Use them according to label directions, and you should have good control of scale insects which can damage your fruit during the coming season.