Annual Fertility

Studies Underway To Manage Soybean Fertility, Increase Yields



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For a nutrients to increase soybean yield have become a new interest for soybean farmers, according to Dr. Vince Davis, University of Illinois soybean extension specialist.

While the recommendations on soil fertility hasn't changed recently, specialists are looking at different ways to increase yields, researching foliar products, different methods of banding and strip tilling nutrients closer to the root zone.

"With some of our higher yielding varieties we are seeing some response to increased nitrogen and to putting potassium and other nutrients down in the strip prior to planting, and that's causing some excitement," Davis said. "We haven't evaluated that long enough to make any changes in recommendations.

"Traditionally what growers do in Illinois is they broadcast fertilize ahead of corn on an every other year rotation," he explained. "So the practice of putting fertilizer down in bands or in strips at four or six inches deep on 30-inch spacings is something that is increasing in interest in corn and increasing in practice in corn but we are just started to look at that in soybean."

Some of the research Davis has undertaken is using potentially strip till or putting nutrients at four or six inches deep the year you're planting soybeans. That is expected to increase the availability of potassium and other nutrients during the time of need.

In the past, farmers primarily relied on fertility applied prior to the corn to carryover to the following year.

"Traditionally farmers have managed their soil levels high enough that they broadcast ahead of corn and they allowed soybeans to rely on the residual fertility carryover," he said. "That way they only fertilized every other year."

Today there's some thought that if farmers fertilize every year in front of the soybeans they may see higher yields.

"It all depends on soil fertility levels, but we are interested in whether or not we can increase yields by fertilizing the year we raise soybeans, particularly if we get it closer to the root zone," he clarified.

Growers interested in fertilizing on an annual basis could put less fertilizer out each of those years, instead of larger amounts every other year.

"This is the first year that we've taken a serious approach to the question," Davis continued. "We had some preliminary data last year and so we'll analyze results better this fall; and then we'll have more results after we've looked at multiple locations over a couple of years. Δ

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