

Nitrogen Advice:

UK Researcher Advises On Nitrogen Use

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Recently at the Tennessee Grain and Soybean Producers Conference in Dyersburg, TN, Dr. Lloyd Murdock from the University of Kentucky gave a presentation on nitrogen

“I recommend being as efficient as possible and being educated on what rates you should use. The University of Kentucky’s recommendations are usually quite close to the ratio that you should use for a healthy crop,” states Murdock.

Murdock recommends that if you know what the right rate is on your farm then stay with it.



and additives on nitrogen.

According to Murdock, as the price of nitrogen goes up the commodity prices have dropped and farmers are concerned. “People are real concerned about using the proper rates of nitrogen because with cost at a high it is much more important to remain profitable,” said Murdock.

“As we look at the data we have and we look at the nitrogen and crop price ratios specifically in corn, we are running about an 8 to 1, to 10 to 1 ratio by using the current prices of nitrogen and corn,” said Murdock. According to Murdock, that means that the price of corn is 8 to 10 times more than the cost of a unit (pound) of nitrogen.

Murdock states that that ratio means farmers don’t really need to change nitrogen rates much at all. “Because that 8 to 1, 10 to 1 ratio is the traditional ratio that we have used for around 30 years, there really is no need to make a drastic change,” said Murdock.

“As you increase ratios like we have in the last year, (between 4 to 1 and 6 to 1), the penalty for over fertilizing is just as great as the penalty for under fertilizing and you should drop your rate 10 to 15 units. Traditionally, farmers have usually over fertilized. I do not recommend that,” said Murdock.

“As prices go up,” said Murdock, “and it gets more difficult to remain profitable, a lot of additives are being sold that can be added to your nitrogen to make it more efficient. Be aware that not all of them are effective and they can be pricey”

“These additives are effective on certain types of losses from nitrogen but not all losses and you must know which ones are effective and exactly what loss mechanism you are looking at. For instance, a lot of times on no till corn you add a urea product on the soil surface. This can result in quite a bit of volatilization,” said Murdock.

“The biggest point to consider, is knowing where your efficient nitrogen rate is. Second, the need for additives may not necessarily be right for your crop. If you inject nitrogen properly and in the correct areas it will be extremely efficient and you will remove a lot of problems,” said Murdock.

For more information on Dr. Murdock’s research go to the University of Kentucky’s website at www.ca.uky.edu and click the plant and soil sciences tab to find his published works.

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