

Wheat Profitability: Play it safe with Nitrogen Reference Strips

Does the high cost of nitrogen (N) have you worried? Well it probably should. Now, more than ever, getting your N rate wrong will cost you. If you want to do the best job possible making fertilizer N rate recommendations you need as much information as possible. Achieving maximum yield is only possible if all nutrients and soil conditions are optimal. The easiest way to insure this is to over apply all nutrients, but at today's prices that is a definite No-No. As been said many times before, soil sampling is extremely important for phosphorus (P), potassium (K) and pH. Making sure everything is up to par improves the likelihood of producing maximum yields and utilizing nutrients and water in the most efficient manner. If you can make 60 bushel wheat and are applying N to meet the needs of 60+ bushel wheat but your P and K levels are insufficient then that 60 bushel is unlikely and N is wasted.

Now, moving on to N decisions, preplant soil test and historical wisdoms will normally produce optimum yields, but there are many opportunities to adjust N recommendations and, thus, increased profits. To get the N rate as close as possible to perfect a reference strip, N-Rich or N-Ramp, is needed in each and every field.

The N-Rich Strip is an area in the field that has received enough fertilizer N so that no matter what the environmental conditions may be, N will not be limiting during the growing season. The rest of the field that receives the standard preplant rate is called the Farmers Practice. The N-rich strip is used in conjunction with the GreenSeeker™ hand held sensor to determine mid-season N rates. The N-Ramp has multiple N rates placed in sequence from a high to a low rate. In essence, ramps are small N-rate studies that can be easily placed in any field. Sensors can be used with the Ramp to determine mid-season N rates or a visual determination of the best rate can be made.

Reference strips give you the capability of measuring crop's N needs at topdress. The amount of N needed to reach maximum yields changes from one year to the next and having a reference strip in your field is an easy way to gauge the current demand. .

The best time to apply the strips is when you sow the wheat. But they can be applied whenever the preplant N is going out or up to month after the seed is in the ground. You should put out 1-2 strips in every area you plant to treat individually, whether this is a field or a zone. Make sure the strips are at least a couple hundred feet long and are in an area that is representative of the field. The N-Rate in the strip you should apply at least 25% more than the yield goal recommended rate. You can use the old guide of 2 lbs of N per bushel of wheat to determine this.

For more information on how to apply reference strips in your fields and how the strips are utilized, read the Current Report 2255: Applying your Nitrogen-Rich and Ramp Calibration Strips (<http://pss.okstate.edu/publications/nutrmngmnt/CR-2255web.pdf>) or go to www.nue.okstate.edu and click the picture on the right hand side that says How Do I get Started.