



Illinois Fertilizer & Chemical Association

Our Mission: To promote and implement the 4Rs of nutrient stewardship (right source, right place, right time, right rate) to minimize environmental impact, optimize harvest yield and maximize nutrient utilization.

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Ag Retailers in Action: Jerry Harbour, Prairieland FS

4Rs Gaining Ground Even with Lower Commodity Prices

Jerry Harbour is a veteran in the retail fertilizer industry, and is a trusted Certified Crop Adviser for his customers in Sangamon, Mason and Menard counties.

He's witnessed phenomenal change in nutrient practices, especially in the last five years. "I started in the business in the early 1980s, and during the late 80s through the early 2000s, 80-90% of nitrogen in our trade area was applied in the fall. There have always been farmers who split their nitrogen, but split applications really took off around 2007 when we began to lower the fall N rates and split the total rate between fall, pre-plant and post-applied nitrogen. The good commodity prices helped drive that change, enabling farmers more income to experiment with split applications and they saw the yield benefits. What I'm truly glad to see is that even with farm income predicted to be lower than what farmers have experienced in a while, they are staying with the split application program because it improves their profitability overall, and the benefit of protecting the water quality is also on their minds more than ever before."



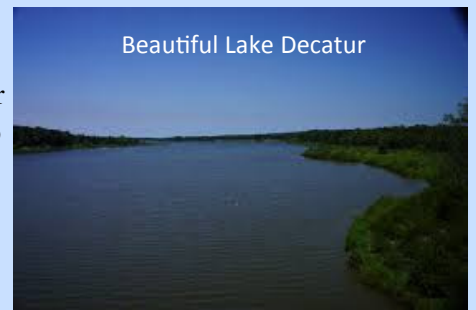
Jerry tells his customers that there are three main ingredients for a successful crop. Coming from a fertilizer guy, you might guess those three ingredients to be N (nitrogen) P (phosphorous) an K (potassium). But Jerry says those ingredients won't help unless combined with three other ingredients: Water, Air and Sunlight. "By carefully managing N P & K within a 4R system, we can better manage environmental conditions that can lead to nutrient loss and channel those nutrients into the crop: but it does take management and commitment to right source, right rate, right time, right place principles. I'm thrilled to be part of the improvements being made in nutrient stewardship to get the most out of a farmer's fertilizer investment and meet our environmental responsibilities."

Last February, Jerry helped host a Prairieland FS customer meeting in Sherman, IL to focus on the 4Rs and improving nutrient utilization. "We had over 100 customers attend, and at next year's meeting my goal is to have 300 customers there. We have to continue to be proactive and utilize tools like N-WATCH to track our soil nitrogen, and make adjustments to our management plans to improve utilization."

In tough economic times, it can be easy to stand on your wallet, but the 4Rs have clearly demonstrated that managing nutrients in a systematic approach is an investment that pays significant dividends both economically and environmentally. "I'm very proud to be part of these efforts in the Lake Springfield and Lake Decatur watersheds; farmers have embraced and utilized the 4Rs because they work."

Water Suppliers Keep Us Updated on Water Quality

The 4Rs of nutrient stewardship are supported by three vital pillars: concern for economic return, environmental protection and societal expectations. The Keep it 4R Crop program doesn't stay within its agriculture comfort zone—we reach out to water supply officials on a regular basis to evaluate what they are seeing in the water quality, compared to what we are seeing with fertilizer practices in their watersheds. We share this with ag retailers in these areas to keep awareness levels high. Here's a report on May 2015 water quality from several Illinois drinking water supplies; we don't sugar coat the message, it can be good news or troubling news.



Lake Decatur: Don Giger reports that “We haven't seen an upswing in nitrate levels and have been releasing water from Lake Decatur due to the rainfall events; I'll feel even better when we get to late June which is typically the end of the nitrate season for us.”

Lake Bloomington: Rick Twait reports that “While our tributary streams have approached and, at times, exceeded 10 ppm nitrate over the winter and spring, the nitrate levels in both of our reservoirs have remained comfortably below the 10 mg/l limit.”

Lake Danville: David Cronk said “Sorry, I don't have real good news as far as the level of nitrates are concerned. We had to start the nitrate removal plant the week of May 11th due to high levels. That was short lived though because we got a large amount of rain over the weekend which had a dilution effect on the nitrates. They are creeping back up though; they are currently 9.0 ppm. We have been collecting samples from the various points on the river on a weekly basis and compiling results. So far this year we have topped out at 12.3 ppm and that is a bit higher than normal. It is starting to come back down but we have a ways to go yet. With the early planting this year, hopefully it will be over soon.”

Lake Springfield: “While some of the tributaries have nitrate levels in the 10-18 ppm level, overall this year the lake is below 1 ppm at the intake and we've had great conditions. If we can continue to work proactively within the lake watershed to reduce nitrate losses as we have the past two years, it gives us all assurance that we can keep the lake comfortably below 5 ppm on a consistent basis in the future” said Steve Frank.

N-WATCH UPDATE: N-WATCH is a soil nitrate testing program to inventory, track and verify plant available nitrogen in the soil after application and throughout the growing season. This year, there are over 300 N-WATCH sites in Illinois. These sites are being supported in a multitude of ways: as a basis for information to feed nitrogen utilization research funded by the Nutrient Research & Education Council (NREC), supported by CBMP using NREC dollars to host “sentinel” sites for everyone to learn from, and sites being sponsored by the IFCA Keep it 4R Crop Program, ag retailers and Dow Agrosiences to enhance what we can learn from various nitrogen management practices to improve nutrient utilization and protect against losses. **N-WATCH results this spring** continue to reinforce that properly applied fall ammonia with a nitrification inhibitor is remaining in a non-leachable form into spring planting season. With the crop now emerging, nitrogen applied in both fall and spring reveals nitrate in the upper soil profile and it's being taken up by the plants. As we head into June, we will continue to monitor these sites to watch soil N levels and look for any areas of concern; this enhances farmer education and awareness of soil nitrate movement.



Illinois, Ohio and Michigan Team up on 4Rs

The fertilizer industry nationwide is making a substantial investment in 4R research in order to assure sound science continues to be the basis for 4R methods and nutrient policy. Over 100 scientists and policy advisors attended a 4R Research Summit on May 12-13 in Washington, D.C. and several state 4R programs were highlighted at a briefing on Capitol Hill. From left to right, Andrew Allman (Ohio Agribusiness Assoc), Jean Payne (IFCA), Tim Boring (Michigan Agribusiness), Tim King (USDA) and Carrie Volmer-Sanders (The Nature Conservancy) presented on 4R programs in Illinois, Ohio and Michigan.