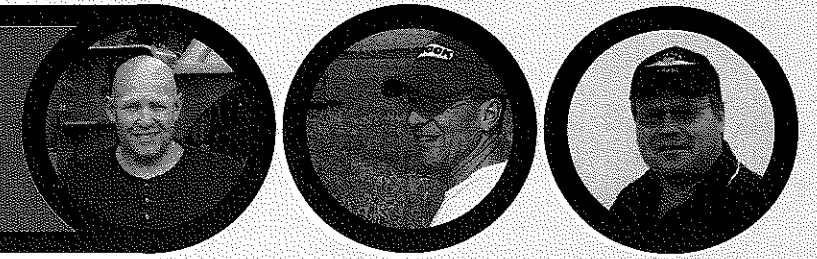


Farmer Panel



Make the most of phosphorus

Read on for strategies growers use to get crops growing faster with more vigour

BY LEE HART

While adequate nitrogen is usually the big concern for maximizing yields, a lot of producers want to make sure seedling roots don't have to go too far after germination to find phosphorus.

Phosphorus is an essential nutrient, particularly important in the first five to six weeks of plant growth. It plays a big role in stages of crop development such as stimulated root development, increased stalk and stem strength, improved flower formation and seed production, more uniform and earlier crop maturity, increased nitrogen-fixing capacity of legumes, improvements in crop quality, and increased resistance to plant diseases.

The International Plant Nutrition Institute says wheat, for example, absorbs only 15 per cent of its total phosphorus in the first two weeks of growth — but this is a critical amount for optimum yield. And a phosphorus deficiency is difficult to identify, since crops usually display no obvious symptoms other than general stunting. If a deficiency does appear visually, it may be too late to correct.

So like nitrogen, if the goal is to optimize yields, phosphorus is a nutrient you don't want to run short of.

Here is what farm panel members say about programs they use:

KEVIN SPARROW
FAIRFAX, MAN.

Kevin Sparrow, who farms near the southwest Manitoba community of Fairfax, has been using Alpine liquid starter fertilizer with his grain and oilseed crops for the past four years.

Although he has been able to eliminate 20 to 25 pounds of granular phosphate now that he is using Alpine liquid starter, Sparrow doesn't see a huge cost savings.

"Where I do see a huge difference is the crop getting out of the ground much faster and with much more root development," says Sparrow. "If you have a year with really good growing conditions, you might not notice that much difference, but in dryer years the crop is much more vigorous."

Sparrow, who crops about 4,000 acres, places the Alpine liquid fertilizer right in the seed row at seeding. The first time he used the product, it came with a kit that included a pump and feeder hoses to deliver the fertilizer to each shank. Sparrow seeds with a Seed Hawk air drill. He bought seed boots with an extra hole on the back for a liquid tube. Alpine goes on at three gallons per acre, which is equivalent to 8.5 pounds of actual phosphorus, at a cost of roughly \$10 to \$12 per acre.

"The first year I applied it to all acres, but I left some strips that just received granular phosphate," he says. "The crop treated with Alpine came out of the ground two days faster, and you could see later in the season that it had developed a much larger root sys-

tem, and more of those fine root hairs.

"The crop gets off to a faster start, and with that larger root system it is better able to make use of soil nutrients and moisture."

Sparrow does see some improvement in yield, and estimates his yields with 70 pounds of nitrogen and Alpine, are equal to neighbouring fields that receive 80 to 100 pounds of nitrogen and granular phosphate.

With fertilizer prices higher in 2009, he applied about 70 pounds of nitrogen, 15 pounds of potash, 15 pounds of sulphur and the Alpine start fertilizer as a standard

blend on all crops. This year, with fertilizer prices a bit lower, he plans to increase nitrogen to 100 to 115 pounds, particularly for wheat and canola. He does follow soil test recommendations every year.

"Some people say that if I use that little bit of starter phosphorus, it will deplete the phosphorus in the soil, but that's not what the soil test is showing," he says. "It hasn't changed a bit over the past four years. There are still good phosphorus reserves in the soil."

Along with the wheat and canola, Sparrow says he has also noticed a dramatic difference in the pop-up effect on grain corn and confec-

tion sunflower crops. "With Alpine they just seem to jump out of the ground," he says. "I have really noticed a difference with those high heat unit crops."

DENNIS BOHUN
RICHARD, SASK.

As long as the product cost doesn't increase significantly, Dennis Bohun of Richard, Sask., says Nexus YieldMax foliar fertilizer makes good economic sense, not only by increasing yield, but also by improving crop quality.

Bohun, who crops about 7,400 acres just east of North Battleford,

Sask., has used YieldMax, which is an 18-20-20 blend with added micronutrients, for the past six years.

"We did some strip trials on our farm with wheat and canola comparing crops treated with a standard granular fertilizer blend with strips that also received YieldMax," he says. "There was not only a yield improvement with the YieldMax strips, but with the canola, for example, there were more full pods, there was a better plant stand, and the crop had less disease."

Bohun tells how he made a short test strip (to empty the sprayer) on a neighbour's field of canola where