



Direct Connections

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Helping you stay informed!

This Week : George Lubberts : How do you know if micronutrients are really needed?

Some people seem to think that micronutrients will solve all your farming problems .

Under dry land conditions in southern Alberta, water is usually the limiting factor, so micros are rarely needed .

Quote for the week:

“A positive attitude may not solve all your problems, but it will annoy enough people to make it worth the effort. ”

Herm Albright (1876 - 1944)



Dave's Corner Here's round two from George Lubberts. This week George weighs in on a very popular topic, Micronutrients:

Some people seem to think that micronutrients will solve all your farming problems, and they might if you spend too much money on them and go broke. My rule of thumb is that you should get \$3 back for every dollar you spend on crop inputs. How do you know where your return is? That is a very difficult question to answer, but simply put, if you add 5 lbs of nitrogen (at \$0.30/lb of N) and get 1 extra bushel of canola, is that worth it? Assuming your canola is worth at least \$4.50/bushel, then you are getting a 3:1 return on your N fertilizer. Most of the response curves available through Alberta Agriculture will allow you to do your own calculations. The same should apply to micronutrients. Under dry land conditions in southern Alberta, water is usually the limiting factor, so micros are rarely needed. During a discussion with a couple of soil fertility experts a couple of days ago, it was mentioned that they only saw a return to applying boron on canola once in 20 tests. Now you have to remember that most research assumes that the results are accurate 19 out of 20 times. It is very possible that this 1 in 20 response is due to that 1 in 20 chance of getting inaccurate results.

This is the way I look at micronutrients. If you are happy with your crop yields, you probably don't need them. If you think there may be a field or two that isn't responding the way you think it should, then it might be micronutrients. The way things work in nature is that only parts of a field are lacking and if they are affecting the yield it is normally visible as well. So you should be seeing patches in the field that don't look good. Then do a tissue test on the poor areas and compare them to good areas. If the poor areas are low in a micro or two, it will show up from the lab result. Then you can decide if it is economical to treat the whole field or just part. I would suggest doing a couple of strips across the poor areas along with some on the good area and weigh the yields in the fall to see if there is an economic result to using the micronutrients. The other way to look at it is if only 10% of the field has a micronutrient problem, it doesn't pay to put it on the whole field, just treat the area that needs it.

I am not saying that crops don't need micronutrients, they do, but in most cases the soil supplies them more than adequately. What really bothers me is people who recommend using micronutrient packages just to be on the safe side. Some of these packages cost \$10 to 15/acre. Using the 3:1 rate of return, then the micros should return you \$30 to \$45/acre. At \$5 wheat, that's 6 to 7 bushels per acre. If you have dry land wheat that normally yields 30 bushels per acre, you would need to get a 20% increase in yield. If you must use them, try them on a few strips and weigh them off.

George Lubberts is a CCA and professional Agrologist . He owns and operates Complete Agronomic Services here in Southern Alberta. George has dealt extensively with most crops as well as irrigation management and precision agriculture. He lives with his wife, Wilma , and three teenage children in Nobleford