



Agro Services International Inc.

Ten common errors in managing crop nutrients.

Error # 1. Fertilizing without getting the soil analyzed.

This may seem incredible, but even today there are growers who choose fertilizers without knowing the nutrient status of their soil. Their chances of achieving optimum productivity are very slim.

Error # 2. Using the wrong soil laboratory.

All laboratories are not the same. Some use methods that are not properly calibrated, therefore the results do not really reflect the soil nutrient status. Others do not have proper quality control systems in place. Remember, a bad analysis is worse than no analysis.

Error # 3. Incorrect soil sampling.

A bad soil sample gives incorrect results no matter how good the laboratory is. Your field must be divided into uniform zones and each area must be sampled properly. See our document "How to take a soil sample" for more information.

Error # 4. Concentrating on the major nutrients.

The terms major (or macro), secondary and micro nutrients are misleading. All of the nutrients are equally important, a deficiency in any one can dramatically reduce growth. Growers who are only interested in N, P and K fertilizers are probably not achieving optimum production.

Error # 5. Depending only on plant analysis

Some growers base their fertilization program solely on plant tissue analysis, especially in tree crops. While tissue analysis can be very useful, it has limitations. For example, it cannot detect soil acidity and lime requirement.

A low level of a nutrient in the tissue does not mean that it should be applied. The levels in the soil may be quite good, but uptake is poor because of some other problem such as diseases or moisture stress.

An adequate level of a nutrient in plant tissue does not always mean that the supply is good. The tissue level of the nutrient may be adequate at the time of sampling only because there is another problem limiting growth. If the problem is solved and the crop growth rate increases, the plant nutrient level can fall if the soil supply is not enough to keep up with the increased demand.

Error # 6. Curing deficiencies rather than preventing them.

Some growers will only tackle a nutrient deficiency when it is detected by tissue analysis or visual symptoms. Of course if a deficiency is detected in a crop, you should attempt to correct it. However, at that stage, the crop has already been affected and you cannot obtain maximum yields.

It is far better to use soil analysis to predict and prevent nutrient problems before planting rather than to allow the crop to suffer during the early stages of growth and then try to correct the problem.

Error # 7. Depending on visual symptoms.

“A deficiency is not a deficiency unless I can see the symptoms”. This approach is used especially in managing secondary and micro nutrients. In the majority of field cases, nutrient deficiencies can reduce crop growth without showing any clear symptoms. This is often called “hidden hunger”.

Error # 8. Assuming that good fertilization guarantees high yield.

You may have a perfect fertilization program, but if there are other problems in the field, you will not achieve top yields. Unhealthy planting material, water stress, pests, diseases and weeds are just some of the factors that can limit crop growth on even the most fertile soil.

Error # 9. Following the soil report blindly.

Soil laboratories give fertilizer SUGGESTIONS for the crop you wish to grow. These suggestions must be modified to suit your actual conditions. The lab does not know the cost of your fertilizers, the potential productivity of your environment, the value of your crop nor your financial position. It therefore cannot determine the most economical fertilizer application rates.

Error # 10. “Magic” products.

It is not uncommon to see new products being offered to farmers which promise big yield increases while reducing input levels of standard products. These products usually claim to be "scientifically proven" to stimulate soil nutrient release and increase crop uptake. Skepticism of "magic" products is certainly warranted and if tried at all it should be done on a very small scale to determine its' value. Such products should normally be supplied free of cost for small scale trials.

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