

Test Options

We have a lot of new stuff planned for the coming year and so we have developed this Agent Update to keep you informed of developments as they occur and provide useful information in an equally timely fashion. The first of these will be dealing with our Optional Tests since they are an ongoing source of queries – Are they necessary? What are they for?

1. Total Phosphorus and Available Silicate

These tests are very frequent inclusions for soil – to the point that we have had requests to include them as standard, rather than as options. Of course this would make soil tests significantly more expensive.

Cost aside, it is likely that many more people would use these tests if they understood why they needed them. We hope this brief explanation will help.

Total Phosphorus

Phosphorus has a very complex chemistry in the soil, with many chemical forms being present. All the various forms of P are 'connected' in the sense that they can change from one to another. This means that even the forms that are less available to plants can cycle through to more available forms eventually (depending on a range of conditions). In an active, balanced soil this cycling will be more rapid and result in more plant-available P and somewhat less of the unavailable 'reserve' P.

There are no desirable levels for Total P, or any ideal relationship between Total and Available P, but on many soils, repeated use of phosphate fertiliser, the Total P can be seen to increase more rapidly than the available P. Also, as the soil balance improves, the trend will be for increased available P and reduced Total P.

Using this test, many people find Total P a useful measure for managing their overall soil fertility. In the early years (while getting the soil into balance) they can track the progress of falling Total and rising Available Phosphorus, until a sort of equilibrium is reached. After this, it gives a more complete picture of the 'health' of their soil environment. That is, once you have a 'feel' for how things should be, the inclusion of Total P on your test results will give you a quick, early indication of whether changes may be occurring.

Available Silicate

This is one of our newest tests and the one that is growing in popularity most quickly. In the past, we have resisted introducing it due to a lack of decent research on both the test and the importance of Silicon in either soil function or plant nutrition. However, things are changing (slowly) and the demand to this test has grown so quickly, we simply could not hold off any longer.

Silicon is now considered to be an essential trace element in plants, although some plants (notably grasses, cereals & cotton) have greater requirements for it than others. A side benefit in such crops is also an increased resistance to lodging. Nevertheless, it seems clear that it does have some function in plant nutrition and (perhaps more importantly) probably has a significant role to play in soil function. Much still remains to be learned about Silicon and no desirable levels are available yet for either plants or soil, however, it is clear that the level should (in general) increase as the soil 'health' improves. It also seems clear that as this process proceeds, plant health and productivity will also increase.

Like Total P, the inclusion of Available Silicate on a soil report gives a more complete picture of what is happening in the soil and you should get a 'feel' for it as time goes by. Also, by including it now, you will be developing a "History" for the property that will become more and more useful as further research becomes available.