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## **IS YOUR SOIL HEALTHY?**

How someone answers this question indicates quite a lot about the way that person views the soil. For some, “healthy” and “soil” are not words which would be used in the same sentence. For such people, the soil is simply a medium to which fertilisers are added to improve plant growth. To them, soil “health” means ensuring that there is an adequate supply of N,P, K & S. To others, the soil is something which requires ongoing cultivation to enhance crop production – to these people, soil “health” translates to how easy or quickly the next crop can be planted and harvested. To still others, the soil is simply viewed a place where plants grow and anchor themselves – whether it’s healthy or not is not something they ever think about.

But just like humans, animals and plants, soils can also be healthy or unhealthy. And, just like humans, animals and plants, soil health should be monitored. A good, healthy soil has a significant impact on productivity, as does an unhealthy “sick” soil.

Monitoring soil health does not necessarily mean subjecting it to an exhaustive array of tests. Often a few well chosen indicator tests may be all that is required, especially if these are combined with a growing “big picture” understanding of the soil, plant, animal interrelationship. The soil that lies hidden beneath its covering of pasture or crop is healthy or unhealthy depending on the interaction of three different but highly interrelated spheres which operate under the global umbrella of “soil”: the chemical sphere, the physical sphere and the biological sphere. A significant imbalance in any or all of these spheres can lead to an unhealthy soil i.e. too much (or too little) of a nutrient in the chemical sphere can cause problems; likewise, damaged structure in the physical sphere can inhibit soil function. If the right balance and numbers of soil organisms is not present in the organic sphere, then it doesn’t matter how desirable a soil test shows the soil chemical parameters may be, that soil will not perform as well as it could. Soil organic material, though generally only comprising 5-10% of the soil is critically important to overall soil function and health.

How can you monitor and manage soil health? Start by digging some holes! Get your spade out and look at the soil under an area that is growing well and compare it to another area which is performing poorly. How easy is it to pull the soil apart? How many fine roots do you see? How deep do the roots go? Is the organic material decomposing or just sitting there? How sweet does it smell? Can you locate any earthworms or other soil animals? Begin to build a mental inventory and frame of reference. As you do these simple things, pretty soon you’ll start to see correlations and before long you’ll be drawing useful conclusions about what you observe. Getting your hands dirty is a small price to pay to gain a better appreciation and understanding of the soil which is the foundation of farm productivity!