

## Specific Sampling

When you want to test specific areas, such as problem zones, areas with different fertiliser, crop rotation or soil biology treatments, or different soil types, identify these specific areas and test them separately (**Figure 3**). This can help you to answer specific questions, such as:

- Is a problem zone caused by poor soil biology?
- Have different fertiliser applications improved soil biology?
- Do I need different strategies to improve soil biology on different soil types?

For example, if 20 % of your 100 ha paddock is black soil and 80% red soil; take five sub-samples from black soil areas, and, separately, eight sub-samples from the red soil areas. Mix the black soil sub-samples together into one combined sample, and the mix the red soil sub-samples into another combined sample.

## Taking the soil sample

### **If you are testing the soil in a crop it is crucial that you sample soil from the root zone.**

For field crops the best location is within a few centimetres of where the main stem enters the soil. For vine and tree crops it will generally be underneath the canopy or around the canopy drip line (you may need to test with a spade). Be consistent across sub-samples and over time. You should see some roots in your soil sample, if not you are probably not sampling in the root zone and need to try another spot.

Use a soil auger, spade or trowel to scrape off the top few cm of soil and dig a 15 cm (6 inch) deep hole. If using a soil auger the captured soil is your sub-sample. If using a shovel or trowel take a sub-sample from one face of the hole, from top to bottom. Place the sub-sample in a clean container large enough to hold all the sub-samples for the combined sample. Repeat at each sub-sample location until you have taken enough sub-samples. Mix the combined sub-samples thoroughly (for about 2 minutes). Completely fill a supplied 70 mL soil sample jar with the mixed soil, tapping gently to settle the soil into the jar. The soil volume should be level with the top of the jar before applying the cap. Do not over- or under- fill the jar. Do not pack soil into the jars.

Always wear clean gloves (such as those provided in the sampling kit) when taking or mixing soil samples to avoid sample contamination. Your test may not be accurate if you do not wear gloves.

Once you have entirely completed your sampling freeze all soil samples at -18°C with the ice brick for at least 24 hours before sending to the lab. The freezer compartment of a properly functioning domestic refrigerator should achieve this. Ensure the samples are separated from food and out of the reach of children.