

# Accurate soil sampling

The three key areas of PLAN, SAMPLE AND DISPATCH must be done correctly to help achieve sound soil and plant nutrition recommendations. The practices identified below should be followed.

plan

**1** Develop a fit for purpose sampling plan.



**2** Samples must be representative of soil, crop and land management.



**3** Sample at the same time each year for monitoring and predictive purposes



**4** Don't sample for 3 months after adding fertiliser or soil amendment, given rainfall and soil disturbance requirements are met.



sample

**5** Use appropriate sampling equipment.



**6** Use safe and clean practices.



**7** Collect a minimum of 20-40 cores depending on core diameter.



**8** Sample to the correct depth for enterprise and issues.



**9** Avoid atypical area such as stock camps.



**10** Record sampling location, equipment, depths, date and conditions.



dispatch

**11** Keep sample cool, dark and avoid contaminants.



**12** Send to lab promptly or store in fridge (4°C) briefly.



**13** Ensure sample forms are correctly filled out.



**14** Follow relevant biosecurity procedures.



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## plan

Clearly defining the reasons why sampling is undertaken is essential when developing a sampling plan. “What is the question your client wants answered?” Which of the following reasons are you sampling?

- » Predictive (which nutrients do I need and how much?),
- » Monitoring (have my soil nutrient concentrations changed over time?),
- » Diagnostic (explaining spatial differences in crop and pasture growth), or,
- » Compliance (meeting industry or regulatory requirements).

Once you have defined the reason for sampling, you can then decide on:

- » The area to sample, based on similarity in soil, crop and land management,
- » a sampling pattern, and
- » when to sample.

## sample

- » Select and check “fit for purpose” sampling equipment.
- » Ensure cleanliness through the sampling and handling procedure while also following work health and safety guidelines.
- » Identified sampling areas should aim to reduce variability and represent similarity in soil type, crop and land management.
- » Take at least 20 - 40 cores per composite sample. Smaller diameter samplers need more cores. Err on the side of taking more cores particularly as soil and crop variability increases.
- » Sample the correct depth for the crop or pasture and issues to be addressed.
- » Avoid atypical areas such as stock camps, fence lines and gateways, tree lines, previous fertilizer and lime dump sites, timber burns, headlands and poorly drained areas.
- » Record geo-coordinates of sample patterns, sampling equipment used, depth, date and field conditions.

## dispatch

- » Protect collected soil samples from heat, sun and contamination.
- » Send to the laboratory shortly after collection. Avoid mailing samples toward the end of the week. Samples may be stored briefly in a refrigerator at 3 – 5°C prior to dispatch.
- » Fill out all details on the sample submission forms or in a sampling app.
- » Follow relevant biosecurity requirements regarding sampling equipment and movement of samples when traveling between farms and shipping samples across state borders.



For more information, read the **Fertcare Soil Sample Guide** by scanning this QR code.



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