### SUSTAINABLE LAND MANAGEMENT

## FERTILIZER & LIME RESEARCH CENTRE

What skills are required for Nutrient Management Planning?











#### **Activities required for Nutrient Management Planning**

(Adapted from Edmeades, Robson, Dewes FLRC 2011)

| Step | Activity  | Details   |
|------|---|---|
| 1    | Define farm type general productivity and farm goals  | Production, Risks, Economic, Environmental and Social to define farm specific goals. Environmental and social goals must link directly and specifically through the mitigation options (Step 9) to the regional Air, Water and Land Plans.                                  |
| 2    | Describe quantitatively the farm production system.   | Obtain farm records of all inputs and outputs of nutrients over past 3-5 years. Match with and re-evaluate goals.   |
| 3    | Identify, map<br>and characterise<br>farm's Land<br>Management<br>Units and soil<br>resources | The smallest unit of management on the farm within and across soil type and management history (e.g. night paddocks). Assess all aspects of soil quality (biological, chemical and physical) and especially drainage, pugging, compaction and accumulation of heavy metals. |
| 4    | Monitor farm nutrient levels  | Develop a robust soil/pasture/animal testing protocol setting out<br>the transects to be used on each LMU and the frequency and<br>timing of sampling.  |

| Step | Activity   | Details   |
|------|--|---|
| 5    | Prepare Nutrient Budget(s)   | From the NB, estimate the losses of N (N leaching) and P (runoff) for each block and the average for the farm   |
| 6    | Define the economic optimal nutrient ranges                          | Compare soil fertility levels and trends against the economic optimal nutrient levels for each LMU and its associated animal or crop production system.   |
| 7    | Assess "hot-spots" .   | Include offal pits, lane-ways, silage bunkers, fertiliser storage facilities and farm dumps   |
| 8    | Review nutrient budget whilst assessing risks and mitigation options | Prepare a list of management options that could be implemented on the farm to reduce N,P and faecal loadings and improve soil quality with a quantitative assessment of their likely benefits. Run nutrient budget scenario's in Overseer. Test compliance with regional rules. |
| 9    | Prepare Nutrient<br>Management<br>Plan                               | Justify plan, advise on compliance. Clear instructions for: a).rate and application of FERTMARK registered fertiliser by SPREADMARK registered spreader. b). Effluent management c).grazing management etc.   |
| 10   | Audit NMP  | Review the NMP and update Steps 1-9 noting any changes to the previous NMP.   |

#### SUSTAINABLE NUTRIENT MANAGEMENT

Who is capable of Nutrient Budgeting and Management Planning?

# Trained in Sustainable Nutrient Management plus Industry Experience



