



Nutrient Management Plans



Nutrient management is very topical at the moment, with recent escalations in fertiliser prices, the Fonterra Clean Streams Accord, nitrification of the Rotorua lakes, nutrient discharge from tile drains in Southland, just to name a few issues. Underlying all these problem zones is the need to have a nutrient management plan rather than just a nutrient budget.

A nutrient management plan is a valuable tool to help identify nutrient resources and their interactions. It describes how these resources will be managed to improve farm profitability and provide acceptable environmental accountability. To aid farmers in preparing a nutrient management plan, Fert Research has produced an excellent template and the steps are described below.

Step One - Set objectives for nutrient management for the property. This is split into two parts, the first part deals with environmental management issues such as meeting legal requirements, ensuring water quality and areas of significance are not compromised. The second part focuses more on the farm production and performance objectives.

Step two - Identify and describe the farm's physical resources such as land management units or soil types. Although this step is optional in the Fert Research plan, we consider it critical for taking your farm business forward. Quantifying these areas, assigning strengths and limitations, and putting an estimate of productive potential of each unit, will provide opportunities for your farm well beyond nutrient management.

Step three - Identify the environmental risks and assess their level of significance for each land management unit. Typical risks arising from nutrient management activities might include contamination of ground and surface waters; undesired changes in soil nutrient status; fertiliser application to non-target land through drift to name a few. Having an understanding of these, the chances of it occurring and the level of significance if it does, will enable the land owner to adequately manage that risk.

Step four - Prepare the nutrient management plan. There are four parts to this and include:

- (a). *Checking industry and legal requirements.* Your friendly fertiliser sales representative or Regional Council should have an understanding of these requirements.
- (b). *Develop fertiliser recommendations.* Consider fertiliser type, application rates and timing. These are key management factors that can be greatly varied to meet nutrient management plan objectives whilst considering environmental risks, present nutrient levels, capital or maintenance dressings, and the production objectives of the property. Fertiliser recommendations must take into account the environmental risks and best management practices.
- (c). *Prepare a nutrient budget.* All nutrient management activities require the preparation of a nutrient budget. This is done to assess the cumulative impact of nutrient use. One approach is using the nutrient budgeting software, "Overseer".
- (d). *Identify best nutrient management practices.* The nutrient management plan needs to list the best management practices that will reduce the "risks" associated with nutrient management.

Step Five – Implementing the plan. Having planned for success, the plan must be communicated and implemented. Putting it into action includes making sure that all people involved understand the plan and can do their part.

Step Six – Record and monitor. Recording and monitoring are essential for assessing whether you have achieved the nutrient management plan goals and how well the planned activities went. It also helps identify areas where management could be improved or production gains achieved.

Step Seven – Review the plans success. Making a nutrient management plan work means that should be followed, not just filed – and this requires checking, either by a self assessment approach or through an external audit. Monitoring actual performance is an essential part of achieving continuous improvement. It is not enough to plan and implement it, but also check to see if the actions really did achieve the plan's objectives, reduce environmental risk and the production goals has been met.



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The important thing for a nutrient management plan is that it is undertaken to land management units and details expected risks or adverse possibilities, and incorporates a plan for dealing with these risks. A nutrient management plan must not be set in stone but be a living document with the ability to change it as more information comes available or the situation changes.

For an excellent nutrient management template and how to complete it, check out the Fert Research website www.fertresearch.org.nz. Or for more information contact Lachie Grant or Sarah Dudin at www.landvision.co.nz.