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NRM Plan

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Sustainable Agriculture

Land Class in the Northern and Yorke NRM Region

What is Land Class capability?

Land class capability refers to the capacity of the land to support a particular use and sustain that use in the long term. A land use is within capability, if it maintains or improves the condition of the land. Each part of the land may have different characteristics:

- Aspect
- Terrain
- Type and depth of soil
- Management history
- Vegetation cover
- Water logging potential
- Erosion hazard.

Agricultural Land Classes

Land can be categorised into classes according to its capability for agricultural use. The capability of the land and the class into which it is placed depends on its physical characteristics or limitations. A suggested classification of agricultural land classes follows.

Arable Land

Class I: Land with no significant limitations to agricultural production on a permanent basis and no specialised management inputs required, provided that practices are applied to prevent a long-term decline in soil structure, organic matter and fertility.

Class II: Land capable of being used for agriculture on a permanent basis, provided that careful planning and practices applied, such as reduced tillage and stubble retention. Slight productivity reductions can be expected if limitations cannot be overcome.



Class III: Land capable of being used for most types of agriculture on a permanent basis, provided that careful planning and intensive management practices are applied. Productivity reductions can be expected if limitations cannot be overcome.

Semi-Arable Land

Class IV: Land not capable of sustaining cropping on a regular basis. The land is best used for improved pastures.

Non-Arable Land

Class V: Land that has the potential for the establishment of improved pastures, which can be highly productive, depending on the nature of limitations.

Class VI: Land not traversable because of steep slopes or excessive rockiness, but capable of supporting grazing.

Class VII:Land with extreme limitations which requires protection by permanent vegetative cover. Some limited grazing is possible but the primary aim of management is protection not productivity.

Class VIII: Land with no agricultural value and not requiring any specialised management for its protection.





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Why manage according to Land Class?

It is important to have an estimate of land capability and land class categories that work for you. Once you work out the capabilities of different parts of your land, you can manage them appropriately.

How to manage according to Land Class?

The easiest way to start is to mark different land classes on clear overlays that are firmly aligned with an aerial photo of your property - the whole-farm planning approach. The next overlay consists of the existing layout such as fence lines and gates, water troughs, stock yards, buildings, roads and tracks, and powerlines.

Depending on the situation other overlays may include:

 Soil information - soil type, pH, EC (electrical conductivity)

- Paddock information identification, current land use, productivity
- Trees remnant vegetation, windbreaks, proposed areas for planting or natural regeneration
- Services power lines, telecom cables, water lines, gas pipelines.

The final overlay(s) shows the future draft plan for the property. Incorporate the different land classes into your whole farm plan and then you can manage each area within its capability.

Fencing the farm according to land classes enables areas to be used to their full potential, without being restricted by areas of lesser capability which may require different management.

It is difficult to manage each land type according to its needs and capabilities when several land types occur in the one paddock. It is important to look at the existing paddock layout in comparison to the land classes when drafting future plans. These should show a range of possible layouts with proposed stages for implementation to fit in with the constraints of the business.

Further Information

Other N&Y NRM Factsheets Sustainable Agriculture – Contour Banking in the Northern and Yorke NRM Region

Sustainable Agriculture - Healthy Soils in the Northern and Yorke Natural Resources Management Region

Help and Assistance NRM Authorised Officers

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