Nutrient Management Regulation and Manitoba’s Agricultural Producers

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Protecting Manitoba’s Water
This poster provides information on how agricultural operations can comply with the Nutrient Management Regulation.

The purpose of the Nutrient Management Regulation is to protect water quality by:
• encouraging responsible nutrient planning;
• regulating the application of materials containing nitrogen and phosphorus; and
• restricting the development of certain types of facilities in environmentally sensitive areas.

The Nitrogen and Phosphorus Problem
The gradual but steady increase in nitrogen (N) and phosphorus (P) to water systems over the past decades is the single, largest water quality challenge facing Manitoba. Scientific studies show that since the early 1970s, nitrogen and phosphorus loads to Lake Winnipeg have increased by about 10 per cent.

High levels of phosphorus and nitrogen increases the production of algae and aquatic plants. This can cause changes to aquatic life habitat, reduce essential levels of dissolved oxygen, clog fisher’s commercial nets, interfere with drinking water treatment facilities and cause taste and odour problems in drinking water.

The Nutrient Management Regulation
The Nutrient Management Regulation encourages responsible nutrient planning and regulates or prohibits the land application of substances containing nitrogen or phosphorus in various New Nutrient Management Zones.

Nutrient Management Zones
Nutrient Management Zones are based on the agriculture capability (Canada Land Inventory) land classification system. More information on agriculture capability and soil classes can be accessed via AgriaMaps at the following link: geop2.gov.mb.ca/website/mari/index3.html

Nutrient Management Zones
Nutrient Management Zones N1
• Canada Land Inventory class 1, 2 or 3 lands other than those bearing a “M” limitation.

Nutrient Management Zone N2
• Canada Land Inventory class 3 lands bearing a “M” limitation, class 4 and 5 lands except SM if irrigated.

Nutrient Management Zone N3
• Canada Land Inventory class 3 lands not captured in Nutrient Management Zone N2.

Compliance in Nutrient Management Zone N1, N2 and N3 can be achieved by not exceeding the soil nitrate-nitrogen limits and phosphorus thresholds or the $P_O$ application rates listed in Table 1.

Table 1. Soil Nitrate-N Limits and P Thresholds

<table>
<thead>
<tr>
<th>Nutrient Management Zone</th>
<th>Soil Nitrate-N Limit</th>
<th>P Threshold</th>
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<tbody>
<tr>
<td>N1</td>
<td>50 mgO$_2$ L$^-1$</td>
<td>0.5 MnO$^2+$</td>
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