Data Supermarket

Land Use Opportunities for Aotearoa

GUIDANCE DOCUMENT

AGRESEARCH

Table and spatial layer of sheep and beef types and their associated loss rates for Nitrogen, Phosphorus and Greenhouse Gases

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June 2024

v1.0

HOW TO USE THIS INFORMATION

The spatial layer contains information on potential sheep+beef areas of New Zealand, partitioned into 36 types based on wetness, topography and soil properties (see table below). Each sheep+beef type contains predicted loss rates for nitrogen (N), phosphorus (P), methane (CH_4) and nitrous oxide (N_2O). All types have data predicted by a statistical model from a database of 251 overseer models of individual farms spread across the types.

If using the GIS data (TIF file), users clicking on a sheep+beef type will be shown a table of the estimated losses of N, P, CH_4, and N_2O.

If using the tabulated data (PDF), users can select the relevant table row for the sheep+beef type that represents the area of interest (based on the rainfall, topography and soil properties – see below) for estimated minimum and maximum losses of N, P, CH_4, and N_2O.

Primary attribute	Class within attribute	Description
Rainfall[1]	Dry	farms where mean annual rainfall was less than 700 mm
	Moist	farms where mean annual rainfall was between 700 and 1200 mm
	Wet	farms where mean annual rainfall was between 1200 and 1700 mm
	Ver wet	farms where mean annual rainfall exceeded 1700 mm
Topography[2]	Medium	farms with <7° average slope
	Low	farms with 7–14° average slope
	High	farms with >14° average slope
Soil[3]	Light	soils, defined as having plant available water holding capacity to 60 cm (PAW60cm) of less than 85 mm
	Poorly-drained	soils, classified as having 'imperfect', 'poor' or 'very poor' soil drainage classes
	Well-drained	soils, classified as 'well' or 'moderately well' drained.

The data provides pastoral farmers and rural professionals with information to guide initial conversations on N, P and GHG losses for contrasting sheep+beef types. Where catchment-scale or farm-scale data is required, alternative sources of information are recommended (e.g. catchment-scale modelling, farm-scale decision support tools).

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