

Steve Rice

From: Lindsay Fung [lindsay.fung@deernz.org]
Sent: Friday, June 7, 2019 9:59 AM
To: Steve Rice
Subject: Re: PC1 Hearings - Block 2. NZDFA Waikato and Waipa Statement of Evidence

Hi Steve

Yesterday Commissioner Robinson asked for more details on N loss rates from a deer farm that we had provided some information on in our statement (paragraph 29).

I have contacted Beef + Lamb NZ which has the farm details and have received the following information:

- The Farm 3 has a high N loss rate of 25 kg N/ha/yr (as modelled using OVERSEER 6.3.0) - in our statement we recorded the loss rate as 27 kg N/ha/yr (this was modelled using the previous version of OVERSEER 6.2.3)
- The largest influence on the high rate is from 6.5 ha of maize (3% of the total area) which contributes 34% of the total N lost to water (N loss rate is 297 kg N/ha/yr for the maize block)
- Second largest influence is from 2.2 ha of swedes (1% of total area) which contributes 4% of the total N lost to water (N loss rate is 98 kg N/ha/yr for the swede block)
- The remaining pasture blocks N loss rates range from 13 - 20 kg N/ha/yr
- Farm 3 is located in the Waipa catchment (not Waikato as I had speculated)

By way of contrast Farms 1 and 2 do not undertake cropping and N loss rates on pasture blocks ranged from 18 - 21 kg N/ha/yr. Rainfall is not too dissimilar (1560 mm - Farms 1 and 2, 1649 mm - Farm 3), soil order is the same for all three farms (pumice).

I think it is reasonable to infer that cropping (maize and swedes) results in the higher overall N loss rate from Farm 3 compared with Farms 1 or Farm 2.

Kind regards
Lindsay

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