

NCheck Guide

NCheck – What is it?

NCheck is an electronic tool for estimating farm nitrogen losses.

Who can use NCheck?

NCheck can be used across Canterbury in the following limited circumstances.

Outside the Selwyn Te Waihora catchment:

- a. To calculate whether a farm's nitrogen losses are above or below a nitrogen loss threshold determining whether consent is required in the Canterbury Land and Water Regional Plan;
- b. For use in the consent process for horticultural and arable farms until 2020.

Within the Selwyn Te Waihora catchment NCheck can be used:

- c. To calculate whether a farm's nitrogen losses are above or below a nitrogen loss threshold determining whether consent is required in the Canterbury Land and Water Regional Plan;
- d. For use in the consent process for horticultural and arable farms until 2022.
- e. For use in the consent process for farms leaching less than 15kgN/ha/yr.

Horticultural and arable farmers referred to in (b) and (d) above relates to farms with intensive vegetable rotations for more than 80% of the time or with cropping rotations on more than 50% of the property. Its use for these farms is available until 1 January 2020 or 2022. After these dates OVERSEER® files are required. This means any consent terms will not exceed 1 January 2020 or 2022 and you will need to apply for a new consent six months before the expiry date and supply OVERSEER® files.

For all other purposes outlined above there is no time limit to the use of NCheck.

How does it work?

NCheck uses your farm address to access the soil and climate information for your farm. It then takes you through a set of questions about the farm system and its management to estimate a nitrogen loss for the farm. This number is the nitrogen loss estimate for the farm when it is being managed with good management practices (GMPs).

The tool uses your responses to access an extensive set of OVERSEER® results generated for Environment Canterbury's matrix of good management (MGM) project. It draws on less farm information than a full OVERSEER® budget. It is not suitable for situations where you need to explore different land use options or mitigation on your farm, but it can effectively estimate your current nitrogen losses or losses during the baseline 2009-13 period.

Follow the instructions below to find your nitrogen loss number. When complete, you will need to print off your final Nutrient Loss Report and file it with your Farm Environment Plan for reference in your audit.

Instructions

1. Access NCheck at www.canterburywater.farm. If you are using the tool for the first time, follow the registration instructions.
2. Locate your farm by entering your farm address or Agribase ID into the address bar. Your farm will appear as highlighted yellow land-parcels.
3. Add or remove land parcels if necessary using the blue buttons below the map. Once you have identified all your property, select “next step”
4. On the next page select the “Use NCheck” option then “next step”.

Cropping (not within a Pastoral Rotation)

5. Answer the “Do you have any cropping rotations on this land?” question. This leads to the page with questions about your cropping rotation. If you tick Yes, then:

- a. Select the Rotation Type from the drop-down list that best fits your farm system.

Note:

- Fodder and forage refers to annual crops grown to be grazed or harvested as a whole crop. This includes ryegrass, forage oats, maize silage, rye corn, fodder beets and kale.
 - Green vegetables are the leafy greens such as broccoli, cauliflower, cabbage, spinach.
 - Peas and beans are included in the standard arable rotation.
 - Root vegetables also include seed potatoes.
- a. Enter the area used for cropping. Note: the maximum area given is the total area of the land parcels on the map. The cropping area excludes areas in:
 - permanent crops such as berry fruit, grapes and asparagus
 - pasture used to graze cattle including dairy replacements

- buildings, yards and wetlands
- b. If the cropping area is irrigated, select ‘yes’ and fill in the irrigation questions.
 - c. If the cropping area is grazed, select ‘yes’. There is no provision for type of stock. NCheck assumes sheep/deer stock graze the area of fodder/ forage crops and any other suitable crop as part of the rotation, such as seed crops. NCheck is therefore not suitable if dairy cows are wintered on a significant part of the cropping rotation.
 - d. Chose the residue disposal method from the drop down list. Note: you can only select one of these methods; choose the one that you mainly do.

This completes the section about cropping. The green bar at the bottom of the page indicates the proportion of the total farm area that is in a cropping rotation.

Continue with the next step.

Dairying on Pastoral Rotations

6. Answer the "Do you milk dairy cows on this land?" question. This leads to the page with questions about dairy platforms. If you tick Yes, then:
 - a. Enter the area of the dairy platform. Note: the maximum area given is the total area of the land parcels on the map. The dairy platform excludes any cropping rotations and areas that are in:
 - permanent crops such as berry fruit, grapes and asparagus
 - buildings, yards, wetlands.
 - b. Enter the number of dairy livestock. This is the average number of dairy cows during the milking season.
 - c. If the dairy platform is irrigated, select 'yes' and fill in the irrigation questions.

- d. Enter average number of dairy cows wintered on farm. If wintered off, enter 0.
- e. Enter peak number of cows milked.
- f. Enter your milk solids to factory per annum (kg)

This completes the section about dairy platforms. The green and blue bar at the bottom of the page will now indicate the proportion of the total farm area associated with a dairy platform.

Continue with the next step.

Other Livestock on Pastoral Rotations

7. Answer the “Do you run livestock (other than dairy cows) on pastoral rotations on this land?” question. This leads to the page with questions about any of the pastoral parts of your farm which includes areas where you have stock on pasture and forage crops rotating through pasture. NCheck is therefore not suitable if dairy cows are wintered on a significant part of the pastoral rotation. If you tick Yes, then:
 - a. Add in the total grazing area for non-milking livestock, including areas of grazed forage crops rotating through pasture. Note: do not include forage crops already identified in the “Cropping (not within a pastoral rotation)” area.
 - b. Fill in the irrigation section
 - c. Fill in the livestock section. Note: you can have more than one livestock type on the pastoral part of the farm. You complete this section by averaging your stock numbers, for each type over each month of the year. The total should exclude stock grazed on the cropping rotation.

This completes the section about “Other Livestock on Pastoral Rotations”. The green and blue bar at the bottom of the page will now indicate the proportion of the total farm area associated with pastoral enterprises (excluding dairy).

Continue with the next step.

Questions about your farm - Other Land-Uses

8. If you have other land-uses on the farm, select Yes. Fill in the other land-uses from the drop down box. Note: you can have more than one land use type.

Proceed through the next steps to the Nutrient Loss Report.

Is Data Entry Finished?

9. You will then be asked “Is Data Entry Finished?”
 - a. If the information you have provided for each question equals the total area of the property you identified at the start, you will see this message.

“You have now completed the required data entry section of the process and are now ready to proceed to calculating the nutrient loss for this farm. Click Next Step when you are ready to proceed. Note: this is your last chance to go back and change any of the entered information.”

Continue with the next step if you are ready to proceed.
 - b. If the information you have provided for each question does not equal the total area of the property you identified at the start, you will see this message:

“You have indicated that #% of your farm is not used for production. Do you wish to proceed based on the current information provided?”

If this is correct, tick Yes and continue with the next step. If No, select Previous step and correct your answers.

Nutrient Loss Report

10. This page provides you with the farm nitrogen loss estimate and Nutrient Loss Report. The GMP Loss rate number (top right) is the farm's nitrogen loss estimate operating at good management practice.

The Nutrient Loss Report will be sent to your e-mail if you click on the green box alongside "Request GMP Loss Estimator - Nutrient Loss Report (PDF)." The NCheck - Nutrient Loss Report (PDF) provides you with information about your farm, including soil types, climate, consents, and the nitrogen loss numbers.

11. Save and keep this document as a record of your nitrogen losses, and for reference in your audit.

Note: Farms with intensive vegetable rotations for more than 80% of the time or cropping rotations on more than 50% of the property which use NCheck in the consent process may also need to run NCheck for the baseline 2009 to 2013 years. Either run once to represent the farm system over the four-year period or four times for each 2009 to 2013 year.

If you use NCheck in the consent process, you also need to use it at the time of on-farm audits. For more information on auditing see www.canterburywater.farm.

Note: Because NCheck assumes your farm is being managed at good management practices (GMPs), you will need to make sure you are operating at good management practice. For further information see www.canterburywater.farm.

If you need assistance with using NCheck, please contact Environment Canterbury Customer Services on **0800 324 636**.