Release notes – Overseer version 6.5.10

Contents

1. Introduction

The 6.5.10 release introduces updates to the grass-fed calculations, aligning them with the "New Zealand Dairy Grass-Fed Administrative Standard" and the "New Zealand Meat Grass-Fed Administrative Standard" issued by MPI in June 2025 (more information and the standards can be found on the MPI website here).

This update ensures that dairy processors, meat companies, scheme owners, and farmers can accurately understand and demonstrate that they are meeting the definition of what it means for New Zealand dairy and meat animals to be considered grass-fed.

In addition to the updated feed qualification rules and nutritional values applied, this release extends grass-fed standard reporting across all enterprise types. The results of the grass-fed calculation are now available for all applicable farm enterprises within the 'Animal Reports' tab, allowing farmers and scheme operators to apply the grass-fed assessment across mixed and diversified farm systems.

The release continues to integrate OverseerFM's core environmental metrics (N loss, P loss, GHG emissions) across both the Milk Platform and Red Meat Platform, enabling comprehensive environmental and certification reporting for all livestock components on farm.

This document presents the results of the impact analysis: it outlines the scope of changes introduced in model version 6.5.10, evaluates expected impacts on system outputs, and highlights key considerations for platform users.

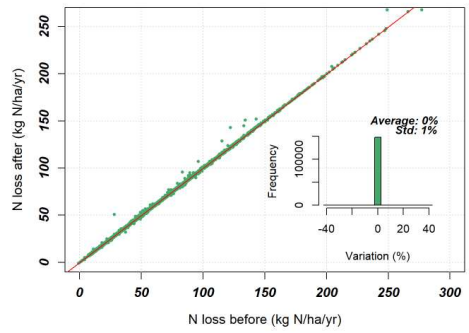
2. Overall Impact on Modelled Results

The impact of all model updates was systematically tested on all analyses of the database. By applying these changes to the entire database, the results provide a reliable assessment of their influence on nutrient loss estimates and greenhouse gas (GHG) emissions.

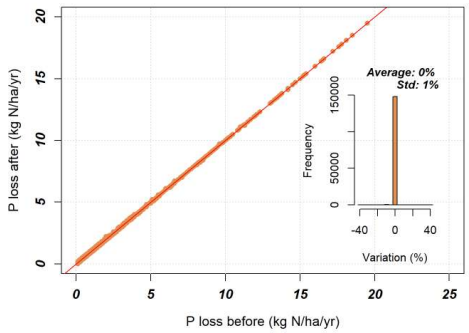
The updates introduced in version 6.5.10 of Overseer have had a low impact on modelled results. The following graphs illustrate the impact of release 6.5.10 on nitrogen (N), phosphorus (P), and GHG results at the farm analysis level. For this comparison, we utilized the complete OverseerFM database, encompassing nearly 160,000 analyses, of which almost 150,000 included results. This dataset also covers predictive and scenario analyses, which may not always represent realistic farm systems.

The changes implemented by this version release have resulted in 270 analyses, which previously had no results due to overfeeding errors, now having results. However, a further 128 analyses are now experiencing an overfeeding error due to the DM and ME changes implemented in this release.

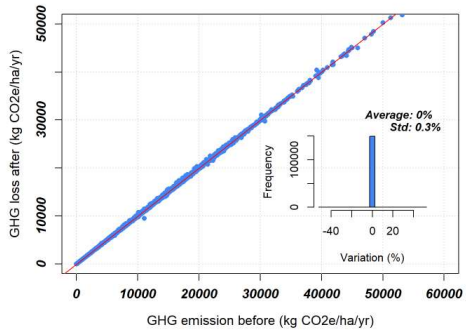
N loss variation



P loss variation



GHG emission variation



As shown in the three charts above, this release results in only minor differences in modelled outputs. The main driver of these differences is the updated Dry Matter (DM) and Metabolic Energy (ME) values for common supplements, as explained in the below.

3. Supplement ME and DM parameter updates

As part of the development of the New Zealand Grass-Fed standards, Overseer Limited worked with MPI, AgResearch and others across the industry to establish agreed Dry Matter and Metabolic Energy values for common supplements.

As a result of this process, some supplements within the Overseer model have had their values slightly adjusted to fully align the Overseer modelling with the "New Zealand Dairy Grass-Fed Administrative Standard" and the "New Zealand Meat Grass-Fed Administrative Standard".

The changes are detailed in Table 1 and Table 2 below.

Table 1 – Updated Supplement Dry Matter (DM) coefficients

Supplement	Parameter	Old Value	New Value
Brewer's grain	Dry Matter	25	24
Dairy goat feed (DDG)	Dry Matter	91.6	90
Fodder beet	Dry Matter	18	14
Golden dried distillers' grain	Dry Matter	90	88
Oats leafy	Dry Matter	18	14
Soya bean hulls	Dry Matter	89.1	88
Sugar beet	Dry Matter	20	24
Swede	Dry Matter	10.5	11
Sweetcorn waste	Dry Matter	22	32

Table 2 – Updated Metabolic Energy (ME) coefficients

Supplement	Parameter	Old Value	New Value
Barley milky dough silage	Metabolic Energy	10	9.8
Barley straw	Metabolic Energy	7.5	6.9
Bran	Metabolic Energy	10.8	11.1
Brewer's grain	Metabolic Energy	11.5	10
Corn stover	Metabolic Energy	7.5	6.9
Dairy goat feed (DDG)	Metabolic Energy	12.4	12.8
Fodder beet	Metabolic Energy	12.5	12.1
Golden dried distillers' grain	Metabolic Energy	13.3	13.5
Kale	Metabolic Energy	12.5	12.7
Maize grain	Metabolic Energy	13.5	13.8
Maize silage	Metabolic Energy	10.5	10.9
Molasses	Metabolic Energy	11.8	12
Oat straw	Metabolic Energy	7.5	6.9
Oats grain	Metabolic Energy	12	11.5
Oats leafy	Metabolic Energy	12.5	9
Oats milky dough	Metabolic Energy	8.5	9
Pea straw	Metabolic Energy	7.5	6.9
Rape	Metabolic Energy	12.5	13
Ryegrass straw	Metabolic Energy	7.5	6.9
Soya bean hulls	Metabolic Energy	11.5	12
Soya bean meal (extracted)	Metabolic Energy	13.3	12.8
Sugar beet	Metabolic Energy	14.6	11
Sunflower meal	Metabolic Energy	9.1	10.7
Swede	Metabolic Energy	12	13.5
Sweetcorn waste	Metabolic Energy	9.7	8
Tapioca pellets	Metabolic Energy	12.5	11.3
Triticale silage	Metabolic Energy	10	8.6
Turnips	Metabolic Energy	13	13.5
Wheat grain	Metabolic Energy	13.5	13.4
Wheat straw	Metabolic Energy	7.5	6.9
Whey	Metabolic Energy	12.3	11.3