

Overseer



OVERSEER[®]

For on-farm management and decision support

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History



- Developed in 1990s with continual updates
- Owned by
 - *MPI*
 - *Fertiliser Association*
 - *Agresearch*
- Part government ownership means freely available to public via website

History



- 1990s – developed to assist producing fertiliser recommendations as a decision support tool
- 2003 - changed to a farm system model, capturing the movement of nutrients around the farm, and modelling the losses for each process

On farm management



- OVERSEER[®] Nutrient Budgets is an agricultural management tool which assists farmers and their advisers to examine nutrient use and movements within a farm to optimise production and environmental outcomes

Training



- Sustainable Nutrient Management – Massey
- Advanced Sustainable Nutrient Management – Massey
- Nutrient Management Adviser Certification Programme defines the standards for people to meet to provide certified nutrient management advice to clients

Training



- Massey University, Lincoln University and Waikato University use OVERSEER[®] Nutrient budgets as a part of their undergraduate degree courses in agriculture and agricultural science
- HortNZ are also piloting OVERSEER[®] Nutrient budgets training through a SFF-funded (MPI's Sustainable Farming Fund) project

Variations



- Significant Model Change see different output results between models, eg Overseer 5 to Overseer 6
- The Best Practice Data Standards are a set of guidelines to assist users to define data inputs - it is recommended that these are followed by all users

Considerations



- Production based model – in effect works backwards by inputting production (tonnes of product, kilograms milk solids/meat, etc) and calculating the nutrient requirements to generate that production

Considerations



- Long term average model – data is based on 3-5 year averages so that extreme events (eg drought, production variation, etc) are not easily accounted for and average inputs/outputs are recommended
- Predicts long-term annual average outputs

Assumptions



- User supplies actual and reasonable inputs
- System is at an equilibrium, or that productivity (stock, milk yield, crop yields) is in equilibrium with the inputs (fertiliser, supplements, irrigation both for rate and timing)
- Any management practice implemented on the farm follows best practice

Horticulture



- Less robust data for the horticulture industry compared to dairy and sheep/beef
- Not all crops are included as options because historical trial data is not available and therefore any results have not been calibrated

Horticulture



- Numerous crop rotation options in small block sizes