

FARMAX
ADVANTAGE

FARMAX
ANALYSIS

DAIRY

Guide to Reports

FARMAX



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Foreword

This FARMAX Guide to Reports takes you through the valuable outputs FARMAX generates which can support you to make confident, future-focused decisions.

In FARMAX there are more than 50 reports which are available to support on-farm decision-making. These reports are in a mix of graphical and tabular formats and cover financial, production and environmental aspects.

With so many reports available in FARMAX, this guide will help users to navigate and easily find core reports. These reports can provide value to pastoral farmers and support them in making informed decisions about sustainability, production and financial.



Overview

This FARMAX guide outlines eight reports:

1. Profit + Loss
2. Greenhouse Gas
3. Carbon Balance
4. Physical Summary
5. Cover
6. Intake
7. Compare
8. Combined

These reports have been selected as they encompass the financial, production and environment outputs that FARMAX provides. This guide explains each of the reports together and outlines how they can be utilised to make decisions on-farm.

How FARMAX works

All the data and information which is entered into FARMAX is combined and the model analyses how the feed supply compares to feed demand.

Once the farm has been set up in FARMAX it will produce a variety of outputs, including profitability and pasture covers, which can be used to support real-time on-farm decision making.

Data entry is an important process to get right to ensure you get the maximum value out of FARMAX. The more accurate the information is that goes into FARMAX, the more accurately it can provide outputs to support confident decision making.

Profit and Loss Report

About

The Profit and Loss Report can be found at the farm-level and provides a measure of the farm's profitability.

This report combines all the financial data that has been entered into the FARMAX model to calculate total revenue, total farm working expenses, total farm expenses, economic farm surplus (EFS) and farm profit before tax.

The data in the Profit and Loss Report is collated from actual data entered into FARMAX, DairyNZ DairyBase Regional averages or modelled costs associated with events (including stock sales, crops or nitrogen).

This report provides each financial figure as \$ Total, \$/ Farm ha, \$/Cow and \$/kg MS.


 Forecast Profit and Loss for FARMAX <small>June 20 - May 21</small>			
			\$ Total
Revenue	Stock	Net Milk Sales - this season	727,986
		Net Milk Sales - last season	0
		Net Milk Sales - dividend	0
		Net Livestock Sales	65,072
		Contract Grazing	0
		Change in Livestock Value	4,626
	Total	797,684	
Crop & Feed	Capital Value Change	-14,260	
	Total	-14,260	
Total Revenue			783,424
Expenses	Wages	Wages	91,125
		Management Wage	56,295
	Stock	Animal Health	35,467
		Breeding	12,158
		Farm Dairy	6,406
		Electricity	16,605
	Feed/Crop	Cash Crop	2,664
		Feed Crop	57,600
		Bought Feed	41,755
	Grazing	Grazing	50,801
		Run-Off Lease	52,392
		Owned Run-Off Adj.	11,544
	Other Farm Working	Fertiliser (Excl. N)	69,264
		Nitrogen	24,482
		Irrigation	9,324
		Weed & Pest Control	5,032
		Vehicle Expenses	14,356
		Fuel	11,248
		R&M Land/Buildings	41,440
	Freight & Cartage	7,844	
	Overheads	Administration Expenses	17,316
		Insurance	10,212
		ACC Levies	3,996
Rates		16,132	
Total Farm Working Expenses			665,458
Depreciation			62,604
Total Farm Expenses			728,062
Economic Farm Surplus (EFS)			55,362
Farm Profit before Tax			55,362

Figure 1: Profit and Loss Report

Additional Information

The Profit and Loss Report provides insights into whether the business is financially feasible. This report can also support analysing two or more farm system scenarios.

Greenhouse Gas Report

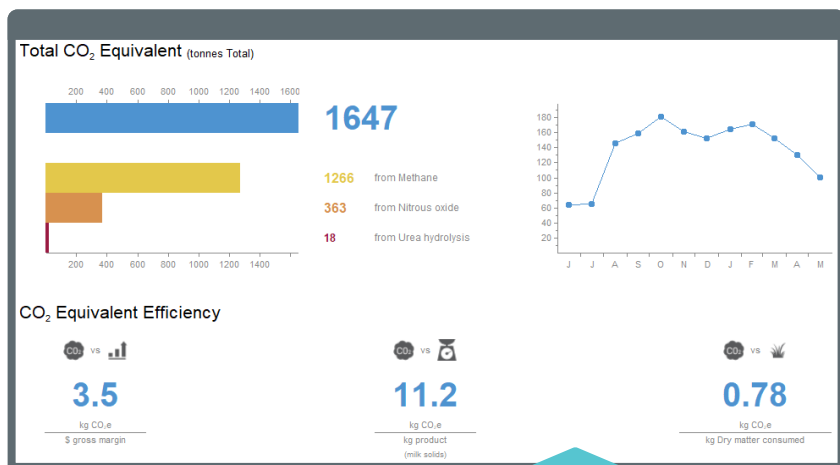


Figure 2: Greenhouse Gas Report

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About

The Greenhouse Gas (GHG) Reports can be found at every level of FARMAX and provide a measure of biological greenhouse gas emissions produced by the modelled farm system. These reports align with the standard New Zealand Inventory Methodology.

The data in the Greenhouse Gas Report gets modelled based on the livestock and their production data entered into FARMAX.

This report provides the total CO₂ equivalents as well as a breakdown in terms of methane, nitrous oxide and urea hydrolysis.

Additional Information

The GHG Report provides an assessment of the system's environmental impact; this enables you to undertake different scenarios to map out strategies to manage GHG emissions going forward.

Carbon Balance Report

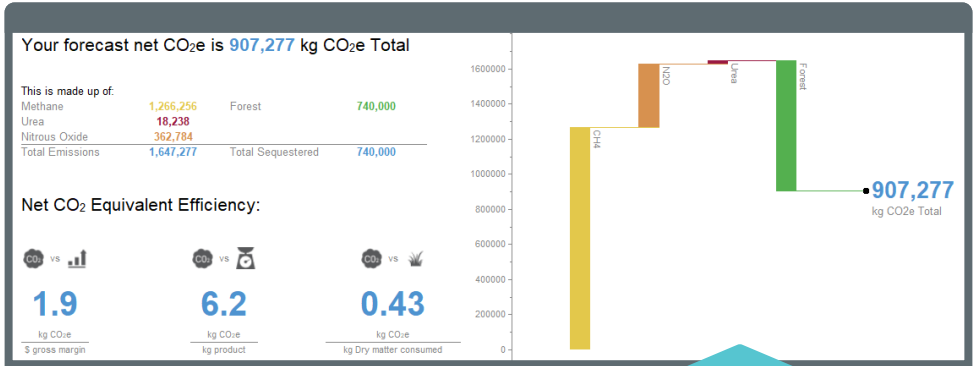


Figure 3: Carbon Balance Report

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About

The Carbon Balance Report can be found at the farm-level. This report utilises any forestry blocks in FARMAX to model carbon sequestered and calculate how much this offsets the system's greenhouse gas emissions.

The information in the Carbon Balance Report comes from the data in any forestry blocks set up within FARMAX and the modelled greenhouse gas emissions. This data includes area, planted year and species, which correspond to the look-up tables.

This report provides the net CO₂ equivalents and kg of CO₂ equivalents sequestered.

Additional Information

The Carbon Balance Report enables an assessment of the system's stock GHG emissions which are offset by on-farm forestry; this allows you to analyse the carbon balance of the farm and then map out different strategies to strengthen this.

Physical Summary Report

Category	Description	Value	Units
Farm	Effective Area	148	ha
	Stocking Rate	2.8	cows/ha
	Comparative Stocking Rate	84.2	kg Lwt/t DM offered
	Potential Pasture Growth	13.8	t DM/ha
	Nitrogen Use per total ha	68	kg N/ha
	Feed Conversion Efficiency (offered)	15.5	kg DM offered/kg MS
Herd	Cow Numbers (1st July)	418	cows
	Peak Cows Milked	417	cows
	Days in Milk	254	days
	Avg. BCS at calving	4.5	BCS
	Liveweight per total ha	1,130	kg/ha
	Production (to Factory)	Milk Solids total	145,855
Milk Solids per total ha		868	kg/ha
Milk Solids per cow		350	kg/cow
Peak Milk Solids production		1.87	kg/cow/day
Milk Solids as % of live weight		76.8	%
Feeding		Pasture Offered per cow *	4.31
	Supplements Offered per cow *	1.03	t DM/cow
	Off-farm Grazing Offered per cow *	0.07	t DM/cow
	Total Feed Offered per cow *	5.41	t DM/cow
	Pasture Offered per total ha	10.75	t DM/ha
	Supplements Offered per total ha	2.76	t DM/ha
	Off-farm Grazing Offered per total ha	1.58	t DM/ha
	Total Feed Offered per total ha	15.10	t DM/ha
	Supplements and Grazing / Feed Offered *	20.33	%
	Bought Feed / Feed Offered *	6.61	%

Figure 4: Physical Summary Report

About

The Physical Summary Report can be found at the farm-level and contains information about the physical performance of the farm. This report offers outputs which can be used to measure efficiencies on-farm.

In this report there are KPIs including feed conversion efficiency, peak milk solids production, milk solids as % of liveweight and pasture offered per total hectare.

Additional Information

The Physical Summary Report can be used to understand and monitor the overall physical performance of the farm on the basis of production, feeding and animals; this will allow you to monitor performance season-on-season and analyse trends in KPIs.

Cover Report

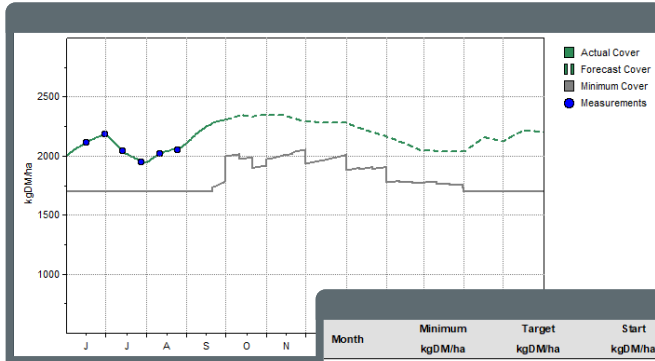


Figure 5: Cover Report

Month	Minimum kgDM/ha	Target kgDM/ha	Start kgDM/ha	Finish kgDM/ha	Average kgDM/ha	Grazing Area ha
Jun 20	1,700		2,000	2,187	2,108	148.0
Jul 20	1,700		2,187	1,939	2,039	148.0
Aug 20	1,700		1,939	2,109	2,032	148.0
Sep 20	1,700		2,109	2,307	2,236	148.0
Oct 20	1,998		2,307	2,350	2,335	148.0
Nov 20	1,971		2,350	2,289	2,330	142.0
Dec 20	1,935		2,289	2,280	2,284	138.0
Jan 21	1,877		2,280	2,164	2,217	138.0
Feb 21	1,774		2,164	2,046	2,102	138.0
Mar 21	1,774		2,046	2,038	2,040	138.0
Apr 21	1,700		2,038	2,124	2,119	138.0
May 21	1,700		2,124	2,201	2,191	138.0

About

The Cover Report can be found at the farm-level and contains an evaluation of physical feasibility of the farm system from a pasture perspective. The information in the Cover Report is driven out of the pasture growth rates, nitrogen events, pasture cover measurements and livestock demand.

This report outlines the actual and forecasted cover and minimum cover for the specific season. The minimum is calculated based off the demand of the livestock in FARMAX and represents the minimum cover required to sustain these animals.

Additional Information

The Cover Report enables an evaluation of the physical feasibility of the farm system to maintain the entered animals and their production; this means you can identify surpluses and deficits early based off forecast pasture cover and then make confident, proactive decisions to manage these surpluses or deficits.

Intake Report

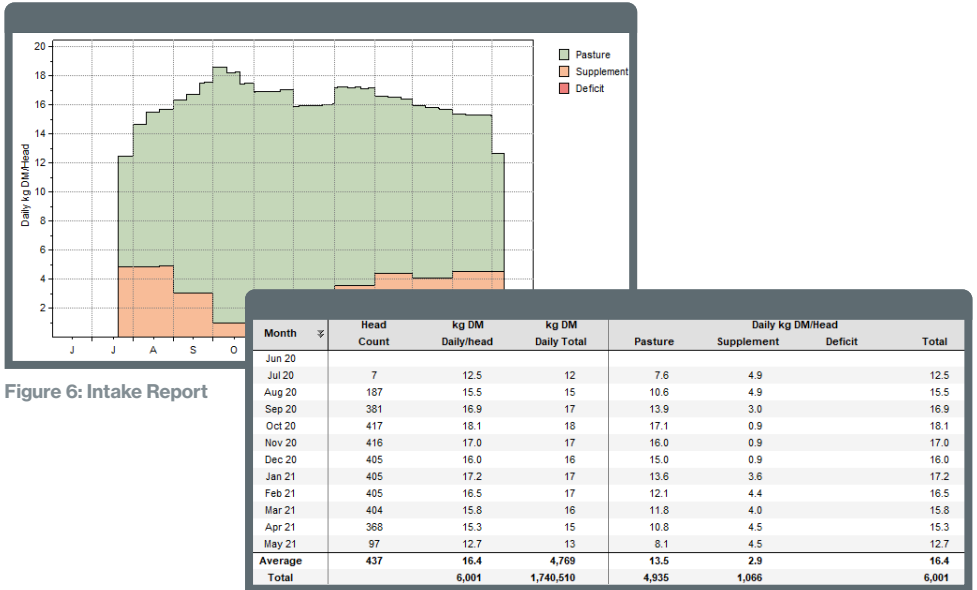


Figure 6: Intake Report

About

The Intake Report can be found at the farm-level, enterprise-level and mob-level. These reports provide information about the diets of the livestock and important data about the feeding of stock.

The data in the Intake Report comes from the information entered into the Performance screen of each mob.

This report provides the monthly total, pasture and supplement intake as well as a head count.

Additional Information

The Intake Report can be used to assess the quantity of feed animals are consuming, the proportion of supplement in their diet and whether there are any deficits; this can support decisions on-farm regarding feeding types and quantities.

Compare Reports

About

Compare reports are used in FARMAX when you have modelled multiple scenarios and want to compare which scenario has been best for financial or productive outcomes.

Combined Reports

About

Combined reports are used in FARMAX to merge data from two FARMAX files or farms into one report; this can be helpful if you have two separate farms and want to see the combined outputs.



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