



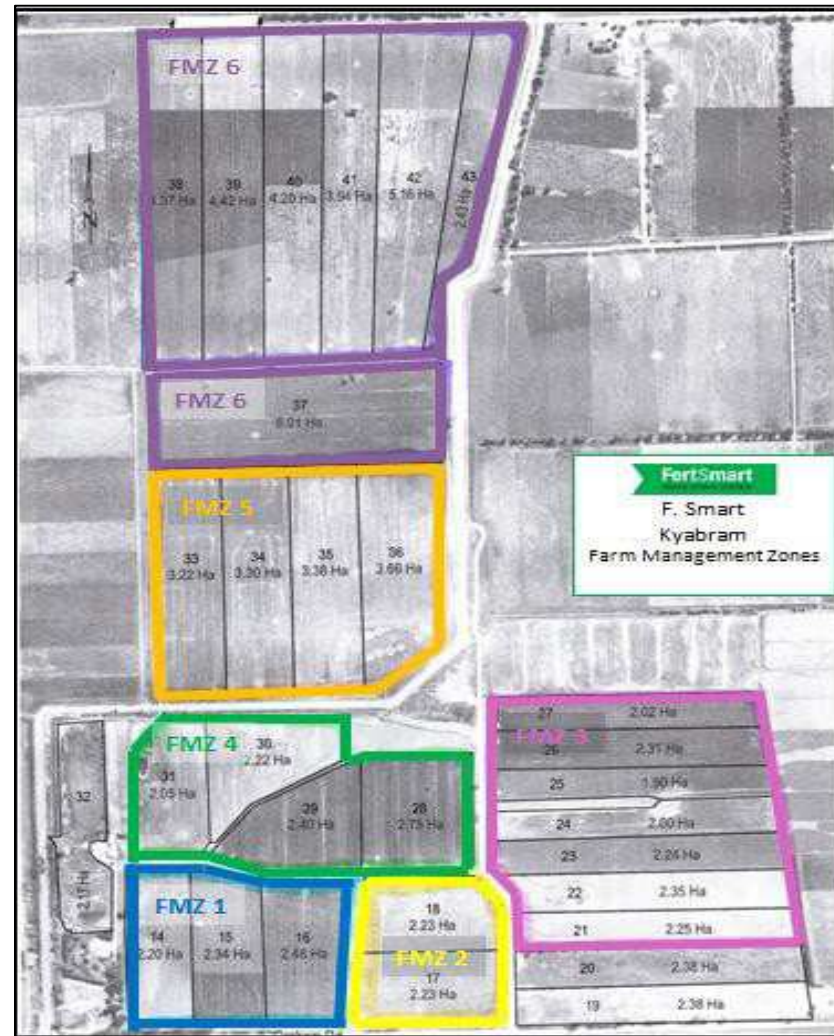
“Incorporating effluent and other organic fertilisers into farm nutrient management plans”

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Farm Nutrient or Fertiliser Management Plans

- All farms should have a *Fertiliser Management Plan*
- Assists in:
 - Optimum fertiliser usage
 - Budgeting for fertiliser expenditure
 - Reduces environmental risks
 - Accounting for other nutrients brought onto the farm. e.g. in grain and hay

Farm Management Zones



Ellinbank_Dairy_Farm_Nutrient_Balance_beta 5 [Read-Only] [Compatibility Mode] - Excel

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Clipboard Paste Cut Copy Format Painter Font Size 12 Bold Italic Underline Merge & Center Alignment General Conditional Formatting Table Styles Normal_Sheet1 Normal Good Bad

Overview & Instructions

Ellinbank Dairy Farm Nutrient Balance

Beta Version 4

Department of Environment and Primary Industries
State Government of Victoria

Press this to view the Terms and Conditions and continue

READY | Taskbar: Internet Explorer, Google Chrome, Print, Word, Excel | System Tray: 3:57 PM, 25/02/2016

Ellinbank_Dairy_Farm_Nutrient_Balance_beta5 [Read-Only] [Compatibility Mode] - Excel

Microsoft account

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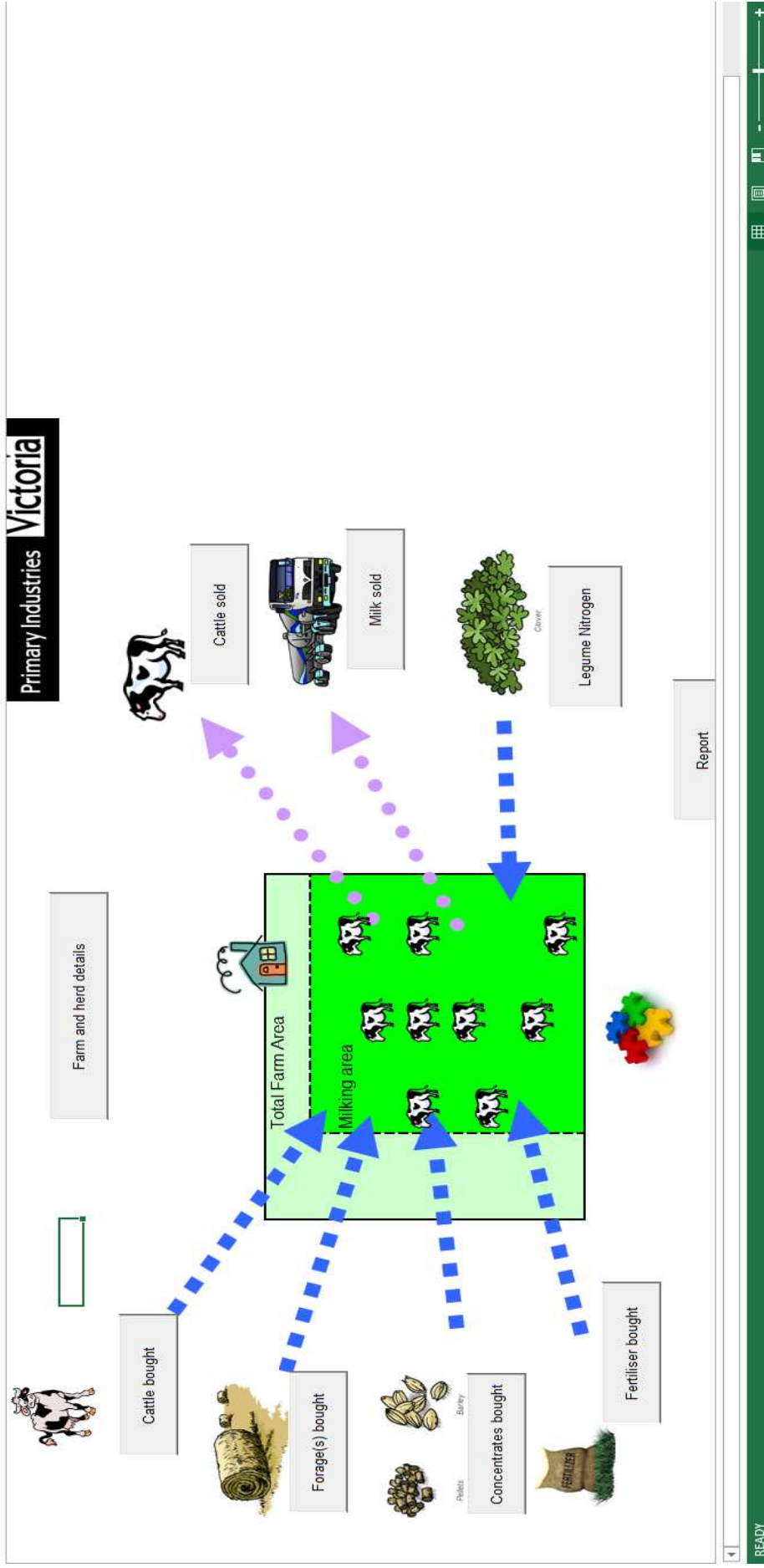
General Number Currency Percentage Text Wrapping

Normal_Sheet1 Normal Good Bad Conditional Formatting Table

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Primary Industries Victoria



Fertiliser Program 2012/2013

Fertiliser products top-dressed unless otherwise indicated using DairySAT BMP (best management practices). Products are based on past use. Discuss all aspects fully with your Fertcare C accredited advisor.

FMZ	Area	Fertiliser kg/ha					2012 / 2013	Fertiliser Program
		N	P	K	S			
1	No 14-16 (Perm't)	7.4	193	13	0	16	Spring Summer Autumn Autumn Winter	2 x 70 kg/ha Urea NPKS 46:0:0:0 Nil 1 x 150 kg/ha Single Super NPKS 0:9:0:11 2 x 70 kg/ha Urea NPKS 46:0:0:0 2 x 70 kg/ha Urea NPKS 46:0:0:0
2	No 17-18 (Perm't)	4.6	161	13	0	16	Spring Summer Autumn Autumn Autumn Winter	2 x 70 kg/ha Urea NPKS 46:0:0:0 Nil Gypsum required. Refer FMZ 2 notes 1 x 150 kg/ha Single Super NPKS 0:9:0:11 2 x 70 kg/ha Urea NPKS 46:0:0:0 1 x 70 kg/ha Urea NPKS 46:0:0:0
3	No 21-27 (Perm't)	16.0	161	0	0	0	Spring Summer Autumn Autumn Winter	2 x 70 kg/ha Urea NPKS 46:0:0:0 Nil Gypsum required. Refer FMZ 3 notes 2 x 70 kg/ha Urea NPKS 46:0:0:0 1 x 70 kg/ha Urea NPKS 46:0:0:0
4	No 28-31 (Perm't)	10.1	129	0	0	0	Spring Summer Autumn Winter	Irrigated with effluent pond liquid * Irrigated with effluent pond liquid * 2 x 70 kg/ha Urea NPKS 46:0:0:0 2 x 70 kg/ha Urea NPKS 46:0:0:0
5	No 33-36 (Perm't)	13.5	129	21	24	27	Spring Summer Autumn Autumn Autumn Winter	1 x 70 kg/ha Urea NPKS 46:0:0:0 Slurry likely to be applied Gypsum required. Refer FMZ 5 notes 1 x 300 kg/ha Super Potash 5:1 NPKS 0:7:8:9 2 x 70 kg/ha Urea NPKS 46:0:0:0 1 x 70 kg/ha Urea NPKS 46:0:0:0
6	No 37-43 (Annual)	32.0	97	35	40	45	Spring Summer Autumn Autumn Autumn Winter	1 x 70 kg/ha Urea NPKS 46:0:0:0 Nil Agricultural lime required. Refer FMZ 6 notes. 1 x 500 kg/ha Super Potash 5:1 NPKS 0:7:8:9 1 x 70 kg/ha Urea NPKS 46:0:0:0 1 x 70 kg/ha Urea NPKS 46:0:0:0

* Effluent pond liquid is applied to FMZ 4, but slurry will be pumped out onto FMZ 6 in summer 2013.

Nutrients in all effluents, sludge's, composts and other organic amendments should be accounted for:

- *Difficulties include:*
 - Unknown nutrient content, e.g. sludge
 - Variability in nutrient content
 - Nutrients present in a range of forms:
 - Total nutrient present, e.g. N
 - Plant available N
 - Nutrients that slowly become available

“Nutrients from Effluent and Sludge Calculator”

- Developed by Dairy Australia as part of the “Fert\$mart” program
- Being finalised, will be found in:

<http://fertsmart.dairyingfortomorrow.com.au/>



Nutrient availability from compost:

Available nutrient levels in compost depend on:

- Compost type
- Chemical properties
- Maturity
- Rate & method of application
- Crop
- Soil type
- Environment



Estimated Nutrient Availabilities – Year 1

Nitrogen	5 - 10%
Phosphorus	40 - 50%
Potassium	60 - 80%
Sulphur	50%
Calcium	50%
Magnesium	30%

Total V's Available Nutrients

Nutrient	% DM	Total Applied		"Available" Yr1	
		2 t/ha	10 t/ha	2 t/ha	10 t/ha
Nitrogen	1.24	19	97	2	10
Phosphorus	0.33	5	25	2	10
Potassium	1.07	17	83	13	67
Sulphur	0.20	3	16	2	8
Calcium	1.70	27	133	13	66
Magnesium	0.47	7	37	2	11

Compost Benefits Calculator

Angus Campbell Recycled Organics Unit
with support from NSW compost industry
has developed a Compost Benefits
Calculator as an iPhone App.

-App can be downloaded through the App
Store onto your iPhone or iPad.



- Compost Benefits Calculator

The screenshot shows a mobile application interface for a 'Compost Benefits Calculator'. At the top, there is a status bar with 'Telstra', signal strength, time '12:15 pm', and battery '93%'. Below this is a blue header bar with 'Cancel' and 'Save' buttons, and a central title 'Edit Calculation'. The main content area has a light grey background and contains several input fields and icons. On the left, there are three icons: a green compost bin, a brown compost pile, and a green leaf. To the right of these icons are three buttons: 'COMPOST', 'RATE', and a button with a leaf icon. The 'Location name' field is set to 'Yarrawalla'. Below this, under 'Soil and climate information', there are three fields: 'Average annual rainfall (mm)' with the value '550', 'Average (air) temperature (°C)' with the value '>10°C moist warm temperate', and 'Identify crop or land use' with the value 'Cropping'. At the bottom, there is a field for 'Soil texture group' with the value 'Light clay'. Information icons (i) are present next to the rainfall, temperature, and soil texture fields.

Cancel Save Edit Calculation

COMPOST RATE

Location name
Yarrawalla

Soil and climate information

Average annual rainfall (mm)
550

Average (air) temperature (°C)
>10°C moist warm temperate

Identify crop or land use
Cropping

Soil texture group
Light clay

Compost Benefits Calculator



In Conclusion:

- Nutrients from applied organics should be accounted for
- Nutrient content of organics are variable and often unknown
- Nutrients can become plant available over several years
- There are some calculators becoming available

