WEATHER or NOT

A REVIEW OF SEASONAL AND CROP OUTLOOKS FOR THE FARMLINK REGION

Issue 1 - July 2012

Index

The season so far....

The 2012 summer season was very similar to 2011. A wet 2011 harvest period and great follow up rains in February and March saw profiles with high levels of plant available water. Also similarly to 2011, April, May and June have seen below average rainfall. Early July has seen reasonable general rains across the district in the range of 20 to 50mm.

Total summer rainfalls for 2012 ranged from 304mm at Ardlethan to 383mm at Lockhart. Growers again were kept busy applying summer spray treatments to control prolific weed growth as a result of the rainfall. After March the rainfall patterns settled down and all sites are now running below decile 5 levels for 2012 growing season, see page 12. Total rainfall since the 1st of April ranges from 139mm, Decile 5, at Greenethorpe to 57mm, Decile 1, at Ardlethan.

BOM predictions for rainfall over our region are 45% chance of exceeding average rainfalls, 55% chance of below average rainfalls based on current SOI phases.

Median predicted wheat yields* currently range from 1.6t/ha at Ardlethan to 3.4t/ha at Lockhart. Median predicted yields for Canola range from 1.6t/ha at Ardlethan to 2.3t/ha at Greenethorpe. (These yield predictions are based on median rainfall for the rest of the year and no disease, pest, frost, heat stress or nutrient applications).

Total plant available moisture in profiles range from 36mm at Ardlethan which is low to 132mm at Greenethorpe which is high. Also included are soil probe moisture graphs that show total soil moisture to depth of 118cm. Ardlethan and Lockhart profiles are lower than the same time in 2011. The rest are similar or higher which should provide some confidence in any planned nutrient applications. Current soil moisture graphs can be viewed on the FarmLink website.

Nitrogen (N) scenario models are also included in this edition. Some canola crops have had N applied and this is indicated in the N budget data. Most crops show a strong response to N applications as a result of good seasons in 2010 and 2011. Please discuss nutrient applications with your advisor prior to applying.

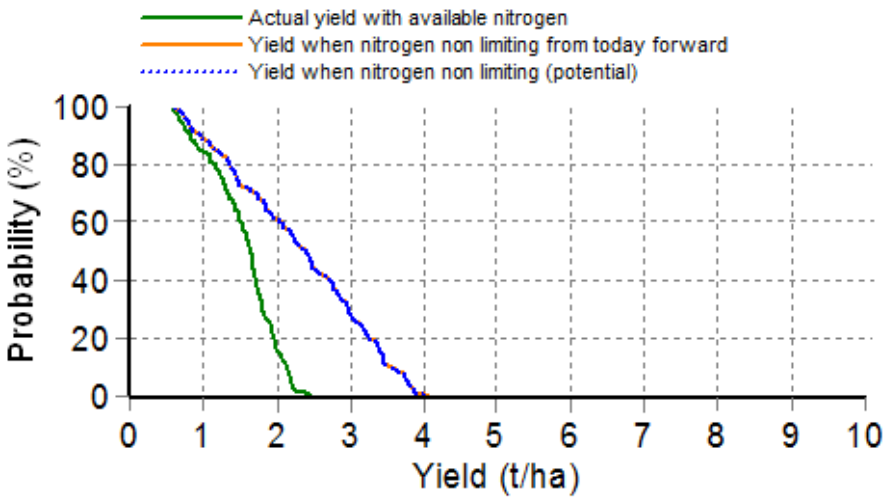
(*Please use the results as a guide only and discuss potential outcomes of your own paddocks with your adviser).

ARDLETHAN ~ CANOLA

VARIETY GEM TT SOWING DATE 23/4/2012
SOWING N APPLIED 43 kg/ha
SOIL TYPE Sandy clay over a medium clay
PLANT DENSITY 30 plants/m^2
GROWING SEASON RAINFALL TO DATE 56.8mm
CURRENT ROOTING DEPTH 859mm
PREDICTED FINAL ROOTING DEPTH 1003mm

CURRENT CROP PAW 31mm
SOIL PAW 33mm
PAWC 216mm
DAILY WATER USE 0.1mm
DEEP N 92kg/ha N PROFILE 104kg/ha
N AVAILABLE TO ROOTS 74.8kg/ha
CURRENTLY USING 0.5kg of N/ha/day

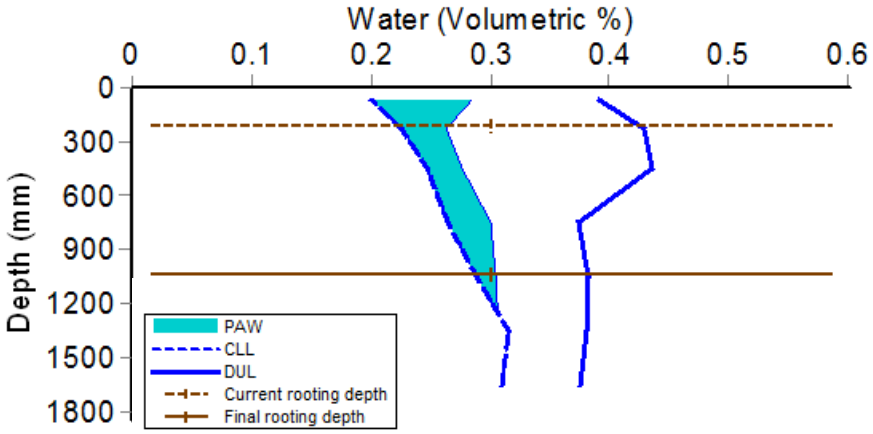
Grain Yield Probabilities *



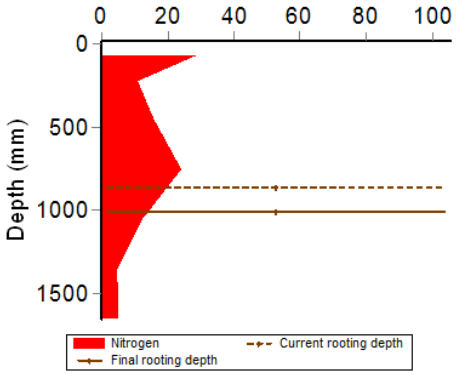
* given weather, soil N and agronomic inputs to date, and historical climate data (100 years) to simulate remainder of season. Does not account for disease, insect or weed pressure or extreme climatic events.

** PAW = plant available water; CLL = crop lower limit; DUL = drained upper limit. Note: Soil water parameters are taken from paddocks previously characterised on the same farm. Although the data should be representative of the paddock, minor discrepancies occur.

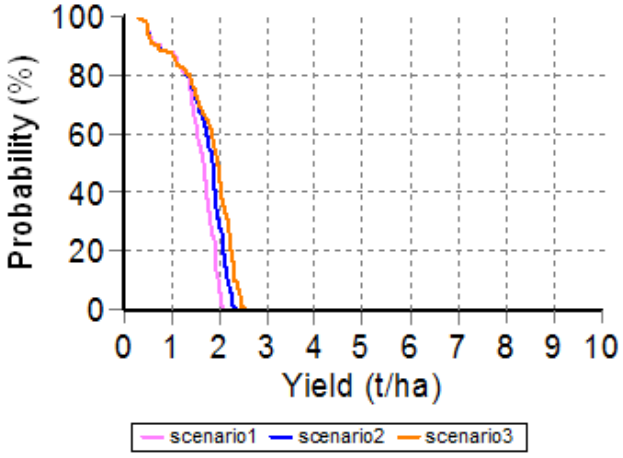
Water Availability **



Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



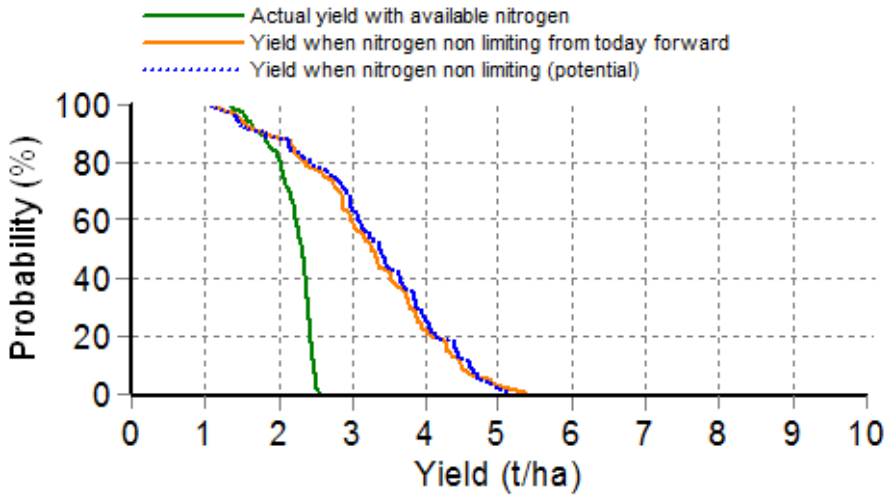
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
24 Apr	**43**	24 Apr	**43**	24 Apr	**43**
6 Jul	**46**	6 Jul	**46**	6 Jul	**46**
		1 Aug	**23**	1 Aug	**46**

DIRNASEER ~ CANOLA

VARIETY GEM TT SOWING DATE 23/4/2012
SOWING N APPLIED 8kg/ha
SOIL TYPE Red Kandosol
SOWING DENSITY 52 plants/m^2
GROWING SEASON RAINFALL TO DATE 125.1mm
CURRENT ROOTING DEPTH 667mm
PREDICTED FINAL ROOTING DEPTH 1650mm

CURRENT CROP PAW 73mm
SOIL PAW 81mm
PAWC 216mm
DAILY WATER USE 0.6mm
DEEP N 134 kg/ha N PROFILE 82 kg/ha
N AVAILABLE TO ROOTS 20.7 kg/ha
CURRENTLY USING 1.7 kg of N/ha/day

Grain Yield Probabilities *



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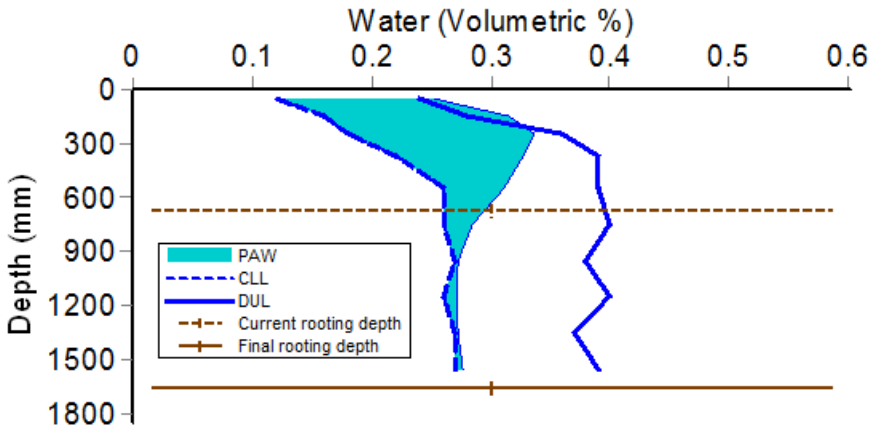
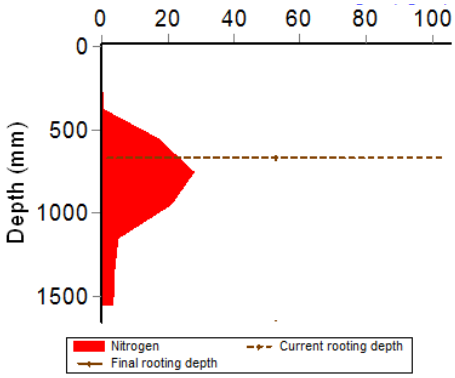


Soil Nitrogen



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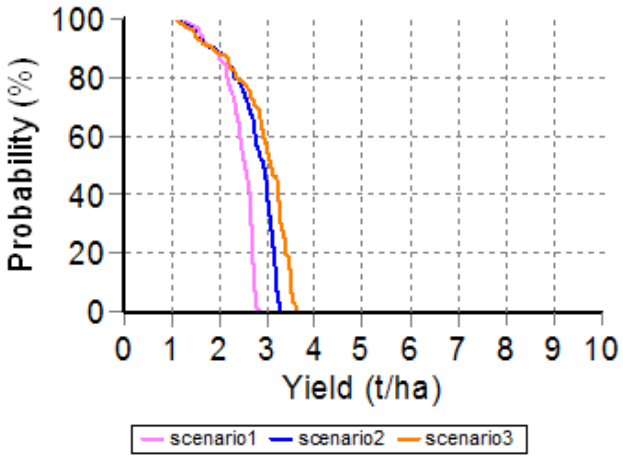


Scenario 1

Date	Amount (kg/ha)
23 Apr	**8**
25 Jun	**22**

Scenario 2

Date	Amount (kg/ha)
23 Apr	**8**
25 Jun	**22**
23 Jul	**37**

Scenario 3

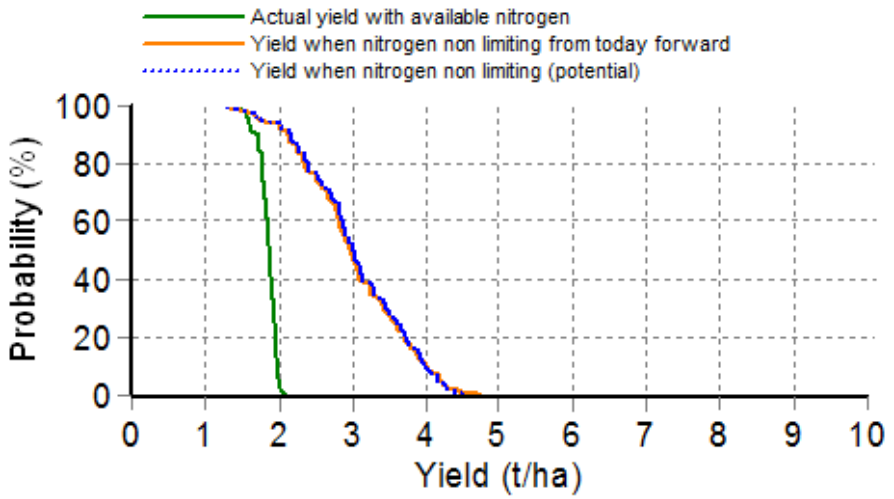
Date	Amount (kg/ha)
23 Apr	**8**
25 Jun	**22**
23 Jul	**70**

GREENETHORPE ~ CANOLA

VARIETY GEM TT SOWING DATE 7/5/2012
SOWING N APPLIED 10 kg/ha
SOIL TYPE Sandy loam over a sandy clay and heavy clay
SOWING DENSITY 46 plants/m^2
GROWING SEASON RAINFALL TO DATE 139mm
CURRENT ROOTING DEPTH 1043mm
PREDICTED FINAL ROOTING DEPTH 1500mm

CURRENT CROP PAW 111mm
SOIL PAW 132mm
PAWC 107 mm
DAILY WATER USE 0.2mm
DEEP N 96 kg/ha N PROFILE 77kg/ha
N AVAILABLE TO ROOTS 52.9 kg/ha
CURRENTLY USING 0.7 kg of N/ha/day

Grain Yield Probabilities *



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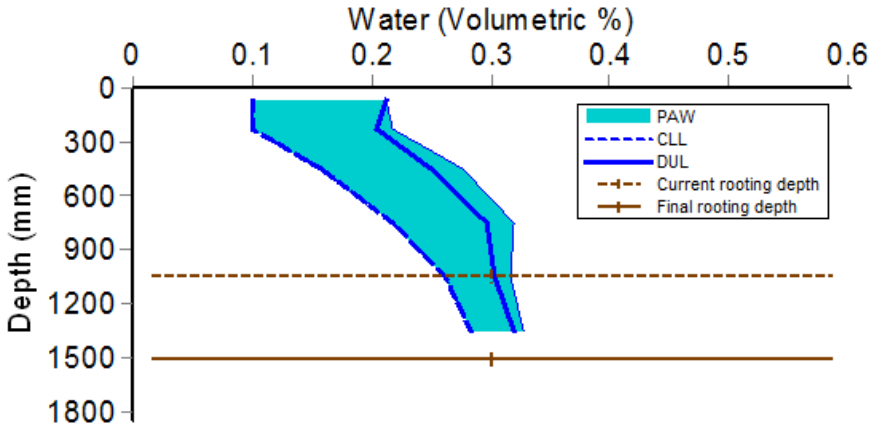
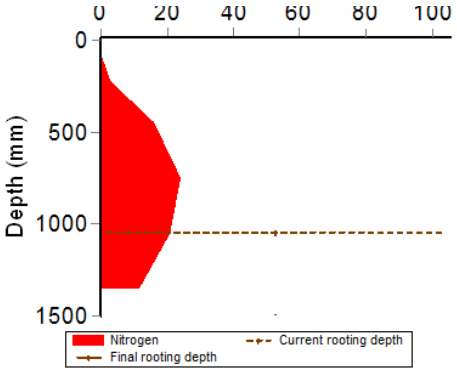
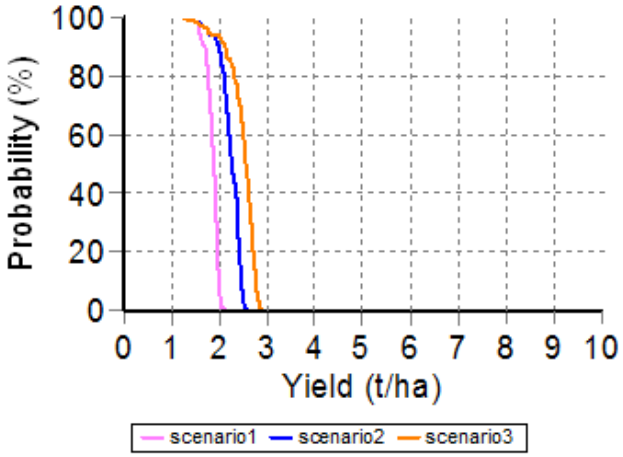
Water Availability **



Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



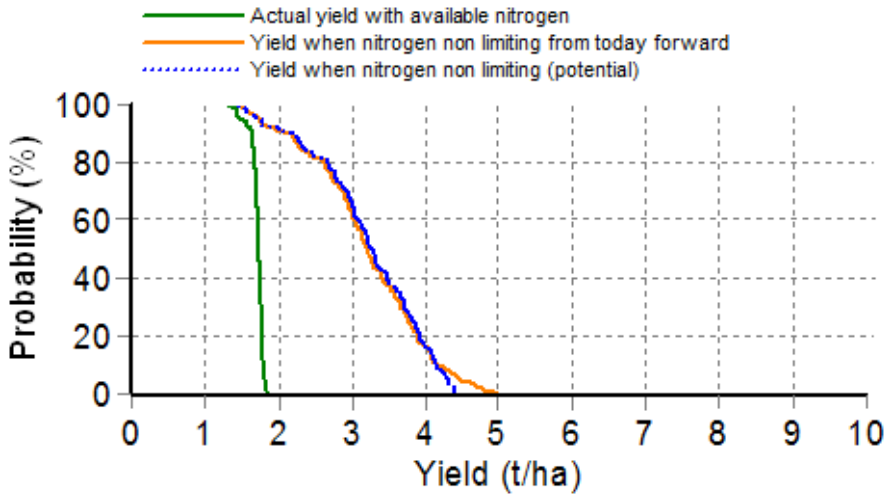
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
7 May	**10**	7 May	**10**	7 May	**10**
		23 Jul	**37**	23 Jul	**70**

LOCKHART ~ CANOLA

VARIETY Stingray TT SOWING DATE 25/4/2012
SOWING N APPLIED 8 kg/ha
SOIL TYPE Brown Sodosol
SOWING DENSITY 24 plants/m²
GROWING SEASON RAINFALL TO DATE 89mm
CURRENT ROOTING DEPTH 1288mm
PREDICTED FINAL ROOTING DEPTH 1650mm

CURRENT CROP PAW 93mm
SOIL PAW 96mm
PAWC 173mm
DAILY WATER USE 0.4mm
DEEP N 68 kg/ha N PROFILE 53 kg/ha
N AVAILABLE TO ROOTS 42kg/ha
CURRENTLY USING 1.4 kg of N/ha/day

Grain Yield Probabilities *



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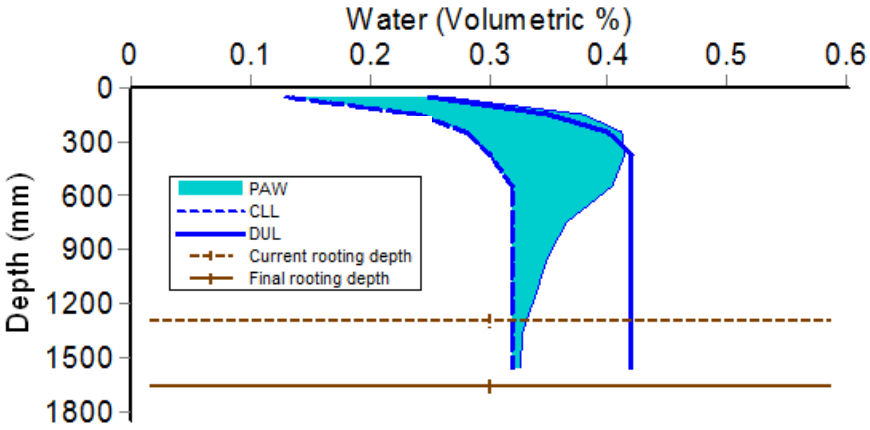
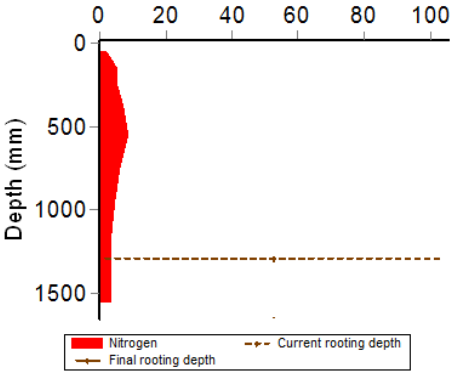
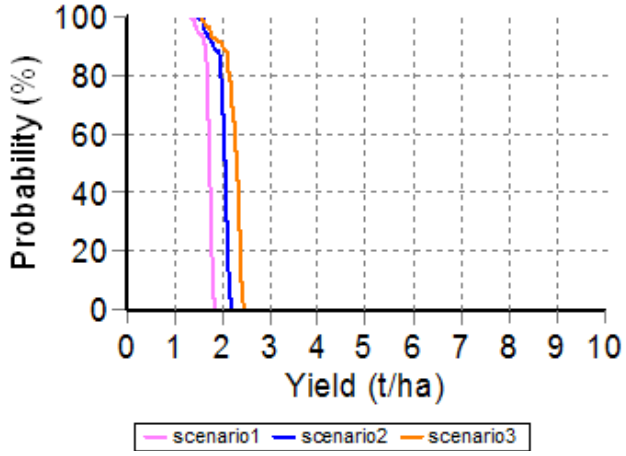
Water Availability **



Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



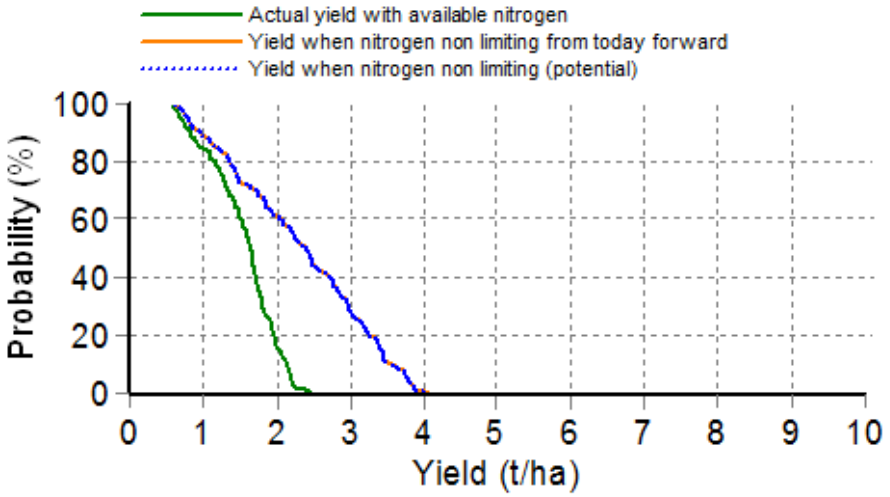
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
25 Apr	**8**	25 Apr	**8**	25 Apr	**8**
25 Jun	**22**	25 Jun	**22**	25 Jun	**22**
		1 Aug	**23**	1 Aug	**46**

ARDLETHAN ~ WHEAT

VARIETY Gregory SOWING DATE 3/5/2012
SOWING N APPLIED 9 kg/ha
SOIL TYPE Sandy clay over a medium clay
SOWING DENSITY 80 plants/m^2
GROWING SEASON RAINFALL TO DATE 56.8mm
CURRENT ROOTING DEPTH 211mm
PREDICTED FINAL ROOTING DEPTH 1037mm

CURRENT CROP PAW 15mm
SOIL PAW 44mm
PAWC 216 mm
DAILY WATER USE 0.1mm
DEEP N 75 kg/ha N PROFILE 71 kg/ha
N AVAILABLE TO ROOTS 10.8 kg/ha
CURRENTLY USING 0.3 kg of N/ha/day

Grain Yield Probabilities *



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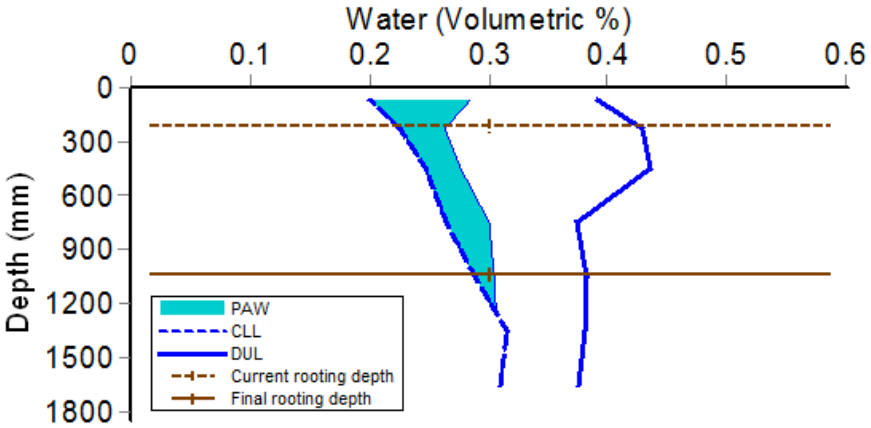
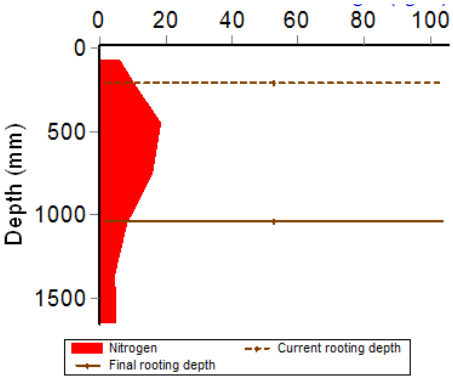
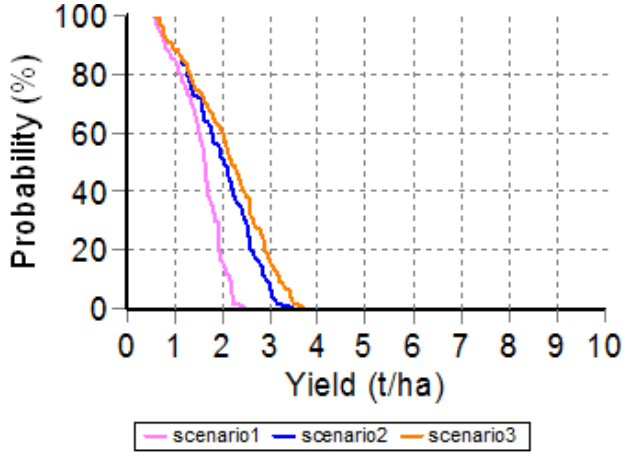


Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



Scenario 1

Date	Amount (kg/ha)
3 May	**9**

Scenario 2

Date	Amount (kg/ha)
3 May	**9**
23 Jul	**37**

Scenario 3

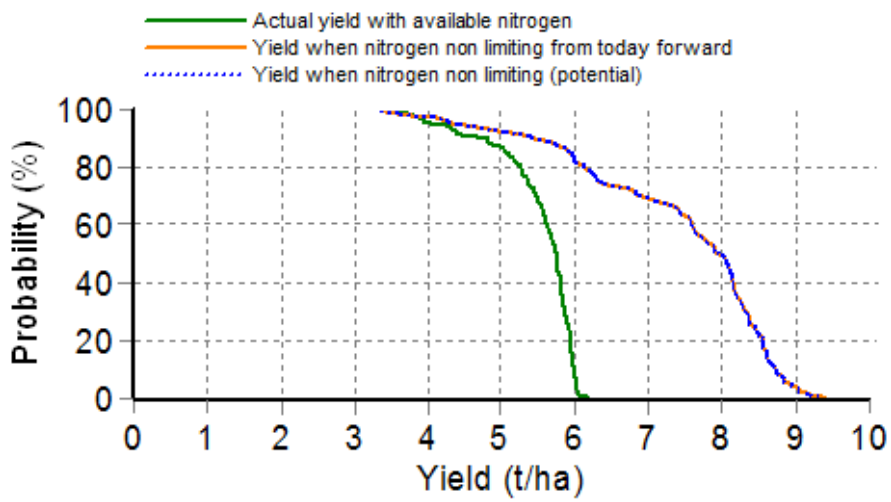
Date	Amount (kg/ha)
3 May	**9**
23 Jul	**70**

EH GRAHAM CENTRE ~ WHEAT

VARIETY Wedgetail SOWING DATE 27/4/2012
SOWING N APPLIED 6kg/ha
SOIL TYPE Red Kandosol
SOWING DENSITY 150 plants/m^2
RAINFALL FROM 1ST JAN 522mm
CURRENT ROOTING DEPTH 898mm
PREDICTED FINAL ROOTING DEPTH 1050mm

CURRENT CROP PAW 137mm
SOIL PAW 226mm
PAWC 216mm
DAILY WATER USE 0.5mm
DEEP N 190kg/ha N PROFILE 88kg/ha
N AVAILABLE TO ROOTS 60.3kg/ha
CURRENTLY USING 3.2kg of N/ha/day

Grain Yield Probabilities *



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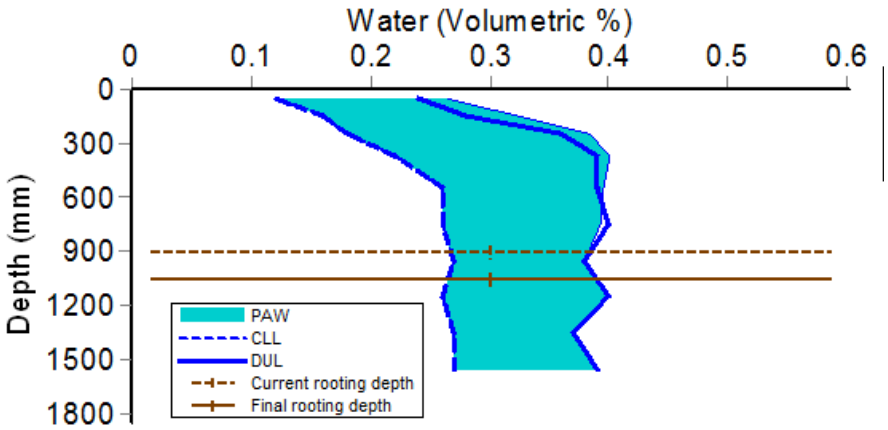
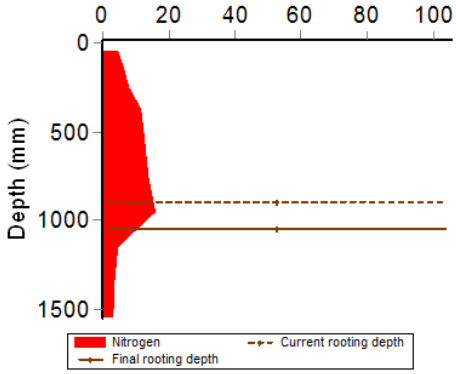
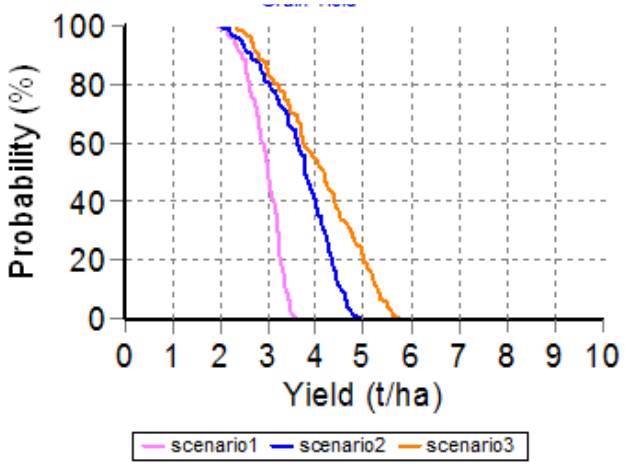


Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



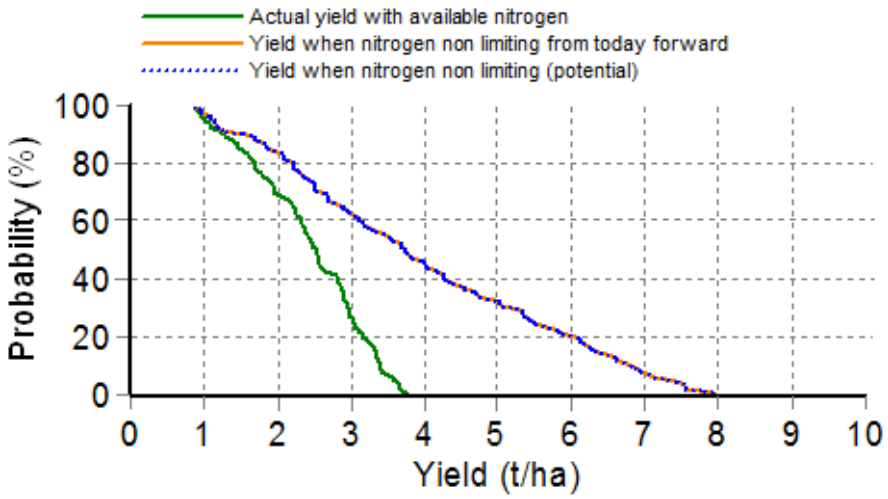
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
9 May	**6**	9 May	**6**	9 May	**6**
		23 Jul	**37**	23 Jul	**70**

DIRNASEER ~ WHEAT

VARIETY Sunvale SOWING DATE 12/5/2012
SOWING N APPLIED 8kg/ha
SOIL TYPE Red Kandosol
SOWING DENSITY 86 plants/m^2
GROWING SEASON RAINFALL TO DATE 125.1mm
CURRENT ROOTING DEPTH 458mm
PREDICTED FINAL ROOTING DEPTH 1530mm

CURRENT CROP PAW 59mm
SOIL PAW 64mm
PAWC 216 mm
DAILY WATER USE 0.3mm
DEEP N 90 kg/ha N PROFILE 76 kg/ha
N AVAILABLE TO ROOTS 24.8 kg/ha
CURRENTLY USING 0.9 kg of N/ha/day

Grain Yield Probabilities *



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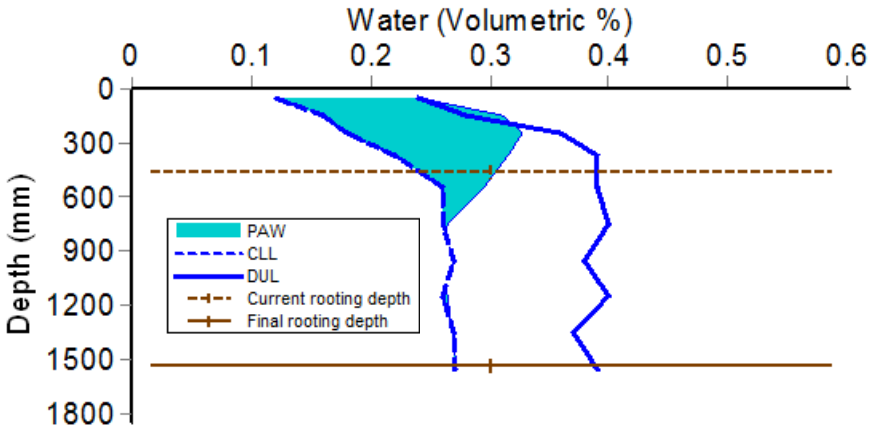
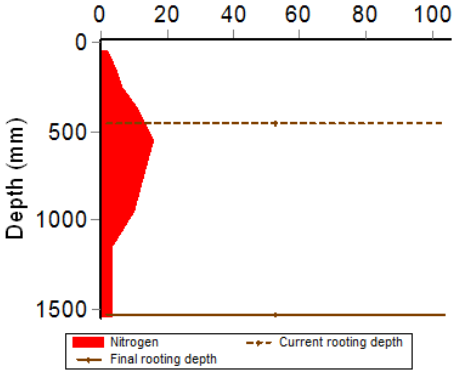


Soil Nitrogen



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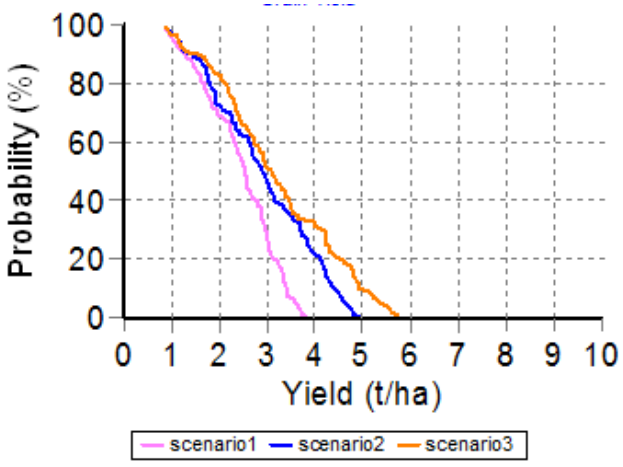


Scenario 1

Date	Amount (kg/ha)
12 May	**8**

Scenario 2

Date	Amount (kg/ha)
12 May	**8**
23 Jul	**37**

Scenario 3

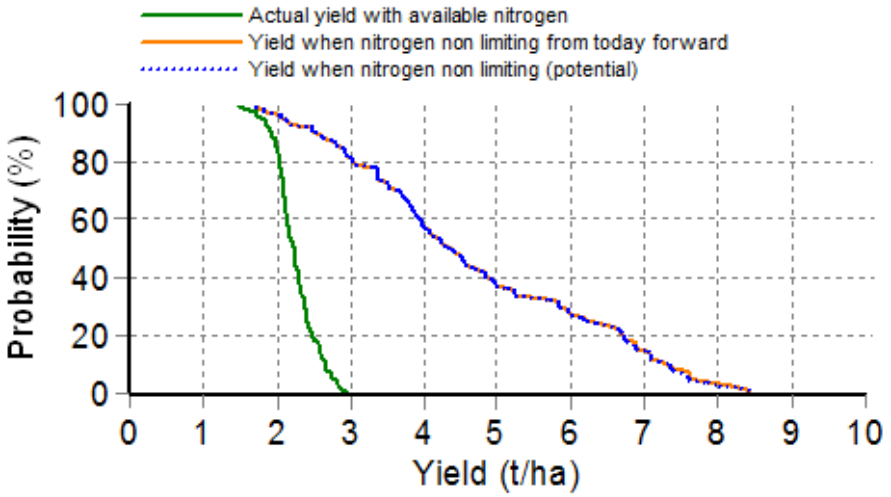
Date	Amount (kg/ha)
12 May	**8**
23 Jul	**70**

GREENETHORPE ~ WHEAT

VARIETY SPITFIRE SOWING DATE 24/5/2012
SOWING N APPLIED 10kg/ha
SOIL TYPE Sandy loam over a sandy clay and heavy clay
SOWING DENSITY 115 plants/m^2
GROWING SEASON RAINFALL TO DATE 139mm
CURRENT ROOTING DEPTH 416mm
PREDICTED FINAL ROOTING DEPTH 1500mm

CURRENT CROP PAW 50mm
SOIL PAW 130mm
PAWC 107mm
DAILY WATER USE 0.1mm
DEEP N 87kg/ha N PROFILE 82kg/ha
N AVAILABLE TO ROOTS 15.7 kg/ha
CURRENTLY USING 0.5 kg of N/ha/day

Grain Yield Probabilities *



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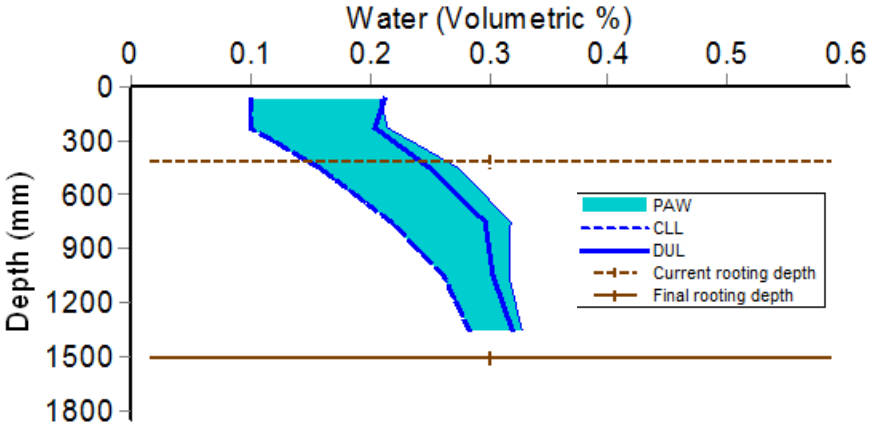
Water Availability **

Soil Nitrogen



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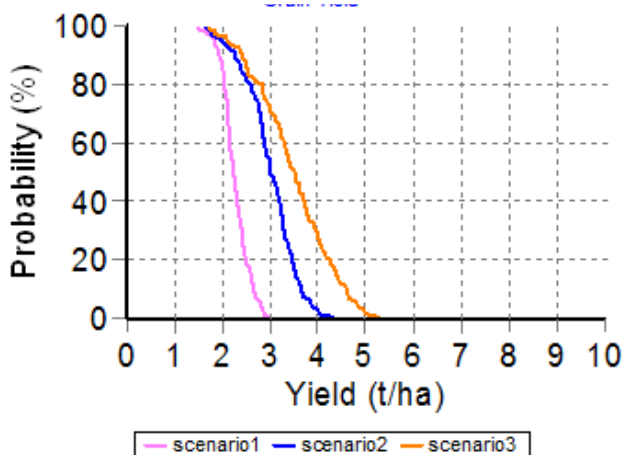


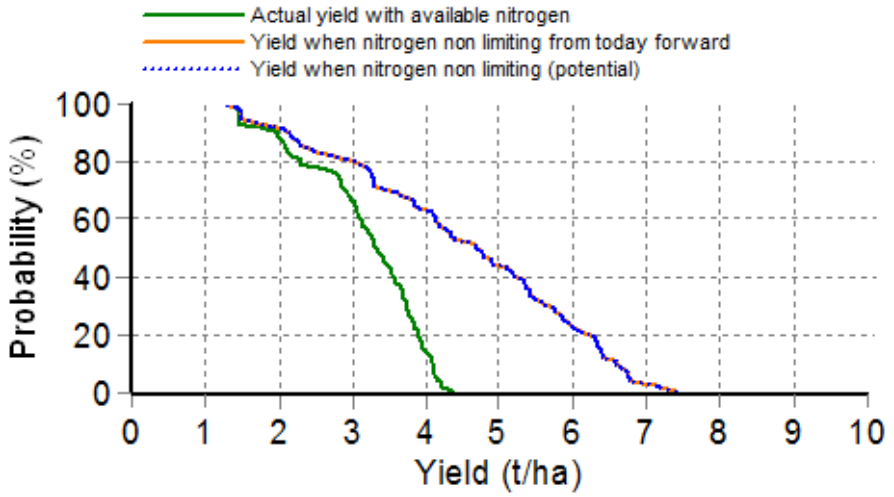
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
24 May	**10**	24 May	**10**	24 May	**10**
		23 Jul	**37**	23 Jul	**70**

LOCKHART ~ WHEAT

VARIETY Lincoln SOWING DATE 9/5/2012
SOWING N APPLIED 6kg/ha
SOIL TYPE Brown Sodosol
SOWING DENSITY 87 plants/m^2
GROWING SEASON RAINFALL TO DATE 89mm
CURRENT ROOTING DEPTH 704mm
PREDICTED FINAL ROOTING DEPTH 1527mm

CURRENT CROP PAW 72mm
SOIL PAW 87mm
PAWC 173 mm
DAILY WATER USE 0.3mm
DEEP N 84 kg/ha N PROFILE 72 kg/ha
N AVAILABLE TO ROOTS 35.5 kg/ha
CURRENTLY USING 1.3 kg of N/ha/day

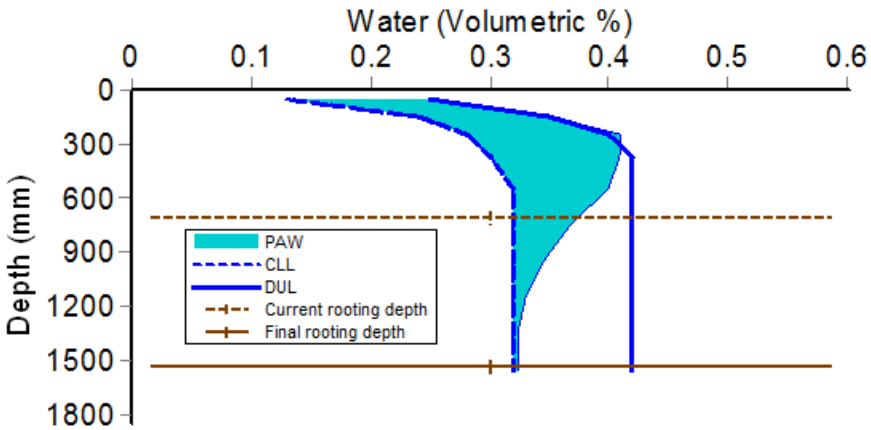
Grain Yield Probabilities *



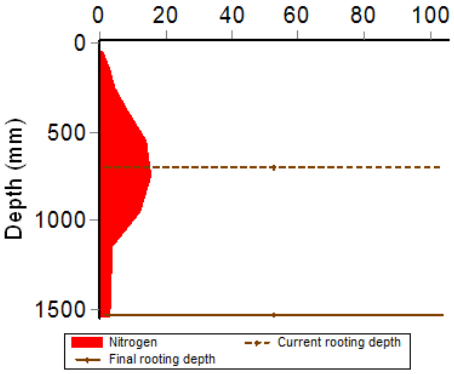
* given weather, soil N and agronomic inputs to date, and historical climate data (100 years) to simulate remainder of season. Does not account for disease, insect or weed pressure or extreme climatic events.

** PAW = plant available water; CLL = crop lower limit; DUL = drained upper limit. Note: Soil water parameters are taken from paddocks previously characterised on the same farm. Although the data should be representative of the paddock, minor discrepancies occur.

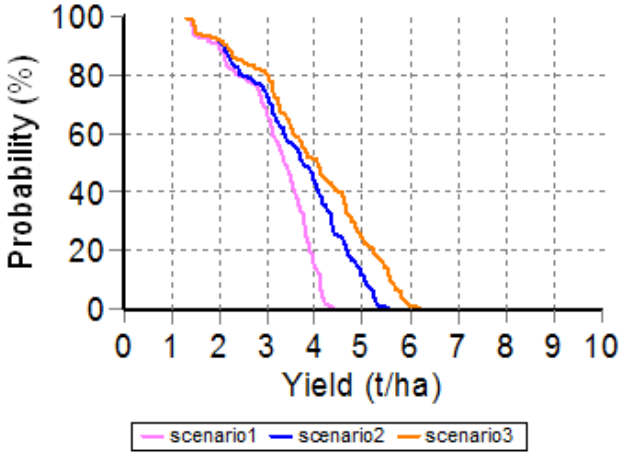
Water Availability **



Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



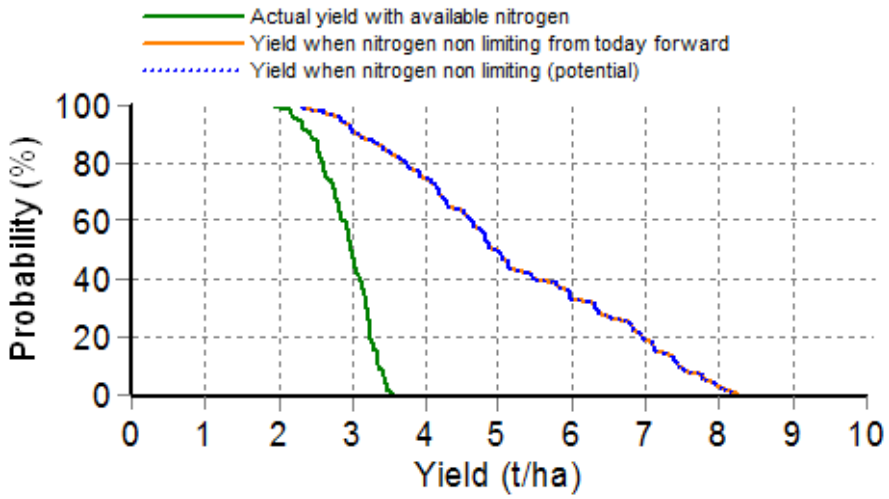
Scenario 1		Scenario 2		Scenario 3	
Date	Amount (kg/ha)	Date	Amount (kg/ha)	Date	Amount (kg/ha)
9 May	**6**	9 May	**6**	9 May	**6**
		23 Jul	**37**	23 Jul	**70**

TEMORA INNOVATION CENTRE ~ WHEAT

VARIETY Spitfire SOWING DATE 17/5/2012
SOWING N APPLIED 6kg/ha
SOIL TYPE Red Chromosol
SOWING DENSITY 155 plants/m^2
GROWING SEASON RAINFALL TO DATE 82.4mm
CURRENT ROOTING DEPTH 518mm
PREDICTED FINAL ROOTING DEPTH 1524mm

CURRENT CROP PAW 61mm
SOIL PAW 151mm
PAWC 147mm
DAILY WATER USE 0.3mm
DEEP N 77kg/ha N PROFILE 70 kg/ha
N AVAILABLE TO ROOTS 29.1kg/ha
CURRENTLY USING 0.9kg of N/ha/day

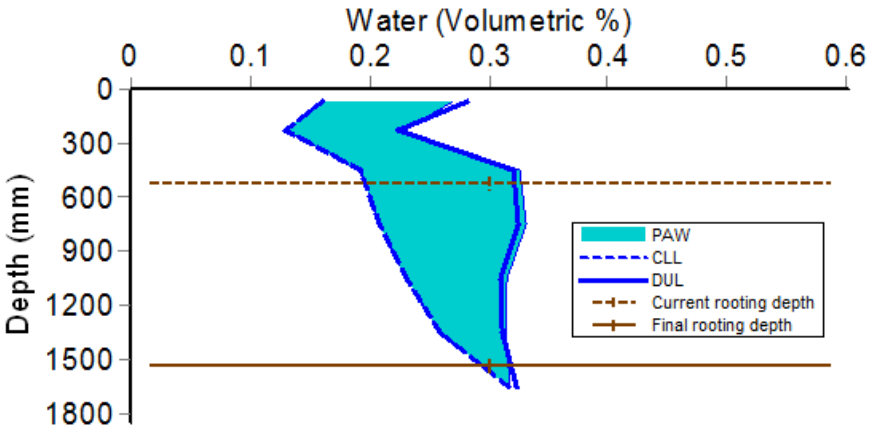
Grain Yield Probabilities *



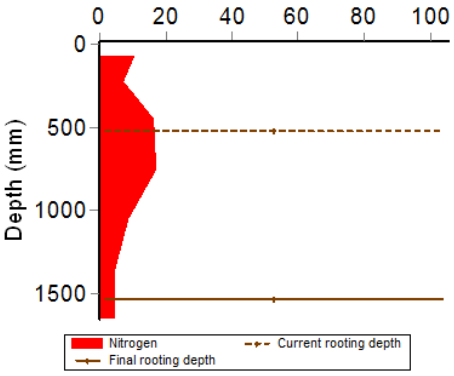
* given weather, soil N and agronomic inputs to date, and historical climate data (100 years) to simulate remainder of season. Does not account for disease, insect or weed pressure or extreme climatic events.

** PAW = plant available water; CLL = crop lower limit; DUL = drained upper limit. Note: Soil water parameters are taken from paddocks previously characterised on the same farm. Although the data should be representative of the paddock, minor discrepancies occur.

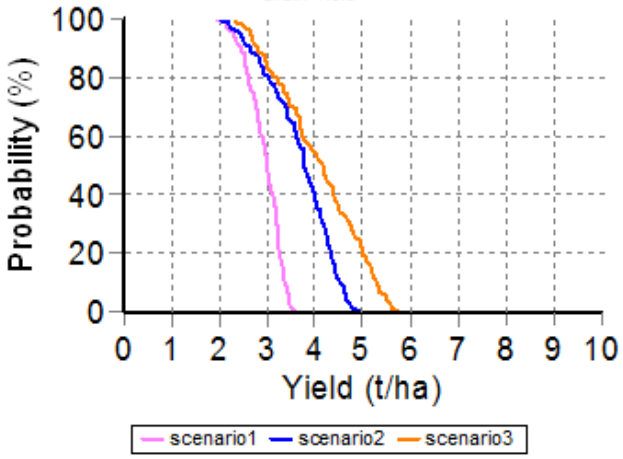
Water Availability **



Soil Nitrogen



Grain Yield Outcomes for Nitrogen Scenarios



Scenario 1		Scenario 2		Scenario 3	
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9 May	**6**	9 May	**6**	9 May	**6**
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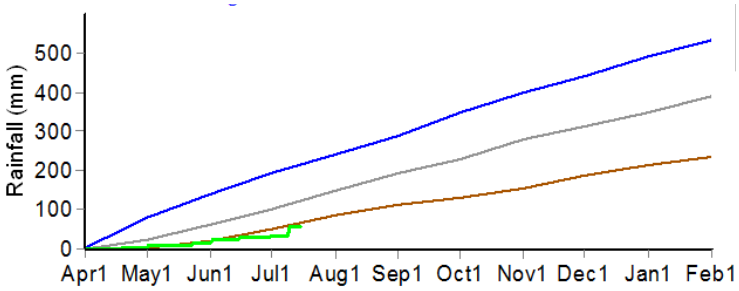
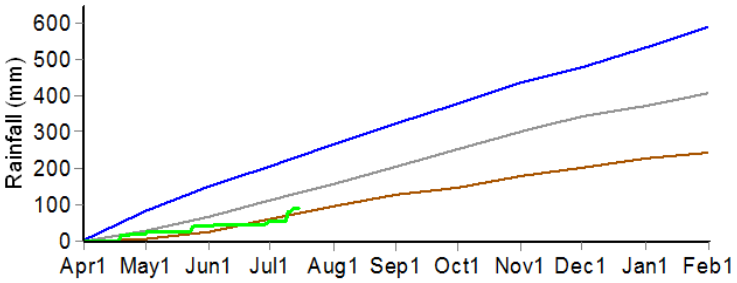
GROWING SEASON RAINFALL DECILES

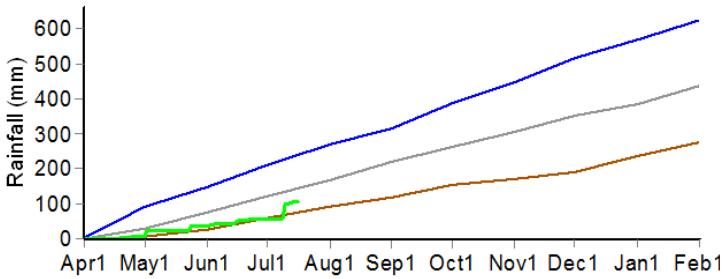
ARDLETHAN



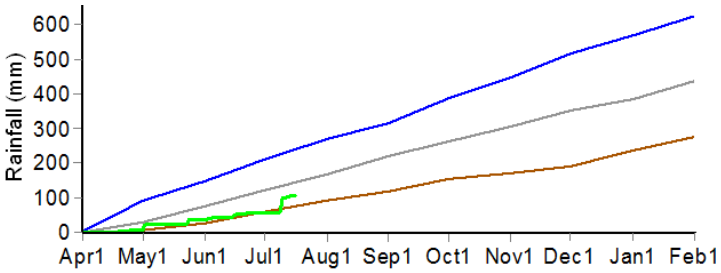
LOCKHART



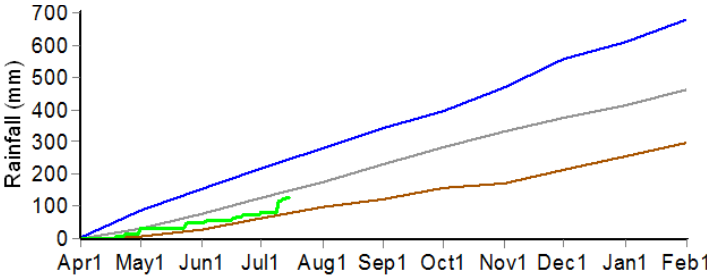
DAFF Carbon Trial



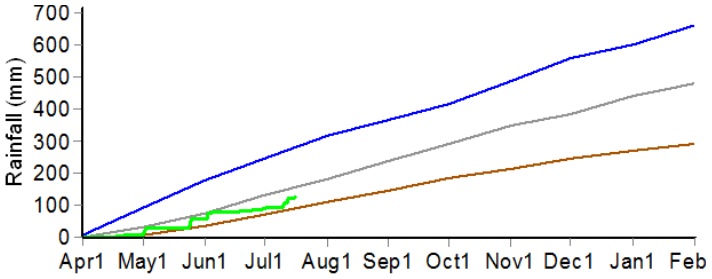
TEMORA



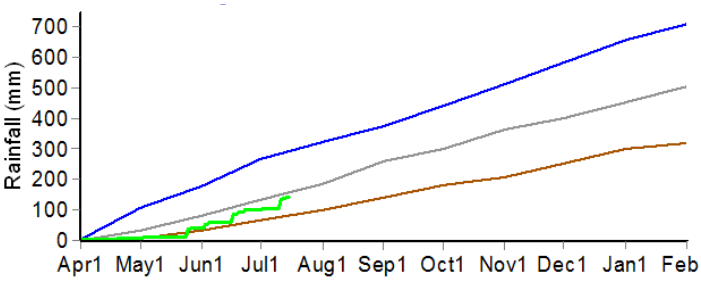
DIRNASEER



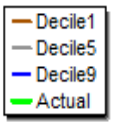
WAGGA WAGGA



GREENTHORPE



KEY



Decile 1 = rainfall received 90% of years (dry season).
Decile 5 = rainfall received in 50% of years (median).
Decile 0 = rainfall received in 10% of years (wet season).

ZADOK'S GROWTH STAGES

Predicted growth stages for wheat at the yield prophet sites.

GS30 end of tillering | GS31 1st node | GS32 2nd node | GS37 flag leaf | GS39 flag leaf fully emerged | GS45 mid booting | GS55 mid head emergence | GS65 mid flowering | GS75 mid dough fill

ARDLETHAN

Predicted								
Earliest	3-Aug	6-Aug	11-Aug	24-Aug	29-Aug	5-Sep	15-Sep	24-Sep	10-Oct
Median	10-Aug	12-Aug	17-Aug	29-Aug	3-Sep	11-Sep	22-Sep	2-Oct	18-Oct
Latest	14-Aug	16-Aug	21-Aug	3-Sep	9-Sep	18-Sep	1-Oct	11-Oct	30-Oct

DAFF CARBON TRIAL

Predicted								
Earliest	20-Aug	23-Aug	27-Aug	7-Sep	11-Sep	18-Sep	28-Sep	7-Oct	22-Oct
Median	25-Aug	28-Aug	1-Sep	13-Sep	18-Sep	25-Sep	5-Oct	14-Oct	30-Oct
Latest	29-Aug	2-Sep	6-Sep	19-Sep	25-Sep	5-Oct	16-Oct	25-Oct	11-Nov

DIRNASEER

Predicted								
Earliest	17-Aug	21-Aug	25-Aug	5-Sep	9-Sep	17-Sep	26-Sep	6-Oct	22-Oct
Median	23-Aug	26-Aug	30-Aug	11-Sep	17-Sep	25-Sep	5-Oct	14-Oct	30-Oct
Latest	27-Aug	31-Aug	4-Sep	18-Sep	23-Sep	4-Oct	14-Oct	25-Oct	11-Nov

GREENETHORPE

Predicted								
Earliest	27-Aug	30-Aug	3-Sep	13-Sep	18-Sep	25-Sep	4-Oct	13-Oct	28-Oct
Median	1-Sep	5-Sep	8-Sep	20-Sep	25-Sep	2-Oct	12-Oct	22-Oct	6-Nov
Latest	7-Sep	11-Sep	14-Sep	28-Sep	4-Oct	12-Oct	22-Oct	3-Nov	18-Nov

LOCKHART

Predicted								
Earliest	3-Aug	7-Aug	11-Aug	25-Aug	30-Aug	8-Sep	17-Sep	26-Sep	12-Oct
Median	12-Aug	16-Aug	20-Aug	1-Sep	6-Sep	14-Sep	24-Sep	4-Oct	21-Oct
Latest	19-Aug	23-Aug	27-Aug	9-Sep	14-Sep	22-Sep	4-Oct	14-Oct	3-Nov

WAGGA WAGGA

Predicted								
Earliest	25-Aug	29-Aug	3-Sep	10-Sep	12-Sep	17-Sep	23-Sep	30-Sep	16-Oct
Median	31-Aug	4-Sep	8-Sep	16-Sep	19-Sep	25-Sep	2-Oct	8-Oct	25-Oct
Latest	5-Sep	9-Sep	13-Sep	22-Sep	27-Sep	4-Oct	11-Oct	18-Oct	7-Nov

YIELD PROPHET PADDOCKS

ARDLETHAN Wheat 21 June 2012

ARDLETHAN Canola 21 June 2012

DIRNASEER Wheat April 2012

DIRNASEER Canola 22 May 2012

GREENETHORPE Wheat 19 June 2012

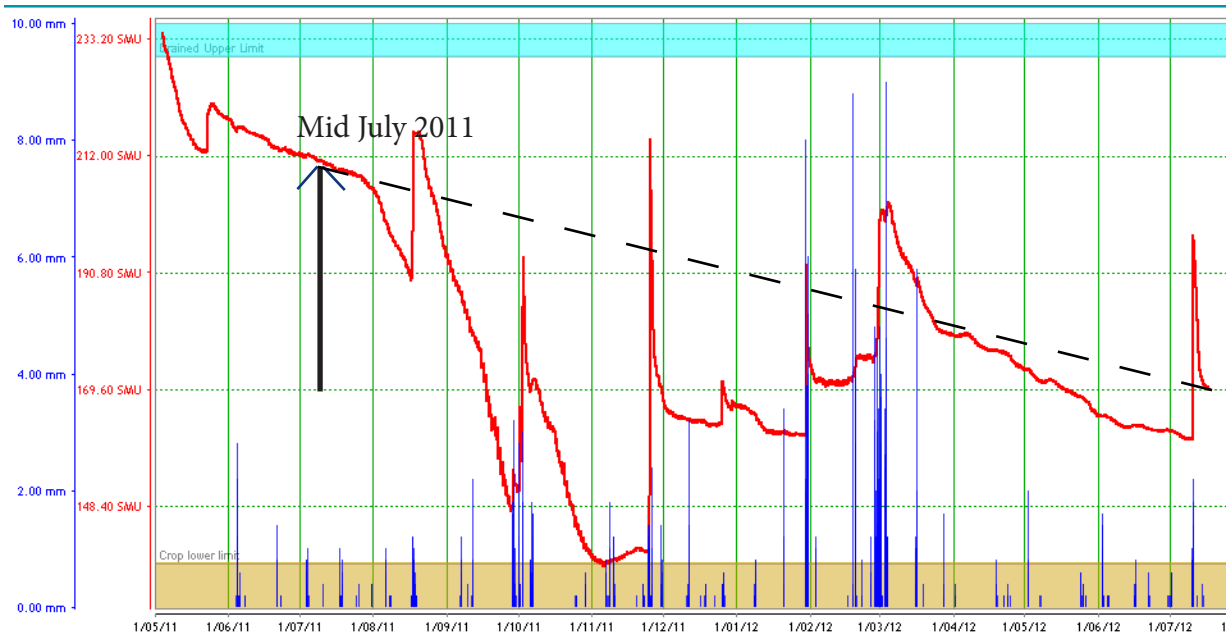
GREENETHORPE Canola 19 June 2012

LOCKHART Wheat 13 June 2012

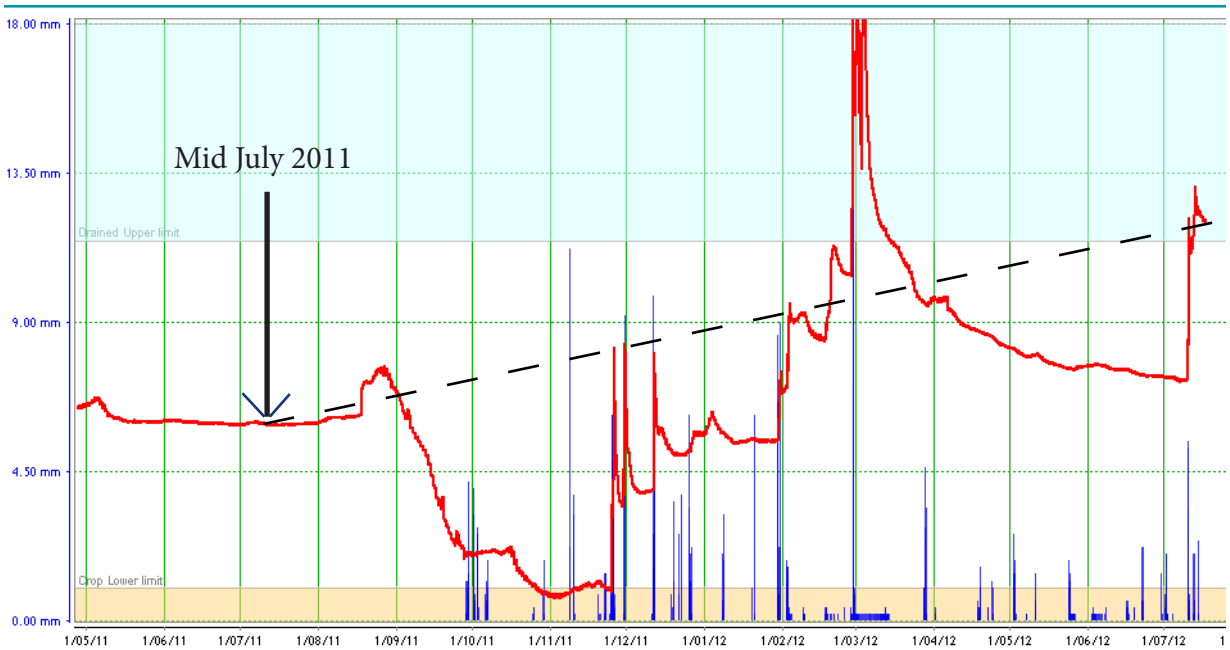
LOCKHART Canola 13 June 2012

SOIL MOISTURE PROBES

ARDLETHAN - WHEAT MOISTURE

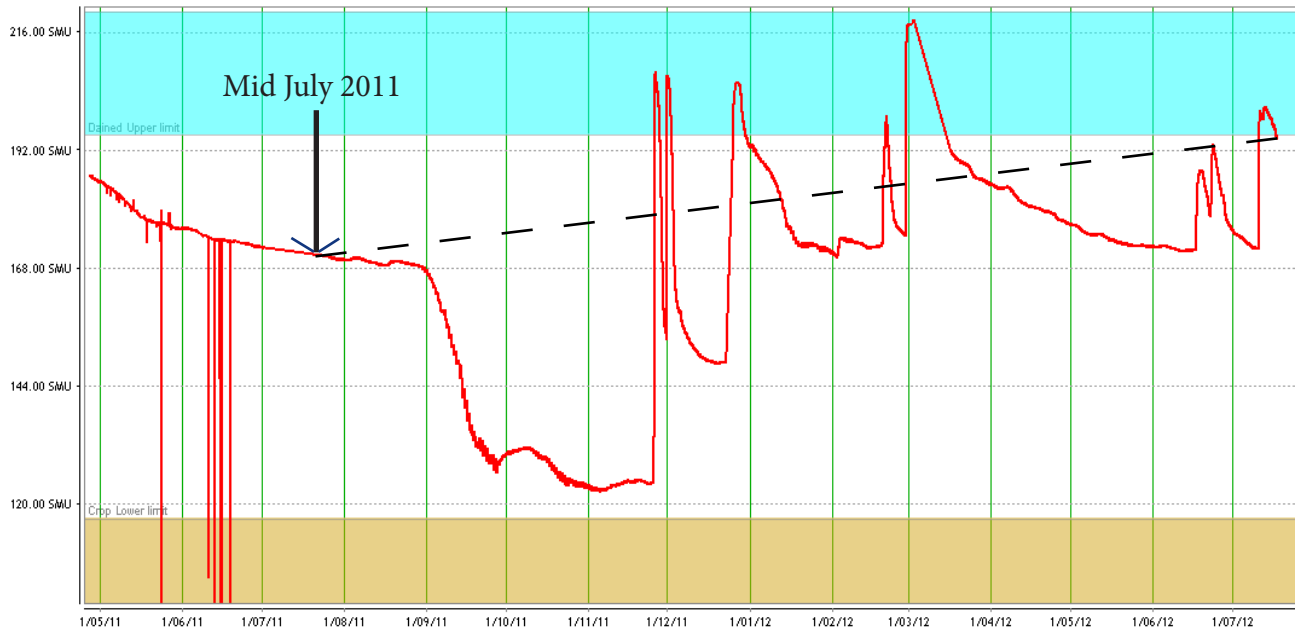


DIRNASEER - CANOLA MOISTURE

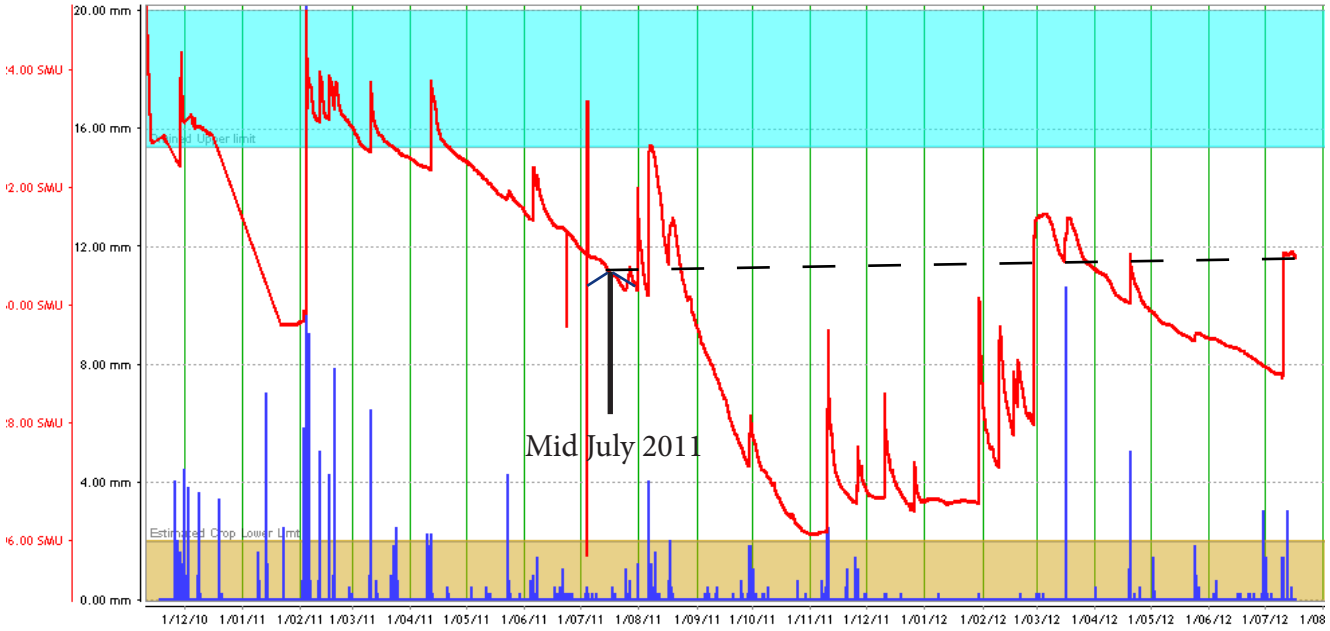


SOIL MOISTURE PROBES

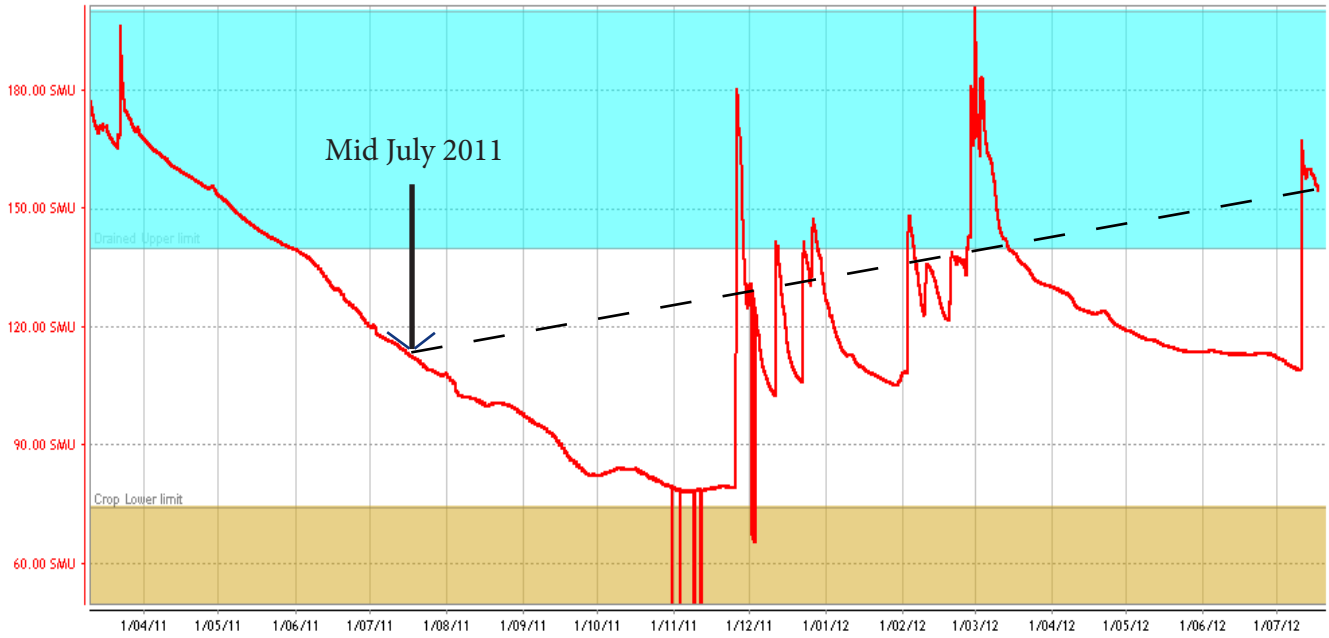
GREENETHORPE - WHEAT MOISTURE



LOCKHART - CANOLA MOISTURE



TEMORA - WHEAT MOISTURE



FarmLink Research

FarmLink Research Limited
PO Box 240
17 Denison St Junee NSW 2663
P: (02) 6924 4633 F: (02) 6924 4677
E: farmlink@farmlink.com.au
www.farmlink.com.au