

## 10. GrainNPlan / CotNPlan

The GrainNPlan details how the N requirement for a crop is worked out and allows for adjustments to be made based on area knowledge.

### 3.6. Click **GrainNPlan**

The **Sample Date**, **Harvest Date**, **Planting Date**, **Depth** and **Bulk Density** are automatically filled from the data entered when the test was ordered.

The model shows a **Low**, **Expected** and **High target yield** which is automatically filled from the information entered when ordering the test.

The Override NTE% ( Nitrogen Transfer Efficiency) is populated automatically but can be changed manually.

**Note:** Changes can be made manually. To accept changes Click **Calculate**

The screenshot shows the 'Evaluation Model: GrainNPlan' window. The 'Input parameters' tab is active. The 'Sample Details' section includes fields for Sample Date (15/03/2012), Harvest Date (26/09/2012), and Planting Date (12/04/2012). The 'Depth' section shows Depth From (0.00) and Depth To (10.00). The 'Bulk Density' is 1.30 and 'Depth Weighting' is 1.00. The 'Overrides' section includes 'Non Tested OC' and 'Soil Texture'. The 'In-Crop N' section has 'In-Crop N?' checked and 'Harvest Index Avg (%)' set to 45.00. The 'Growth Stage' is set to '1st node'. A table of target yields is highlighted with a red box:

	Low	Expected	High
Target Yield	3.50	3.50	3.50
Target Protein	10.50	10.50	10.50
Override NTE %	48.00	48.00	48.00

The 'Yield Variance (%)' checkbox is unchecked. The 'Associated Sample Profile Details' table at the bottom has columns for Barcode, Depth From, Depth To, Bulk Density, and Depth/Wt.

**Note:** Changes to the Target Yields can be made by Ticking the box to the left of Yield Variance% and entering the percentage required.

### 3.7. **In-Crop N** tests

If this test has been done allowances for this can be made by ticking the **In-Crop N**. Select the Growth Stage from the drop down box.

The Harvest Index Avg % appears automatically

**Note:** Changes can be made manually. To accept changes Click **Calculate**

The screenshot shows the 'Evaluation Model: GrainNPlan' window. The 'Input parameters' tab is active. The 'Sample Details' section includes fields for Sample Date (15/03/2012), Harvest Date (26/09/2012), and Planting Date (12/04/2012). The 'Depth' section shows Depth From (0.00) and Depth To (10.00). The 'Bulk Density' is 1.30 and 'Depth Weighting' is 1.00. The 'Overrides' section includes 'Non Tested OC' and 'Soil Texture'. The 'In-Crop N' section has 'In-Crop N?' checked and 'Harvest Index Avg (%)' set to 45. The 'Growth Stage' is set to '1st node'. A table of target yields is highlighted with a red box:

	Low	Expected	High
Target Yield	3.50	3.50	3.50
Target Protein	10.50	10.50	10.50
Override NTE %	60	60	60


The 'Yield Variance (%)' checkbox is unchecked. The 'Associated Sample Profile Details' table at the bottom has columns for Barcode, Depth From, Depth To, Bulk Density, and Depth/Wt.

3.8. A Report for the Grain N Plan can be previewed, printed, exported as a pdf or emailed by choosing from the Report Printing section.

### SoilMate GrainPlan Report

Avonlea Farming Pty Ltd - Tuesday, 11

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BACK PADDOCK  
COMPANY

**Grower Details:**

<b>Grower Name:</b> Avonlea Farming Pty Ltd	<b>Interpretation Date:</b> Wednesday, 16 May 2012
<b>Paddock Name:</b> Church	<b>Interpreter Name:</b> Else, Cheryl
<b>Address:</b> "Avonlea" Latitude: 33°22'S Longitude: 146°24 E	<b>Interpreter Phone:</b>
<b>Phone:</b> 02 69 642XXX	

**Sample Details:**

<b>Sample Date:</b> Thursday, 15 March 2012	<b>District:</b> Wangaratta VIC
<b>Forecast Plant Date:</b> 12-Apr-2012	<b>Description:</b> Test Evaluation
<b>Forecast Harvest Date:</b> 26-Sep-2012	<b>Crop:</b> Wheat SE Aust.
<b>Test Date:</b> Wednesday, 21 March 2012	<b>Soil Type:</b>
	<b>Growth Stage:</b> 1st Node

**Evaluation Parameters:**

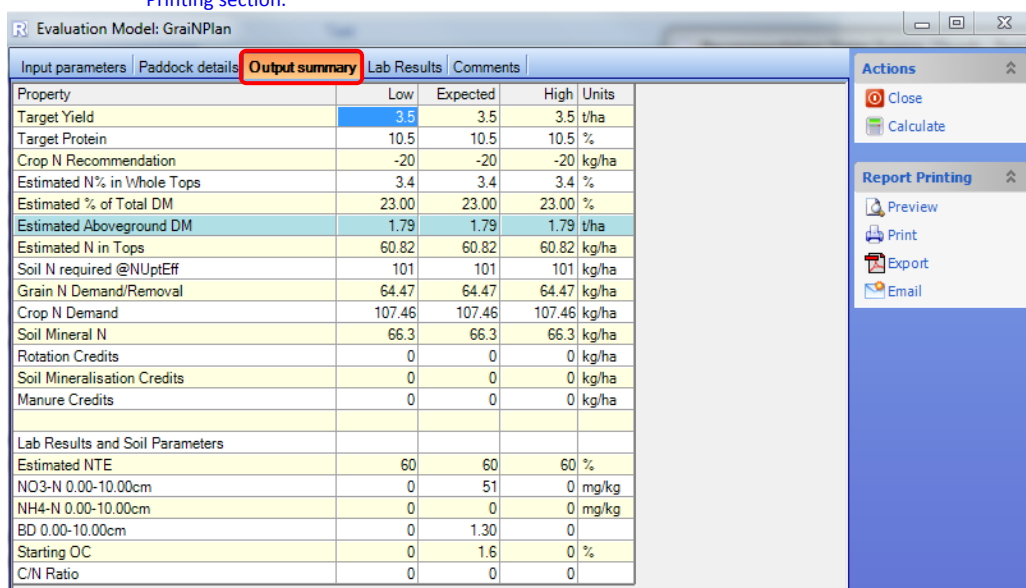
	Low	Expected	High					
<b>Output Summary - DEMAND:</b>								
Target Yield (t/ha):	3.5	3.50	3.5					
Target Protein (%):	10.5	10.50	10.5					
Grain Removal:	64 kg/ha	64 kg/ha	64 kg/ha					
Estimated Nitrogen Transfer Efficiency %:	60%	60%	60%					
Estimated Crop N Demand (kg/ha):	107 kg/ha	107 kg/ha	107 kg/ha					
Estimated N in Crop (kg/ha):	0.00	0.00	0.00					
N Required For Rest of The Crop (kg/ha)	107	107	107					
<b>Output Summary - SUPPLY:</b>								
<b>Sample Profile Details:</b>								
Barcode	Depth From (cm)	Depth To (cm)	Bulk Density (t/m3)	Nitrate N (mg/kg)	Ammonium N (mg/kg)	Depth Weighting	Mineral N (kg/ha)	Organic Carbon (%)
BP0028091	0.00	10.00	1.30	51		1.00	66	1.6
Soil Mineral N:	66 kg/ha	66 kg/ha	66 kg/ha					
Rotation Credits:	0 kg/ha	0 kg/ha	0 kg/ha					
Soil Mineralisation Credits:	0 kg/ha	0 kg/ha	0 kg/ha					
Manure Credits:	0 kg/ha	0 kg/ha	0 kg/ha					
Estimated Total Available N:	66 kg/ha	66 kg/ha	66 kg/ha					
<b>Recommended Nitrogen Rate:</b>	<b>41 kg/ha</b>	<b>41 kg/ha</b>	<b>41 kg/ha</b>					

**Comments:**

3.9. Output summary

Show how the results were determined. Click **Output summary** tab at the top of the model box.

**Note:** This can also be previewed, printed, exported as a pdf or emailed by choosing from the Report Printing section.



Property	Low	Expected	High	Units
Target Yield	3.5	3.5	3.5	t/ha
Target Protein	10.5	10.5	10.5	%
Crop N Recommendation	-20	-20	-20	kg/ha
Estimated N% in Whole Tops	3.4	3.4	3.4	%
Estimated % of Total DM	23.00	23.00	23.00	%
Estimated Aboveground DM	1.79	1.79	1.79	t/ha
Estimated N in Tops	60.82	60.82	60.82	kg/ha
Soil N required @NuptEff	101	101	101	kg/ha
Grain N Demand/Removal	64.47	64.47	64.47	kg/ha
Crop N Demand	107.46	107.46	107.46	kg/ha
Soil Mineral N	66.3	66.3	66.3	kg/ha
Rotation Credits	0	0	0	kg/ha
Soil Mineralisation Credits	0	0	0	kg/ha
Manure Credits	0	0	0	kg/ha
<b>Lab Results and Soil Parameters</b>				
Estimated NTE	60	60	60	%
NO3-N 0.00-10.00cm	0	51	0	mg/kg
NH4-N 0.00-10.00cm	0	0	0	mg/kg
BD 0.00-10.00cm	0	1.30	0	
Starting OC	0	1.6	0	%
C/N Ratio	0	0	0	

### 3.10. Lab Results

Click **Lab Results** tab at the top of the model box.

Analyte		BP0028091
Colour (SM Code)		2
Soil Colour (Munsell)	03BR	
Texture (SM Code)		8
Soil Texture (Northcote)	02SL	
pH (1:5 CaCl2)		4.5
pH (1:5 H2O)		5.1
EC (1:5 H2O) dS/m		0.15
EC (se) (dS/m)		1.6
EC (se) (dS/m) (Cladj)		1.0
Chloride (1:5 H2O) mg/kg		43
Electrochemical Stability Index		0.025
Organic carbon (Walkley Black) %		1.60
Nitrate nitrogen (KCl) mg/kg		51
Phosphorus (Colwell) mg/kg		24
Phosphorus Buffer Index (PBI)		40
Potassium (Amm-acet.) cmol+/kg		0.22
Sulfate-S (KCl40) mg/kg		8.6
Calcium (Amm-acet.) cmol+/kg		2.3
Calcium:magnesium ratio		6.8
Magnesium (Amm-acet.) cmol+/kg		0.3
Sodium (Amm-acet.) cmol+/kg		0.19
Aluminium (KCl) cmol+/kg		0.11

**Note:** Any comments created can also be seen by Clicking on the Comments tab at the top of the model box.