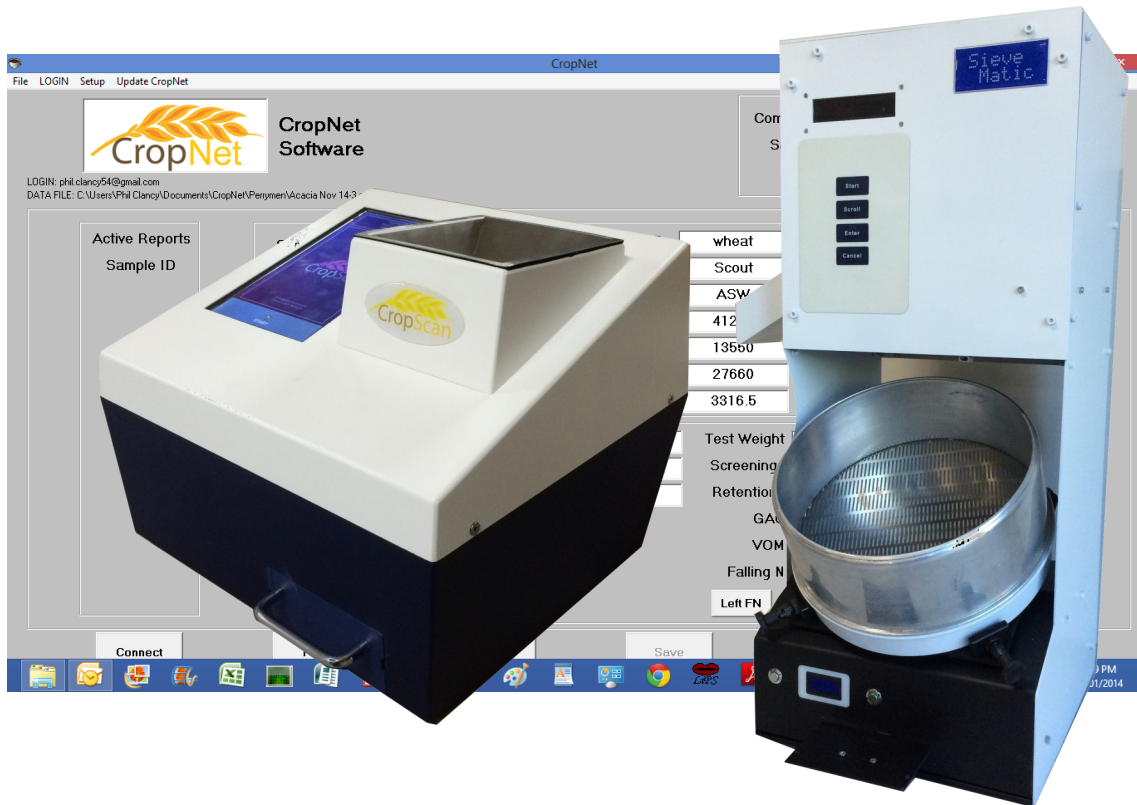




CropScan 3000B Automated Grain Testing System



CropScan 3000B Whole Grain Analyser,
Sievematic II Test Weight and Screenings Analyser
with CropNet Grain Data Management Software



... the Next generation of grain analysers



Automated Grain Testing System

Grain testing is generally a combination of NIR analysis for Protein, Moisture and Oil; physical testing for Test Weight, Screenings and Retention plus visual inspection for seed size, diseases, defects and colour. As well the truck load weight is required. Each step in the grain testing procedure requires human interaction and manual recording.

The CropScan Automated Grain Testing System has been developed to automate these procedures by linking together the CropScan 3000B Whole Grain Analyser, the Sievematic II Test Weight and Screenings Analyser and CropNet Grain Data Management Software.

1 litre of grain is poured into the top of the Sievematic II. 500ml of grain fills the Test Weight module and the overflow drops into the CropScan 3000B. The weight of the 500ml of grain is recorded and it then drops into the sieve placed on the Sievematic shaker platform. The shaker starts and rocks the sieve for 40 shakes.

Meanwhile the CropScan 3000B starts to measure the protein, moisture and oil of the grain. When the CropScan 3000B has finished the NIR analysis, it prompts the operator to weigh the Screenings and Retention portions in the sieves using the built in scale located at the front of the Sievematic. The Test Weight, Screenings and the Retention weights are sent to the CropScan 3000B to be displayed on the screen along with the protein, moisture and oil. The CropScan 3000B software prompts the operator to enter the sample ID (optional Barcode Reader), variety, grade, storage location and tonnage.

The operator then press the Load Ticket button and a full report is printed. The data is saved to the PC memory and sent to the CropNet Grain Data Management Software. Typical analysis time is 90 seconds.

CropScan 3000B Whole Grain Analyser

The CropScan 3000B Whole Grain Analyser is a bench top NIR analyser designed for rapid measurement of protein, moisture, starch and oil in wheat, barley, corn, soybean, canola, oats, triticale, lupins, other cereals grains and oil seeds. The CropScan 3000B uses a pour through sampling system with an inlet and outlet flap mechanism flowing the grain in and out of the sample chamber.

Software automatically sets the appropriate sample pathlength as per the calibration file. The integrated Touch Screen PC provides a simple report style interface. Once the analysis is completed for protein, moisture, oil etc, the CropScan reads the Test Weight, Screenings and Retention from the Sievematic II.

Connection of a second screen monitor to the CropScan 3000B enables the simultaneous use of CropNet Grain Data Management Software which provides a means of capturing the truck load weights from a weighbridge monitor, attribute results to each load and store the data.

This dual screen monitor plugs directly into the CropScan 3000B and operates from the integrated computer.



Sievematic II Test Weight and Screenings Analyser

The Sievematic II is an automated device that combines the proven Sievematic Grain Shaker and a Test Weight mechanism to measure Test Weight and Screenings and output the results to a PC.

The Sievematic II Grain Shaker offers:

- Select from 20 and 40 shake programs.
- Accepts all 300mm diameter sieves including double stacked sieves
- 500ml Test Weight mechanism
- Automatic loading the sieve
- 2 built in scales to collect Test Weight and Screenings Weight.
- Automatically calculates Hectolitre Weight (kg/HL) and % Screenings
- Outputs TW and % Screenings to a PC through an RS232 port.



Grain Data Management Software

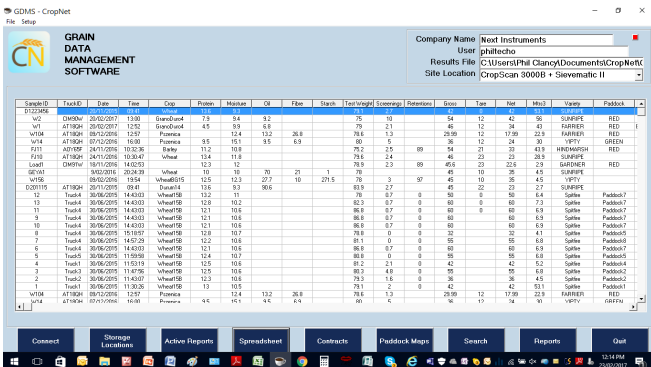
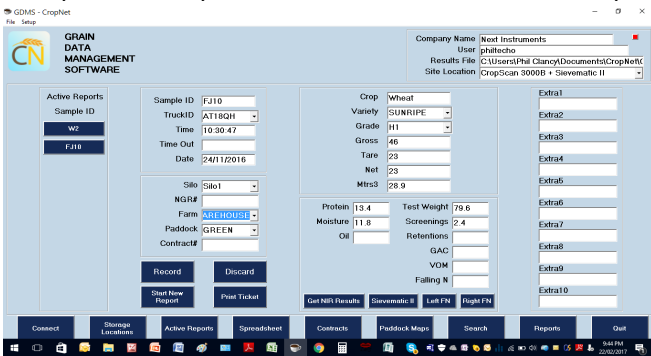
CropNet Grain Data Management Software has been developed to provide grain buyers, farmers and grain processors with a means of organising and managing the quality and quantity data for their stored grains and oil seeds. CropNet reads the Protein, Moisture and Oil from the CropScan 3000B and Test Weight, % Screenings and % Retention from the Sievematic II and records them into the PC. CropNet can also read the weight of a truck from the weighbridge monitor and record it into the PC.

CropNet provides drop down lists for the following parameters:

- Truck ID
- Truck Tare Weight
- Time In and Time Out
- Storage Location ID
- Farm ID
- Paddock or Field ID
- NGR Number
- Contract Number
- Variety
- Grade

The Test Weight, Gross and Tare Weight are used to calculate the Net Weight and the Volume. When all the data fields are complete, the operator presses the RECORD button to save the complete data record for the load into the PC.

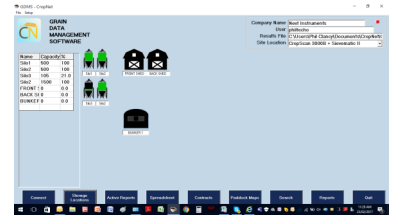
CropNet can also read data from a SeedCount Image Analyser, a Dickey John GAC 2100/2300 Moisture Analyser



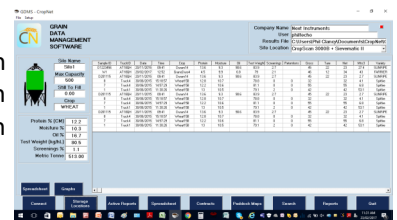
CropNet Reports and Screen Displays

The data is stored in the PC as a spreadsheet, however as each load is recorded, the data is assigned to the Storage Locations. The operator can click onto the appropriate icon and displays the Running Averages for:

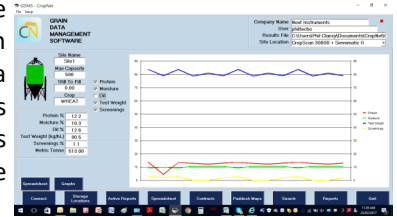
- Protein
- Moisture
- Oil
- Test Weight
- Screenings %
- Retention & and the Tonnage in the silo.



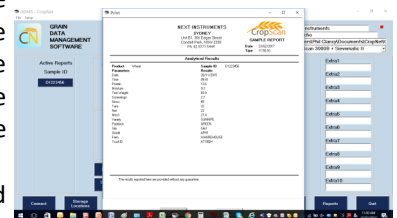
Pressing the Graphs button displays a line plot for each load that has been stored in the silo, shed or bin.



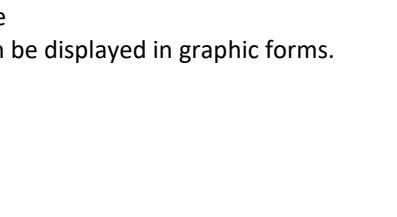
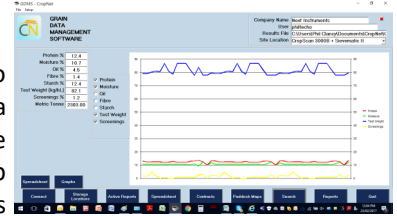
CropNet keeps track of Inloaded grain and Outloaded grains. The Storage Location data is updated every time a load is recorded. If it is an Inload then it adds the data to the spreadsheet. If it is an Outload then it subtracts the data from the spreadsheet.



Load Tickets can be generated by pressing the Print Report button. The Load Ticket can be customised with the company logo, name, address, phone, email and web details. Print the Load Ticket on a laser printer and email a copy directly to the farmer or customer.



Use the Search option to select data based on a range of fields, ie, Storage Location, Farmer, Crop Type, Date etc. The data is sorted into a unique spreadsheet which can then be displayed in graphic forms.



CropNet Web Portal

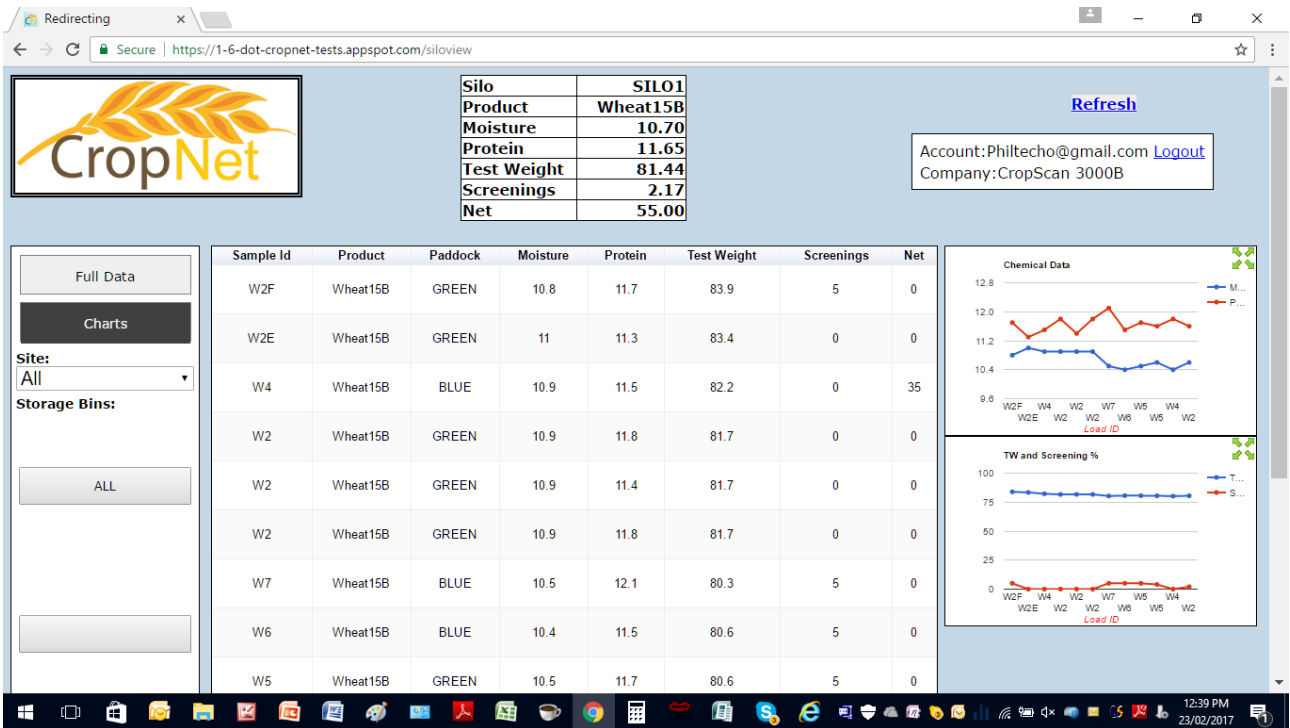
CropNet Grain Data Management Software has the option to provide users with access to the CropNet Web Portal. By signing up for access to our Cloud based data storage, the user can access their data remotely from a Smart Phone, Tablet or PC.

The CropNet Web Portal is account specific and password protected. Each user has a unique access code and password. By opening the portal and entering the user

CropNet Remote Network Access

CropNet Grain Data Management Software allows data to be downloaded from the CropNet Web Portal to a PC.

CropNet is suitable for use within a network of storage facilities around the country or even the world. A central office or laboratory can access the CropNet Web Portal and download data from remote storage locations. The data can then be edited or manipulated to make specific reports. An example would be to package a parcel of



name and password, the data from their farm silos, grain storage facility or network of facilities can be viewed. By selecting the specific silo or storage location, a spreadsheet will appear along with plots for each load placed into storage.

The CropNet Web Portal only displays the data. To edit the data or to perform other data management operations, you need to use the CropNet Grain Data Management Software.

grain from several locations that suit a specific customer requirement and then to email the buyer a report showing the Protein, Moisture, Test Weight and Screenings for every load of grain within the parcel.

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