



**KNOW YOUR
GRAIN
KNOW YOUR
FIELD**

**CropScan 3000B
Whole Grain
Analyser**

CropScan 3000B...Whole Grain Analysis Systems

The CropScan 3000B Whole Grain Analyser is a bench top analyser designed for rapid measurement of protein, moisture, starch and oil in wheat, barley, corn, soybean, canola, oats, triticale, lupins and other cereals grains and oil seeds.

There are two configurations that meet different user needs;

CropScan 3000B Whole Grain Analyser

CropScan 3000BT Whole Grain Analyser with Test Weight

From farmers to grain traders to grain research, there is a CropScan 3000B system to suit. The CropScan 3000B and 3000BT can be connected to a secondary monitor where CropNet Grain Data Management Software can be run simultaneously to give a fully automated test system.



Features:

- *Built-in Touch Screen PC Operation*
- *Measures Protein and Moisture in Wheat, Barley, Oats, Peas, Beans, Sorghum and Rice.*
- *Measures Protein, Oil and Moisture in Canola, Soybean, Corn.*
- *Suitable for use in a farm office or weighbridge shed*
- *Built-in Test Weight Module (Optional)*
- *CropScan Test Weight and Screenings Module (Optional)*
- *Weighbridge software*
- *Internet software available*



CropNet Grain Data Management Software runs on the CropScan 3000B's built-in PC and provides a means of connecting to a weighbridge monitor and thereby capturing truck weights along with other grain quality measurement parameters. The CropNet Grain Data Management Software can be operated from a dual screen running in parallel with the CropScan 3000B's analysis software.



CropNet...Manage Grain Quality and Quantity in the Cloud

CropNet is a system including grain analysers, computers and software that can generate comprehensive information on the quality of grains in storage both on farm and at the silo. The system consists of:

- CropScan 3000B Grain Analysis System
- CropScan Test Weight and Screenings System
- CropNet Grain Data Management Software

CropNet Grain Data Management Software reads the data from the CropScan 3000B, the tonnage from the weighbridge and combines the data into a spreadsheet. The data is sent to the Cloud where Reports, Tables and Graphs can be retrieved and displayed on the CropNet Software, printer or emailed.

CropNet sets up a Virtual Farm system where each silo, shed, bunker or grain bag is displayed. As grain is stored into a storage system, the running average for Protein, Moisture, Oil and Starch are displayed in real-time along with the tonnage. As grain is shipped out or transferred the running averages are updated and the tonnage corrected.

Data fields for Variety, Grade, Farm ID, Paddock ID, Truck ID, Date and Time are available as pulled down menus. Simply record all the data required and reports can be generated based on each field. For example, recall all loads shipped from Silo 1 to customer XYZ on a certain date.

Sample ID	Date	Time	Crop	Protein	Moisture	Fibre	Starch	Fat	Crack	Test	Net	Gr
Bw1	29/10/2014	10:48:33AM	Bate414	9.3	10.3	0	0	0	0	0	0	0
Bw10	29/10/2014	10:50:04PM	Bate414	9.1	9.3	0	0	0	0	0	0	0
Bw2	29/10/2014	10:50:27PM	Bate414	9.2	9.3	0	0	0	0	0	0	0
Bw8	29/10/2014	10:50:41PM	Bate414	11	9.2	0	0	0	0	0	0	0
Bw5	29/10/2014	10:50:56PM	Bate414	10.5	9	0	0	0	0	0	0	0
Bw4	29/10/2014	10:51:36PM	Bate414	9.5	9.4	0	0	0	0	0	0	0
Bw5	29/10/2014	10:51:45PM	Bate414	9.4	9.3	0	0	0	0	0	0	0
Bw4	29/10/2014	10:52:06PM	Bate414	9.7	9.3	0	0	0	0	0	0	0
Bw2	29/10/2014	10:52:07PM	Bate414	10.8	9.2	0	0	0	0	0	0	0
Bw2	29/10/2014	10:52:28PM	Bate414	9.4	9.4	0	0	0	0	0	0	0
Bw1	29/10/2014	10:53:45PM	Bate414	13.1	9.4	0	0	0	0	0	0	0
Bw14	29/10/2014	10:54:42PM	Bate414	9.3	10.2	0	0	0	0	0	0	0
Bw13	29/10/2014	10:57:39PM	Bate414	11.1	9.7	0	0	0	0	0	0	0
Bw2	29/10/2014	10:58:21PM	Bate414	8.9	9.7	0	0	0	0	0	0	0
Bw11	29/10/2014	10:58:37PM	Bate414	8	9.7	0	0	0	0	0	0	0
Bw10	29/10/2014	10:58:57PM	Bate414	6.8	10	0	0	0	0	0	0	0
Bw9	29/10/2014	10:59:02PM	Bate414	7.5	10.1	0	0	0	0	0	0	0
Bw9	29/10/2014	10:59:19PM	Bate414	7.7	10.1	0	0	0	0	0	0	0
Bw7	29/10/2014	10:59:26PM	Bate414	7.7	10.5	0	0	0	0	0	0	0
Bw6	29/10/2014	10:59:50PM	Bate414	7.9	10.5	0	0	0	0	0	0	0
Bw5	29/10/2014	11:00:42AM	Bate414	6.9	10.3	0	0	0	0	0	0	0
Bw4	29/10/2014	11:01:51AM	Bate414	10.3	11.5	0	0	0	0	0	0	0
Bw3	29/10/2014	10:58:43AM	Bate414	6.9	11.8	0	0	0	0	0	0	0
Bw2	29/10/2014	10:58:15PM	Bate414	7.6	10	0	0	0	0	0	0	0
Bw1	29/10/2014	10:58:15PM	Bate414	7.9	9.9	0	0	0	0	0	0	0
Bw9	29/10/2014	10:58:37PM	Bate414	9.9	9.2	0	0	0	0	0	0	0
Bw8	29/10/2014	10:41:59PM	Bate414	8.9	9.1	0	0	0	0	0	0	0
Bw7	29/10/2014	10:51:10PM	Bate414	9.4	9.7	0	0	0	0	0	0	0

CropNet Grain Data Management Software allows farmers to be "Price Makers not Price Takers". CropNet provides all the tools a farmer needs to properly know how much grain is stored where and what is its value.

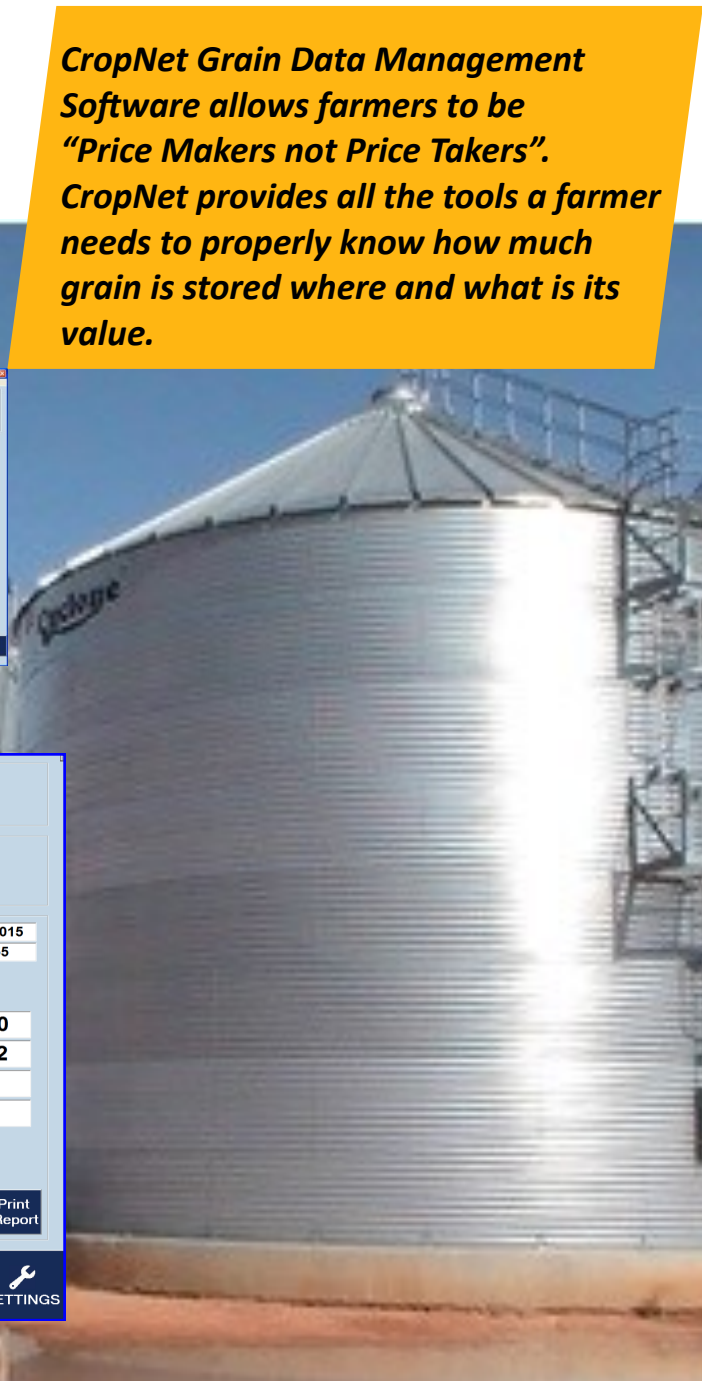
Name	Volume	%
SILO 1	1009	88.9
SILO 2	1000	86.8
SILO 3	1000	69.2
SILO 4	1000	76.8
SILO 5	1000	28.0
SILO 6	1000	23.2
SEED SI	1000	88.0
BAG 1	250	54.4
BAG 2	250	73.6
BAG 3	250	26.6
BAG 4	250	83.2

CropScan 3000B
Serial Number: 1165

ABC GRAIN
2 FARMER RD LAVERTON NSW 2345
TOM BROWN
LOT 217

Product: **Wheat14B** Date: **11/03/2015**
Sample: **W5** Time: **10:50:55**
Variety:
Tonnage:
Protein % (cm) **13.0**
Moisture % **11.2**
Test Weight kg/hL
Screenings %
Ready **Print Report**

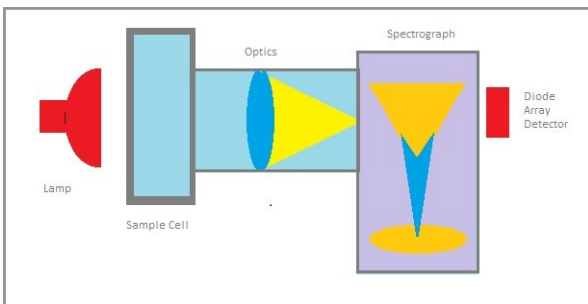
Views Start Settings



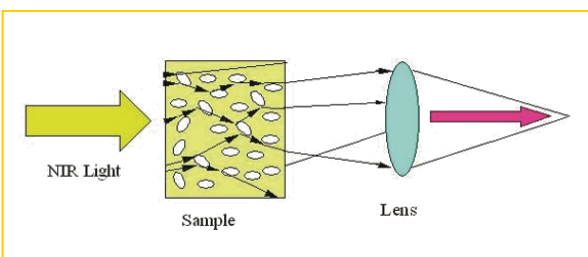
Technical Specifications and Calibrations

CropScan Near Infrared Transmission

Technology: Light from the lamp, passes through a sample of grains or oil seeds. The light bounces off the surfaces of the grains or oil seeds and propagates through the sample until it reaches the other side. The emerging light is focused into the slit of a flat field spectrograph that separates the light into its individual frequencies, across the wavelength range from 720-1100nm.



The separated light is then directed onto a silicon photo diode array detector. This array detector measures the intensity of the light at each frequency to produce what is called the NIT spectrum of the sample.



Within this region of the electromagnetic spectrum, N-H (protein), C-H (fats and oils) and O-H (water) and C-O-H (carbohydrates) absorb NIR light at specific frequencies. The NIT spectrum contains information about the concentration of these components. Calibration models, stored in the CropScan's computer, converts this information to % Protein, % Moisture, % Oil and % Starch and displays the results on the screen.

Next Instruments has developed a range of calibrations for grains and oil seeds.

The following table shows the matrix of products vs constituents.

Product	Constituent
Hard Wheat	Protein, Moisture
Hard Red Winter Wheat	Protein, Moisture
Hard Red Spring Wheat	Protein, Moisture
Soft Wheat	Protein, Moisture
Soft Red Winter Wheat	Protein, Moisture
Soft Red Winter Wheat	Protein, Moisture
Durum Wheat	Protein, Moisture
Malt Barley	Protein, Moisture, Colour
Feed Barley	Protein, Moisture
Oats	Protein, Moisture
Sorghum	Protein, Moisture
Triticale	Protein, Moisture
Corn (Maize)	Protein, Moisture, Oil, Starch
Soybean	Protein, Moisture, Oil, Fiber
Canola	Protein, Moisture, Oil
Rice	Protein, Moisture, Amylose
Field Peas, Chick Peas	Protein, Moisture
Faba Beans	Protein, Moisture
Lupins	Protein, Moisture
Lentils	Protein, Moisture
Mung Beans	Protein, Moisture

Specification	CropScan 3000B
Wavelength Range	720-1100nm
Optical Detector	Silicon Diode Array
Lamp	Halogen 12VDC, 10W
Scan Rate	2-4 sec per scan
Sample Pathlength: Automatic	8, 16, 24 and 30mm
Display:	Touch Screen PC
Power:	19VDC using 110 -240VAC
Operating Temp Range:	5-45°C, 41-113°F,
Dimensions (cm) Weight (Kg)	40 W x 40 D x 33 H 12Kg



**Manufactured by:
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