NIR-SC-5000-1/2

Image Analyser for Grains and Seeds

SC-5000 is digital imaging systems specifically designed for the food and agriculture industries. The SC-5000 incorporates a dual scanner system to rapidly collect the reflectance and transmission images of grain, seeds, pellets and other materials and determine its physical characteristics. Length, width, breadth, colour, damaged and defective grains and pellets can be measured and a permanent record provided.

SC-5000 has been designed for use by anyone who grows, sells, buys or uses grain and/or assesses its quality. Potential users are breeders, brewers, dealers, growers, food processors, maltsters, millers, coffee roasters etc. The built in PC with a touch pad screen provides a user friendly interface. Jpeg files of the images and data files for the analysed parameters can be stored in the PC or printed to a laser printer.

The software allows for user cusotmised screens and reports to be gnereated, so that only those parameters of specific interested are shown and reported.

Operation

A sample is loaded into tray which is then placed into the scanner. The image of the tray and seeds are loaded into the SeedCount Touch Pad PC and the software performs the appropriate image analysis for the specific type of seeds or grain. Results are displayed on the screen as tables, images and plots.

Wheat	Barley	Maize)	Rice
Ave Kernel Area	Ave Kernel Area	Ave Kernel Area	Ave Kernel Area
Ave Kernel Length	Ave Kernel Length	Ave Kernel Length	Ave Kernel Length
Ave Kernel Width	Ave Kernel Width	Ave Kernel Width	Ave Kernel Width
Seed Count	Seed Count	Seed Count	Seed Count
KKW	KKW	KKW	KKW
Dockage %	Dockage %	Dockage	Dockage
Plumpness	Plumpness	Red Streak	Chalkiness
Blacktip	Blackpoint	Crowns	Whiteness
		Dents	Discoloured Seeds
		Stress Cracks	
		Horneous Endosperm	

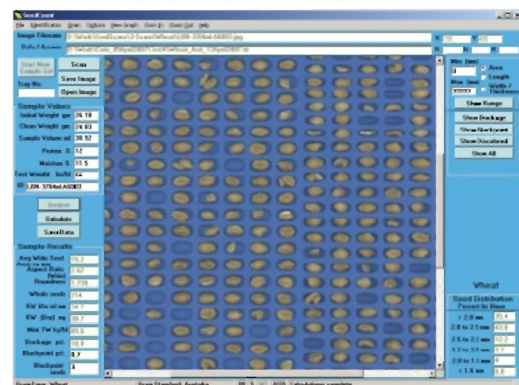Figure 6: Filling the Tray

Figure 3: The Main SeedCount Screen

SeedCount Features

- **Analyse up to 1000 seeds in less than 30 secs**
- **Measures physical dimensions, colour and Colour defects, broken and cracked grains as well as grain specific parameters**
- **Customise the data screen**
- **Display graphs and plots**
- **Individual seed analysis reported**
- **Data is stored along with the image**