

Specifications

Function

Field analysis of whole grain for protein, moisture, and oil.

Includes

PDA For collection and display of grain analysis
PDA Memory Card For PC data loading
Software Full Calibration Software, Mapping Software
Calibrations Precalibrated for wheat (Optional Calibrations: Barley, Corn, Soybeans)
GPS Locator Accurately records the location of each measurement
Mounting Template For fast, easy installation

Optical Capabilities

Measurement Mode Diffuse transmittance
Spectrum Range 14 filters covering wavelengths from 893 to 1045 nm
Optical Range 0 to 6 AU
Resolution 0.00001 AU
Stability 0.05 Mili-AU
Measurement Time Variable (Typically 12-15 seconds)
Measurement Data Log 1/T value; 14 primary wavelengths

System Capabilities

Data Transfer Via RS-232 port for interface with PDA
Calibrations Standard Calibration: HRS wheat. Capacity to store up to ten (10) calibrations
Temperature Compensation Built-in: Instrument 0° - 45° C (32° - 110° F) Sample -10° - 50° C (20° - 120° F)
Outputs RS-232 to PDA

Sample Information

Sample Size 300 grams (approximately)
Sample Pathlength Adjustable (15-25 mm)
Sample Preparation None required
Sample Destruction None
Measurement Range from 1.0% to 95%

Physical Data

Dimensions 23" X 11" X 7"
Weight 27 lbs.

Installation Data

Power Requirements 12 Volts DC on clean power line
Power Consumption 10 amps max

Other Zeltex Products

ZX-50 Near-Infrared Portable Grain/Food Analyzer

- In-field measurement of protein, moisture, oil, and other constituents
- Uses (6) 1.5 V "AA" batteries
- Measures large 100 gram samples and concentrations from 1.0 to 95%
- Displays results in under one minute
- Whole grain analysis-no grinding and little or no sample preparation necessary
- Optional printer, aluminum carrying case, data analysis software, and up to eight additional calibrations-three constituents each



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AccuHarvest™

On-Combine Grain Analyzer

**Protein, Moisture and Oil
Analysis WHILE You Harvest**

**For Analysis
...Where you need it most
...When you need it most™**



Zeltex
Inc.

The New Reality for Precision Farming

Everything You Need To Equip Your Combine With The Industry's BEST On-Combine Protein, Moisture, and Oil Analyzer

The AccuHarvest is designed to help today's precision farmer increase quality and increase profits.

The industry's first commercial on-combine grain analyzer can be fitted on to any combine.

The AccuHarvest includes:

- The patented sample analysis system that mounts on your combine's clean grain elevator
- A custom configured PDA (Personal Digital Assistant) to collect and record all data from the AccuHarvest .
- A GPS tracker to mount on top of the combine to allow precision field mapping
- Powerful analysis software that enables you to plot your fields and increase your profits.

How Does it Work?

The AccuHarvest automatically samples grain four to five times per minute (on average) as you harvest. The AccuHarvest's patented sampling technique provides you with accurate, real-time grain analysis while your combine is moving through the field.

Protein, moisture, and oil are displayed and saved on a PDA that is located in the cab. After harvesting, the data on the PDA can be quickly and easily downloaded to a PC for further analysis.

Calibrations Are Available For:

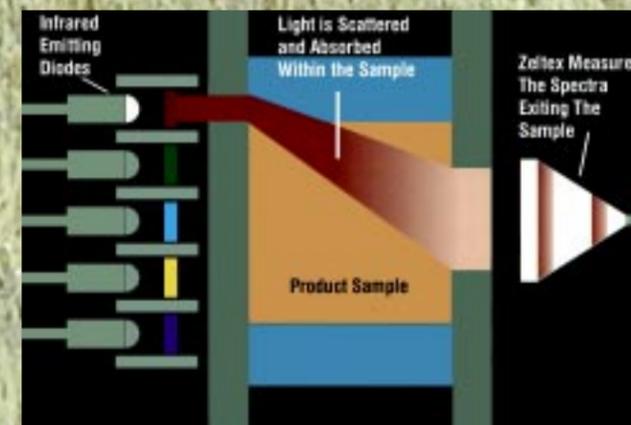
- Wheat
- Barley
- Corn
- Soybeans



How Does It Work? Applied Science in Measurement

Diffuse Transmittance

Light energy that enters a product is scattered and absorbed within the product. The AccuHarvest analyzes the spectra that exit from the products and measures constituent concentrations.



The New Reality of Profitability in Precision Farming

Until now, profitability has been the *promise* of precision farming. The AccuHarvest makes that *promise* a **reality**.

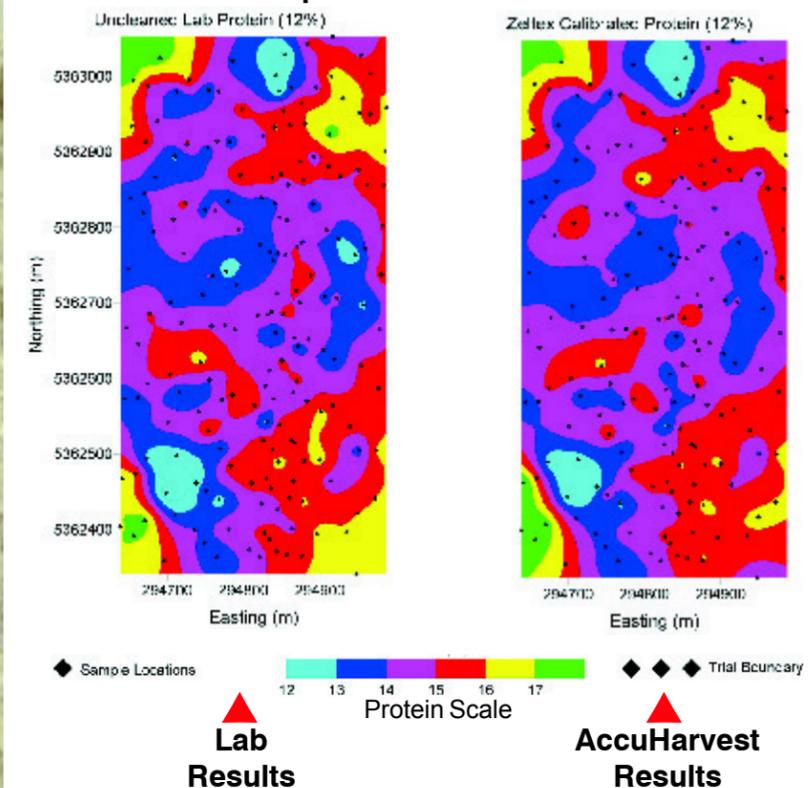
- Segregation of crops by quality is now a **reality**. The AccuHarvest will display the average value of the bin for protein, moisture, and oil.
- Fast, efficient protein mapping is a **reality**. Field mapping of protein allows the most efficient use of fertilizer for next year.
- Real-time analysis of your grain is a **reality**. Enables you to harvest for best segregation and quality.

Includes Mapping Software

The AccuHarvest allows you to map your fields to determine where you are getting the best protein, moisture, and oil as you harvest.

Tracking and mapping the grain quality from this year's harvest allows you to use nitrogen more efficiently for next year's planting to further improve the quality and profitability of your harvest.

Comparison of Lab Protein vs. AccuHarvest Protein Maps of a North Dakota Field



Increase Quality...

...Increase Profits

