

AgriCheck Series

RAPID WHOLE GRAIN ANALYZERS



High-Precision NIR Instruments Dedicated to Whole Grain Analysis

OVERVIEW

The Bruins Instruments' AgriCheck Series of near infrared spectroscopy (NIR) analyzers are cost-effective, high-performance instruments with specific calibration libraries dedicated to analyzing whole grains, from wheat and corn to soybeans, sorghum, rice, and others.

Every day, hundreds of AgriCheck analyzers are trusted to measure incoming grain, in-process samples, and final products for moisture, protein, and starch, as well as oil, fiber, gluten, zeleny, and other parameters depending on product type. The AgriCheck provides rapid, accurate, and reliable measurements of quality at an attractive price point for growers, millers, and processors.

APPLICATIONS

AgriCheck models are designed to analyze most types of whole grain and seeds, including:

- Wheat
- Durum
- Barley
- Corn
- Soybeans
- Rapeseed (Canola)
- Brown rice
- Milled rice
- Rough rice
- Oats
- Rye
- Triticale
- Sorghum



AGRICHECK FEATURES

- Highly precise patented linear monochromator design provides years of reliable measurements with minimal routine maintenance
- Intuitive software and a large touchscreen make the analyzer easy to use with minimal required training
- Optional Test Weight module determines the specific weight of the grain



VERSATILITY TO MEASURE EVERY TYPE OF WHOLE GRAIN

Both the AgriCheck and AgriCheck Plus come standard with a simple funnel and automated sample wheel for the transmission analysis of most grain types. With the AgriCheck Plus, users can analyze small sample types or granular processed materials.

AgriCheck calibrations have been developed from years of samples collected from many geographical regions to ensure your quality specifications are being met for incoming and outgoing grain.



AgriCheck

- General purpose for the measurement of whole grains
- Easy to use with quick and accurate results
- Automatic feed with multiple sub-sample measurements
- Measures moisture (up to 40%), protein, oil, starch, fiber, gluten, Zeleny, amylose, FFA and others depending on the product



AgriCheck Plus

- Measures all kinds of whole grain, oil seeds, and flour
- Includes dual optics to analyze samples with either transmission or reflectance methods
- Reflectance cell allows you to measure ground products and pastes
- Ideal for use in mills or processors to measure incoming grain and processed flours or meals

MEASUREMENT OPTIONS FOR ALL STEPS OF GRAIN PROCESSING

The standard sampling method every AgriCheck employs to analyze whole grains is an automated sample feed and transmission analysis. In this mode, the user fills the sample funnel with grain, and the automated sample wheel feeds subsamples through a transmission cell, where an NIR signal penetrates the entire whole grain sample to acquire reproducible analysis of important constituents. This is the industry standard for whole-grain analysis and provides the most accurate and repeatable results for the majority of grain types.

Analyzing grains that are processed into a powder or paste? Or very small grains and seeds (like rapeseed)?

✓ While the automated sample feed and transmission is best for the majority of grain testing, certain sample types or processed samples are better analyzed with reflectance measurement methods. The **AgriCheck Plus** includes an additional rotating reflectance dish on top of the instrument and a reflectance detector (spectral range of 1400-2500 nm) for optimal measurements of powdered, granular, and paste sample types. Incorporating both transmission and reflectance measurements makes AgriCheck Plus the ideal solution for mills and processing facilities for analyzing both incoming whole grains and ground processed products.

ROBUST CALIBRATIONS TAILORED FOR SPECIFIC USERS

Whether you will use your AgriCheck NIR analyzer solely for transmission analysis, or you have the AgriCheck Plus that includes reflectance measurement capabilities, KPM Analytics is pleased to offer calibrations packages based on your industry and application needs.

Calibration Package	AgriCheck Standard	AgriCheck Plus (2 Calibration Package Offerings)	
Measurement Method(s) Available	Transmission Only	Transmission & Reflectance	
Common Available Products for Each Calibration Package	<ul style="list-style-type: none"> • Barley • Barley malt • Corn • Green malt • Oats • Rice (including brown, milled, and rough) • Rye • Soybeans • Wheat • Wheat malt 	Default Calibrations Package <i>Transmission</i> <ul style="list-style-type: none"> • Barley & barley malt • Green malt • Oats • Rye • Wheat • Wheat malt <i>Reflectance</i> <ul style="list-style-type: none"> • Wheat flour • Wheat bran • Semolina 	Optional Calibrations for All Agricultural Products (AAP) <i>Transmission</i> <ul style="list-style-type: none"> • Corn • Rice (brown, milled, rough) • Soybean <i>Reflectance</i> <ul style="list-style-type: none"> • Corn byproducts (bran, flour, germ, meal) • Peanut cake • Rapeseed • Soybean byproducts (cake and meal) • Sunflower and byproducts (cake and meal) • Toasted soya



Scan here for the complete list of Bruins AgriCheck calibrations and measurable parameters.

ORDERING INFORMATION

The AgriCheck series analyzers come with a unique path length for the standard transmission sample wheel for barley, oats, rye, wheat, durum, rice, soybeans, and corn.

MODELS

Part Number	Description
AC	AgriCheck Grain Analyzer. Includes funnel and spare lamp.
ACP	AgriCheck Plus Flour and Grain Analyzer. Includes funnel, 48 mm and 96 mm sample cups, sample cup adapter, sample cup cover, and spare lamp.

ACCESSORIES

Part Number	Description
HLW	Test Weight module – optional accessory to determine the specific weight of the grain.
BRU-02-90-11-00	Sample Cup for AgriCheck Plus: 96 mm Reflectance Measurements for Flour, Powders, and Pastes.
BRU-02-90-08-00	Sample Cup for AgriCheck Plus: 48 mm Reflectance Measurements for Flour, Powders, and Pastes.
BRU-22A-18-1	Spare Lamp for AgriCheck Series

SPECIFICATIONS

Dimensions	385 x 420 x 385 mm (15.2 x 16.5 x 12.6 in)
Weight	AgriCheck: 21 kg (46 lbs); AgriCheck Plus: 23 kg (52 lbs)
Voltage	220-240 V or 100-120 V 50/60 Hz
Power	45 W
Analysis Time	45 S
Sample Size	650 ml
Analysis Principle	Scanning Monochromator; Transmission for Both AgriCheck Models; Reflectance Cell for the AgriCheck Plus
Sample Presentation	Automatic Feed with Multiple Sub-Sample Measurements
Pathlength	Fixed. 22 mm.
Wavelength Range	730-1100 nm for transmission for both AgriCheck and AgriCheck Plus. 1400-2500 nm for reflectance for the AgriCheck Plus.
Data Increment	0.5 nm
Interfaces	USB, Ethernet, Centronics
Protection	Dust and Humidity Protected

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