# **Forage Analyzer**





Unity

- Grasses, Hays, Legumes and Grain
- Fermented and Non-Fermented
- Dry Matter, Protein, Crude Fiber, Ash, Sugar, NDF, ADF, ADL, Dry Matter Digestability, and Other Parameters in Under 30 Seconds
- Ready to go Pre-Calibrated with Ingot<sup>®</sup> Calibrations from Aunir™





Testing forage quality prior to mixing Total Mixed Rations

Optimizing feed quality and parameters to nutritional needs

Maximizing weight gain, milk production and animal health

Lowering raw ingredient costs for livestock rations





#### BENEFITS

- Rapid payback
- At-line ready
- · Simple to use
- Flexible sample handling
- Easy data integration
- Low maintenance
- ISO 12099 Compliant
- Guaranteed calibrations





# Process and Quality Control

Fast, accurate analysis of forages is critical to producing consistent and optimal feed rations to livestock producers. Optimizing the ration will save ingredient costs and produce maximum weight gain or milk production. Near Infrared (NIR) analysis is a proven technique designed to provide fast, accurate, and reliable results for the dairy and livestock industry.

# SpectraStar XL

The Unity Forage Analyzer is based on the SpectraStar XL, a state of the art stand-alone NIR analyzer optimized for the analysis of ground and unground natural products. The SpectraStar XL is calibrated to NIST traceable reference standard materials and utilizes TRUE NIR<sup>™</sup> components for outstanding performance and reliability, providing high uptime, complete confidence and quick payback to the operators.

The Unity Scientific SpectraStar<sup>™</sup> RTW (Rotating Top Window) system gives the ultimate in sampling flexibility and allows the customer to make measurements of all forage and feed ingredients.

# **Plug and Go Calibrations**

The Unity Forage Analyzer is powered by the Ingot® calibration package from Aunir<sup>™</sup>. This package includes a full suite of calibrations for dried grass, hay, legume and grain forages, both ensiled and fresh. A comprehensive list of constituents are predicted including dry matter, protein, crude fiber, ash, total sugars, NDF, ADF, ADL and dry matter digestability. The Unity Forage analyzer provides instant access to a complete nutritional profile for all your forages.

All Ingot calibrations are backed by Aunir's 30 years of experience and are guaranteed to be accurate. Calibration experts are on call to specifically tailor the calibrations to our customer's needs.

# Forage Analyzer

#### How to Order

The Forage Analyzer package includes everything you need to start analyzing all forages right out of the box.

#### Forage Analyzer

US-2500-FOR1 SpectraStar 2500 XL (1100 nm - 2500 nm)

#### Forage Analyzer XLR

US-2500-FOR2 SpectraStar 2500 XL-R (680 nm - 2500 nm)

# **Ready to Use**

The Unity Forage Analyzer is robust enough to be used both in the control room or in the lab. The system features a long life lamp and no air filter or fan, providing for very low cost of ownership. The built in computer is fully networkable and LIMS compatible, allowing maximum flexibility in reporting results. The Feed Analyzer is a valuable tool to control every step in the feed manufacturing process, from raw ingredients to final rations.

The Forage Analyzer package includes the following:

- SpectraStar<sup>™</sup> 2500 XL (1100 nm 2500 nm) with built in 17" touch screen, prediction software, multi-cup adapter, US-RTIR-0016 adapter ring, Unity check cell, Unity R99 standard
- 2 Sample cups US-LGOP-0001 for analysis of dried forages
- Full Ingot<sup>®</sup> Calibration package for dried forages
- One year calibration support and guarantee from Aunir™







An Ingot fresh forage calibration package is also available. Please ask your Unity sales professional for more information.

### Specifications (Full Specifications in SpectraStar XL Brochure)

Technology	Pre-dispersive scanning monochromator with nominal bandwidth of 10 nm (FWHM)
Wavelength Range	1100 - 2500 nm; 680 - 2500 nm XLR optional
Light Source	Tungsten halogen lamp with MTBF rating of 10,000 hours (User changeable)
Detector	Custom dual cooled, extended InGaAs detectors (2)
Analysis Time	10 - 30 seconds
Data Interval	1.0 nm
Photometric Noise	< 0.02 mAu 1100 - 2500 nm

#### **User Interface**

Built-in Computer	Windows® 7 Professional, Solid State HDD, 17" high resolution touch screen monitor
Software	InfoStar™ prediction and data management package
<b>Network Capabilities</b>	OPC Compliant; LIMS Compatible; 5 USB ports, 2 Ethernet (RJ45)

#### **Dimensions and Power Requirements**

	330 x 381 x 508 mm (with display) 330 x 381 x 270 mm (without display)
Weight	18 kg, 40 lbs.; 22 kg, 48 lbs. with monitor
Voltage	100-240 V AC *, frequency 50-60 Hz, Class 1, protective earth



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