Complete Near-Infrared Solution for Animal Feed and Ingredient Analysis

The Thermo Scientific™ Antaris™ feed and ingredient analyzer is a rugged, easy-to-use instrument for animal feed and feed ingredient quality testing. By rapidly analyzing multiple components simultaneously without consumables, chemicals, or disposable costs, the analyzer saves you both time and money. The Antaris feed and ingredient analyzer is a pre-calibrated solution that covers the entire spectrum of feed nutrient analysis. It includes the Antaris II Fourier Transform Near-Infrared (FT-NIR) analyzer with INGOT® animal feed and ingredient calibrations. Simple operation of the analyzer and Thermo Scientific™ RESULT™ software makes routine analysis quick and easy.

Thermo
S C I E N T I F I C

Quality Control Testing in Challenging Production Environments

Near-Infrared (NIR) database development requires significant investment in time, analytical resources, and money along with technical expertise in calibration model optimization. The Antaris feed and ingredient analyzer offers a pre-calibrated solution using world leading FT-NIR technology without the large investment required for NIR database development. INGOT calibration models are developed and supported by the joint cooperation of Aunir and the internationally renowned spectroscopy experts at the Walloon Agricultural Research Center (CRA-W).

The Antaris Feed and Ingredient Analyzer Advantage

- Internal, automatic background collection with sample in place eliminates operator error and sampling variability
- Fourier transform technology provides high spectral resolution
- Dynamically aligned interferometer provides excellent reproducibility in unstable production environments
- Internal calibration for better accuracy and precision
- High throughput integrating sphere for maximum collection of diffusely reflected light
- No sample preparation, consumables, or chemicals
- Heavy-duty, sealed housing protects the system
- Workflow-based software for push button routine analysis

The Antaris Feed and Ingredient Analyzer Includes:

- **Antaris II FT-NIR analyzer**
- **Integrating Sphere Module with 5 or 12 cm sample cup spinner accessory**
- **RESULT and Thermo Scientific™ TQ Analyst™ software packages**
- **INGOT Level 4 Animal Feed and Ingredient calibration package**

INGOT Overview

INGOT plug-n-play calibration models are used for the analysis of raw materials and finished products. They offer Antaris II FT-NIR users in flour, milling, grain, animal feeds, and food processing industries a highly cost-effective solution for monitoring key components such as moisture, protein, ash, fat, fiber, starch, and other nutritional and physical parameters. With robust calibration databases and superior method transferability, your INGOT calibration models are ready for use the day they are installed.

The INGOT Advantage

- **Calibrated models ready to use on day one**
- **Full technical support**
- **Improve operator efficiency**
- **Continual calibration updates and data review**
- **20+ years of calibration database development ensures results independent of product variation, location, or year**
- **Proven track record by users in over 42 countries**
- **Reference wet chemistry performed according to official methods by analytical experts**

Benefits of NIR for Feed and Ingredient Analysis
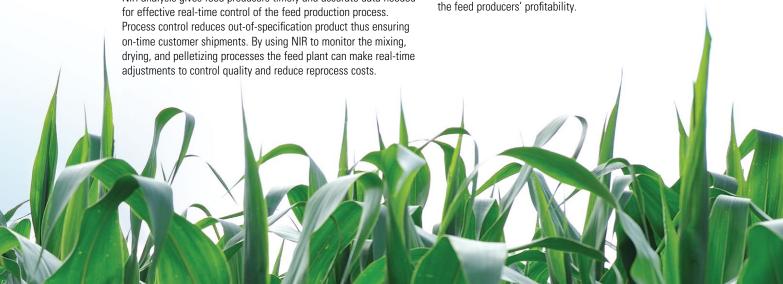
Verify Feed Ingredient Quality

Animal feed producers are constantly under pressure to meet tighter quality specifications while maintaining profitability and production targets. Consistent feed quality begins with having full knowledge of your incoming ingredients. NIR technology helps alleviate the concern of raw material variation by identifying out-of-specification ingredients prior to them being introduced into the production process.

Improve your Feed Production Process

NIR analysis gives feed producers timely and accurate data needed for effective real-time control of the feed production process. Process control reduces out-of-specification product thus ensuring on-time customer shipments. By using NIR to monitor the mixing, drying, and pelletizing processes the feed plant can make real-time adjustments to control quality and reduce reprocess costs.

Guarantee Feed Quality

Animal feed customers have quality specifications based on the nutritional requirements for their livestock. Accurate determination of feed quality is critical for producers to meet customer, regulatory, and government requirements. Traditionally, quality tests for feed and ingredients have been undertaken by lengthy chemical methods, which are labor intensive, time consuming, and require experienced technicians. The Antaris feed and ingredient analyzer replaces a majority of these tests by performing multi-component analysis in seconds allowing accurate and reliable results while maximizing the feed producers' profitability.

Animal Feed and Ingredient Calibration Package

The Antaris feed and ingredient analyzer is a turn-key solution giving customers insight into the quality of the entire feed production process from incoming ingredients through production to final products. Feed production is a highly competitive marketplace with extreme pressure to optimize production output, minimize operational costs, and meet critical customer quality specifications. Pre-calibrated with the INGOT Level 4 Feed and Ingredient calibration package, the Antaris feed and ingredient analyzer is a complete analysis package enabling the animal feed manufacturer to meet these goals.

Animal Feed and Ingredients

Feed Only

Concentrates	Poultry	Ruminant	Swine	Equine	Aqua Feed
Poultry Concentrate	Broiler	Beef	Finisher Pig	Racehorse	Fresh Water
Broiler Concentrate	Chick	Sheep	Gestation Sow	Pony	Salt Water
Duck Concentrate	Duck	Calf	Grower Pig	Horse	
Layer Concentrate	Game	Dairy	Piglet		
Ruminant Concentrate	Goose	Dairy Blends			
Dairy Concentrate	Layers	Lamb			
Blend Concentrate	Ostrich	Goat			
Swine Concentrate	Turkey				
Pig Finisher Concentrate					
Pig Grower Concentrate					

Ingredients Only

High Protein Low Oil	High Protein High Oil	Low Protein Low Oil		Low Protein High Oil	Cereals	Animal Proteins	Legumes	Milk Powders
Corn Gluten Feed 60%	Rape-Pulse Mix	Citrus	Palm Kernel Low Oil	Biscuit Meal High Oil	Barley	Fish Meal	Beans	Dried Whey Powder
Cotton Extract	Rape Seed Expeller	Cocoa	Potato Products	Maize Germ Meal	Maize (Corn)	Meat and Bone Meal	Peas	Skimmed Milk Powder
Groundnut Extract	Soya Full Fat	Copra	Rice	Palm Kernel High Oil	Oats	Blood and Plasma	Lupins	Full Cream Milk Powder
Linseed Extract	Sunflower Seeds	Copra Extract	Rice Bran Extract	Rice Bran High Oil	Triticale	Feather Meal	Alfalfa Lucerne	
Malt Residue	Cotton Seed Expeller	Corn Gluten Feed 20%	Grain Screenings		Wheat	Poultry By-Products		
Rape Meal Extract	Linseed Expeller	Distillery Low Proteins	Sugar Beet		Red Wheat	Bone Meal		
Soya Meal Extract	Whole Rape	Locust Beans	Wheatfeed Middling		Sorghum	Crab		
Sunflower Extract	Sesame Expeller	Soya Hulls	Barley Bran		Rye	Shrimp		
Sesame Meal Extract	Soybeans Expeller	Oat Feed	Maize Meal					
Distillery High Proteins	Whole Soybean	Oat Flour	Biscuit Meal Low Oil					
	Whole Linseed	Grass Meal	Maize Germ Meal					
		Hominy	Shea Nut Meal					
		Cassava						

Available Calibrations

Parameter	Min%	Max%	Correlation
Moisture	0.80	22.70	0.9402
Fat	0.01	59.70	0.9887
Protein	1.70	89.80	0.9925
Fiber	0.10	38.20	0.9649
Ash	0.20	55.20	0.8634

Parameter	Min%	Max%	Correlation
Starch	0.01	66.50	0.9896
Total Sugar	0.10	77.70	0.9732
NDF	2.40	77.30	0.9686
ADF	3.50	30.00	0.9870
NCGD	16.2	97.50	0.9606

INGOT®

Ordering Information:
Visit www.thermoscientific.com/feedanalyzer

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