

GIPSA To Use Artificial Neural Network Wheat Protein Calibration

Washington, DC (August 27, 2004) - The USDA Grain Inspection, Packers and Stockyards Administration will begin using an Artificial Neural Network (ANN) calibration for official wheat protein measurements on official near-infrared transmittance (NIRT) instruments effective May 1, 2005.

Currently, GIPSA maintains six discrete partial least squares (PLS) calibrations to determine protein content for each of the six major classes of wheat -- Hard Red Winter, Soft Red Winter, Soft White, Hard Red Spring, Hard White, and Durum. The ANN technology allows use of a single calibration for protein determinations in all six classes.

According to GIPSA administrator Donna Reifschneider, the change from PLS to ANN is expected to improve the accuracy and consistency of official wheat protein results.

GIPSA's comprehensive evaluation of ANN technology and other ANN-related information is available on GIPSA's website at: <http://archive.gipsa.usda.gov/tech-servsup/metheqp/ann/ann.htm>.

GIPSA provides protein content measurement in wheat as official criteria under the authority of the United States Grain Standards Act.

The notice announcing the change was published in today's Federal Register.

For further information, contact Steven Tanner, Director, Technical Services Division, (816) 891-0401.

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Dana Stewart
202-720-5091