

Designer Genes Technologies Releases a New Automated Interpretation Ultrasound Software and Holds the First Certification for Ultrasound Technicians using the Software.

A new automated software package for the interpretation of Ribeye area, Fat Thickness and Intramuscular fat (marbling) in live beef cattle with ultrasound has recently been released for use by Designer Genes Technologies, LLC of Harrison, Arkansas. Designer Genes Technologies, LLC, developers of the Beef Image Analysis (BIA) Pro Plus software, have also hosted the first certification for technicians using the new software. The certification process involved a structured test of ultrasounding 37 animals (15 repeat and 7 singly scanned) to evaluate the accuracy of their live-animal Ribeye area, Fat Thickness and marbling interpretations relative to actual carcass composition and reference technician manual interpretation.

The new software package is designed for use with the new model of the Aloka 500 machine for field or chute side evaluation of beef cattle for carcass merit. The BIA Pro Plus software will automatically interpret high quality ultrasound images for Ribeye area, Fat Thickness and Intramuscular fat while the animal is standing in the chute. Interpretation accuracy is very dependent on high quality ultrasound images which was the reasoning behind a certification process to determine those technicians capable of using the software.

Seven Ultrasound Guidelines Council (UGC) certified field and laboratory technicians participated in the first Designer Genes Technologies certification process for the new software. The data was analyzed by Drs. Arbindra Rimal and Tommy Perkins from Missouri State University Department of Agriculture in Springfield, Missouri. As indicated in the table below, the participating technicians had outstanding averages for technician bias (TB), standard error of prediction (SEP), correlation, standard error of repeatability (SER), and image quality.

| | Ribeye Area | Intramuscular Fat | Fat Thickness |
|----------------------|--------------------|--------------------------|----------------------|
| TB | -0.348 | -0.16 | 0.008 |
| SEP | 0.785 | 0.401 | 0.036 |
| Correlation | 0.94 | 0.86 | 0.95 |
| SER | 0.778 | 0.39 | 0.027 |
| Image Quality | 0.86 | 0.94 | 0.86 |