

# MEMBERSHIP TIPS

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## Ultrasound tips

*Live animal ultrasound is a noninvasive indicator trait, allowing carcass data to be collected on any population of animals, including groups of bulls and heifers from seedstock producers.*

Collection protocols for ultrasound traits were developed and designed to be indicators of carcass merit of future progeny. The goal was to provide consistent, unbiased interpretations that would lead to the formulation of accurate expected progeny differences (EPDs) for genetic selection.

As producers begin looking toward the fall season, some may be contemplating the inclusion of carcass ultrasound into their regimen of phenotypic traits collected at yearling time and submitted to the Angus Herd Improvement Records (AHIR®) program.

### Breeder protocol — Technician > Lab > Association > Breeder

An ultrasound field technician is selected by the producer and scans cattle to capture images on ribeye area (REA), intramuscular fat (IMF) or marbling, and fat thickness for rib and rump. Technicians must be certified through the Ultrasound Guidelines Council, which provides a structured training program for interested individuals.

Once the animals are scanned,

the images are sent to one of three American Angus Association approved labs for interpretation. The data is reported to the Association and processed for individual age

adjustments and ratios for each measurement, and then incorporated into the National Cattle Evaluation (NCE) procedures.

Additional details on

ultrasound breeder protocol, certified field technicians, authorized labs and policies can be found online at [www.angus.org/Performance/BreederProtocol](http://www.angus.org/Performance/BreederProtocol).

The Association's customer service department regularly fields questions from breeders regarding carcass ultrasound. The most common questions include acceptable age ranges for scanning and contemporary group issues.

Often the grouping questions arise when a yearling animal shows up without any EPDs. The ideal time to scan is at 365 days of age. Due to the variation in calving dates within a herd, scanning age windows have been established to allow this data to be collected as a group and subsequently adjusted to yearling age. Acceptable scanning age ranges are 320-440 days of age for bulls

and 320-460 days of age for heifers. Steers within the 320-480 days of age range with scan data may also be submitted.

It is important to remember to scan cattle within the appropriate age windows.

### Building contemporary groups

The development of carcass EPDs from ultrasound data requires scanned animals to be included in well-defined contemporary groups.

A well-defined contemporary group includes animals of the same sex born in the same calving season and managed under similar conditions. Contemporary group definition starts at birth with calves of differing sex (bull or heifer) being placed into separate birth contemporary groups.

Additionally, groups are also broken down by a 90-day birth date window and an animal's birth type, natural or embryo transfer (ET). Contemporary groups for natural calves are separated by whether the dam is a registered Angus or commercial female, and ET calves are grouped separately from natural-born calves.

ET calves from registered Angus recipient females are assigned to a



separate group from ET calves out of other recipient females. ET calves that are from *in-vitro* fertilization (IVF) are grouped with ET calves out of commercial or other recipient females, regardless of the recipient being a registered Angus or not.

The birth contemporary group criteria will be the first building block to form weaning contemporary groups. The number of contemporaries either stays the same or becomes fewer as animals are separated from each other for management reasons.

A typical plan for weaning is to take weaning weights and measurements on all calves on the same day and to include as many calves in the contemporary group as possible. Then, the management and group codes can be used to specify known group differences, such as those exposed to creep feed.

Carcass ultrasound looks back to weaning to form usable contemporary groups for EPD calculations. This makes the submission of weaning weights and the use of barn sheets a necessary part of the AHIR ultrasound process. Barn sheets are used in the scanning process to record the scan weight, group code, sex and diet information. They are returned with the processed weaning reports and can also be found in a producer's AAA Login account under Reports > AHIR Reports > Ultrasound Barn Worksheet.

## Timeline for EPDs after processing

The images are initially sent to a third-party centralized ultrasound processing lab for interpretation.

From there, results are sent to the Association, where staff will use the records in the weekly genetic evaluation to develop carcass trait EPDs. The data will then be sent to the producer from the Association.

Scan weights are required and should be taken within seven days of the field technician capturing the scan data. For the animals within the contemporary group, they should be scanned on the same day or over no more than three consecutive days. Many breeders will schedule the scanning date to coincide with data collection for other yearling traits.

As an important reminder, scan weights submitted on barn sheets with your carcass ultrasound data are not automatically submitted to the Association as yearling weights. Breeders must submit yearling weight data directly to the Association through the appropriate channels used for the specific trait.

## Industry perspective


Thinking about the unbiased, third-party involvement with ultrasound carcass measurements, one can see the benefits of this information for highly heritable traits as it relates to an accurate genetic selection tool.

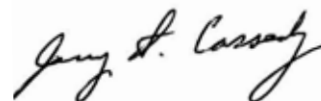
As the beef industry continues to reward those providing cattle that meet and exceed consumer preferences, the use of ultrasound

## Breeder protocol for submitting ultrasound data

1. Submit weaning weights to obtain barn sheet.
2. Steps for image collection:
  - a. Determine age at scanning
  - b. Select a field technician
  - c. Prepare for scanning
  - d. Collect scan weights
  - e. Assign contemporary groups
  - f. Determine test type
  - g. Determine diet
3. Field technician submits ultrasound images to authorized lab.
4. Authorized lab reports interpretive data to the American Angus Association.
5. The Association returns ultrasound reports/summaries to breeder.

Source: [www.angus.org/Performance/BreederProtocol](http://www.angus.org/Performance/BreederProtocol)

technology allows the evaluation of seedstock to make genetic progress in carcass traits. 



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*Editor's note: For more information regarding ultrasound protocol, contact the member services department at 816-383-5100, or email me directly at [jcassady@angus.org](mailto:jcassady@angus.org).*