



## DATA DIVE

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# How do you know?

*Angus members are dedicated to quality data collection. With an update alongside the Fall Sire Evaluation Report May 24, phenotypes in the genetic evaluation will be differentiated from those that are not.*

Since 2021, phenotypic traits submitted to Angus Herd Improvement Records (AHIR®) have been listed in a variety of places including the performance registration certificate and EPD (expected progeny differences)/Pedigree Lookup. By adding these traits, it provides visibility to members submitting phenotypes on animals and continuing to fuel the genetic evaluation.

Taking it one step further, some traits listed will be bolded in the list while other traits are not. This will differentiate what phenotypes are included in the genetic evaluation and which traits are not. The phenotypes included in the genetic evaluation would help to inform the predictions for EPDs.

### What will it look like?

On EPD Pedigree Lookup, phenotypic traits are listed under the carcass EPDs and dollar value indexes (\$Values).

Fig. 1 shows an example of phenotypic traits from EPD/Pedigree Lookup. As the footnote indicates, traits that are bolded are included in the genetic evaluation.

In this example, this animal had a calving ease score, birth weight, weaning weight, yearling weight, heifer breeding records, mature weight, mature height, docility score, claw score, angle score and carcass ultrasound data submitted to AHIR. Of the traits listed, the calving ease score is not included in the evaluation because the animal was not born from a first-calf heifer.

Fig. 2 shows a second example of phenotypic traits. This animal had a calving ease score, birth weight, weaning weight, yearling weight, yearling height, scrotal circumference, docility score, claw score and angle score submitted to AHIR. This animal does not have any of the phenotypes in the genetics evaluation, as the animal was in a single-animal contemporary group starting at birth.

### Why would traits not be in the evaluation?

A common question is, “Why are phenotypes not included in the evaluation?” There are a variety of possible answers to this question, most of which you can answer by looking at your AHIR reports in AAA Login (Login > Reports > AHIR/Work History Reports).

### Time

Has the data had the opportunity to be included in the genetic evaluation? The Association’s genetic evaluation starts each Friday evening, and results are updated online the following Friday morning. Data submitted Monday–Friday

**FIG. 1: Example of phenotypic traits on EPD/Pedigree Look-up.**  
Phenotypic traits: CE, **BW, WW, YW, HP, MW, MH, Doc, Claw, Angle, UScanWT, UIMF, URE, URibFat, URumpFat**  
*Bold phenotypes are included in the National Cattle Evaluation.*

**FIG. 2: Example of phenotypic traits on EPD/Pedigree Look-up.**  
Phenotypic traits: CE, BW, WW, YW, YH, SC, Doc, Claw, Angle  
*Bold phenotypes are included in the National Cattle Evaluation.*

*Continued on page 70*

would have the opportunity to be included in the evaluation results the following Friday. The list of phenotypic bolded traits will update each Friday morning alongside EPDs.

### **Guidelines**

Was the data collected following the data collection guidelines from the Association? Phenotypes need to be collected using the appropriate tools (i.e., scales for weights or for scores following the scoring guides from the Association). Measures also need to be collected within the correct age window.

For example, weaning weights must be collected on calves between 120–280 days of age.

### **Contemporary group**

Is the animal in a single-animal contemporary group? No single-animal contemporary groups are used in the genetic evaluation. Most traits require a minimum of two head in a contemporary group. Some traits, such as feed intake and pulmonary arterial pressure,

require a minimum of five head in a contemporary group.

Single-animal contemporary groups are one of the most common reasons phenotypes are not included in the evaluation.

For more information on contemporary groups, visit [www.angus.org/university/webinars/past](http://www.angus.org/university/webinars/past) to view a recent webinar titled “Creating Contemporary Groups.”

### **Variation**

Was there variation in the phenotypes? For traits that are scored, such as foot scores or docility, variation within a group is required.

For example, if foot scores (claw and angle) are being collected on a group of yearling animals and there is no variation at that time, consider waiting until the animals are a little older to score.

### **Embryo transfer calves**

Was the animal an embryo transfer (ET) calf? Conventional ET calves born to unregistered recipients do not have their birth, weaning or

yearling weights included in the evaluation. However, conventional ET calves that are born to recipients registered with the Association do have the opportunity to have their weights included in the genetic evaluation. *In vitro* fertilization (IVF) ET calves, regardless of recipient dam, do not have their birth, weaning, or yearling weights included in the genetic evaluation.

While there might be cases that are not explained by the list above, those are the most common reasons phenotypes are excluded from the evaluation. As you continue to dedicate time and effort to collecting phenotypes to make more accurate genetic selection tools, be sure to follow data collection guidelines to have the data included in the genetic evaluation. <sup>AJ</sup>



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## Did you know? **Fact.**

In the last 12 months, approximately 1.2 million phenotypes have been added to the genetic evaluation.

