
SINCE 1978
CERTIFIED ANGUS BEEF®
BRAND
FEEDING QUALITY
FORUM

WOODHILL ANGUS

BRIAN MCCULLOH

2025

FEEDING QUALITY FORUM

MANAGING THE COW & THE CARCASS

FEEDING QUALITY

FORUM

Managing the Cow & the Carcass

Balanced Trait Selection

Managing the Cow & the Carcass

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

During our early years, we thought
we knew what the “best cattle looked like.”

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Confirmation Bias –

- The tendency to look for facts and experiences that support our opinion.
- Ignoring what doesn't support our opinion.
- Our brains like consistency and dislike being wrong.
- It's easier to stick with what is familiar.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Woodhill operated for 40 years with intuition and pattern recognition using EPD's as they became available.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

In order to achieve our breeding objectives,
we started with EPD's.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

The “why” of EPD’s rather than using individual performance data by itself.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

The heritability of a trait =
separating genes from environment or luck.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

If a trait is heritable and you consistently apply selection pressure, you will affect the trait.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Math and computing power assess information from the animal, parents, siblings, cousins and the animal's own progeny.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

A Timeline of Progress

- EPD's were a real breakthrough in the 1980's.
- EPD's replaced EBV's in 1987 at AAA.
- By 1989 NCE was conducted twice annually instead of only once per year.
- In 1996, AAA published the first online Sire Evaluation Report.
- Angus brought their genetic evaluation in-house in 2002.
- The first $Value indexes were calculated for Angus cattle in 2003.
- By 2009, the first GE-EPD's were calculated and NCE for carcass traits was conducted on a weekly basis.

SINCE 1978
CERTIFIED ANGUS BEEF® BRAND
FEEDING QUALITY FORUM

Managing the Cow & the Carcass

A Timeline of Progress (continued)

- In 2017, AAA released their first Single Step Genomic BLUP.
- Genomic testing was introduced around mid-2000 in beef cattle (Angus) and has taken off dramatically in the past 10 years.
- AGI released their first all-purpose index for Angus $Combined or ($C) in 2020.
- Foot conformation evaluation with Angus Australia, AAA, CAA was also released in 2020.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

A Timeline of Progress (continued)

- Hair shed EPD was released in 2022.
- In 2023, World Angus Evaluation released 13 traits and Functional Longevity Research EPD
- In 2024, Teat and Udder research EPD was released.
- Upon comparing average EPD's for all traits over the last 40 years, no significant change has been realized for Claw, Angle, PAP, HS and HP.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

AAA
AHIR Data
Submitted

	AHIR Data Submitted		
DATA	2/8/2020	8/31/2024	Percent Increase
Weaning Weights	9.4M	12M	27%
Carcass Records	124K	142K	14.5%
Ultrasound Records	2.1M	3.4K	62%
Intake (individualj)	27K	38K	41%
Docility Scores	314K	416K	33%
HP	110K	162K	47%
Mature Cow Weights	228K	271K	19%
Foot Scores	31K	475K	World data?
PAP	13K	34K	61%
Hair Shed	8K	42K	425%
Genotypes	765K	1.9M	148%

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Genomic Testing Submitted by AAA Members

YEAR	Genomic Testing
2014	100,000
2019	770,000
2021	1,000,000
2024	1,900,000

FEEDING QUALITY FORUM

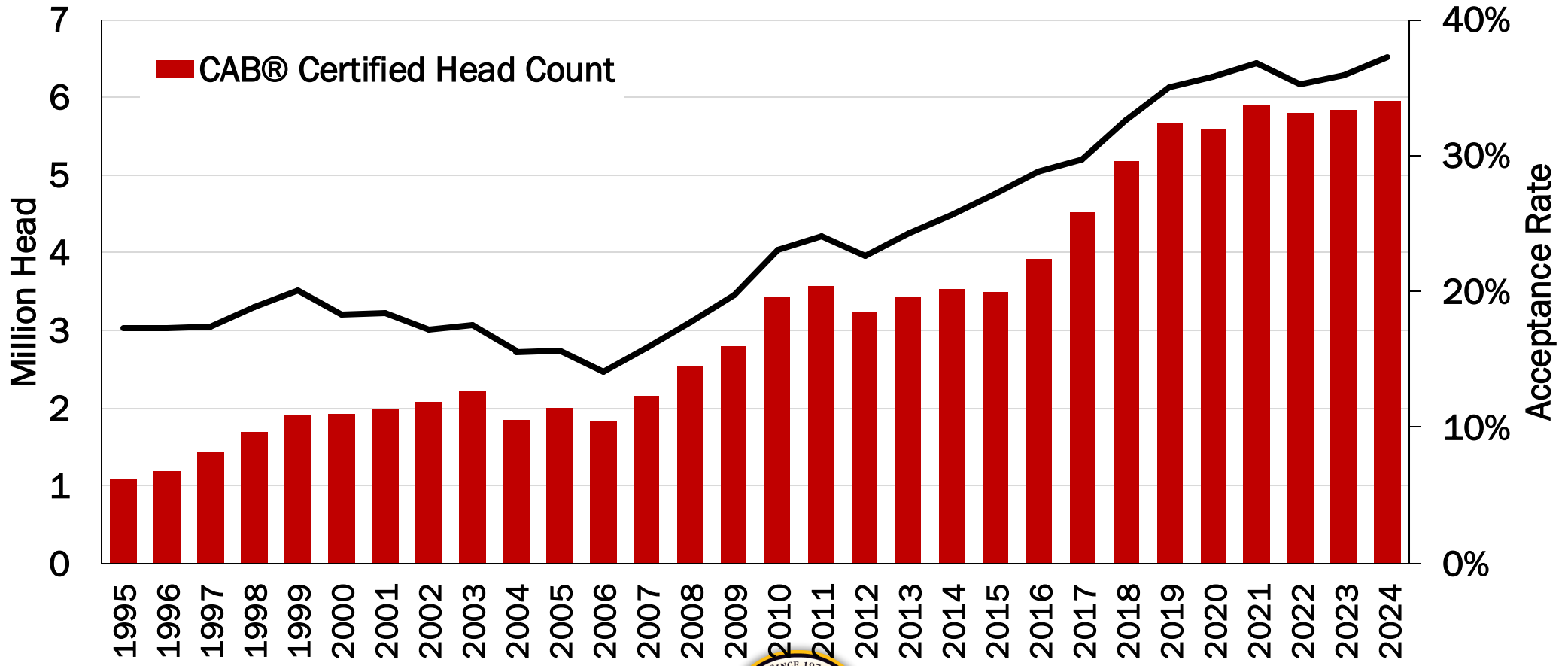
Managing the Cow & the Carcass

Genomic enhanced EPD's –

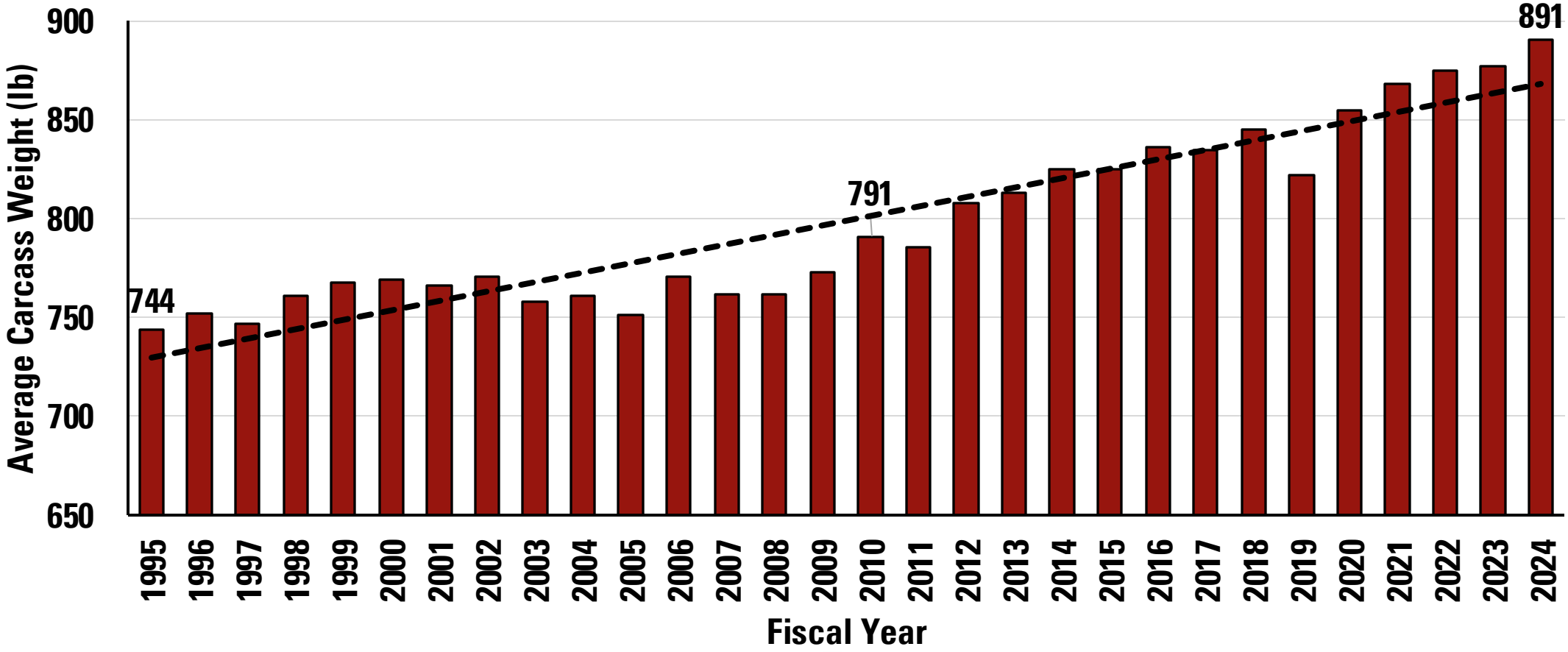
- Make breeding decisions more predictable.
- Data driven selection speeds up what nature does slowly.
- Genomic enhanced EPD's capture the actual genes for relevant traits.

FEEDING QUALITY FORUM

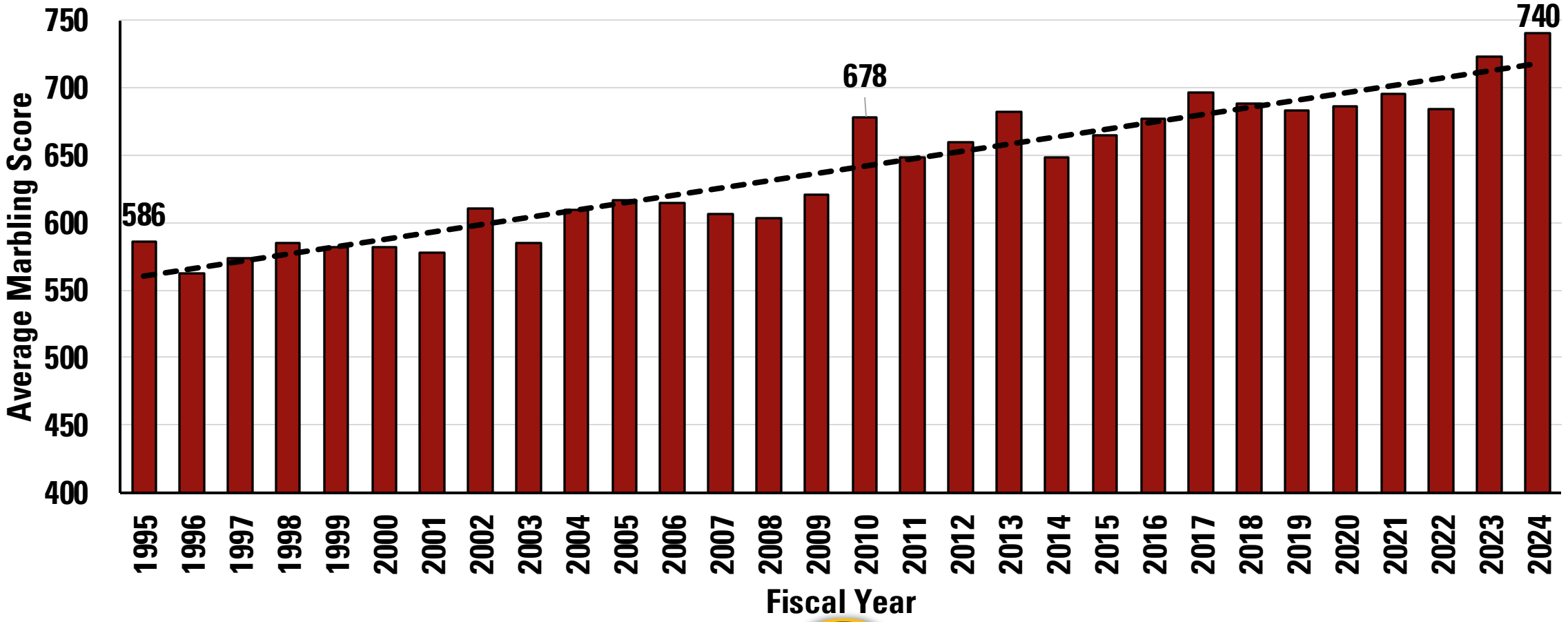
Certified Carcasses and Acceptance Rate Annual Trends



American Angus Association AHIR® Average Carcass Weight Trend

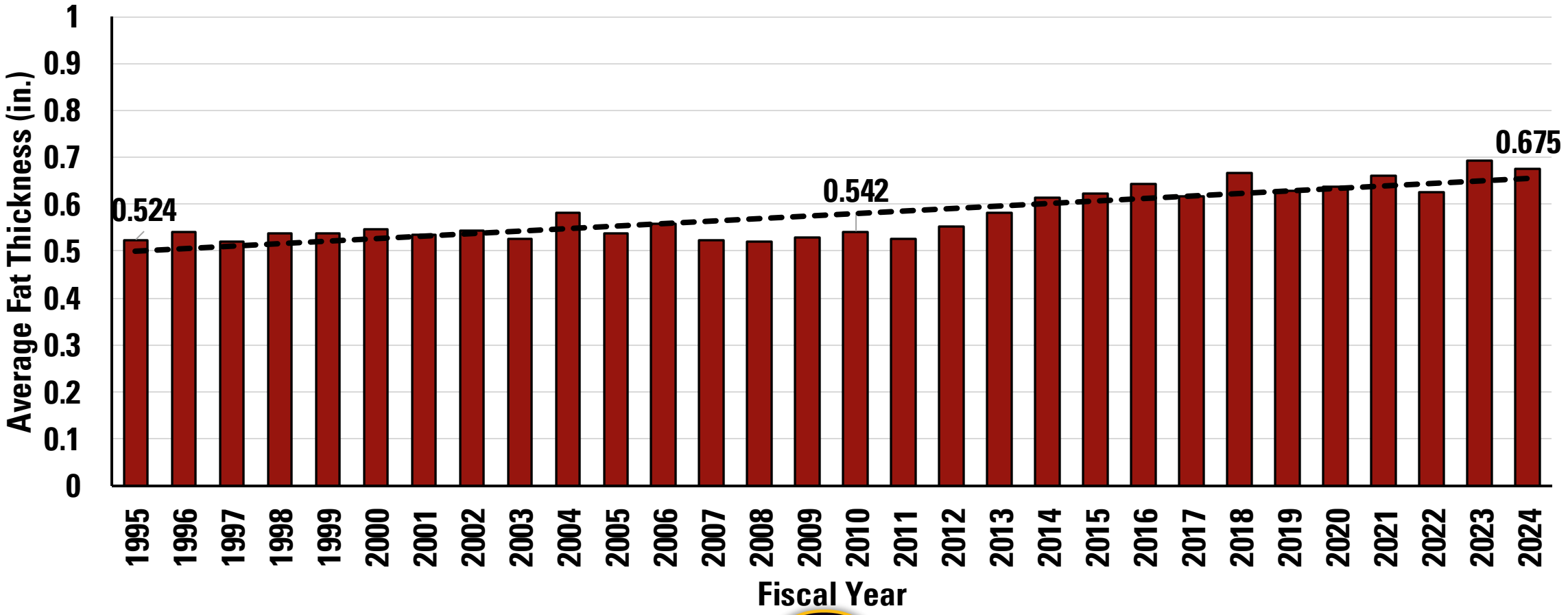


American Angus Association AHIR® Average Marbling Score Trend

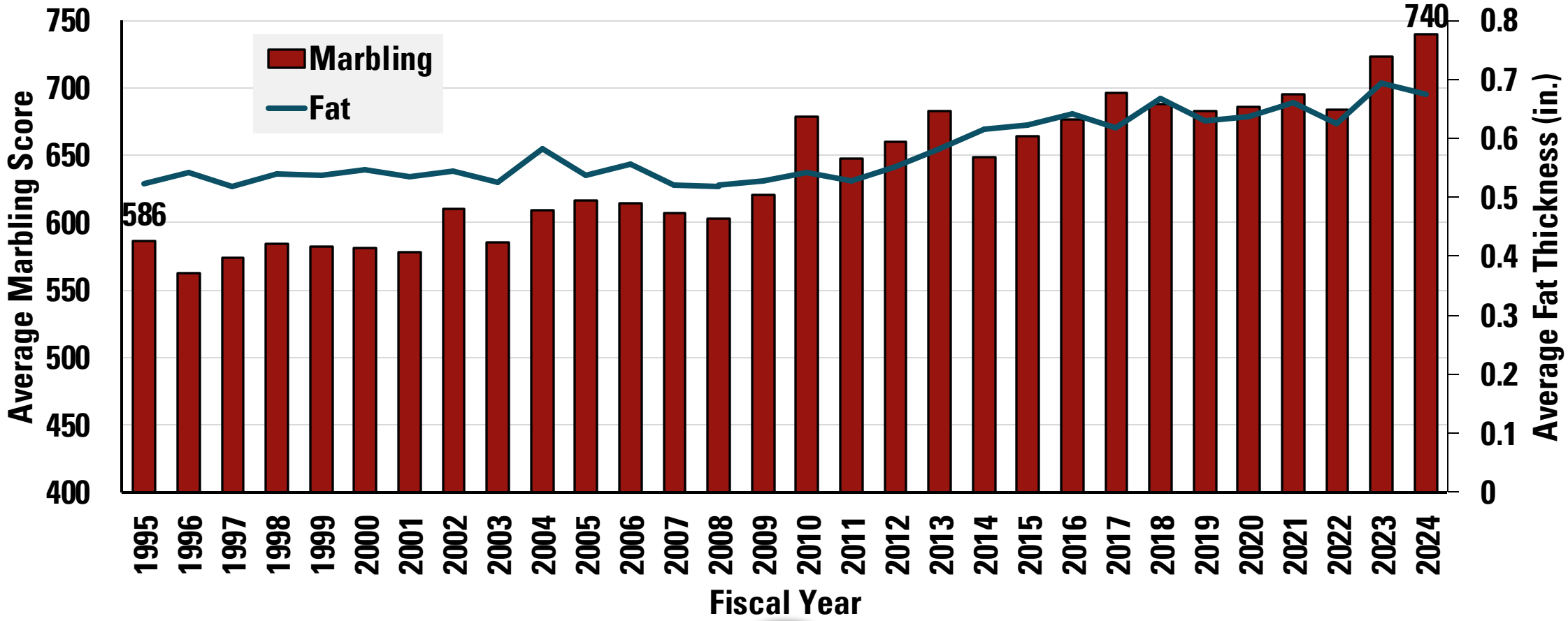


FEEDING QUALITY FORUM

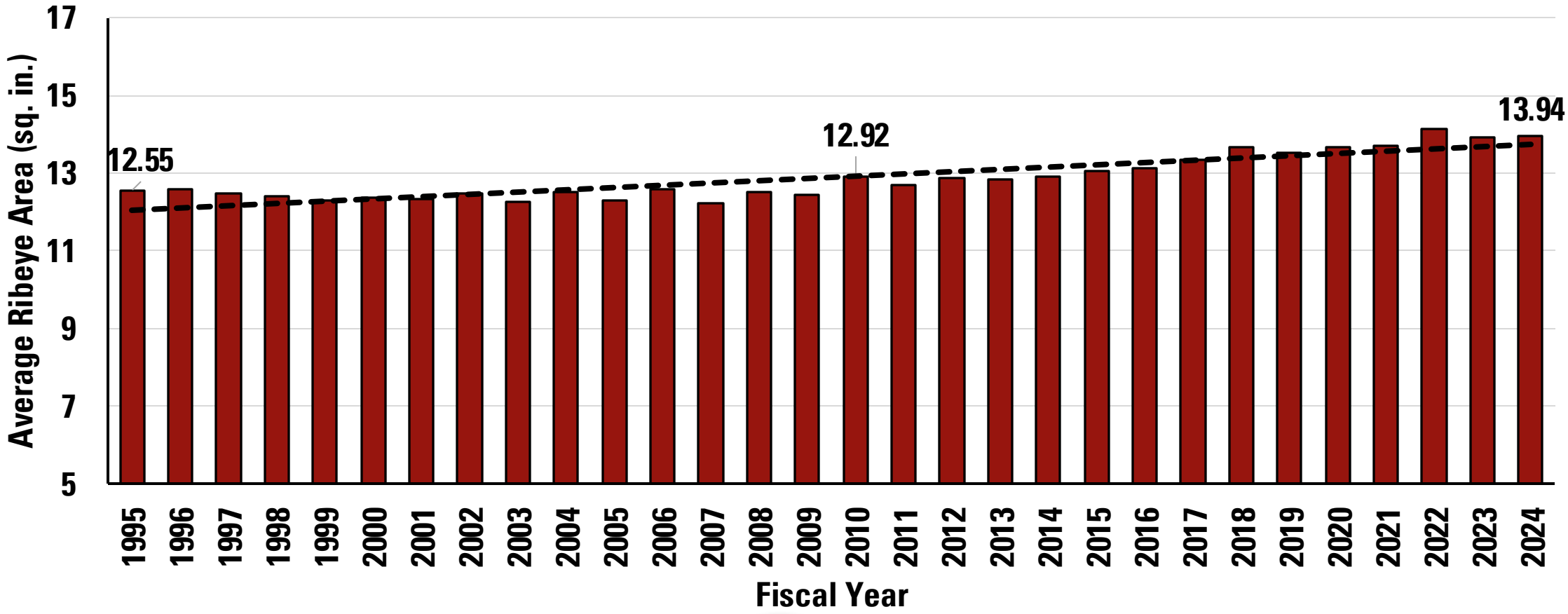
American Angus Association AHIR® Average Fat Thickness Trend



American Angus Association AHIR® Average Marbling to Fat Trend



American Angus Association AHIR® Average Ribeye Area Trend



Managing the Cow & the Carcass

Over the past 30 years, the Angus breed has made wonderful progress in the highly heritable traits of growth, carcass weight, marbling and ribeye.

We are just starting to utilize predictions for the lowly heritable traits that affect the cow-calf producer.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

EPD's can drive profitability through precise gains…

However, in order to maintain a profitable cowherd, we still need a balanced approach –

Integrating multi-trait selection, regular data validation, along with economic assessments to

avoid long term detriments.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Pitfalls of EPD's –

- Unfavorable correlated responses in non-target traits.
- Growth rate and calving difficulty.
- Growth rate and mature weight.
- Failure to match your genetics with your management ability and environment.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Woodhill's breeding objectives over 40 years –
"Breeding for Balance"

- Focus on optimum CED and CEM with as much performance and end product as we can achieve for our environment – without compromising reproductive efficiency and longevity.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Through time we discovered that moderate size cows were easier to manage in our environment, so we set a maximum threshold for mature frame and mature weight.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

You can cover up genetic weaknesses through management.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

The most profitable cows will vary depending on environment and resources.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

From 1995-2010, we focused too heavily on turning generations in order to increase growth and end-product merit and neglected the importance of longevity in the cow herd. (i.e. sold females that should have been kept)

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Possible Reasons "Why" Producers Fail to Submit Accurate Records

- Time and labor constraints
- Lack of training and knowledge –
  - Without sufficient training, producers are overwhelmed by the process.
- Perceived complexity –
  - The idea of implementing a comprehensive record-keeping system can seem daunting and producers simply don't know where to start.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Possible Reasons "Why" Producers Fail to Submit Accurate Records

- Cost of human time and software –
  - The money needed for implementing and maintaining a good record-keeping costs too much and producers don't see immediate value.
- Cultural factors –
  - In some regions or among certain groups of cattlemen, they simply believe that anecdotal knowledge or informal methods override the systematic data collection.
- Focus on short term goals –
  - Producers are more focused on feeding, breeding and marketing without a clear understanding of how data can lead to profitability and therefore may not make it a priority.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

NAAB Statistics on Domestic Semen Sales

	Semen Sales (by units)			
BREED	1984	2014	2023	2024
Angus	305,510	1,517,977	4,670,695	4,707,826
Angus % of Total	~38%	~68%	~ 50%	~48%
Crossbreeds	-	-	-	-
Heterospermic	-	-	1,353,780	2,398,233
Total	811,306	2,207,821	9,422,981	9,726,529

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

Forty years ago, we never dreamed we could

make Angus cattle this good.

Twenty-five years ago, we predicted that the leading bull for semen sales in the industry would be a composite bull.

FEEDING QUALITY FORUM

Managing the Cow & the Carcass

"Buckle Up"

As an industry, we've never been where we are today.

The most competent, progressive breeders combined with the best genetic predictions in the world are a powerful combination for the Angus breed.

FEEDING QUALITY FORUM


SINCE 1978
CERTIFIED ANGUS BEEF®
BRAND
FEEDING QUALITY
FORUM