

Grass Fed Beef Genetics & Finishing

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Selecting Grass-Based Genetics

Selection Basics

- Number 1 Trait = Longevity

- Adaptability
- Fertility
- Soundness

- Moderate Frame

- Easy Fleshing

- Proper Phenotype

Bull Phenotype

Thick Muscled Bull with Expressive Lower Mid-Rib



Excellent Phenotype Bull in His Working Clothes









Cow Phenotype

Cow Selection



What Should Cows Look Like?



- Sound Feet, Legs
- Sound Udder, Teats
- Feminine
- Easy Fleshing

DAIRY



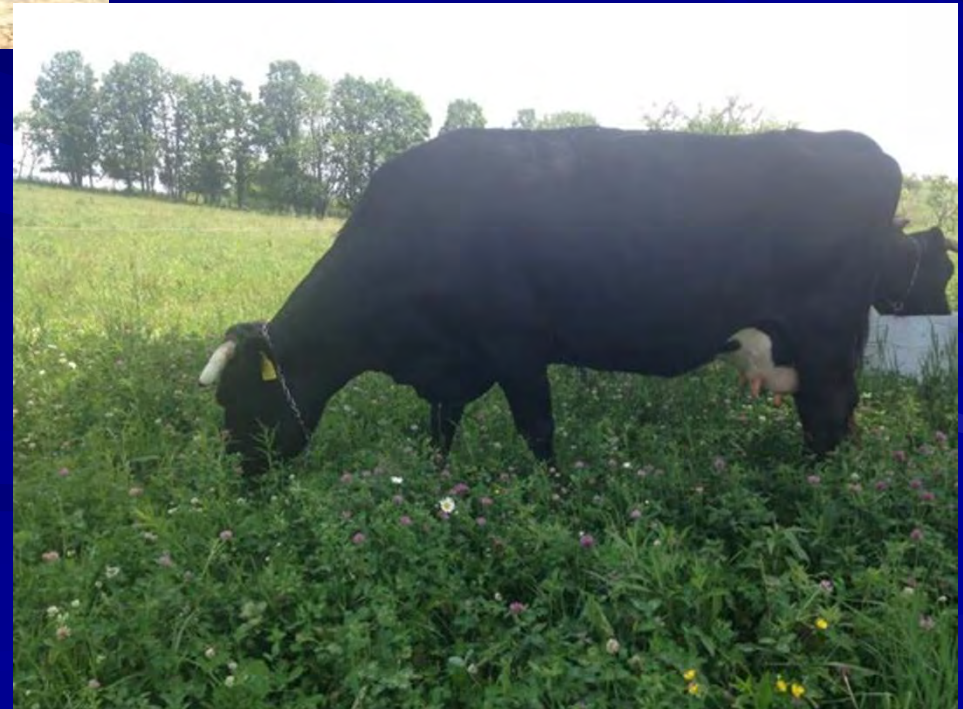
BEEF



BEEF



DAIRY



FINISHING

■ Keys to Optimal Finishing:

- **Soil Health!!**
- **Genetics!!!**
- Forage & Grazing Management
- Plant species diversity & complexity
- Forage DM & Nutritive Value - **Brix**
- Seasonal Impacts/affects
- Annuals & Perennials
- Filling the gaps - **Supplementation**

BRIX

- Higher Brix – Result of improving SOM and soil microbial populations.

BRIX

- Dissolved plant solids include **sugars** (such a sucrose and fructans), **minerals**, **amino acids**, **proteins**, **lipids** and **pectins**.
- **Higher Brix** – Result of improving SOM and soil microbial populations.

Simple To Measure

- Can use either Optical or Digital Refractometer.



Measuring Brix – Sample Prep



Measuring Brix - Refractometer



Why High Brix in Forages?

■ Research shows

- **increase animal gains**
- Increase Milk/components

■ High Brix Forages are:

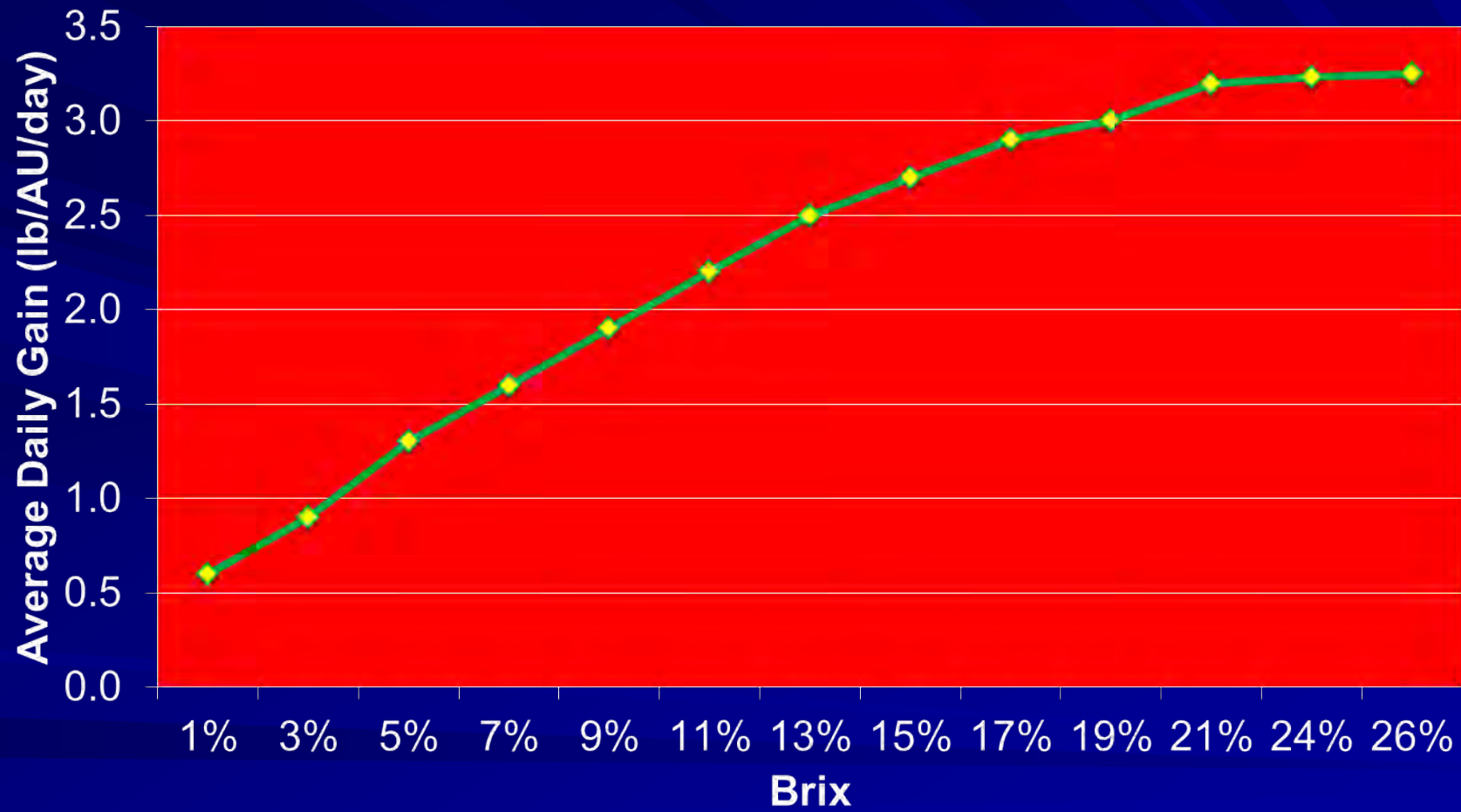
- More drought resistant
- Freeze tolerant,
- More resistant to plant disease and pests
- **References:**
 - (Moorby, 2001).
 - (Moller, 1996).
 - (Downing & Gamroth, 2007; Miller, et al, 1999).
 - (Allison, 2007).
 - (McKenzie, 2007).



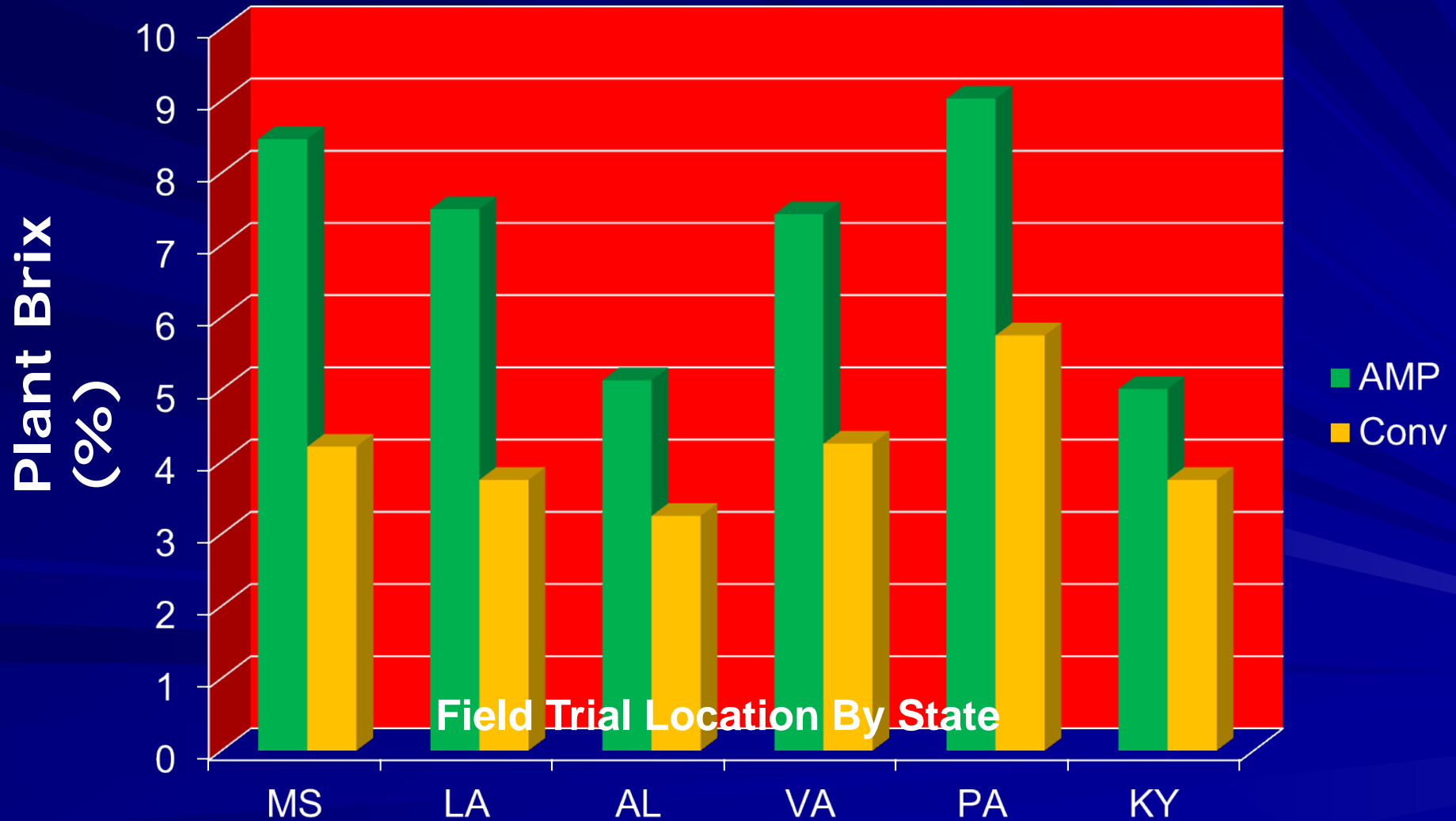
- Brix 5.0% or less = ADG in low 1's.
- Brix 8-12% = ADG in low to mid-2's.
- Brix 12 – 15% = ADG in mid-high 2's.
- Brix > 15% = ADG in high 2's to 3's.
- Every 1.0% increase in Brix adds 0.1 to 0.3 ADG.
- Going from 3% to 6% Brix in dairy pastures adds between 10-20% milk production.

Brix Advantage

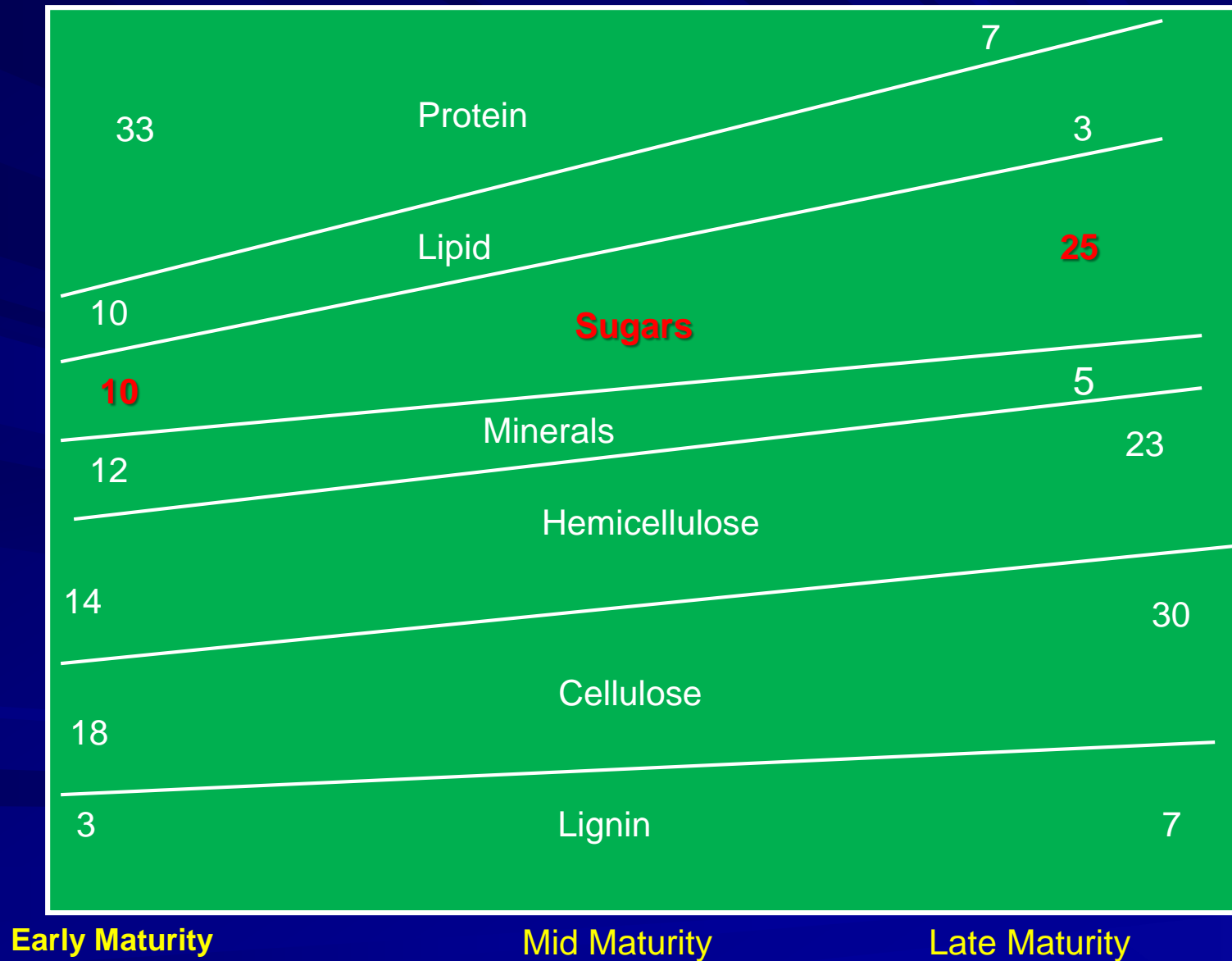
Impact of forage quality on ADG



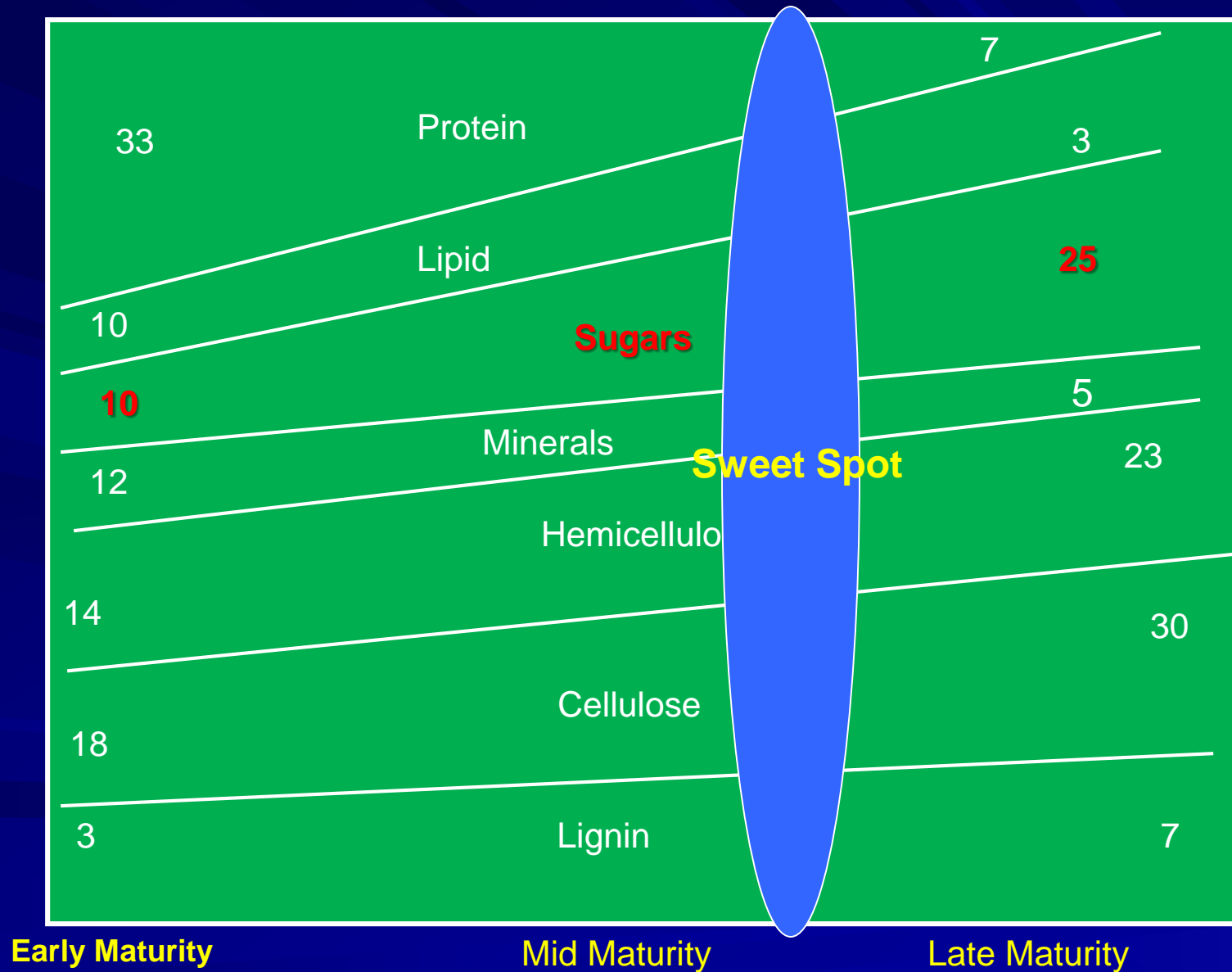
Single Season Forage Brix Impact: AMP Grazing Vs. Conventional Grazing



Effects of Stage of Maturity on Pasture Composition



Effects of Stage of Maturity on Pasture Composition



Too Big to Ignore

■ Two Keys to Better Gains:

- Stage of maturity of forage when grazed
- Timing of daily moves
- Paying attention will result in ADG improvements of **0.25 to 0.5 lbs/hd/day**.

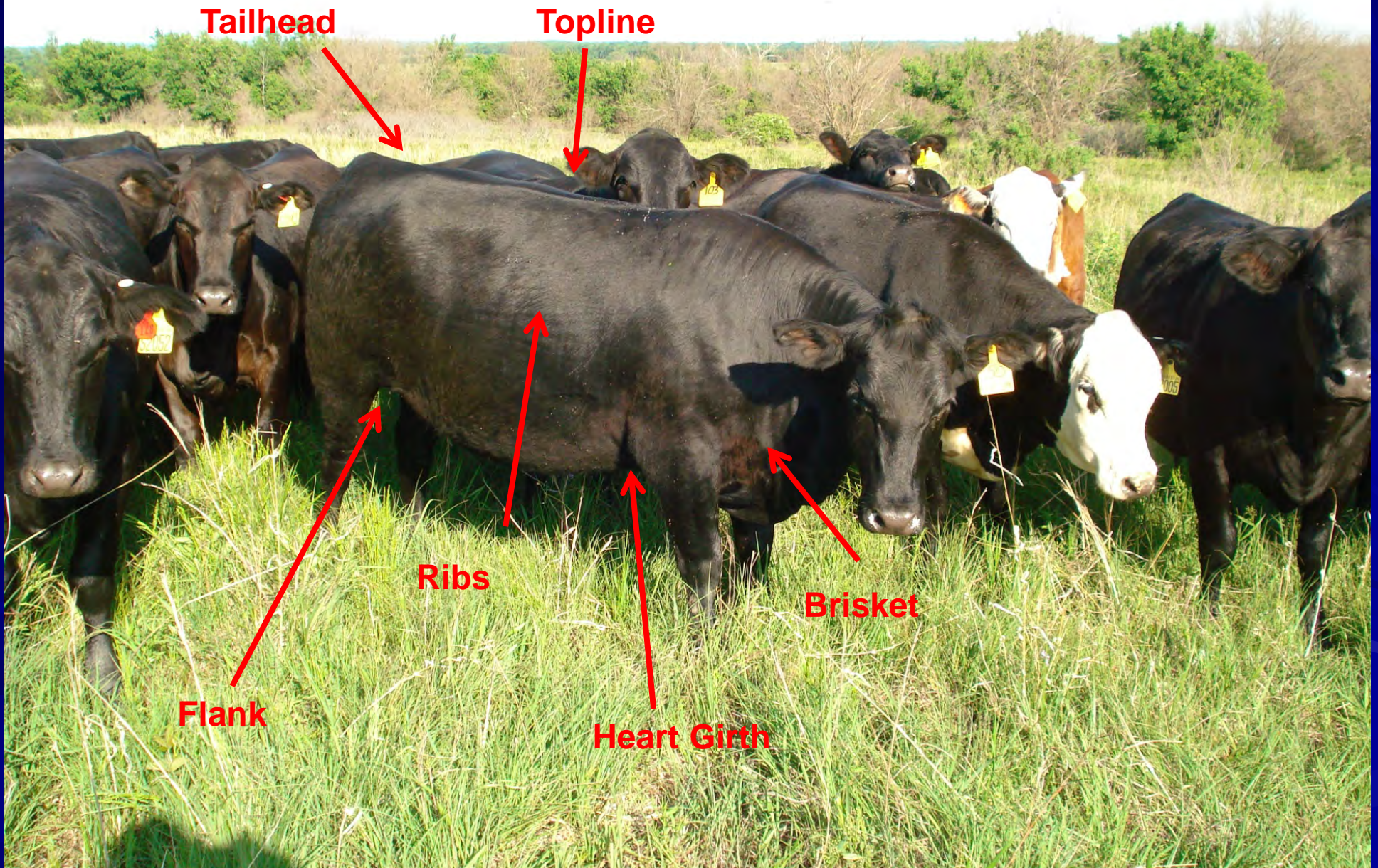
Important Grazing Tips

- Know DM availability and allow 3.0% - 3.5% DM per head daily.
- Take no more than 30%- 50% available DM in a single grazing.
- Move forward rapidly to not allow too many bites of the same plant.
- Know the brix content.
- Turn into new paddocks in early to mid-afternoon (peak brix or plant sugars).
- Stage of forage maturity critical – Mid-stage to slightly beyond...

What is a “Finished” Animal?



Where to Look for Proper Degree of Finish



Fat Deposit in the Brisket Is a Good Sign of Degree of Finish



Heavy Pones of Fat Around the Tailhead Are signs of a Well Finished Animal

Fat Pones



What is the Target?









Building for Future Generations





Thank you!

Winter Bale Grazing



Winter Stockpile Grazing



Value of Winter Stockpile

<u>Variable</u>	<u>Suggested Value</u>	<u>Sample Value</u>
TDN	>60	65
NFD_d	60-70	62
NE_L	0.65 – 0.70	0.68
RFQ	140-170	179

Millet: 9% CP 50% TDN
Sorghum/Sudan: 12% CP 72% TDN





Hairy Vetch: 18% CP 70% TDN

A photograph showing a single radish root lying on a snowy surface. The radish is partially covered in snow, with its green leafy top visible. It is surrounded by dry, yellowed grass stalks. The background is a mix of white snow and brown grass.

Radish: 14% CP 70% TDN

Future of Agriculture

- More Stacked Enterprises
 - Multispecies livestock
 - Beekeeping, beneficial insect raising
 - Integration of higher value crops
 - Specialty grains
 - Fruits and nuts
 - Vegetable and herbs
 - Recreational & entertainment
 - On Farm restaurants, cooking & canning schools, etc....

The "New" Farm

Bee
Hives

Mixed fruit & nut
orchards -
interspersed

Multispecies Livestock

Hunting,
fishing,
recreational,
agri-tourism,
clinics

CROPLAND

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Specialty Grains, organic crops, specialty crops

