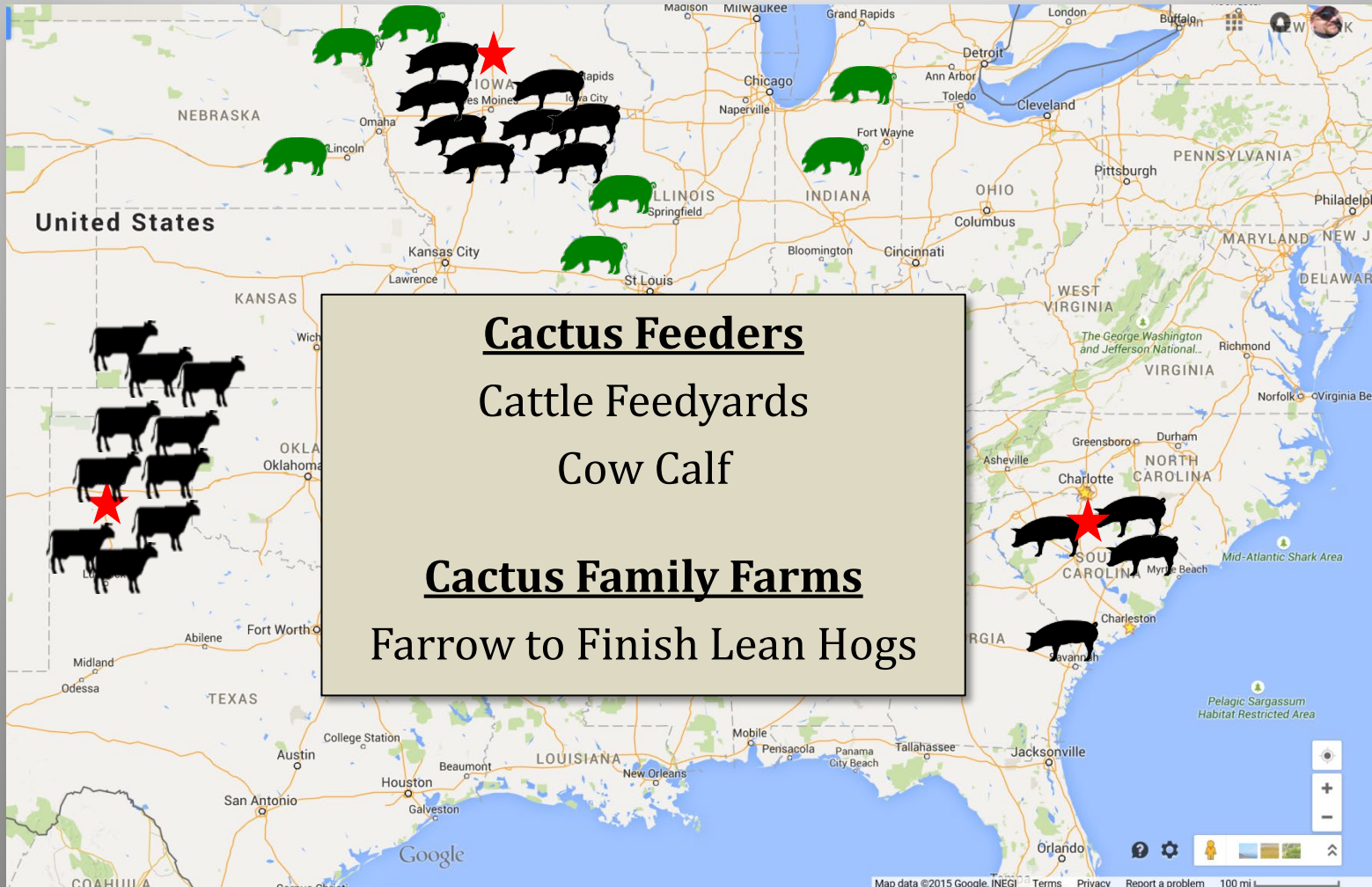




Justin Gleghorn, PhD
Director of Value Management

Developing a Crossbred Calf that is
Profitable in Today's Market





Discussion Topics

- What happened to our fed-Holstein model?
- Developing a merchantable calf program
- Future of the Beef x Dairy program in High Plains

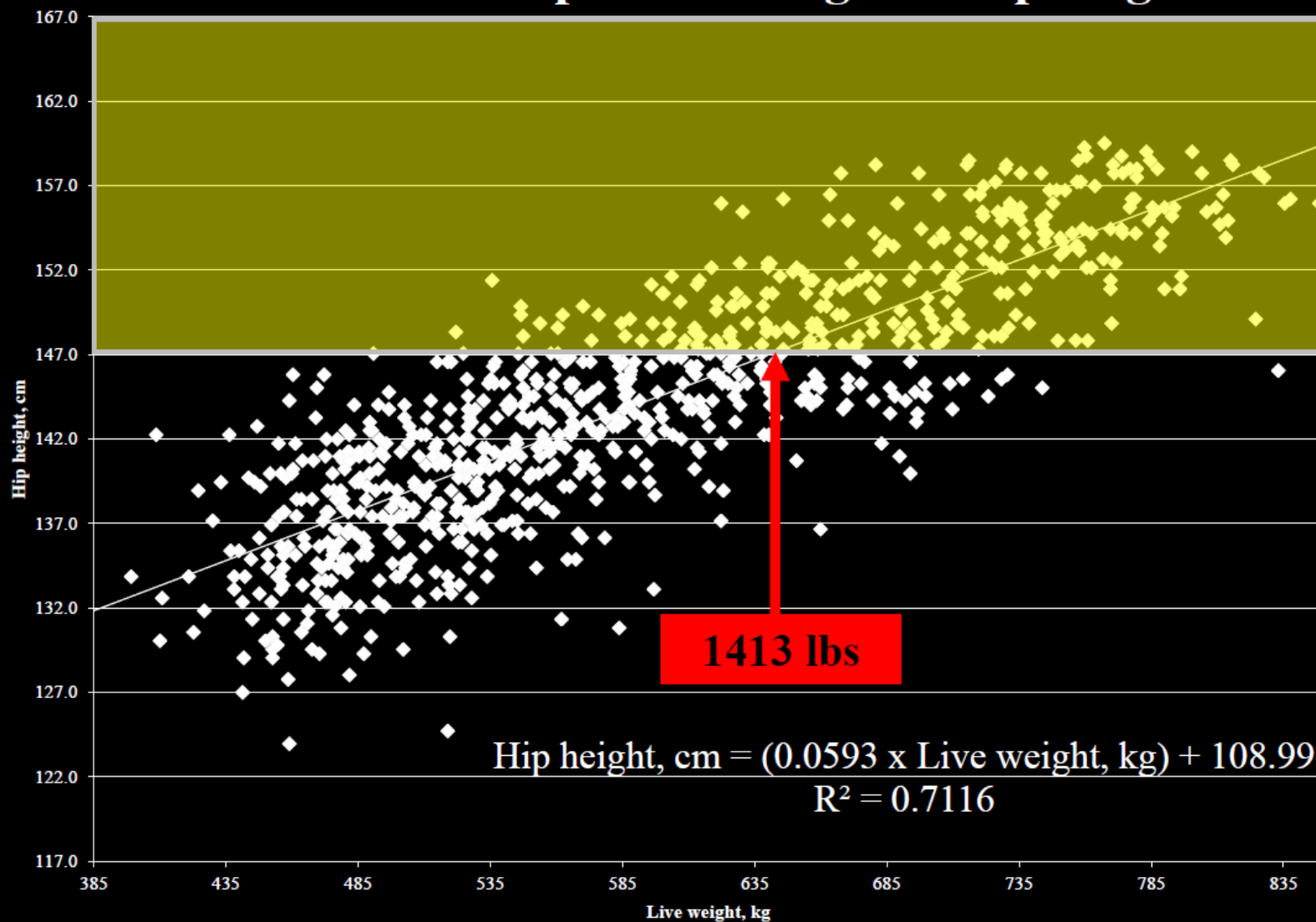


What Happened to the Holsteins?



Tyson has height limit of 58 inches

Linear relationship of live weight to hip height



Tongues & lips drag
in the blood-pit



6.3% Drag Rate

1.13% of total drop value



The Wichita Eagle



Lean trimmed from neck & shoulder area
Worker Safety



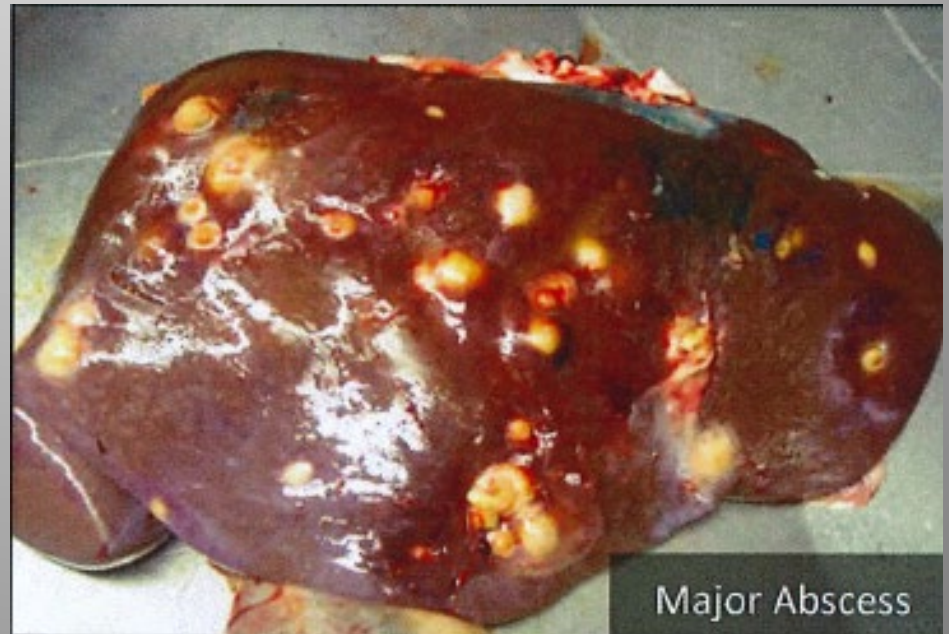




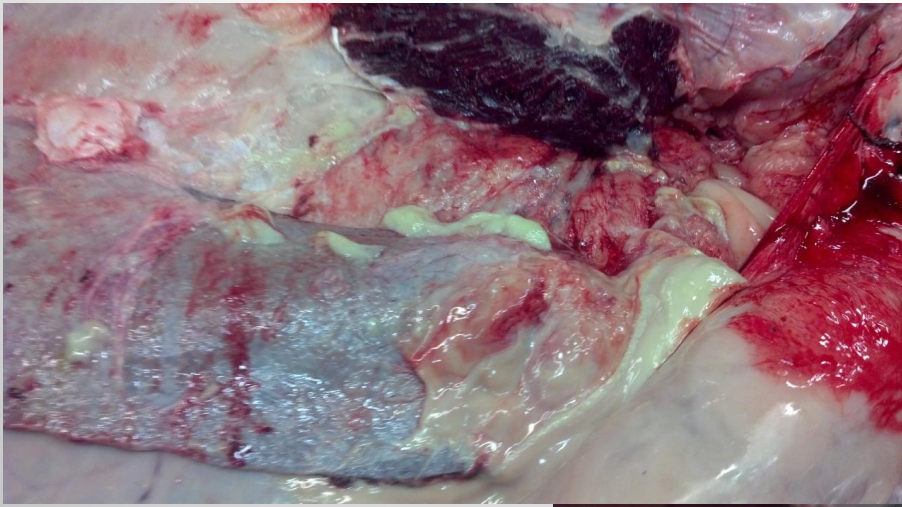
Creating Problems

- Aggressive feeding
 - Acidosis
 - Lameness
 - Liver Abscesses
 - Decreased Feeding Performance

Liver Quality









Efficiency loss associated with bagging open abscess to prevent cross contamination

Economic Effect in Packing Plant

- Holstein Dress Yield
 - 59%
- Holstein Red Meat Yield
 - <66%
- Condemnation Rates
 - Viscera table: 75%
 - Head chain: 25%
- 15% efficiency loss
 - \$2,300/min
- \$200/hd lost value

Muscle Conformation





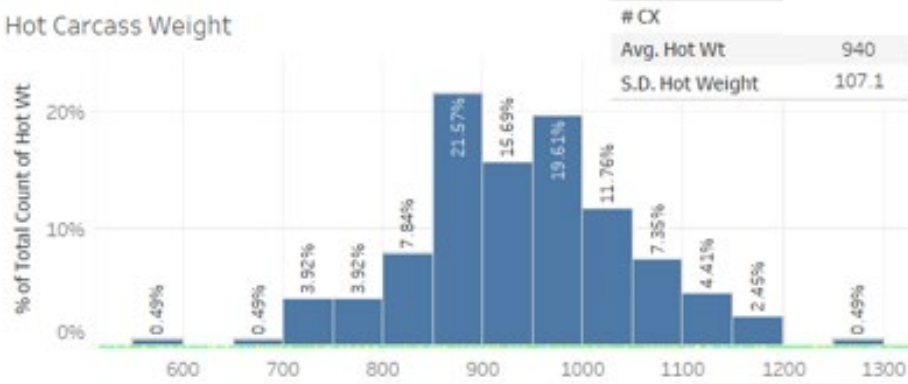
Managing Variation



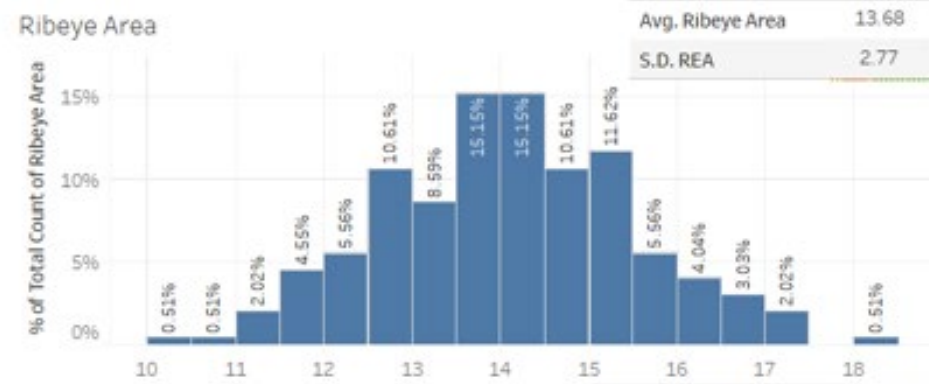
Individual Carcass Data – Distribution Summary

Commodity Population

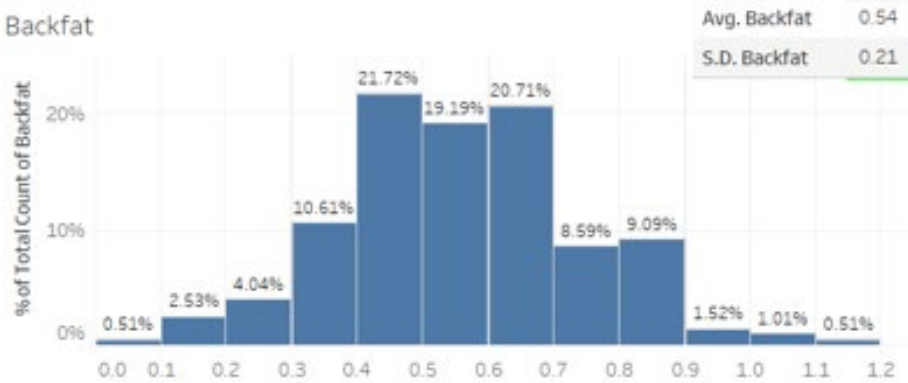
Hot Carcass Weight



Ribeye Area



Backfat

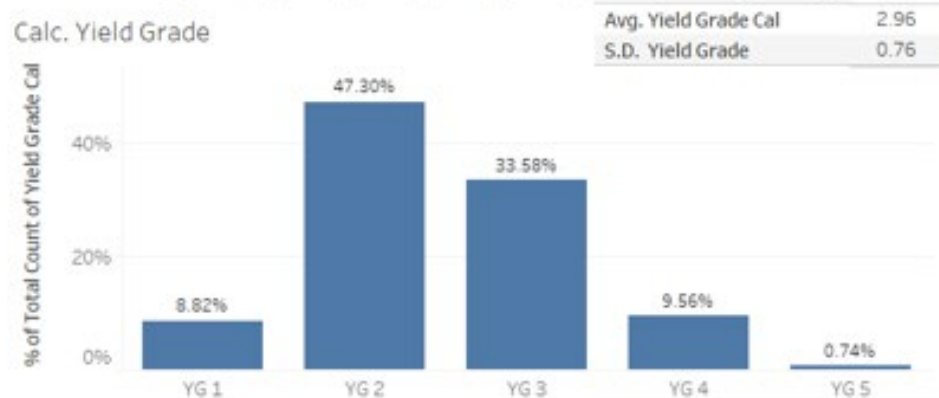
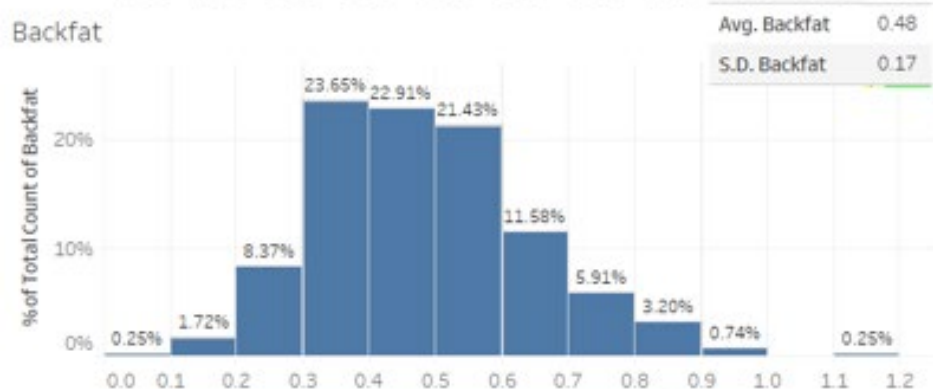
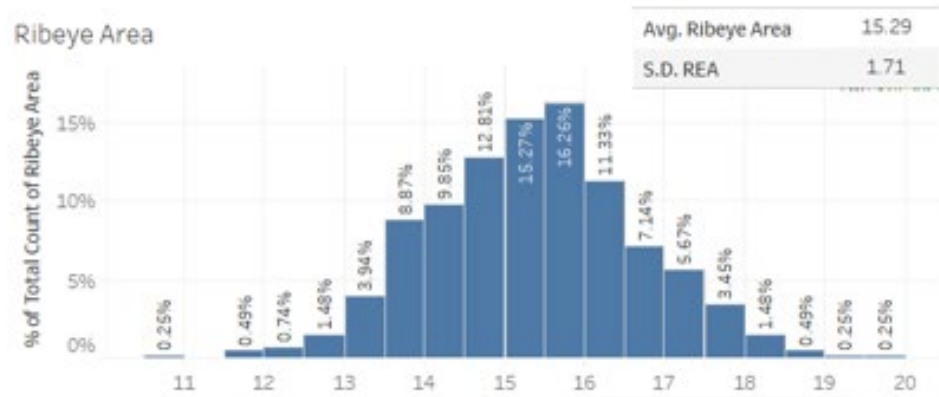
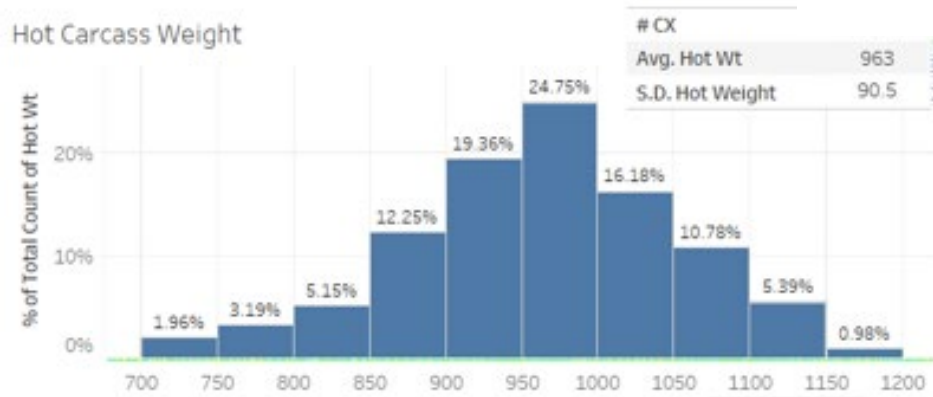


Calc. Yield Grade



Individual Carcass Data – Distribution Summary

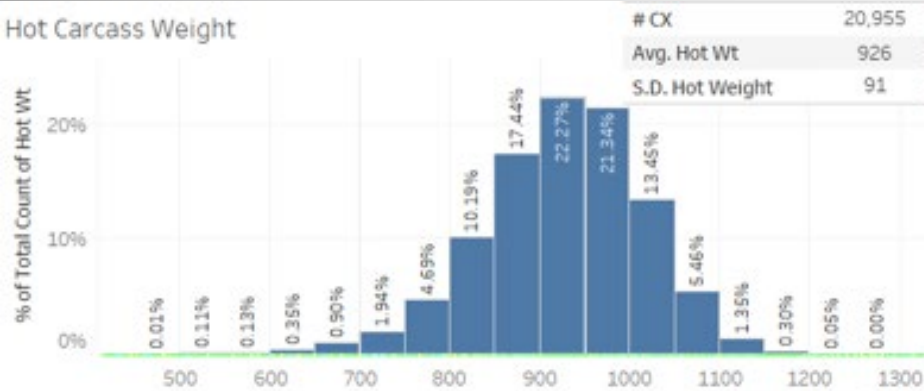
Known Genetic Population



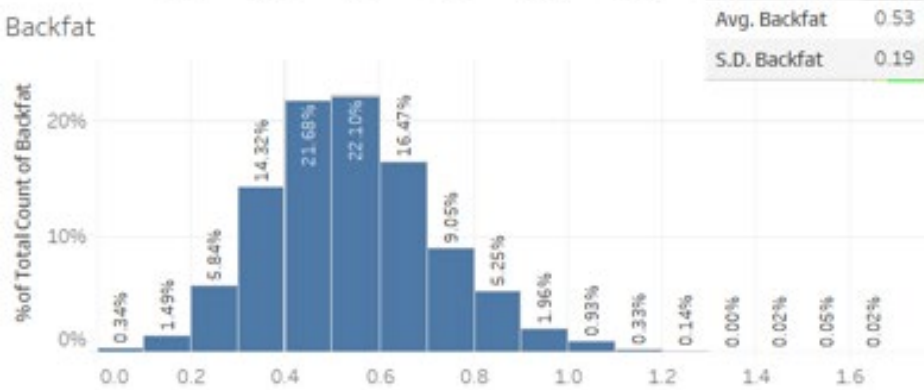
- Heavy carcass discount 15% on both populations
- Able to generate additional 23 lbs of HCW in 30 fewer days
- \$30/hd in additional value

Individual Carcass Data – Distribution Summary

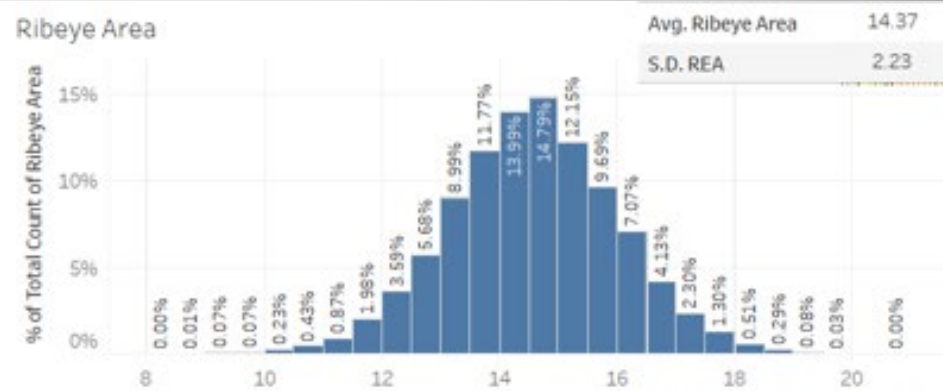
Hot Carcass Weight



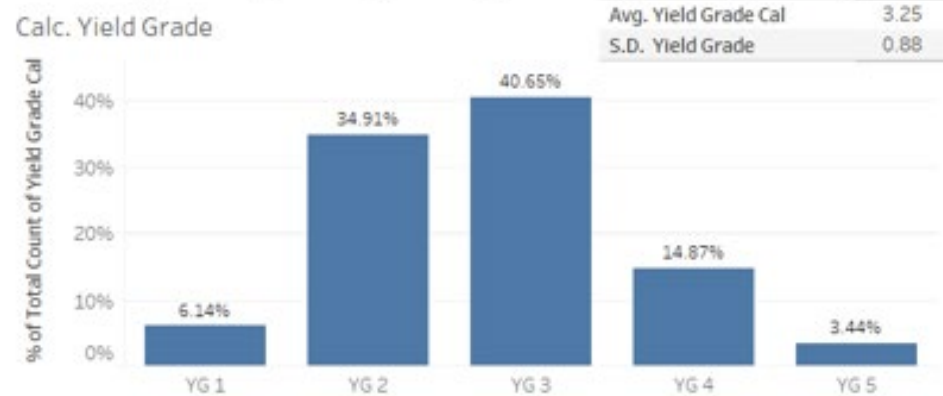
Backfat



Ribeye Area



Calc. Yield Grade



Carcass Metrics

Ribeye Area

| Row Labels | Steer | Heifer |
|------------|--------|--------|
| 9 | 0.00% | 0.50% |
| 10 | 1.02% | 1.99% |
| 11 | 5.10% | 6.47% |
| 12 | 14.29% | 15.92% |
| 13 | 18.37% | 26.87% |
| 14 | 30.61% | 30.85% |
| 15 | 16.33% | 11.94% |
| 16 | 10.20% | 3.98% |
| 17 | 3.06% | 1.49% |
| 18 | 1.02% | 0.00% |

85%

92%

BackFat

| Row Labels | Steer | Heifer |
|------------|--------|--------|
| 0.10 | 2.04% | 0.00% |
| 0.20 | 2.04% | 4.48% |
| 0.30 | 10.20% | 11.94% |
| 0.40 | 19.39% | 22.89% |
| 0.50 | 18.37% | 30.85% |
| 0.60 | 17.35% | 17.41% |
| 0.70 | 16.33% | 8.96% |
| 0.80 | 6.12% | 1.99% |
| 0.90 | 6.12% | 0.50% |
| 1.00 | 2.04% | 0.50% |
| 1.10 | 0.00% | 0.50% |

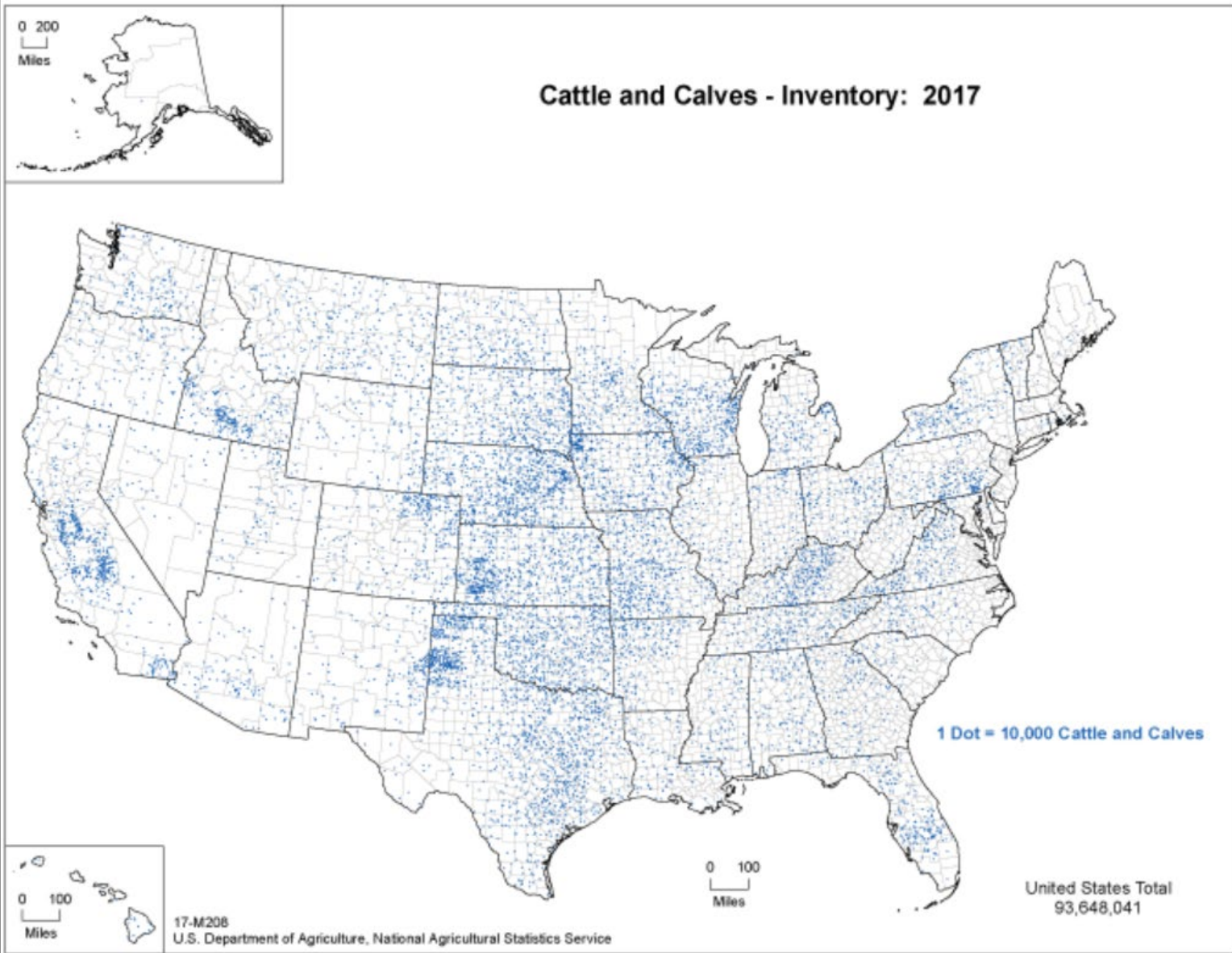


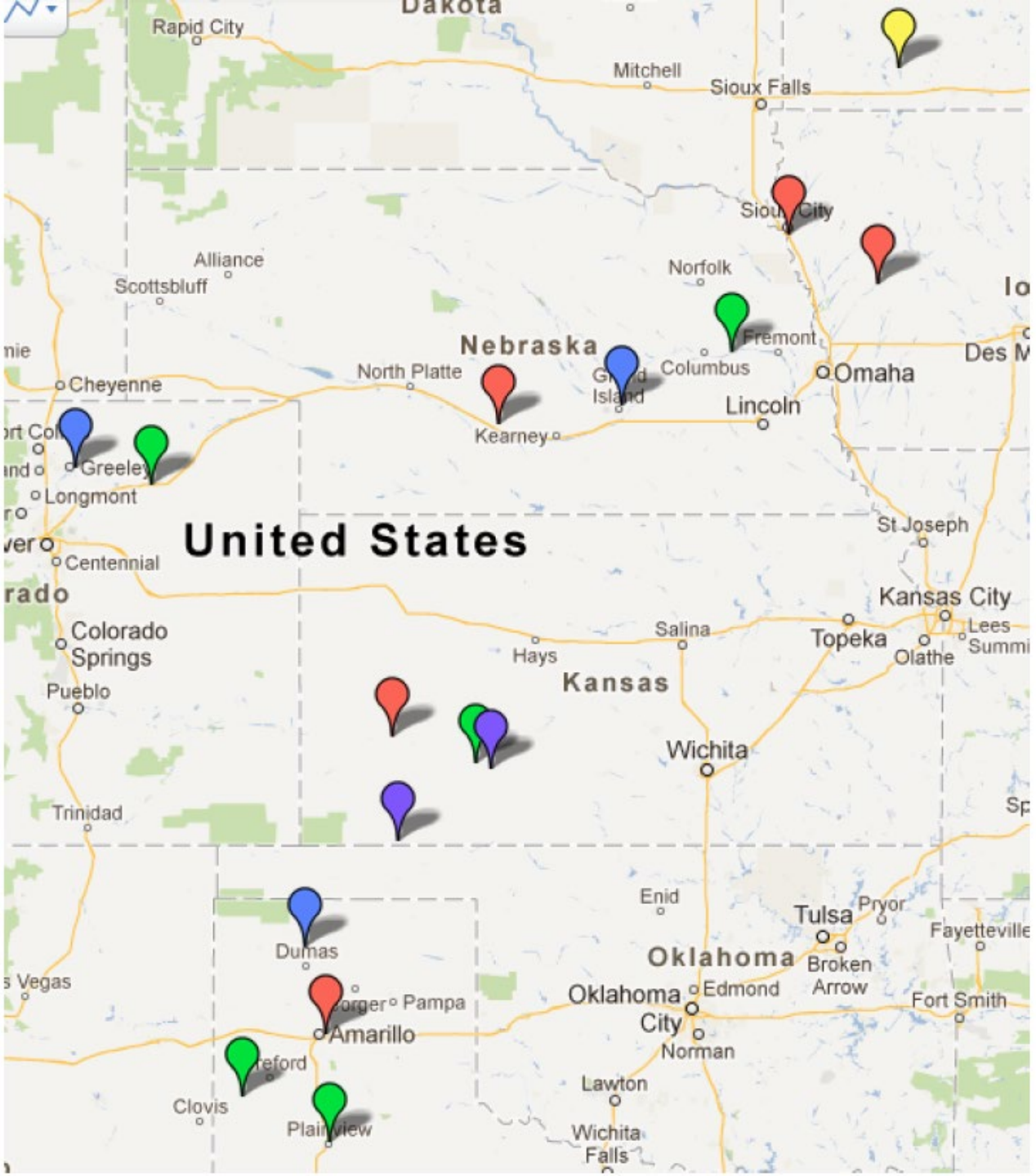




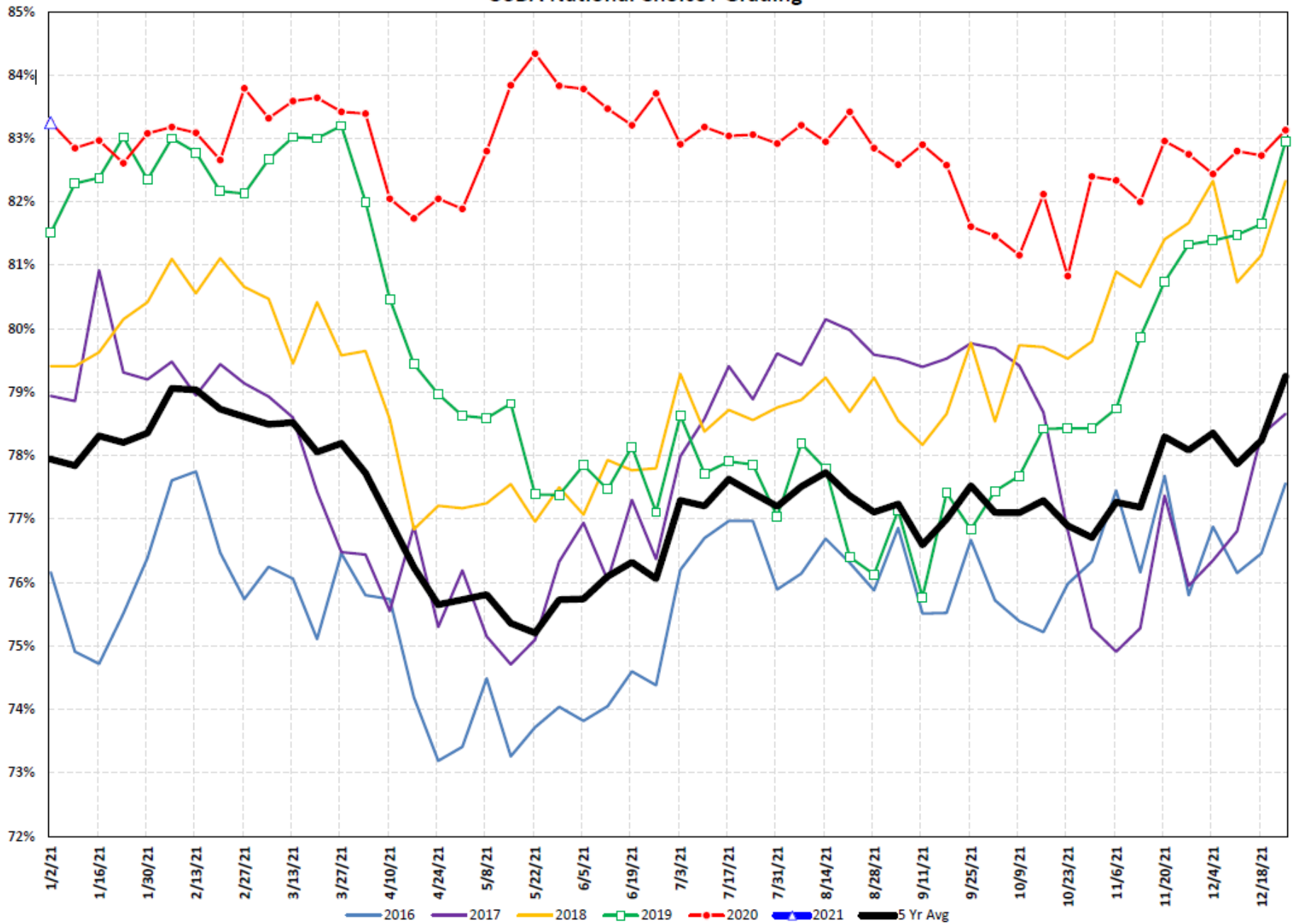




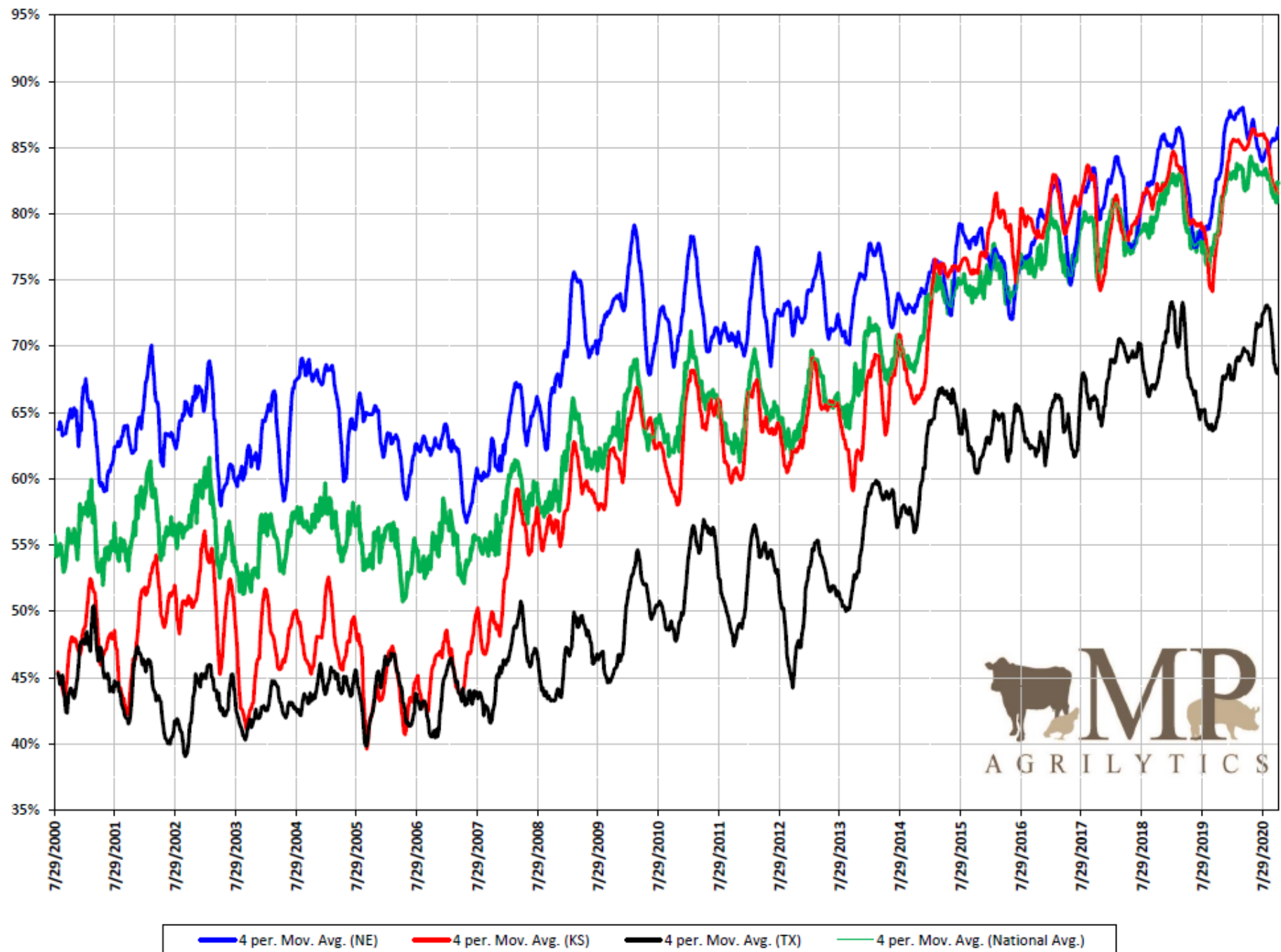




USDA National Choice+ Grading



Choice+ Grading by State





Marketing



Differences in Marketing

- Live Pricing
 - Buyer takes risk on carcass yield & quality
 - Ownership transfers when live cattle cross the scale
 - Buyer pays freight
- Carcass Pricing
 - Seller takes risk on carcass yield & quality
 - Ownership transfers when cattle are graded & value assigned
 - Seller pays freight



Can We Price a Calf at Conception?

Breed Date 11/17/2020

Calving Date 8/27/2021

Date Coming out of Calf Ranch at 400 lbs 1/24/2022

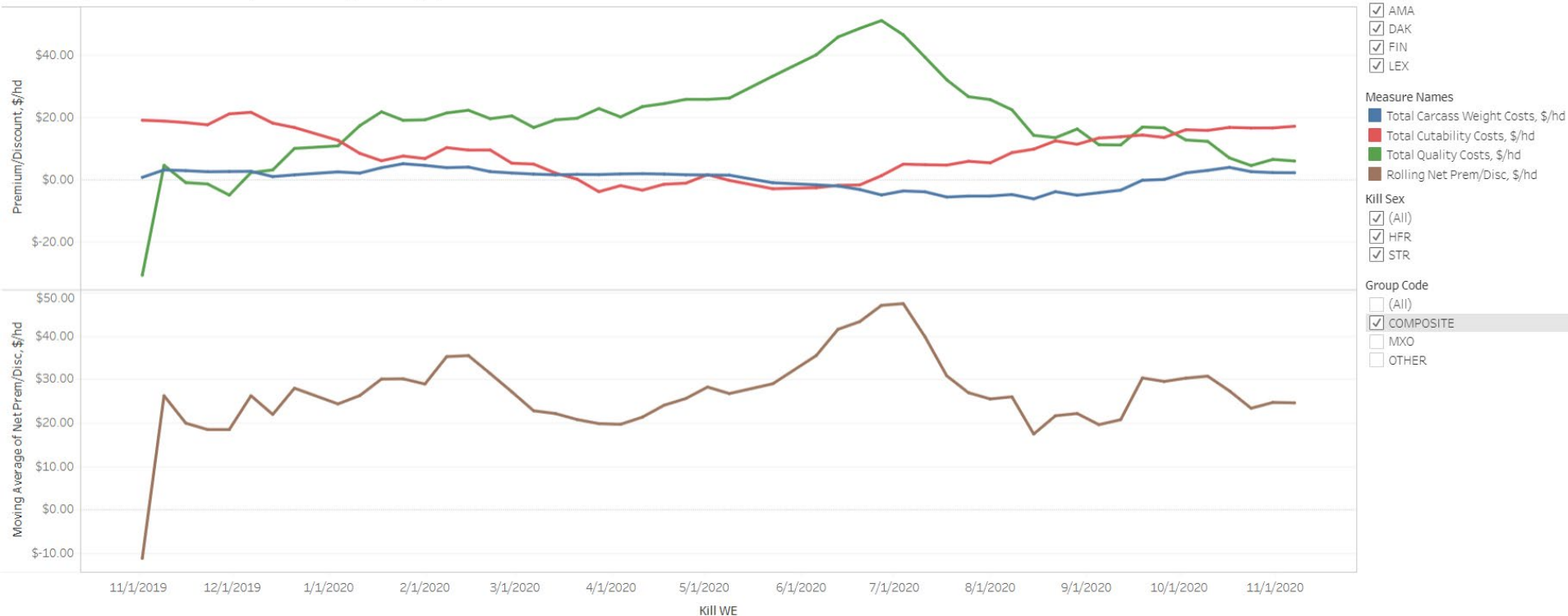
Date to Ship Finished Steer at 1425 lbs 12/20/2022

| Symbol | Last | Change | Volume |
|---------|----------|--------|--------|
| LEZ20 1 | 111.325s | +0.900 | 16101 |
| LEG21 2 | 113.575s | +1.550 | 23494 |
| LEJ21 3 | 117.250s | +0.900 | 8439 |
| GFJ21 4 | 140.675s | +1.275 | 1766 |
| LEM21 4 | 112.200s | +0.900 | 5302 |
| LEQ21 5 | 111.750s | +1.025 | 2369 |
| LEV21 6 | 115.100s | +1.275 | 849 |
| LEZ21 7 | 117.475s | +0.900 | 175 |
| LEG22 8 | 119.300s | +0.950 | 47 |
| LEJ22 9 | 120.175s | +0.375 | 11 |



Carcass Premiums/Discounts for Dairy Cross

Premium/Discount Trends (4 wk rolling average)



Concluding Thoughts

- Composites Provide Opportunity
 - Supply chain
 - Desirable quality grade
 - Middle meats fit 'ideal size'
 - Traceability
 - Composite Programs have to be Managed
 - Not all dairy cross calves are equal
 - The right sires have to be used
 - Calf health & dietary management critical
 - Merits of the calves have to be validated
 - Lost efficiency in packing plant will not be tolerated
- NOT ALL DAIRY CROSS CALVES HAVE EQUAL VALUE



we are in more than the cattle business • we are in the food business

**WE EXIST TO FEED
HUNGRY PEOPLE**

our family, friends and neighbors

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