



Feeding Jersey Calves from Birth to Transition

Gary Moore

Calf Specialist

Cargill Animal Nutrition

Jersey Calves vs. Larger Breeds

- What we know or what we think we know
- What we think is the same
- Where do we need more research?



Three Areas to Cover

1. Building an immune system
2. Feeding Calves to meet their genetic potential
3. Transition

- There are many different systems for starting and raising Jersey calves that have done very well.
- These are ideas that I feel very strongly about and I am not trying to put down any others that have done very well
- Always trying to do it better each day



Jersey Calves



BUILDING AN IMMUNE SYSTEM



- **Colostrum**

- Feed at least 3 quarts for 1st feeding
- And 2 to 3 quarts the 2nd and possibly 3rd feeding
 - Less total amount may be needed vs. Holsteins
- If not enough colostrum is available, use 1st milking milk (1st milking after colostrum), with colostrum enhancer (IGg's).
 - It is better to use a product made for enhancing colostrum, not a “partial” amount of colostrum enhancer
- Mixed Herd of Jersey/Holstein
 - Jersey calves fed Holstein colostrum had many issues until we enhanced the colostrum
- Not sure if more University research would be beneficial?
 - “We know that a higher level of immunity is better”



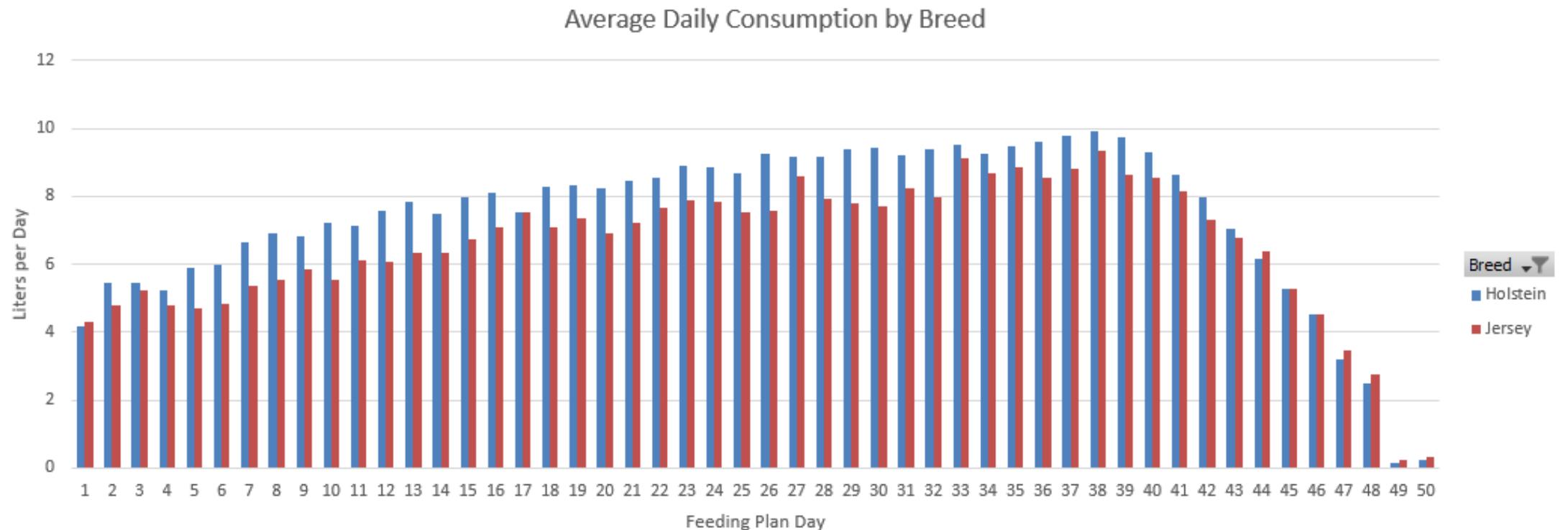
FEEDING CALVES TO GENETIC POTENTIAL



- Jersey Calves will eat at a higher level (as % of body weight) than Holsteins

Average of CON

Virginia Tech data for Cargill review



Auto-feeder group calves fed at 13% solids

On the average Jersey calves ate 91% of what the Holstein calves ate

- 
- To reach full genetic potential, calves need to gain somewhere between 2x to 3x of their bodyweight from birth by 56 days of age.
 - So with Jersey calves, we need to be at least 1.1 ADG (minimum). More is better.
 - 60 lb birthweight, double BW by 56 days (120 lbs) = 1.1 ADG
 - Calves need to be healthy
 - We need to feed them enough
 - And provide clean water and starter



- We starved Jersey calves for a long time, and learned that if we feed more at a young age, the calves immune system will work better and the calf will grow better.
- Some differences:
 - Holstein calves at 24 hours of age, fed 1 lb of milk solids, in zero degree weather, can lose their entire reserve body fat in 18 hours.
 - **JERSEY CALVES ARE BORN WITH EVEN LESS RESERVE BODY FAT, SO THEIR SITUATION COULD BE WORSE IN TIMES OF STRESS**

- 
- Don't be afraid to feed more milk early in a Jersey calf's life.
 - 6 quarts a day is not unreasonable at day 2 or 3
 - Feed even more after 10 days

Northern NY herd in a very January cold setting, was feeding 1.75 lbs of milk solids in a 13% solution and death rates soared within a 2 week period to 14% (normal death rate on farm is under 1%).

They increased to 2.2 lbs milk solids feeding more volume at the same solution (13%), and death rate within a week returned to under 1%.

IT IS IMPORTANT TO FEED CALVES TO GROW, MAINTAIN AND PROMOTE THE IMMUNE SYSTEM AT AN EARLY AGE



- Feeding Jersey Calves Milk Replacer

- We have had good results feeding fat at 20%, balancing amino acids within 22 to 24% protein, including IGg's and select additives for the first three weeks of life.
 - The energy requirement may be more important at that young age
- After three weeks, by reducing the fat and keeping solids the same, we can increase starter intakes.
- Balancing amino acids and feeding less total protein can give us the same growth and stature plus reduce urine and wetness in the pens (providing a healthier environment for calves to grow).
- Possibly more research with diet protein levels would help



- Feeding Jersey Calves Milk

- If we enhance whole milk (23:8 enhancer), we can reduce fat levels and get higher total intakes.
- The ratio that seems to work the best with Holsteins is 1.3 to 1.4 parts protein to fat.
- With Jerseys, they only need to be 1.1 to 1.0. More research on this would be good.
 - We do know that we can get results by lowering the fat level slightly below what the protein is.

- Don't be afraid to use electrolytes (TheraCalf Plus)
- Sometimes when it is really warm, baby calves don't drink water readily. They seem to drink the electrolytes better.





TRANSITION JERSEY CALVES TO DRY FEED

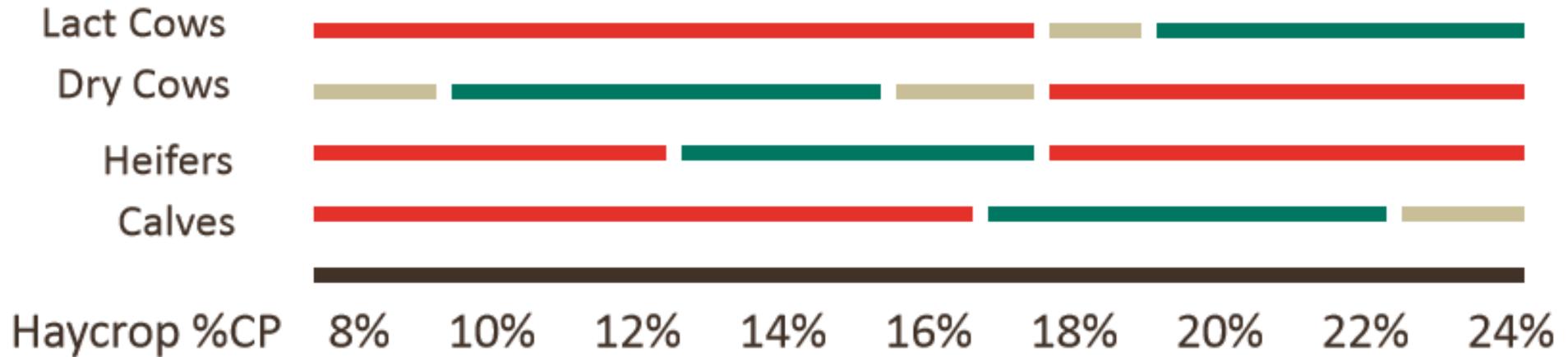
- 
- # 1 rule – more milk fed, the longer the transition period needs to be.
 - Get starter intake going as soon as you can (start a handful in the pail at day 3 to 4 of age)
 - Need to see at least a small amount (0.5 lb) of starter for 3 weeks and 1.5 to 2.5 lbs of starter intake before taking all milk away.
 - You may have to reduce milk intake to increase starter intake

- **Starter grains**

- Balancing for proper amino acids, as with milk diet, may allow us to use less total protein in the diet.
- The right mixture of carbohydrates will allow for better rumen development and growth.



Forage Quality Schematic



Low quality █
Borderline █
High Quality █

Quality of a forage is truly relative to how well it matches nutrient requirements of animals to which it is being fed.

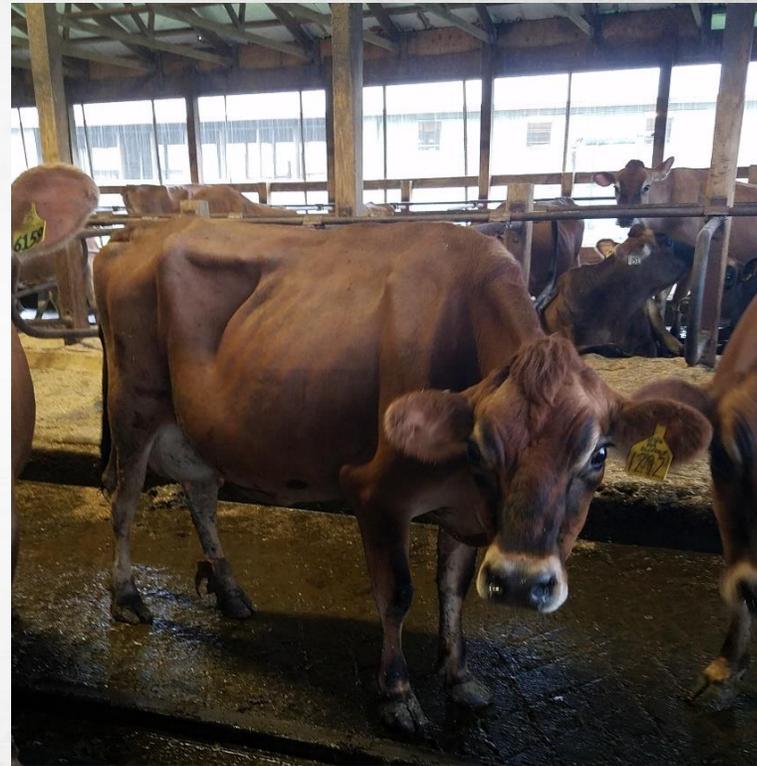
Jay Geisy, Cargill Animal Nutrition

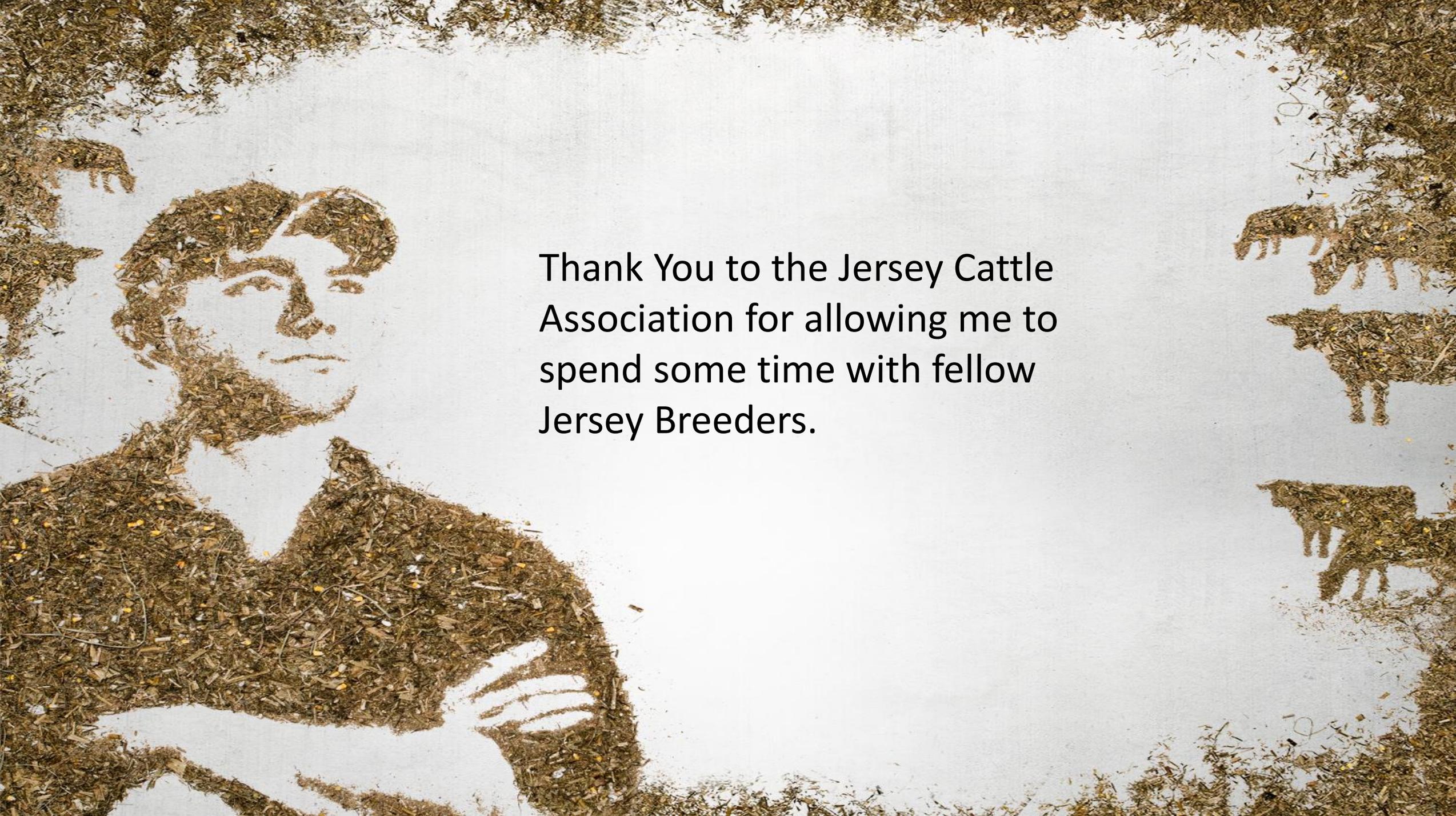
The first forage Calves get should be the same quality forage that goes to the Fresh cows.

If we have good quality forage available, does it make sense to feed straw or cottonseed hulls (in grain) to young calves? Our goal is to feed the rumen and start these babies with a little high quality forage at the right time.

Final Notes

We know Jerseys can calve at a young age, and by getting good early growth, we can help them start on their way to reaching full genetic potential.



A large portrait of a man with a beard, constructed from dried grass and hay, set against a background of a white cloth with cow prints.

Thank You to the Jersey Cattle
Association for allowing me to
spend some time with fellow
Jersey Breeders.