

Heifer Project Update



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The 2020-21 ASA/Iowa State Heifer Development Project Final Summary

The American Shorthorn Association (ASA) was fortunate to have the opportunity to conduct research on the Iowa State campus again this winter with the second installment of the heifer development feed efficiency trial. The study has allowed breeders to gain valuable feed efficiency data on the backbone of any cow herd: the replacement female.

In Year 2, the timeline of the project was changed when we got the chance to utilize better facilities on the ISU Beef Nutrition Farm. All 42 of the heifers for this trial were born in the first quarter of 2020. Heifers were dropped off the first week of December and went through a three-week acclimation and warmup period. The feeding period on the GrowSafe system started with weigh in on December 28 and lasted 70 days. Weights were collected at the mid-point of the feeding period. March 8 and 9 the trial concluded with final weights, carcass ultrasounds, repro tract scoring, and pelvic measurements. Each heifer was DNA tested with the 100k genomic test from Neogen for sire verification and genomically-enhanced EPDs.

Results

Conducting the trial later in the year

meant older heifers coming into the GrowSafe units. Weighing in, the group averaged 650 lb. Final average weight for the heifers was 814 lb, ranging from 654 to 1000 lb. Over the seventy days, the cattle averaged 2.35 lb of gain per day. The average ribeye area of the heifers was 11.1 sq. in with an average IMF of 5.53%. The backfat was 0.38 inches. These carcass figures compare very closely to the females from the previous installment of this test.

The heifers' dry matter intake for the 70-day trial averaged 17.1 lb per day. When computing feed to gain, the group mean was 7.39 pounds of feed per one pound of gain. The cattle in this trial ranged from a feed to gain ratio of 4.11 to 9.93. With the modification of the test diet this year to a higher roughage, lower energy ration, it was expected for intake to increase (ultimately hindering feed to gain). That was the outcome that we saw, with these heifers consuming a little more dry matter (16.5 lb in last year's trial) and having a higher feed to gain than last year (6.36 lb feed to gain). According to the ISU team, the heifers from this year's trial still convert feed more efficiently than the cattle in other similar heifer development studies. It's nice to have that information

to show how well our breed is performing in this arena.

As a breed, this study helps us further gather data on feed efficiency traits as we move toward incorporating this type of information into a genetic evaluation. The more data points we collect, the more fuel we have for EPDs to use in making genetic progress in this area of production. As we continue to have feed intake data collected from various sources, we will be able to better gauge where Shorthorns stand from a general feed efficiency standpoint.

As with all ASA performance endeavors, I want to thank the breeders who agreed to participate in this program, as well as ISU for allowing the breed to be a part of it. Hopefully, the relationship between ISU and ASA can continue with this program in future years. 📧

Thanks to Our Participating Breeders
 Bowman Superior Genetics, Greens Fork, IN
 Forni Farms, Granville, OH
 Mapleton Polled Shorthorns, Indianola, IA
 Paint Valley Farms, Millersburg, OH
 Peak View Ranch, Fowler, CO
 Prairie View Shorthorn Farm, Seneca, KS

Pen Summary Table

Pen #	Breeder	On Test Wt	Midpoint Body Wt	Final Wt	ADG	REA	IMF	Fat	DMI, lbs/d	Feed:Gain
1	Bowman	670	758	835	2.35	11.40	6.19	0.46	16.762	7.2812
2	Peak View 1	594	688	775	2.58	11.55	5.08	0.33	17.287	6.7775
3	Peak View 2	720	792	871	2.15	12.17	5.25	0.43	18.395	8.6833
4	Prairie View	644	720	809	2.35	10.99	4.81	0.34	16.865	7.3393
5	Mapleton	641	717	804	2.33	10.15	5.71	0.35	17.053	7.4465
6	Forni	549	634	711	2.31	9.03	6.35	0.36	15.462	6.5603
7	Paint Valley	732	820	896	2.35	12.37	5.16	0.41	17.531	7.6219
	Averages	650	733	814	2.35	11.09	5.51	0.38	17.1	7.39