

## **CONVERSION from Cow/Calf Only to Cow/Calf with Grass-Finish Beef, Hawaii County**

The X Bar Ranch is a cow/calf operation that runs about 500 mother cows on Kikuyu – Pangola grass pasture in the Waimea area of the Big Island. The ranch calves in April – May and has an average calf crop of 90 percent or about 450 calves each year.

The ranch replaces about 15 percent of its cow herd each year and retains about 75 replacement heifers annually. This leaves 375 head (225-steers and 150-heifers) available for sale. The ranch traditionally markets their weaned calves at the farm gate, at an average weight of 400 pounds each year in October.

Over the past 15 years beef cattle price at the farm gate for Hawaii cattle has averaged \$94.40/cwt, but varied from a low of \$58/cwt to a high of \$171/cwt. The volatility in farm gate prices and associated mainland markets has made the ranch question the sustainability of marketing animals to the mainland.

The X Bar is considering retaining animals for a Grass Finish Program to help spread the risk from volatile mainland markets and diversify their operation. They have noted that there is somewhat lower volatility in prices paid for local, high-quality, grass-finish beef animals. Indeed, the average local price for young grass-finish beef animals (under 30 months) is \$1.90/lb-carcass price, and has varied up or down less than \$0.30/lb in recent years.

With help from the University of Hawaii Cooperative Extension Service, the ranch has determined that if they reduce the cow herd to 300 head they can run approximately 200 grass-finish animals in two cohorts (100 per calf crop) each year.

To make the program work, they would select the top 100 animals from each calf crop for their grass-finish beef program leaving 125 head to be marketed at the farm gate as weaned calves, bound to the mainland as usual.

From UH research they know their grass-finish beef animals should reach a finish weight of 1,200 lbs. live-weight, with an average carcass-weight of 648 lbs. at around 24 months of age, given their frame scores and quality of their pastures. Thus, after the first year, the ranch would be running two, 100-head cohorts each year and would market the two-year-old beef animals beginning in April for local slaughter.

Carrying 300 head of cows, the calf crop would be reduced to about 270 head each year (90 percent of 300), comprised of approximately 135 steers and 135 heifers. Heifer retention would remain the same at 15 percent of the cow herd (45 replacement heifers) leaving 225 head (135-steers and 90-heifers) for marketing.

With fewer cows, fewer bulls will be needed. The X Bar estimates that they can reduce their bull battery by about 10 head. Currently they are paying about \$1,500/bull and expect bulls to last about 6 years under their management. Opportunity interest rates are expected to remain at around 7 percent.

Utilizing the RightRisk RSP tool the X Bar looked at how market volatility in mainland prices and the local price for grass-finish animals would affect ranch profits:

- Given recent information on grass-fed beef carcass prices, they anticipate prices to range between \$1.60/lb and \$2.20/lb.
- Further, based on past experience, they expect that the farm-gate price for calves to vary between \$58/cwt and \$171/cwt.

