Raising smaller beef such as miniature Angus on small acreages could meet consumer interest in locally grown food and consumer demand for smaller portion sizes.

The smaller beef could be sold as locker beef – usually a full or half carcass – as a source of revenue or slaughtered for family use. We purchased Lowline Angus steers and fed them to slaughter in a study last year to determine costs and potential portion sizes.

In 1974, the Trangie Australian Research Center in New South Wales began conducting a growth rate experiment utilizing Angus cattle. At the end of the experiment in 1992, the Lowline Angus herd was dispersed to the public, which was the birth of the breed. The average mature female will weigh approximately 750 pounds and the mature bull will weigh on average 1,000-1,500 pounds.

We purchased three steers to examine production costs and beef cut size.

### Pasture Feeding

Three 7-month-old, full-blood steers were purchased May 2, 2009, from 2J Lowline Cattle Co. in Blackfoot, Idaho. The steers weighed an average of 275 pounds, and the purchase price was $1.50 per pound for a total cost of $412.50 per steer. The steers were placed on grass in Evanston until November 23 (seven months). The pasture consisted mostly of irrigated meadow (see photo above). The steers weighed an average of 475 pounds when they came off the pasture, gaining 200 pounds or 1 pound per day.

### Finishing

The steers were then placed in a small, backyard feeding operation in Logan, Utah (see photo page 11). They were fed a ration of 7.4 lbs/day of corn, 6.8 lbs/day of alfalfa hay, 2.9 lbs/day of grass hay and .25 lbs/day of Rumensin (an antibiotic ionophore) for 63 days. Two of the steers were then fed an additional 22 days at 10 lbs/day of corn.

_T-bone steaks from a Lowline Angus steer are typically about 10 ounces._

_by Bridger Feuz and Dillon Feuz_
with the rest of the ration remaining the same. The steer fed 63 days finished at 630 pounds and the two steers fed for 85 days finished at an average weight of 675 pounds.

**Carcass**

The average hot carcass weight for the steers was 330 pounds. The two steers fed for 85 days were both estimated at a quality grade of Choice, while the steer fed for 63 days was estimated to grade Select. The average rib eye was between 9 and 10 inches, with a 1-inch T-bone steak portion size of 10 oz. (see photo page 10). One drawback to the smaller carcass size in this case study is that, while cutting and wrapping charges were incurred on a per-pound basis, the flat per-animal charge for harvesting was the same as a full-sized steer.

Each of us kept one of the locker beef steers for family consumption, and the third was sold as halves to two additional families. Family sizes ranged from two to four. All eight of the adult consumers responded to the following three-question survey:

- Was the portion size of the steaks too small, just right, or too large? All eight individuals indicated just right.
- Given the choice at the same price per pound on your next locker beef purchase, would you purchase another miniature Angus or a regular beef? All eight indicated a miniature Angus.
- Would you be willing to pay a premium for a miniature Angus locker beef? Five out of eight indicated they would be willing to pay a premium.

There appears to be a direct-selling locker beef production opportunity utilizing miniature Angus steers.

As with all locker beef programs, Lowline Angus meet the niche of consumers interested in locally produced food and provide a portion size alternative for many consumers wanting smaller portion sizes.

If produced at a competitive market price, there appears to be a demand for the product, and the potential exists to develop the niche market into a premium market where customers are willing to pay more for the convenience of the portion size. In addition, this breed may provide an opportunity for those interested in beef production for family consumption on smaller acreages.

**Case Study Final Budget**

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<th>Initial weight</th>
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<tr>
<td>Total cost (cost to finish + processing cost)</td>
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</table>

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