Livestock Market Digest*, in their 2003 fall marketing edition, featured Pine Ridge Ranch as one of 25 individuals, businesses and organizations that are making a difference for the American livestock industry. This article, which highlights Pine Ridge Ranch's philosophies, goals, accomplishments and management practices, is reproduced by permission from *Livestock Market Digest.

If you were paid a dollar for every time Bill Travis mentioned productivity, you'd quickly earn yourself the price of a nice steak dinner. Productivity, to Bill's way of thinking, is the current U.S. beef industry's weakest link, and improving productivity is the key to the industry's future success and profitability. He firmly believes that a highly productive beef operation is attainable through research, dedication and hard work. The success he and his wife Jane have had with their Pine Ridge Ranch program demonstrates the validity of their approach.

Bill is an engineer, by training and by nature. Although he and Jane married and started a family when they were quite young, Bill had the ability and the drive to pursue an advanced degree, attending both Harvard and MIT. At Harvard, he made a Distinction grade in production, which is awarded to the top one percent of the class. Productivity continues to be foremost in his detail-oriented mind.

"People are interested in productivity in the chicken business and the pork business, because it's vertically integrated," he comments, adding that discussion of shorter production cycles is rare in the beef industry. "I think if we develop a 12-month (from birth to rail) steer, the producers in the industry would save a minimum of $1 billion a year. Besides saving money, earlier harvest also results in a naturally more tender product. Our goal is to produce a 1,350-pound steer at 13 1/2 months."

The Travises started out in the cattle business 32 years ago with a Brahman-cross commercial herd and a moderate-sized registered Angus herd. At their ranch, located in the East Texas hills, the ability to cope with a hot and sometimes humid climate is of utmost importance. "In 1981, Jane and I sat down and thought, instead of just raising cattle, let's try to raise what we think might make the perfect cow for the hot areas of the world," Bill recalls, adding that nearly 65 percent of the world's grazing areas are characterized by high temperatures. The Travises took an engineering approach to the problem and developed a list of specifications for their perfect hot-weather cow, drawing on nature for inspiration.

"Every animal in nature, in the hot areas of the world, has a dark hide. And every animal in the hot areas of the world has red-derivative hair, except the zebra and the zebu," he explains.

So the Travises specified that their environmentally adapted cow should have dark hide and red hair. "Another plus to having dark hide is that we wanted black pigment around the eyes. It cuts out the glare and reflections in the eye. We seldom have eye problems," Bill says. The Travises also performed the genetically difficult feat of putting a blaze face on

the cattle for management purposes, as it's much easier to locate cattle having a little white on the face.

Also specified on the master plan was that the cattle needed to be moderate-boned, with small heads, for good cutability. "We're striving for about 65 percent red meat," he says. "Last harvest was 64.8 percent, so we're getting closer."

Milking ability and muscling have been key considerations from the program's inception. Bill observes that some animals, like the zebra, will maintain their muscle even under tough conditions, whereas others, like Holstein cattle, put all their energy into milk. Wanting a beef animal that keeps its condition like a zebra, Bill and Jane looked to Fleckvieh genetics. Used for milk in Europe, the Fleckvieh is also a heavily muscled animal, with a moderate frame and a long body. "If a Fleckvieh's in trouble, it won't go skin and bones," Bill says. "It will quit milking in order to maintain body condition." Using Fleckvieh and Simbrah genetics gave them a good head start on constructing their optimal hot-weather cow.

"What we were trying to do is put an animal with milk, muscle and growth genetics on the ground in the hot areas of the world. In areas where there's weaker grass, you can still let that cow milk the first three months, and she'll pretty well keep her condition. Milk is what gets that calf on its way. And the second thing that keeps it on its way is having the genetics for growth," Bill says.

It's also critical, he says, to determine those cattle that put the muscle on efficiently. "I want to have a steer that's eating 5 1/2 pounds a day instead of 6 1/2 pounds a day for feed conversion," he says. Toward that end, Bill and Jane have been testing their bulls for the past 16 years and using only those genetics that meet their standards.

Recently the Travises put 20 of their bulls through the GeneSTAR tenderness tests. "Every single bull had one gene for tenderness," Bill reports, "and 11 of them are homozygous for tenderness. I thought that was pretty significant." They tested 21 head for marbling and Bill was able to accurately predict the performance of all but one of the bulls. Because of their data collection and analysis, Bill and Jane have a good handle on their cattle's performance and genetic potential.

In 2000, Pine Ridge Ranch received honorable mention in the NCBA productivity award competition for the Southwest Region, in recognition of the progress the Travises have made in cutting production costs with their rapid-growth cattle.

Pine Ridge Simbrah are reputation cattle, and the Travises have developed a good market, both domestically and internationally. There are a lot of Simbrah south of the border, Bill says, and Pine Ridge genetics have risen to the top. Not only was the 2003 grand champion bull at the Houston Livestock Show out of a Pine Ridge dam, so were the 2003 national champion Simbrah bull in Brazil and the 2003 national champion Simbrah female in Brazil and the 2003 national champion Simbrah female in Mexico. Clearly Pine Ridge genetics

have what it takes to catch an experienced cattleman's eye, both here and abroad.

The Travises' achievements are a testament to their determination, patience and love for the cattle. "This is a 40-year program, and the animal that we're producing did not exist back in 1981. We're not using single-trait selection, we're selecting for about 25 different traits. And we're not linebreeding to this point, so we have to have a number of different genetic bloodlines to reach our goals," Bill explains.

"So are we where we want to be? No. But we're getting a lot closer. The last harvest that Texas Tech University collected data on was 78% Choice, all Yield Grade 1s and 2s, upon reaching at least 750 pounds hanging weight at 13 months and 13 days. No creep and no hormones were used. So we're getting closer to our goal.

"We've got to increase production in all breeds," he concludes. "All breeds can do this, and many of them are doing it. In the United States in the last 20 years, there's been a major improvement in all cattle. The two areas that the productivity is going to come from are the milk and the genetic muscling. If your climate is harsh, just wean those calves early." Since every day gained in the production cycle is a wad of dollars in the producer's pocket, the genetic work done at Pine Ridge can add profitability to hot-climate operations.

The Digest salutes Bill and Jane Travis and their Pine Ridge Ranch for developing an innovative, productive and profitable operation, and for providing genetics that can help other ranchers become profitable, too.

—by Beth Signor