

The Road Ahead, the Road Behind

Progeny testing, once the only tool for structured sire evaluation, still has road to travel.

by *Steve Suther*

It wasn't easy to get carcass data back in 1988. That's when Certified Angus Beef LLC (CAB) staff began to help coordinate carcass data for the American Angus Association's structured sire evaluation program. Things have changed. And down the road, new technologies will add to the world's largest carcass database and change the way it is channeled into the system.

In the late 1990s, says Ron Bolze, former CAB director of genetic programs, some of the interest in progeny testing gave way to the advantages of ultrasound. Among those, he lists the saving of time, lower risk, data from the female side without harvesting, data from entire contemporary groups in one day and competitive merchandising advantages. However, neither means of testing was meant to replace the other.

"Progeny testing for sire evaluation is a long, slow, expensive process," says John Grande, a Martinsdale, Mont., test herd cooperator. "But I still see a lot of merit, especially for a commercial herd."

Indeed, value-based marketing of finished cattle has opened new doors for commercial producers to get and to use carcass data. In 1999, CAB's Feedlot-Licensing Program (FLP) began to offer most of the services formerly available only through its Carcass Data Collection Service (CDCS). By 2002, industry alliances and a well-established network of FLP yards made it evident that producers no longer needed a separate CAB data service, and the CDCS came to an end Oct. 1, 2002.

The Association will continue to compile carcass progeny test data submitted through Angus Herd Improvement Records (AHIR) to generate carcass expected progeny differences (EPDs), explains Bill Bowman, Association director of performance programs. Members who want to prove sires for carcass merit through progeny testing can collect data through the FLP, an alliance, marketing group or packing plant and submit the data directly to the Association.

"For producers who feed at CAB feedlots, it can be a seamless change," Bowman says. "They will still submit weaning data to Angus Herd Improvement Records and individual carcass data through the National Cattle Evaluation (NCE)."

The change will represent a shift in responsibility, as CAB coordinated more than 70% of NCE Angus progeny data collected during the last 14 years.

But, before we cross that bridge, let's look at where the road began.

In the beginning

In the early 1970s, an industry-wide performance movement gave rise to the idea of progeny testing. Structured sire testing was an Association program with official guidelines as early as 1974. The CAB Program, created in 1978, held obvious interest.

"To propagate the genetic lines capable of producing CAB-qualifying cattle, producers would need a reliable means of characterizing the relative carcass merit of sires' progeny," explains Mary Ferguson, former CAB assistant director and current seedstock producer near Luray, Kan.

The Association laid some groundwork in 1987, creating a Certified Angus Feeders program. Its purpose was to identify high-quality Angus feeder cattle and funnel them into feedlots that would do the best job of feeding them, to identify Angus bulls with superior genetics, and to collect carcass information from cattle involved in structured sire evaluation.

CAB formed a Supply Development Division in 1988 with many of the same goals as the feeder program. John Stowell was hired to head the new division. And when the director of the Certified Angus Feeder program resigned, the two programs were combined under Stowell's direction. Larry Dorsey joined the team from his base in Gallatin Gateway, Mont. His job, jointly financed by the Association and CAB, was to

line up cooperating test herds, coordinate operations and track information from sire selection through delivery of progeny to feedlots.

"The CAB Program became the catalyst for heightened interest among Angus breeders to begin widespread evaluation of sires' progeny through the feeding and slaughter phases," Ferguson says.

Dorsey left CAB in 1995, but remembers the startup days well. "John Crouch (then Association director of performance programs) had lined up some herds, and some seedstock operations came forward with test herd agreements," Dorsey says. He built on that from personal contacts and began prospecting the Association's list of registered-bull buyers.

One of the first producers Dorsey talked to was Ken Stielow of Bar S Ranch, Paradise, Kan. He ran a 300-cow commercial and registered Angus herd at the time. Now predominantly a seedstock operator with 600 cows, Stielow recalls that in the early days, his efforts contributed data on six of the first 15 sires evaluated for carcass merit.

Bar S worked with CAB longer than any other test herd, says CAB carcass data coordinator Rod Schoenbine, contributing data on 2,538 progeny over a 14-year period.

The Jones family's Penrhos Farms near Britton, S.D., was just as involved in Angus sire testing, just as early, but started by working through the artificial insemination (AI) company that is now Genex/CRI. Penrhos contributed the most carcass data through CAB, Schoenbine says, with data on 2,840 progeny over a period of 13 years.

Other leading test herds were the Evans, Pluhar and Littau Angus farms, each testing many hundreds of sire progeny.

Why they test

Dorsey attributes the interest in commercial progeny testing, among those made eligible by their AI record and animal identification (ID) system, to several factors.

“They wanted information on their cattle,” he says. “Carcass data would help as a marketing tool, or give them enough information to make retained ownership decisions. We were also trying to get feedlot performance information.”

Soon cooperators could pick from many proven bulls that people knew were on the front end of the industry, and they were excited about using them, especially at no cost.

Bolze says, “The females drove the system. New test herd operators would often ask if they could choose the reference sires to get replacement females.”

Stielow, like many test herd operators, maintained some control over which sires he tested. “Once people knew we were doing this, it wasn’t hard to get deals,” he says. “I figured out which bulls I wanted, then went to the owners and said, ‘Hey, give me the semen, and I will give you the carcass data.’”

If Grande, who runs 500 commercial Angus cows, couldn’t find deals with preferred reference sires, he’d pay for semen on the specific reference sires he wanted to use.

Not all purebred Angus producers warmed to the idea of progeny testing as fast as the test herd operators. Stielow says, “Some of them wouldn’t test their bulls back then; they didn’t want to know. If a bull was selling pretty good, why take the risk?”

Still, those who did pursue testing stood to make great strides in the long run.

The whole breed owes its success to having made the effort, Stielow says. “We sure didn’t waste those years. One, we got the data. Two, we showed the world we were interested in retail value. And three, we wouldn’t know how to compute ultrasound values if we hadn’t built this base.”

Postweaning data

The Jones family and Stielow have fed on-farm, but many test-herd operators fed at commercial feedlots or sold their cattle to order buyers or directly to the feeders. In the late 1980s, there was no tradition of information exchange between industry segments. On the contrary, the tradition of cutting out all tags upon arrival at a feedlot eliminated the hope of information gathering or exchange, Dorsey says.

“It was trickier to line up feedlot cooperators than it was cow herds,” he recalls. “But once they realized they also got the information, most of them came around.”

Some calves that sold to order buyers could not be tracked, Dorsey says. “Sometimes the buyers just didn’t care. Cow-calf producers were disappointed, and in at least a couple of cases they refused to sell to the same guy again.”

CAB’s involvement was key to getting cooperation from the packing industry, Bowman says. “CAB had access to the people and the data collection opportunities because of its relationships with packers. That was a unique advantage that opened a lot of doors for producers.”

Stowell “got the ball rolling,” Dorsey says. He worked out of CAB’s Colorado office, with some carcass data collectors who had gained experience as Colorado State University graduate students. One of them, Kelly Frank, now ranches with her husband near Kirk, Colo.

Thawing relations

“Packers could give you a pretty cold shoulder in those days, but Kelly had them eating out of her hand,” Stielow recalls. Dorsey coordinated and tracked progeny from ranch to feedlot, then Frank took over and followed them through the packing plant.

Frank remembers driving many miles on short notice, or hopping on planes to visit plants more than 400 miles away. “They

weren’t always happy to see us,” she admits, but it became easier as more plants were CAB-licensed.

Frank worked with CAB’s Brent Eichar to develop a producer-friendly format for presenting the carcass data. “One of our biggest challenges was turning the data into information that was easy to understand. Brent wrote the program that summarized the paper reports we had, so that producers could use it.” As a benchmark, results were compared to averages from the first National Beef Quality Audit.

By the time Dorsey and Frank left CAB employment in 1995, plants were beginning to set up their own carcass data collectors, and the process was becoming more routine.

In looking at the rise and fall of data collection, Schoenbine says the CAB role in coordinating progeny testing grew rapidly. It began from a few hundred head annually prior to 1990, to more than 5,000 in 1992, more than 12,000 in 1994 and nearly 20,000 head per year through the late 1990s (see Table 1).

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Table 1: CAB® acceptance rates and related data from structured sire evaluation^a

Calendar year	Total sires evaluated	Ultrasound scan rec’d ^c	Total data collected Head count	% CAB	Not sire-identified Head count	% CAB	Angus sire-identified Head count	% CAB
1989	20		458	26%	356	22%	102	37%
1990	51		1,406	30%	790	29%	616	30%
1991	334		2,516	20%	1,203	18%	1,313	22%
1992	286		5,749	25%	3,876	22%	1,873	29%
1993	188		5,291	23%	3,485	24%	1,806	22%
1994	234		12,175	21%	9,641	19%	2,534	29%
1995	321		11,331	30%	7,785	29%	3,546	33%
1996	489		19,676	22%	14,405	21%	5,271	24%
1997	541		19,359	27%	14,469	26%	4,890	31%
1998	560	5,939	16,876	28%	11,782	26%	5,094	32%
1999	680	32,745	19,662	29%	14,099	27%	5,563	33%
2000	597	52,561	15,743	25%	9,764	22%	5,979	29%
2001	417	67,281	9,860	29%	6,161	26%	3,699	34%
2002 ^b	<u>275</u>	<u>85,154</u>	<u>7,077</u>	28%	<u>4,760</u>	23%	<u>2,317</u>	37%
Totals	4,993	243,680	147,179		102,576		44,603	

^aExcept for the ultrasound data, data sent directly to the American Angus Association is not included.

^b2002 are best estimates

^cUltrasound figures are for fiscal years that begin Oct. 1; FY 1998 data began in Jan.

Certified Angus Beef® (CAB®) acceptance rates by category are plotted in the table above. Total sires tested through CAB efforts were 4,993 over 14 years, while ultrasound records show 243,680 animals entered in fewer than five years. Other columns are for total Angus sires evaluated — both new and reference sires — and detailed carcass data on the sire-identified progeny.

Except for the ultrasound data, these numbers do not include sire-identified records sent directly to the American Angus Association, which amounted to approximately 18,000 progeny over the 14 years, Schoenbine explains. “In the future, all of these records will take that direct path to the Association,” he adds.

For details on how to continue progeny testing in 2003, check the “Structured Sire Evaluation Recommendations” of the American Angus Association at www.angus.org. Any party interested in working as a test herd or in having bulls evaluated may contact the American Angus Association Performance Programs Department at (816) 383-5100 or Bill Bowman at bbowman@angus.org. CAB-licensed feedlots are prepared to assist with gathering feedlot and carcass data.

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As a result of that uptrend, “the large majority of Angus sires used most widely through AI had proven carcass EPDs based on real-world carcass data,” Ferguson says. “For the first time in the history of the beef industry, cattle producers had reliable tools with which to select and propagate cattle based upon carcass merit and value.”

New directions

Progeny test volume slumped to little more than 7,000 head in 2002. And Schoenbine expects the number to decline again next year, but he says it will turn around in time.

Grande says he will stick with progeny testing until gene markers offer more precision. “It’s nowhere near as easy as it should be to get carcass data, because most of the cattle through the plants are still commodity cattle, but it’s easier than it was.”

After 10 years of building up information on his cows, Grande wants to custom-mate

families with certain complementary needs to specific bulls, rather than make random matings.

“When we started this, we had no information on our cow herd,” he says. “Now a lot of them are AI-sired. That makes it a little trickier to do random matings and not breed a bull back to his daughters.”

Random matings haven’t been a problem for the 1,000-cow commercial Angus herd at Penrhos Farms, which regularly produces 250-head steer groups with 50%-60% CAB acceptance. “We have a lot of uniformity in the cows, especially compared to when we started in ‘87 and changed direction from the rainbow mix then,” says Owen Jones of Penrhos Farms.

Shortly after Jones began to use AI, he was approached by 21st Century Genetics, now Genex, about becoming a test herd for its Angus sires. Genex sets up the test program with Penrhos’s approval, and Jones also sets up some tests.

Over the bridge

Chad Ellingson, manager of the Genex beef sire program, applauds the Angus breed for bringing ultrasound data forward. “But it’s still of great importance to kill cattle and get actual harvest data.” He foresees a carcass data renaissance. “In a few years, as we get more electronic equipment in place, more people will go back to gathering more carcass data.

“In gathering data through feeding cattle, we can make a closer relationship between the commercial cow-calf and the feeding industry — everything isn’t just on the purebred scale,” Ellingson says.

Genex relies on very few, but excellent, Angus test herds to get data on every young sire and “breeder-proven” sire. “We put up 200 straws of semen on each new bull as they enter our lineup, to make sure they are proven in a randomly mated, structured test in large, commercial programs. That’s not just from the carcass standpoint, but how they work overall,” Ellingson says.

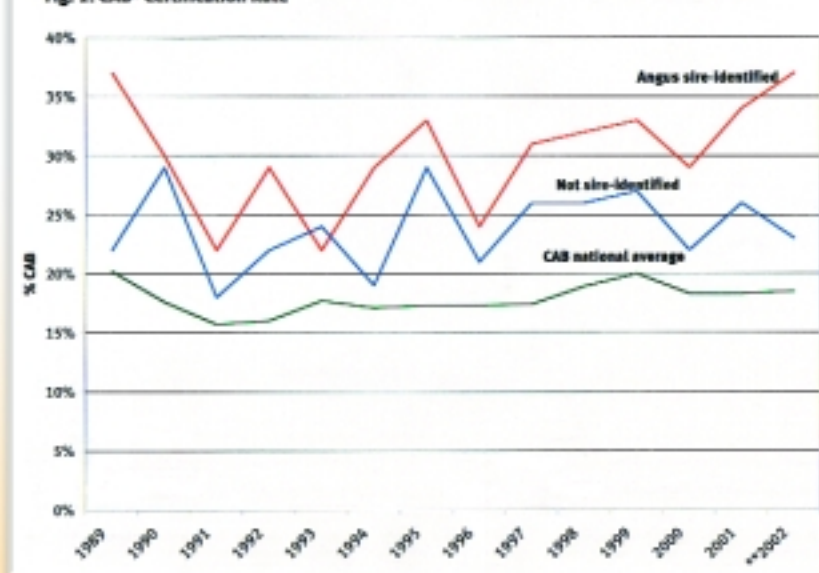
“They don’t all work out; that’s why we test,” he adds. “The real value of AI is less risk; you’re more likely to know what you’re getting before the calf hits the ground. We will continue to progeny test, so that we can sell proven products.”

Marketing changes loom for the Joneses. They have sold on a cash basis to the same packer buyer for nine years. Jones believes the price beat all grids, but that buyer may suggest a grid in order to produce the required data, or another marketing alliance may enter the picture.

Grande and Stielow have always been involved in negotiating for carcass data with packers. “They know from first contact that I need the data,” Stielow says. He and Grande may not have taken full advantage of CAB coordination options in the past, but that independence will serve them well. “It’s not whether I need my hand held — a lot of groups are trying to help producers — but if you want it done right, you have to take responsibility for it yourself,” Grande says.

“Evaluating Angus bulls for progeny carcass merit has been a long and difficult journey,” says CAB advisor Mick Colvin. As that road continues, along with the debate over how much marbling is enough, Colvin believes it will pay to aim high. “If commercial producers are given the opportunity to learn about the economic opportunities available through the use of high-marbling-EPD registered Angus bulls, I am not sure we can produce them fast enough.”

Fig. 1: CAB® Certification Rate



Fourteen years of data on *Certified Angus Beef*® (CAB®) acceptance rates among (1) all black-hided cattle in the CAB database, (2) those from progeny test herds but not sire-identified, and (3) Angus sire-identified progeny from test herds, show improvement among known Angus-sired carcass quality.

With fewer than 10 new sires evaluated in 1988, the early spike in CAB acceptance rate is misleading, explains carcass data manager Rod Schoenbine. “The 34% acceptance rate last year was more impressive, after several years of testing up to 300 new sires per year. The sire-identified acceptance rate of 37% this year may reflect a higher-quality base of sires being tested, but there were still 275 different bulls.”

The national average didn’t seem to change much, but that, too, must be considered in light of the large increase in overall numbers of black-hided cattle evaluated, Schoenbine says. “What we have accomplished may not show up on a graph yet, but Angus producers now have the tools to choose sires with confidence to improve carcass value,” he adds.

**2002 are best estimates