

BIF Honors Pioneers, Service

The Beef Improvement Federation recognizes individuals as pioneers, for service to the industry, and for their potential.

The Beef Improvement Federation (BIF) honored five individuals with the Continuing Service Award during the organization's 45th annual meeting and research symposium in Oklahoma City, Okla., June 12-15, 2013. The award recognizes those who have made significant contribution to the industry. Continuing Service Award winners have made major contributions to the BIF's past, present and future by serving on the board of directors, speaking at BIF conventions, working on the *BIF Guidelines* and other behind-the-scenes activities.

As BIF is a volunteer organization, it is the contribution of time and passion for the beef cattle industry that keeps BIF moving forward. This year's Continuing Service Award winners included:

Ben Eggers, Mexico, Mo. Name a job to be done within BIF, and in the last few years Ben Eggers has done it. He served on the BIF board of directors from 2004 to 2012, serving as president in 2011 and past president in 2012. He served as the co-chairman for the BIF symposium in Columbia, Mo., in June 2010.

Eggers joined Sydenstricker Angus in 1982. He was elected to the American Angus Association board of directors in 1998 and served as president of that board in 2006.

Sydenstricker Angus received the 1997 Certified Angus Beef LLC (CAB) Seedstock Commitment to Excellence award and the 2001 BIF Seedstock Producer of the Year award. A strong commitment

to the performance principles of BIF, Sydenstricker was an early adopter of Angus Herd Improvement Records (AHIR®) and today carefully evaluates new technologies in regard to their application to genetic improvement.

Jerry Taylor, Columbia, Mo., currently holds the position of Curators' Professor of genetics and animal sciences and Wurdack Chair of animal genomics at the University of Missouri.

Educated in Australia, Taylor found his way to the United States as an associate professor at Texas A&M in 1986. Since then he has influenced the animal genetics arena by producing a steady stream of well-trained doctoral students, as well as significant research in the arena of agri-genomics and bio-informatics. He is currently the primary investigator for a \$5 million USDA grant focused on the genetic improvement of feed efficiency.

At the BIF annual meeting, he or his graduate students have presented during general and committee sessions. Taylor continues to push the beef cattle performance industry to rethink the use of phenotypic and genetic data as the industry evaluates animals.

Jack Ward, Plattsburg, Mo., is a third-generation seedstock producer and grew up in Indiana as an active 4-H and FFA member showing cattle, sheep and pigs. He earned his associate's degree from Black Hawk East, Kewanee, Ill., and bachelor's degree from Purdue University. Prior to joining the American Hereford Association

(AHA) staff in 2003, Ward managed several prominent Angus herds in Kentucky and Indiana.

He holds the position of COO and director of breed improvement for the AHA and is spearheading the association's efforts to include genomic data in expected progeny differences (EPDs).

AHA's Whole Herd Total Performance program and National Reference Sire Program illustrate commitment to BIF principles by Ward, the AHA staff and board of directors. A proponent of performance data coupled with phenotypically correct cattle, Jack has judged livestock shows for more than 25 years in the United States, Canada and South America.

He served on the BIF board from 2006 to 2012 and participated on the National Beef Cattle Evaluation Consortium (NBCEC) advisory board.

He has received numerous awards citing his commitment to the beef industry and the training of young people for careers in agriculture.

Brian House, Select Sires vice president and beef program manager, served on the BIF board as the National Association of Animal Breeders (NAAB) representative from 2008 to 2012. NAAB is responsible for pulling together the opening night program every other year at the BIF symposium. During his board tenure, he worked with the various meeting organizers to put together memorable and education programs to kick off the BIF meetings.



► Ben Eggers (right), Sydenstricker Genetics, receives a BIF Continuing Service Award from Mark Cowan, 2012-2013 BIF president.



► Jerry Taylor (right), MU, receives a BIF Continuing Service Award from Cowan.



► Jack Ward (right), AHA, receives a BIF Continuing Service Award from Cowan.

House, a native of East Central Indiana, was raised on a diversified livestock and grain farm near the small town of Cambridge City. He loved managing and working with his family's registered Shorthorn cow herd and was very involved in 4-H as a youth.

House studied animal science at Purdue where he was active with the livestock judging team. He attended Penn State University and then worked in the industry as a custom fitter and later as the cow herd manager for Sutherland Shorthorns in Kentucky. With the encouragement of Sutherland's manager Jack Ragsdale, he applied for a position as the manager of the beef department at Select Sires in Ohio, working under the direction of Roy Wallace.

House has been an integral part of Select Sires' success over the last two decades. With Roy's passing Brian helped initiate the founding of the Roy Wallace Memorial Scholarship. Continuing to serve BIF in small ways, Brian is affectionately known as "the thumb" and makes sure the technical portions of the BIF Seedstock and Commercial Producer presentations go off each year without a hitch.

Lauren Hyde, Keenesburg, Colo., earned her master's degree and doctorate at Colorado State University (CSU), where she worked as a graduate research assistant at CSU's Center for Genetic Evaluation of Livestock (CGEL). Her experience running national cattle evaluations positioned her for the role of director of performance programs at the North American Limousin Foundation from 2000 to 2010.

Since 2010 she has been working as the genetic evaluation programming specialist for the American Simmental Association (ASA). Her role has expanded at ASA to a new position as the multi-breed international cattle evaluation lead geneticist.



► Ignacy Misztal (right), UGA, receives a BIF Pioneer Award from Cowan.



► Glenn Selk (right), OSU, receives a BIF Pioneer Award from Cowan.

Hyde served on the BIF board from 2005 to 2010. Prior to this she chaired several of the BIF subcommittees. After the BIF board went through a strategic planning process in April 2008, Hyde chaired a working group that teamed with Larry Cundiff to produce the 9th Edition of the *BIF Guidelines*.

She has also assumed leadership roles for the NCERA-199 group and also is currently a reviewer for the *Journal of Animal Science*.

Pioneer Awards

BIF honored three individuals with the Pioneer Award, which recognizes individuals who have made lasting contributions to the improvement of beef cattle, honoring those who have had a major role in acceptance of performance reporting and documentation as the primary means to make genetic change in beef cattle.

Keith Bertrand began his research career at the University of Georgia (UGA) in 1980, after completing his bachelor's degree at the University of Florida and both a master's and a doctorate at Iowa State University.

In the early days of development of genetic evaluation models, his application of the animal model and then the reduced animal model produced the EPDs that were published in the early breed association sire summaries. Not content with just producing the EPD values, numerous research projects were undertaken to test the efficacy of predicted genetic values in real-world conditions.

Reaching beyond providing the tools for genetic evaluation of livestock, Bertrand has also made an impact by training many in the Beef Improvement Federation to use and continue to enhance the technology behind these tools. The list of his former graduate students provides a virtual "Who's Who" of animal breeding and genetics.

Contributions as a speaker at past BIF meetings, as well as BIF-sponsored genetic improvement workshops, challenged providers and users of this data to be vigilant about collecting and using well-edited data, the proper use of contemporary groups and the analysis nonrandom components of the data.

A presentation at the fourth Genetic

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► Brian House (right), Select Sires, receives a BIF Continuing Service Award from Cowan.



► Lauren Hyde (right), ASA, receives a BIF Continuing Service Award from Cowan.



► Keith Bertrand (right), UGA, receives a BIF Pioneer Award from Cowan.

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Prediction Workshop in 1994 discussed the value of more frequent genetic evaluations as a means of increasing the credibility of the NCE process and data, very prophetic words regarding a topic that still presents a challenge to the industry today.

Ignacy Misztal received his doctorate from the Poland Academy of Sciences in computer engineering. However, his desire was to apply his knowledge of computing to the field of agriculture. In 1986, he came to the University of Illinois as a postdoctoral associate working with Dan Gianola. In 1995, he accepted a faculty position at UGA and is now a professor in the Animal and Dairy Science Department.

Misztal's research on computing algorithms has led to the development of unique tools to analyze complex models and large livestock data sets. In 1997, he began development of a suite of software programs, BLUPF90, that could be used by scientists conducting research in the field of animal breeding and genetics. This set of programs can be used to predict genetic values on virtually any size population for a large variety of models and traits.

Because of the ability of Misztal's lab to provide efficient computing implementations for complex methodologies, his research and programs have been utilized for genetic evaluation by the biggest entities/companies in the United States and beyond. His research has been implemented in both dairy and beef cattle, as well as in the swine and poultry industries.

Currently, Misztal's focus is on the development of a "unified" methodology that combines pedigree and genomic

relationships plus all phenotypic data in a single step. This methodology has been termed the "single-step method" and provides a practical approach to combining large amounts of SNP markers with large numbers of pedigree and phenotypic data.

Glenn Selk has been a valued component of Oklahoma beef cattle extension since his days as an area extension specialist in northeast Oklahoma from 1973-1980. After completing his doctorate at Oklahoma State University (OSU) in 1986 he joined the OSU Animal Science faculty as the extension animal reproduction specialist.

Selk has received numerous awards throughout his career, including the Extension Award presented in 2005 by the Southern Section of the American Society of Animal Science (ASAS) and multiple extension programming and faculty awards.

As a frequent contributor to *Drover's Cattle Network* and many state extension publications, most cattle producers have become familiar with Selk's "Cow-Calf Corner" words of wisdom that give the producer both practical management tips, as well as challenges to rethink or re-evaluate current management practices. Topics from basic recordkeeping to herd health to cow herd economics have been presented in a producer-friendly manner — both in print and more recently in short video clips. He has delivered more than 1,500 radio broadcasts, 500 TV shows and 930 live presentations; and he has written more than 100 fact sheets.

He retired from the Oklahoma Extension Service in June 2010, though he still contributes animal sciences issues to

the "Cow-Calf Corner" column and other publications.

Ambassador

BIF posthumously honored A.J. Smith of *Oklahoma Cowman* magazine with its Ambassador Award. This award is given annually to a member of the media for his or her efforts in spreading news of BIF and its principles to a larger audience. Smith was represented by his wife, Debra.

Smith began his storied career in 1985 as editor of the *Oklahoma Cowman*, the official publication of the Oklahoma Cattleman's Association. He built the magazine into a nationally recognized publication. During his tenure, he wrote 295 editorials and countless feature stories, took thousands of photographs, planned numerous ranch tours and traveled the country providing ring service.

Raised in Oklahoma, Smith and his father managed a herd of polled Hereford cows on the family farm north of Lone Wolf, Okla. He accepted the position of Harmon County 4-H agent in 1983. He moved his family to Gould, where he lived and worked for the next 2½ years as field representative and editor for *Better Beef Business*, as field representative for *Gulf Coast Cattleman* and *Weekly Livestock Reporter*, and agricultural educator for the Oklahoma Cooperative Extension Service.

His contributions to the beef cattle industry in Oklahoma are widely recognized, and he was awarded the Oklahoma State University (OSU) Animal Science Graduate of Distinction award, as well as being inducted into the Oklahoma Angus Hall of Fame.



► The Roy A. Wallace Memorial Scholarship was awarded to Loni Woolley, Texas Tech University, graduate winner, and Tyler Schultz, K-State, undergraduate winner. Pictured are (from left) Mark Cowan, Woolley, and Schultz.



► Erika Downey (center, left), Texas A&M University, and Heather Bradford (center, right), K-State, receive Frank Baker Memorial Scholarship awards. Presenting the awards are Mark Cowan (left) and Robert Williams, American Inter-national Charolais Association. To see their research papers, visit the Awards page at www.BIFconference.com.

Smith will be long remembered by Oklahoma cattlemen as a man of optimism, wisdom and humility. As a testament to his impact on Oklahoma agriculture, a memorial scholarship was set up at OSU dedicated to helping animal science and ag communication students develop the skills to effectively communicate about agriculture.

Student winners

Receiving the Roy A. Wallace Memorial

Scholarship were Loni Woolley, Texas Tech University, graduate winner, and Tyler Schultz, K-State, undergraduate winner.

Erika Downey, Texas A&M University, and Heather Bradford, K-State, received Frank Baker Memorial Scholarship awards. Their research papers are available online on the Awards page at www.BIFconference.com.

This year's graduate student travel scholarship recipients included Justin Buchanan, Oklahoma State University;

Erika Downey, Texas A&M University; Melinda Ellison, University of Wyoming; Jose Antonio Torres-Vazquez, University of Nebraska-Lincoln; Bryan Welly, University of California-Davis; Jian Zeng, Iowa State University; and Xi Zeng, Colorado State University.

For more information about the BIF symposium and those honored, visit www.BIFconference.com.



Strategies for Beef Improvement

2013 BIF symposium focuses on breeding strategies, cow herd efficiency.

by Shauna Rose Hermel

Nearly 500 cattlemen, academia and industry representatives gathered at the Renaissance Hotel and Convention Center in Oklahoma City, Okla., June 12-15 for the 45th Annual BIF Research Symposium and Convention. Oklahoma State University (OSU), in collaboration with the Beef Improvement Federation (BIF) hosted the event, which was themed "Where Profit and Progress Intersect."

This year's program brought together industry professionals, producers and researchers to discuss current issues facing the beef industry. Among those issues, speakers discussed using crossbreeding and straight-breeding as strategies for commercial cattlemen. They also discussed genetic tools to address environmental challenges and cow herd efficiency.

Special features of the event included an Oklahoma welcome reception, an opening symposium hosted by the National Association of Animal Breeders (NAAB), and a night out at the National Western Heritage Museum and Cowboy Hall of Fame.

Participants who stayed for Saturday had the option to attend a northern tour featuring the Oklahoma State Food & Agriculture Products Center and Oklahoma State Willard Sparks Beef Research Center, both at Stillwater; M&M Charolais, Perry; Pollard Angus, Enid; and Chain Ranch, Canton. Others attended the southern tour, which visited the historic Oklahoma City Stockyards; Raber's Saddlery, Colgate; the Noble Foundation, Ardmore; and Stuart Ranch, Waurika.

The *Angus Journal* editorial team coordinates an online event coverage site for the BIF Symposium. www.BIFconference.com is sponsored by LiveAuctions.tv, which provided live streaming video of the meeting, as well as video and audio for archiving. Visit the site's Newsroom for summaries, PowerPoint presentations, proceedings papers, audio and additional references provided by speakers. Visit the Awards page for announcements and photos of winners of awards and scholarships presented during the event. The Photos page features photo galleries from the meeting and post-symposium tours.

For more information about the event,



PHOTO BY TROY SMITH

► Attendees of Saturday's northern tour look over the feeding system at the Willard Sparks Beef Research Center, Stillwater, Okla.

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About BIF

The Beef Improvement Federation (BIF) is an organization dedicated to coordinating all segments of the beef industry — from researchers and producers to retailers — in an effort to improve the efficiency, profitability and sustainability of beef production. The organization was initiated almost 70 years ago to encourage the use of objective measurements to evaluate beef cattle. Continuing the tradition, BIF is now the clearinghouse for developing standardized programs and methodologies for recording of performance data for all traits, from birth weights to carcass traits. Its three-leaf-clover logo symbolizes the link between industry, extension and research.

For more information about the organization, visit www.beefimprovement.org.



The Great Debate

Crossbreeding vs. straight-breeding: Symposium speakers debate which breeding system offers more benefits.

by Kasey Brown, Lynsey Meharg & Troy Smith

Charged with highlighting the effects of the deemphasized decision-making process behind breeding decisions at the commercial level, Western Kentucky University faculty member Nevil Speer opened the 45th Annual Beef Improvement Federation (BIF) Research Symposium and Convention in Oklahoma City June 12-15.

Speer began by introducing a white paper he wrote on executing the selection process regarding genetic inputs within the commercial cow-calf sector. Upon receiving an email from a producer concerned that cattlemen were beginning to confuse consumers, he began analyzing how producers market their product. What he found is something many producers already understand: Straight-breeding can provide a simplified way to genetically reach consumer targets, and premiums available in the industry can make that a profitable option.

“There’s a lot of diverse types of priorities in this business,” Speer said. “What concerns me is that we’re trying to make this industry one-size-fits-all.”

Speer continued by urging producers to be strategic about their decisions and to consider their options before deciding one way or the other, advising producers to take an indirect route and view the broader picture.

“We’ve gotten better at making them bigger,” Speer said, citing larger weaning and yearling weights. He added that as cow herds have consolidated, they have grown in size. “However, if you look at the year-by-year decline, the Number 1 reason for the decline is the culling of cows by producers. If you look at the producers who are staying in the business, there is an 18% heifer retention rate.”

Speer stated that fertility is no more important than other traits that influence longevity when it comes to influencing net present value, and that a well-designed crossbreeding system can be valuable to producers.

However, producers should also take an interest in value-based marketing, such as branded beef programs.



PHOTO BY KASEY BROWN

► A crossbreeding program gives higher productivity, potentially lower cost of production and more-average value creation, Tom Brink summarized. A straight-breeding program gives lower production, potentially higher production costs, well-above-average value creation and higher revenue per cow.

“The reality is that branded beef programs have had an impact,” said Speer. “We’ve increased and improved marbling prevalence in U.S. cattle. We have improved the quality grade dramatically.”

Speer urged producers to consider not just direct cost within their operations but to also consider indirect costs and how they factor into an operation’s economic efficiency.

“The dynamics of this business are changing rapidly,” said Speer.

Feeder perspective

“I’m a friend to any producer who has a reasonable breeding plan and sticks to it, whether it is a crossbreeding plan or a straight-breeding plan,” said Tom Brink, president of JBS Five Rivers Cattle Feeding, as he explained breeding programs from the cattle feeder’s perspective.

Cattle bred without a plan for quality are a cattle feeder’s biggest problem, Brink said, adding that 70%-80% of all packer profits come from value-added beef premiums.

Commodity beef is essentially a breakeven exercise.

“It is working just to work,” Brink said.

Profits come from cattle that grade USDA Choice or better, Brink explained, adding that Five Rivers makes zero profits from cattle that grade Select. Unfortunately, he said, there are too many average or below-average cattle in the industry.

“We don’t need crossbreeding just for the sake of crossbreeding,” he said. Breeding plans that work well in the feedlot, he said, include:

- planned crossbreeding using complementary breeds;
- disciplined use of purebred or hybrid bulls on a planned crossbred program; or
- well-planned and well-executed straight-breeding using Angus (or even Red Angus) that targets very high-value calves that grow and grid well.

Citing feedlot data from JBS, the total economic advantage for top-performing

cattle is an additional \$219 dollars per head above average, Brink shared. “That, folks, is a game changer. We will pay producers more for those cattle.”

When the numbers are crunched, he noted, “The economics are a lot closer for crossbreeding and straight-breeding programs than we think.”

Simply put, he said, a crossbreeding program gives higher productivity (with hybrid vigor), potentially lower cost of production and more-average value creation. A straight-breeding program gives lower production, potentially higher production costs, well-above-average value creation and higher revenue per cow.

Which is better for your operation? There is no simple answer, said Brink. It just depends on your situation.

Seeking complementarity

No single breed is best-suited to every production system, every environment or every cattle breeder’s production goals. Crossbreeding can exploit the significant differences in the relative performance of various breeds for economically important traits, a pair of beef genetics specialists reminded attendees.

Delivering a tag-team presentation, Matt Spangler of the University of Nebraska and Bob Weaber of Kansas State University emphasized that crossbreeding systems must be structured. To achieve desired goals, producers must have a plan.

Spangler said crossbreeding has long been applied to take advantage of breed complementarity and to blend the strengths of different breeds used. However, no longer do traditional paradigms apply for characterizing British vs. Continental breeds with regard to age at maturity, mature size and carcass characteristics.

“In some cases, complementarity has eroded. That doesn’t mean heterosis has eroded,” stated Spangler, explaining that heterosis generates the greatest improvement in lowly heritable traits, such as reproduction and longevity, which respond slowly to genetic selection.

“A very real advantage exists in the crossbred cow. Her increased longevity and lifetime production can drive an awful lot of value,” Spangler added, noting how the value of increased productivity of the crossbred cow, to a weaning end point, is estimated to be \$150 per cow-calf pair per year.

Weaber agreed that the positive effects of dam heterosis on economic measures of production can be significant. He said profit should be the metric for evaluating

any breeding system, rather than relying on revenue or premiums as indicators of success.

“Mating systems using individual and maternal heterosis often prove to be the economically efficient,” said Weaber. “Economic efficiency is what sustains businesses.”

The specialist said cow biological type can be matched to a given production environment and calves to the marketplace through planned sire selection. Phenotypic variation among calves can be minimized through careful consideration of traits like color, use of breed complementarity and use of an appropriate mating system.

Others weigh in

Speer, Brink, Weaber and Spangler joined other beef industry professionals, producers and researchers on a panel sharing their respective views on how the choice of breeding program impacts consumer satisfaction.

Norlyn Tipton, spokesman for Sysco (a distributor of food products to restaurants, healthcare facilities and educational facilities), said patrons of high-end steak houses demand high-quality beef, but they prefer smaller portion sizes than in the past. Increasingly, they want to know where the beef was produced, and they question the use of certain feed additives.

According to Tipton, Sysco provides steak houses with dry-aged beef sourced from cattle representing three breeds: Angus (primarily *Certified Angus Beef*[®] (CAB[®]), Wagyu-Angus cross, and Hereford.

Operating in northwestern Oklahoma and southwestern Kansas, Chain Ranch seeks production efficiency through a crossbreeding program based on four breeds. Cattle manager Newly Hutchinson said recovery of harvest data shows the calves grade well for quality, achieving 90% USDA Choice or better over the last two years. He said buyers discriminate against red calves, even though they represent the same genetics as their black herdmates.

Speaking from a cattle feeder’s point of view, Oklahoman Chris Hitch acknowledged that the market favors Angus influence, or the perception thereof, as a standard of high quality. He questioned whether it is truly justified.

“Prime is Prime is Prime,” emphasized

Hitch, saying breed or combination of breeds really shouldn’t matter. He said he is sure consumers think “Angus” is a brand, and they don’t realize it’s a breed of cattle.

“I don’t think they know the difference,” added Hitch. “[To consumers], it doesn’t matter if cattle are black, brown or white.”

Missouri commercial Angus producer Mike Kasten explained how 25 years of carcass evaluation and its application to genetic selection has helped him pursue market premiums based on beef quality. He said high-accuracy, genomic-enhanced

EPDs now aid selection and use of proven sires through artificial insemination (AI). Kasten said capturing premiums for quality has kept his straightbred operation profitable.

Brink acknowledged that straightbred programs do give up some production efficiencies afforded by well-planned crossbreeding. However, he said, it may be worth sacrificing some efficiency to claim

premiums offered by branded beef programs.

“If you can add enough value with straightbreds,” noted Brink, “it may put you on equal footing (profitwise) with the more efficient crossbred operation.”

Weaber said there is opportunity to capture premiums while achieving the production efficiencies of crossbreeding. High-ranking bulls representing breeds other than Angus can also be used in planned crossbreeding strategies to target calves that meet branded program specifications for hide color and quality grade.

Referring to results from the most recent National Beef Quality Audit (NBQA), Oklahoma State University meat scientist Deborah VanOverbeke said retail and restaurant claim customer eating satisfaction is based on beef flavor and tenderness. She suspects many consumers share her opinion about the genetics used in producing beef.

“It has to eat good,” stated VanOverbeke. “As long as we end up with a product that consumers are satisfied with, I don’t really care how we get there.”

The economics are a lot closer for crossbreeding and straight-breeding programs than we think.”

— Tom Brink



Editor’s Note: For comprehensive coverage of the 2013 Beef Improvement Federation Research Symposium and Convention, visit www.BIFconference.com.