Forget the Fancy

Plan breeding program for the long term, optimizing efficiency.

*by **Kasey Brown,** associate editor, & **Troy Smith,** field editor*

At a conference where genetic and management practices are thoroughly discussed, Dave Daley, California State University–Chico, told the audience of the 45th Annual Beef Improvement Federation Research Symposium and Convention that the most important trait to the cattle industry is profit. Cattlemen can talk about genetic advances as much as they want, he said, but the most important part to a commercial cattleman is staying in business.

"I don't think you need to talk about crossbreeding anymore. I really don't. I don't think we're changing minds. I think you, the individual producer in your environment, need to think about planning your genetic program for the long term, not switching here and there," he asserted.

Commercial producers expect seedstock producers to provide the genetics that are needed. Commercial cattlemen don't have a lot of time to sort through genetics, said Daley, who is associate dean of the university, as well as a commercial cattleman. "You (seedstock producers) provide the genetics and genomic tools so we can use them to stay in business."

We all look at things from our own window; our focus is from what we knew growing up, he said. This explains some of the continuing straight-breeding vs. crossbreeding debate. Daley advised looking at things with a broader scale.

In many commercial instances, the environment directly affects which kind of breeding plan is used. Daley said none of us truly grasps how dramatic environmental factors are.

Heterosis is not just breeding to be better than the parents, he said, though often people mistakenly think it does. It produces progeny that are compared to the average of both parents. For instance, if you breed a Holstein to a Hereford, you wouldn't expect the progeny to produce more milk than the Holstein.

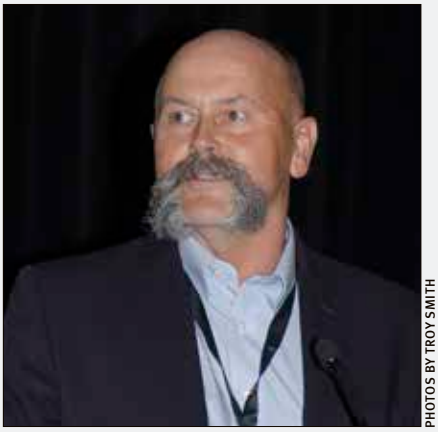
If you use crossbreeding, use it with realistic expectations in mind, he recommended.

"Think about where you are now and where you want to be in 10 years. To be honest, that is the easiest thing that I do. I have to focus on things that make a huge difference to me, and genetics is the fun part. Honestly, with all the tools out there, that's the easy stuff. We better start thinking about all these other issues that are going to impact what we do, and you need to start spending the same amount of energy toward those as you do genetics.

"Don't always keep your eyes closed, always be open to new things, and look at opportunities," he concluded.

Focus on production efficiency

When choosing and implementing a breeding system, University of Nebraska geneticist Merlyn Nielsen said cow-calf producers are wise to think broadly. Nielsen urged the audience to consider the needs of the industry as a whole. All segments need a chance to stay in business and prosper.



PHOTOS BY TROY SMITH

►"I think you, the individual producer in your environment, need to think about planning your genetic program for the long term, not switching here and there," said Dave Daley.

►"It really is a balancing act," stated Merlyn Nielsen. "Wise choices improve efficiency. Poor choices hurt efficiency."

Nielsen said the choices producers make regarding breeds and breeding systems amount to a balancing act. Options include utilizing a single breed or some crossbreeding system involving two or more breeds. The advantage of crossbreeding is the opportunity to capture the benefits of heterosis.

Nielsen said producers must consider the characteristics that play key roles in production efficiency. Those include fertility, calf survival, growth rate, marbling, fatness and feed intake for maintenance. Heterosis, he added, stands out as an important contributor to key characteristics — particularly reproduction and calf survival.

"Variation between breeds for key characteristics is available," stated Nielsen, "and variation is good."

Nielsen reminded his audience that relative importance of key characteristics vary among producers, and their importance can change over time. In a terminal crossbreeding system, for example, breeders focus on the sire's contribution to growth and carcass characteristics. Reproductive characteristics of his daughters are of no concern since they are not saved as herd replacements. When daughters are retained and the focus is on maternal characteristics, feed cost for maintenance also becomes more important.

"Remember that important characteristics determine the choice of breeding system. It really is a balancing act," stated Nielsen. "Wise choices improve efficiency. Poor choices hurt efficiency."

The debate over crossbreeding vs. straight-breeding took center stage in the first session of the 2013 BIF Research Symposium and Convention. We shared highlights of some of the speakers in the August 2013 issue. Daley and Nielsen finished out the session. For access to the PowerPoints and proceedings papers these speakers presented and/or to listen to their presentations firsthand, visit the newsroom at *www.bifconference.com,* the *Angus Journal's* event coverage site for the annual BIF symposium. Coverage of the event is made possible through collaboration with BIF and sponsorship of *LiveAuctions.tv.*

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