

For Immediate Release
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Expected Progeny Difference (EPD) Considerations For Crossbred Cows

Every cattleman is now aware of Expected Progeny Differences (EPDs). In general the industry observation is that commercial cow-calf folks are familiar with how to use EPDs. The fact is that many commercial producers understand the genetic and financial impacts of EPDs even better than those who claim to be in the seedstock sector. And, they use EPDs to make every “bull buying” decision. If you are not yet a believer, just remember that EPDs are the best tool we have for evaluating genetic potential and are many times more accurate than adjusted weights and ratios. The professional cattle producer lives and dies genetic selection through a thorough and complete understanding of EPDs.

However, if you are a commercial producer who has decided on additionally utilizing the extreme advantages of a sound crossbreeding system, then evaluating EPDs becomes a little more difficult. Let’s assume your cowherd is straight-bred commercial Brangus and you have consistently bought yearling Brangus bulls that are average in EPD for weaning weight (WW). From the latest Brangus evaluation we know average WW EPD is +24 pounds for nonparent bulls. *(For simplicity we will only look at the trait of weaning weight although the exercise would be identical to evaluate other traits of interest.)*

Let’s further assume you have decided to implement a Hereford X Brangus rotational crossbreeding system. Genetic selection is still very important as you could buy the wrong Hereford bull to turn with your cow herd. You would still get heterosis, but you might have less weaning weight to sell in those Hereford X Brangus calves if the genetic potential for WW EPD was not as good as those of the Brangus bulls you have previously purchased.

The table below contains 2014 adjustment factors to compare EPDs of Individuals of different breeds. It is based on genetic studies done at the USDA Meat Animal Research Center (MARC), Clay Center, NE and is found on the Texas A&M University WEB <http://beef.tamu.edu>. This is an abbreviated version containing the nine breeds most used in the beef industry and for only the growth trait EPDs and milk EPD. All breeds are adjusted to an Angus base and therefore Angus becomes zero (0) for all traits.

BREED	BW	WW	YW	MK
ANGUS	0	0	0	0
BRAHMAN	+11.0	+45	+10	+24
BRANGUS	+4.4	+15	+5	+2
CHAROLAIS	+8.8	+38	+41	+7
GELBVIEH	+3.4	-19	-25	+3
HEREFORD	+2.7	-4	-24	-18
LIMOUSIN	+3.8	-1	-39	-7
RED ANGUS	+4.1	-22	-30	+2
SIMMENTAL	+3.4	-6	-14	0

This table contains adjustment factors to compare EPDs of **individuals** of different breeds.

These factors should be added to an individual bull's EPD for direct comparison to the EPD of a bull of a different breed. For instance, consider an Angus bull with a WW EPD of +50 and a Charolais bull with a WW EPD of +25. From the table, the Charolais WW EPD adjustment factor is +38, so the adjusted WW value for the Charolais bull is 63 (25 + 38); which is 13 pounds heavier than that Angus bull's WW EPD of +50. Note that the Angus EPD is not adjusted since Angus is the base for comparison in this table. Another comparison might be a Gelbvieh bull with a Milk EPD of +23 to a Hereford bull with a Milk EPD of +23. Again from the table, the Gelbvieh Milk EPD adjustment factor is +3 and the Hereford adjustment factor is

a -18. Therefore the adjusted Milk EPD for the Gelbvieh bull is a +26 (23 + 3) and the adjusted Milk EPD for the Hereford bull is +5 (23 - 18); or the Gelbvieh bull has an adjusted Milk EPD 21 pounds greater than the Hereford bull.

Let's go back to our scenario of buying a Hereford bull with a WW EPD genetically equivalent to that of the Brangus bulls we have been buying which has been +24. Since the Brangus WW EPD adjustment factor from the table is +15, those bulls have had an adjusted WW EPD of +39 (24 + 15). You would need to find a Hereford bull with a WW EPD of +43 to have a WW EPD equal to those Brangus bulls. From the table, a Hereford bull with a WW EPD of +43 would have an adjusted WW EPD of +39 (43 - 4). Those Hereford X Brangus calves resulting from using the Hereford bull with a WW EPD of +43 on cows that have a pedigree history of Brangus sires with a WW EPD of +24 would be genetically equal. However the heterosis obtained would further increase the weaning weight of your Hereford X Brangus calves over straight-bred Brangus. And, the real benefit is the maternal heterosis you have when those Hereford X Brangus crossbred females become cows. Regardless of breeds you choose for your planned crossbreeding program, this table has value in allowing you to evaluate EPDs for any of the breeds described for those traits listed.

Please set aside the date of **Saturday, February 28, 2015** to be in Fair Play, SC for the **SPITZER RANCH PROFESSIONAL CATTLEMEN'S BULL SALE (Sale starts at 1:00 PM EST.)** The Spitzers have made it their business model to provide performance tested Brangus bulls with the kind of genetic value to create profitable Brangus Commercial Cows. They believe in and strongly recommend crossbreeding as the pathway to profitable commercial beef production. They publish both **SUMMER** and **WINTER NEWSLETTERS** jam packed with useful information as well as their Bull Sale Catalog in early February. If you wish your name

added to their mailing list call 864/972-9140, write SPITZER RANCH, 1511 HWY 59, Fair Play, SC, 29643 or send an email note to spitzeranch@mindspring.com. Be certain to visit their WEB SITE at www.srbulls.com where you can study their philosophy of serving the commercial cattle industry and view catalogs from previous years Bull Sales. There is currently a “preview video” of some of their young bulls being developed for the 2015 sale. They would also invite you to join the almost 1250 individuals who have “LIKED” the Spitzer Ranch Facebook Page and follow their QUOTE OF THE WEEK.

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