



# By the Numbers

► by Association staff

## \$W: More bankable dollars at weaning

Most every cow-calf producer would like to generate additional dollars at weaning time. Not just more gross revenue, but more bottom-line dollars they can keep in their pockets. Revenue minus expenses equals profit, of course. A bigger net income is what commercial cow-calf raisers are seeking to help secure their livelihood and future.

**Table 1: Productivity comparison between high- and low-\$W Angus dams**

Dam's \$W	Dam's avg. \$W	No. calves born	Dam's avg. \$EN	Bull calf		Sire's avg.	
				Act. BW	Adj. WW	BW EPD	WW EPD
≥ 20	\$23.05	24,492	\$10.90	82	652	2	40
< 20	\$16.45	21,489	\$16.28	83	622	2	40
<b>Difference</b>	<b>\$6.60</b>		<b>(\$5.38)</b>	<b>-1</b>	<b>30</b>	<b>0</b>	<b>0</b>

**Table 2: State-by-state comparison of bull calf weaning weights and resulting net income from high- vs. low-\$W dams**

State	Avg. bull calf 205-day wt.		Wt. diff.	Net income diff. <sup>c</sup>
	High-\$W dams <sup>a</sup>	Low-\$W dams <sup>b</sup>		
AL	632	590	42	\$36.34
AR	606	580	26	\$18.65
CA	671	647	24	\$20.07
CO	647	614	34	\$28.52
GA	617	582	35	\$30.11
IA	655	629	26	\$19.60
ID	651	628	23	\$18.75
IL	677	657	20	\$14.40
KS	640	619	21	\$16.26
KY	619	593	25	\$19.20
MN	649	639	10	\$ 4.80
MO	637	604	33	\$26.35
MS	619	595	25	\$19.00
MT	665	642	23	\$18.84
NC	624	595	30	\$24.51
ND	676	652	25	\$19.90
NE	652	623	29	\$24.02
OH	652	620	32	\$26.84
OK	650	612	38	\$32.27
OR	679	661	18	\$13.56
SD	680	643	37	\$31.75
TN	646	622	25	\$19.62
TX	632	599	33	\$26.06
VA	623	579	44	\$39.16
WA	684	660	25	\$18.17
WI	672	620	52	\$44.31
WV	634	606	28	\$23.07
WY	671	638	32	\$27.55
<b>Avg.</b>	<b>649</b>	<b>620</b>	<b>29</b>	<b>\$23.63</b>

<sup>a</sup>\$W ≥ \$20. <sup>b</sup>\$W < \$20. <sup>c</sup>Per cow-calf pair.

## Commercial bull-buying tool

Times in the beef cow business have become increasingly difficult during the past two years. Calf prices have declined, and production costs are rising rapidly. Yet there is a tool Angus breeders and their customers can use to target greater cow-calf profitability at weaning.

With the commercial bull buyer in mind, the American Angus Association's weaned calf value (\$W) was designed specifically for this purpose. \$W is a bioeconomic index representing the expected average value difference in future progeny performance for preweaning merit. It is expressed in dollars per head. \$W includes both revenue and cost adjustments associated with differences in birth weight, weaning direct growth, maternal milk and mature cow size.

The average \$W on current Angus sires in the Spring 2009 *Sire Evaluation Report* is \$23.53. Top-quartile sires exceed \$26.87, while the lowest quartile ranges from \$20.53 downward.

\$W is coming into its own and gaining greater recognition and use. More breeders pay attention to \$W in their selection decisions compared to several years ago when this index was introduced.

If bull customers raise their own replacement females and also market 50% or more of their calves at weaning, \$W should get strong consideration as artificial insemination (AI) sires and herd bulls are matched up with the cow herd.

## Building more \$W into a cow herd

So what happens if you build more \$W into a cow herd? Will profitability at weaning actually improve? To answer these questions, we can look at real-world cattle performance records from the American Angus Association's database. We'll compare higher- vs. lower-\$W cows that were bred to sires with similar expected progeny differences (EPDs), then see how many dollars each group generates when their bull calves are valued at weaning. All females used in this analysis are 3 years old and older. Calves were born in 2003 and 2004.

Table 1 presents this comparison between dams with \$W values equal to or greater than \$20 vs. dams below \$20 for \$W. The average \$W difference between the two groups is \$6.60 (\$23.05 vs. \$16.45). To make the

comparison as fair as possible, sires used on both groups of cows were selected from within a fixed EPD range, yielding exactly the same sire average BW and WW EPDs. Therefore, we can say with confidence that the sire side of this comparison has no differentiating effect on calf weaning weights.

Proof is in the production, and the high-\$W dams weaned bull calves that were on average 30 pounds (lb.) heavier than the low-\$W dams. At a calf selling price of \$100 per hundredweight (cwt.), this weaning weight difference on a six-weight animal of any sex (bull, steer or heifer) translates into a \$30-dollar-per-head-larger calf check. That's a good start and a strong statement for productivity of the high-\$W females.

Next we bring in production cost differences by subtracting the difference in \$EN, which is \$5.38 per head in favor of the lower-\$W cows to arrive at a net difference in weaned calf profitability. The higher-\$W cows do cost more to maintain, but their net income advantage in this real-world comparison is still handsomely positive at +\$24.62 per head ( $\$30.00 - \$5.38 = \$24.62$ ). In a typical 100-cow commercial herd, the higher-\$W cows yield an annual profitability advantage of \$2,462 (100 cows  $\times$  \$24.62 per cow).

The point of this comparison is to demonstrate that \$W really can be used to increase bottom-line results for those who sell calves at weaning. By consistently using registered Angus sires with high-\$W values (while also keeping an eye on other important individual EPDs and other \$Values the producer may choose to emphasize), your genetics will have what it takes to excel in today's economically difficult times.

Table 2 presents a state-by-state summary of high- vs. low-\$W dams. \$W does its job well — anywhere in the United States. When bred to sires with equal genetic merit, high-\$W dams wean bigger calves and generate more net income in all of the states. Each of these states had at least 300 total cows in the comparison.

\$W is a powerful tool that can be used to enhance cow-calf profitability. Registered breeders who pay attention to \$W in their mating decisions are thinking of their customers' well-being, which is good for everyone involved. Match milk EPDs and \$EN to your environment, then push for high levels of \$W to create productive females that will get the job done, while staying within the feed resources you have available.

