



Does Sorting Increase the Bottom Line?

By Darrell Busby, Beef Field Specialist, Iowa State University Extension

Does sorting increase revenue of cattle sorted for a grid market? Bud Beedle's master's project utilized 14,454 steers and 6,179 heifers marketed by the TCSCF cooperative in 2006, 2007 and 2008. Each lot of TCSCF cattle was sorted at least once using three people to determine first harvest or second harvest. Information used during the sorting process included weight of the individual animal, visual observation and manual rib palpation for fat cover, gain since re-implant weight and frame score. Cattle weighing less than 950 lbs., even though they may be fat, are usually fed an additional 35 days or 100 lbs. of gain to avoid severe discounts for carcasses under 550 lbs. Cattle weighing more than 1400 lbs. are harvested on the first harvest to avoid the severe discount for carcasses over 950 lbs.

TCSCF cattle were compared to national average figures from USDA/AMS during the month to see if differences existed. The table below shows the differences.

Year	TCSCF % YG 1, 2 & 3	National Summary % YG 1,2 & 3	% Point Improvement	TCSCF % Choice or better	National Summary % Choice or better	% Point Improvement
2006	98.16%	90.97%	7.19	73.32%	59.13%	14.19
2007	98.30%	88.31%	9.99	61.15%	60.59%	0.56
2008	96.70%	89.88%	6.82	55.82%	64.14%	-8.32

The yield grade improvements were consistent; however, the decline in % Choice was disappointing. Two main factors that impacted the decline in % Choice were the increase in new consignors whose cattle did not grade as well as long time consignors and the introduction of instrument grading. Instrument grading has lowered % Choice by 5% compared to cattle from the same consignors with similar fat cover. Factors that have not changed during the three year period are implant strategy and energy density of the ration. Factors that have changed but are difficult to quantify are genetics and weather.

Now back to the sorting analysis. The TCSCF sorting routine we have developed also reduces the number of carcasses receiving heavy and light weight discounts. The table below shows the value per head for the differences in Yield Grade, Quality Grade and Carcass Weight Consistency.

Group	Yield Grade Improvement	Quality Grade Improvement	Carcass Weight Improvement	Total Improvement per Head	Total Improvement per Lot
Heifers 1 st Sort	\$10.44	\$2.67	\$5.53	\$18.64	\$1,007
Heifers 2 nd Sort	\$5.18	\$1.12	\$5.11	\$11.41	\$445
Steers 1 st Sort	\$10.30	\$-1.69	\$5.36	\$13.97	\$1,299
Steers 2 nd Sort	\$13.30	\$-2.62	\$4.82	\$15.50	\$1,271

The added cost to sorting is the labor and facility costs which, based on feedlot size, ranges from \$1.20/head for a 500 head feedlot to \$.74/head for a 1,500 head feedlot. We are accurate on our sort 84% of the time for steers and 80% of the time for heifers. Not correctly estimating fat cover is the main reason for inaccuracies in sorting.

The complete growth and carcass data cost is \$9/head and the cost of sorting is approximately \$1/head which you are paying in yardage and/or chute charges but receiving from \$11.41 to \$18.64/head in additional revenue based on how we sort the cattle, not to mention lower feed cost/cwt. of gain because of not over feeding cattle. Many of you have shared added benefits to receiving TCSCF data and now we have an excellent analysis of our sorting program and its impact on profit.