## MORE, BIGGER, OR BETTER John Dhuyvetter

Profit for cattlemen follows the equation; profit = revenues – expenses. While cost control is essential, under current favorable markets, growing the revenue pie has become the focus. For commercial cow calf producers the primary source of revenue is from calf sales at weaning. It is a simple function of number of calves (more) times weight (bigger) times price (better).

Expectations are that current margins should stimulate expansion plans. Surveys of younger age operators reinforce desires of existing operators to grow their operation. The problem in many cases is additional land is not available or too costly to acquire to increase numbers. While increasing the land base to run more cows is the most obvious alternative, several options can be considered. Better use of existing pasture lands through timed grazing management for use and rest can increase carrying capacity. The cost of building additional fence, developing water sources, and moving cattle has to be compared against the likely benefit. Developing options to graze on farmland to utilize crop residues (corn stalks) or annual forage incorporated in cropping schemes adds carrying capacity. Another alternative gaining interest is semi confinement, keeping cows in lots and feeding low cost feed stuffs for longer periods of time with limited turnout and grazing. The added yardage and labor cost of confinement cow calf has become feasible under present margins, where some low cost feed options can be utilized.

Sometimes more calves can be achievable within a herd by reducing calf losses and increasing the weaning percentage. Most calf losses occur at birth or shortly after from calving difficulty, adverse weather or disease (scours and pneumonia). As a biological system with so much weather influence, a normal loss has to be accepted of about 5%. Breeding choices, herd health, calving environment/facilities, and skilled labor are factors playing into outcomes.

With such a direct effect on revenue, cattlemen have long been focused on calf weaning/market weights. Scheduling, feeding, and breeding have all been used to get heavier calves. Earlier calving to have older calves at traditional marketing windows will result in bigger calves. Winter calving takes greater investment in infrastructure (buildings and facilities), higher quality more expensive feed, and added labor (which may not be available). While the tradeoff between added value and added costs is favorable in certain situations, the trend is for latter calving seasons as herds increase in size, with labor and investment limitations determining what's feasible. For late calving operations, more focus is on increasing sale weight by latter weaning/marketing through backgrounding or alternative fall grazing and feeding management.

Herds selected and managed for high fertility, with more cows conceiving in the early part of the breeding season rather than strung out over 3 or 4 heat cycle's results in heavier calves. Hormonally induced synchronized estrus (typically utilized with AI breeding) potentially can increase number of cows calving early in the calving season. Expressed fertility and breed up is highly influenced by cow nutritional status. Extended calving seasons can be improved by managing for higher cow condition and culling late breeders to achieve targets of 70% cows calving first cycle and 85+% calving within 45 days.

Probably the primary strategy for increasing calf weights has been through selection and breeding for genetically fast growing bigger cattle. With the expanded use of continental growth breeds in the 70s and 80s and development of genetic evaluations and predicted differences by breed associations' in the 80s to present there has been a strong trend to larger faster growing cattle. Selection for growth continues, but the trend has leveled out as consequences of larger

mature cows, reduced stocking rates, and less adaptability to feed or climate limitations have been realized. Phenotype and genomic information is advancing genetic evaluations to identify more unique genetic choices characterized by ease of calving and moderation in mature size with strong early growth and calf weights. In tandem with selection for size has been selection for a greater milking ability of cows. Large growthy calves, nursed by high milking dams' will result in heavy calf weights. Increased feed/cow associated with larger higher maintenance cows impacts numbers carried and feed costs per cow and calf. More moderate cows mated terminally to growth sires provide an opportunity to increase calf weight relative to cow maintenance costs.

Potential calf weights can only be realized by meeting their nutritional needs for growth supplied by dam's milk, grazing, and/or supplemental feed. It is especially important cows have been wintered and fed post calving to come into milk and produce for good early calf development and growth. While moderate milking potential may be optimal for available feeds, for cows to adequately produce they need to be in moderate condition at calving and either be fed rations or graze pastures with enough quality and quantity to meet protein and energy requirements. Creep feeding calves or supplementing will allow expression of calf growth when pasture availability becomes low to heavy grazing pressure or quality diminishes from drought or advanced plant maturity. Economic benefit is determined by added cost of creep feeding (cost per lb. of gain) compared to potential increase in revenue from added calf weight (marginal value per added lb. of weight). Proper stocking levels and pasture management as good water, rotation, and degree of utilization will affect animal performance and calf weight.

Prices received for calves of a particular weight show variation. Beyond obvious discounts for health issues, lack of uniformity, fill and light muscled dairy type; we see added value for documented health programs and calves with an appearance or reputation for good feeding performance (the ability to stay healthy, grow fast, finish at heavy weight, and marble to make grade). It is not uncommon within similarly managed fed cattle to see over \$200s difference in profit per calf due to feeding performance and carcass value. These differences are not always readily apparent, and prices for undiscounted calves on a particular sale will likely be closer than really they should be. Producers of truly superior feeding calves may find retaining ownership past weaning through growing and/or finishing the best opportunity to capture their true value. Obtaining feeding information on calves from calf buyers or evaluating feeding returns through participation in calf feedout projects helps document value.

The bottomline is there are a variety strategies and alternatives to influence the profit equation (control costs and increase revenue) in the cow calf business. Look to utilize resources fully achieving a high level of production (reproducing cows) of a product (calves) demanded and sought in the market for top value. Current and expected future market prices should provide favorable profit opportunities over the next several years and greatest for those increasing their revenue pie.