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Stocker Outlook for 2023

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Spring has officially arrived in the Commonwealth, which always brings questions about stocker profitability. Calf prices typically increase seasonally as we move into spring, but have increased at a larger-than-normal rate since the end of 2022. On a state average basis, a medium/large frame #1-2 steer in March has sold for over $40 per cwt more than that same steer in December. While it is likely that some stocker operators purchased calves early, to get ahead of the seasonal spring price increase, most will place calves into stocker programs in the coming weeks. At the time of this writing (March 21st), fall 2023 CME© feeder cattle futures were trading around $220 per cwt, which is roughly a $25 per cwt premium over the April contract. It's hard to remember a year with this much carry on the feeder cattle board between spring and fall. This suggests that heavy feeder cattle prices should increase throughout 2023, which partially explains the sharp increases being seen in calf prices. Still, high calf prices have many stocker operators questioning whether profit opportunities will exist for 2023.

The purpose of this article is to assess the likely profitability of summer stocker programs for 2023 and establish target purchase prices for calves based on a range of return levels. While it is impossible to predict where feeder cattle markets will end up this fall, producers need to estimate this and not rely on the current price (March) for 750-850 lb feeder calves. The fall CME© feeder cattle futures price (adjusted for basis) is the best way to estimate likely feeder cattle prices for fall. Grazing costs including pasture costs, veterinary and health expenses, hauling, commission, etc. are estimated and subtracted from the expected value of the fall feeders. Once this has been done, a better assessment can be made of what can be paid for stocker cattle this spring in order to build in an acceptable return to management, capital, and risk.

Key assumptions for the stocker analysis are as follows: 1) Graze steers April 1 to October 15 (197 days), 1.4 lb/day gain (no grain feeding), 2% death loss, and 7% interest on the calf. The interest rate used in this analysis may seem high for producers who are self-financed or have very low interest rates, but is likely pretty close for those going through traditional lenders. Given these assumptions, sale weights would be 775 lbs and 875 lbs for 500 lb and 600 lb purchased calves, respectively. Using a $220.50 CME© futures contract price for October 2023 to estimate sale price, a 775 lb steer is estimated to sell for $2.11/b and an 875 lb steer is estimated to sell for $2.08/lb. This estimate uses a -$10 per cwt basis for an 800 lb steer and a $3 per cwt price slide. These sale prices

are also based on the assumption that cattle are sold in lots of 40 or more head. Stocker operators who typically sell in smaller lots should adjust their expected sale prices downward accordingly.

Estimated costs for carrying the 500 and 600 lb steers are shown in Table 1. Stocking rates of 1.0 acre per 500 lb steer and 1.2 acres per 600 lb steer were assumed in arriving at these charges. Most of these are self-explanatory except the pasture charge, which accounts for variable costs such as bush-hogging, fertilizer, seeding clovers, etc., and is considered a bare-bones scenario. Sale expenses (commission) are based on the assumption that cattle will be sold in larger groups and producers will pay the lower corresponding commission rate. However, producers who sell feeders in smaller groups will pay higher commission rates which could exceed $50 per head based on the revenue assumptions of this analysis. Any of these costs could be much higher in certain situations, so producers should adjust accordingly.

Table 1: Expected Variable Costs 2023

	500 lb Steer	600 lb Steer
Pasture Charge	$30	$36
Vet	$25	$25
Interest	$50	$56
Death Loss	$27	$30
Sale	$18	$18
Haul	$15	$18
Mineral	$13	$15
Other (water, etc)	$11	$13
Total Variable Costs	***$189***	***$211***

Note: Interest and death loss varies slightly by purchase price.

Target purchase prices were estimated for both sizes of steers and adjusted so that gross returns over variable costs ranged from $100-$200 per head. Normally we would use a range of $50-$150 per head, but we feel that given the high feed prices this will be more representative this year. This gives a reasonable range of possible purchase prices for each sized calf this spring. Results are shown in Table 2. For 500 lb steers, target purchase prices ranged from $2.50 to $2.69 per lb. For 600 lb steers, target purchase prices ranged from $2.35 to $2.51 per lb. When targeting a $150 per head gross profit, breakeven purchase prices were $2.59/lb for 500 lb steers and $2.43/lb for 600 lb steers.

As an example of exactly how this works for a 500 lb steer targeting a $150 gross profit:

775 lbs steer x $2.11 (expected sale price)	*$1,635*
Total Variable Costs	*- $188*
Profit Target	*- $150*
Target Purchase Cost	*$1297*

Target Purchase Price = $1297 / 500 lbs = $2.59 / lb

Table 2: Target Purchase Prices for Various Gross Profits 2023

Gross Profit	500 lb Steer	600 lb Steer
$100	$2.69	$2.51
$125	$2.64	$2.47
$150	$2.59	$2.43
$175	$2.55	$2.39
$200	$2.50	$2.35

Notes: Based on costs in Table 1 and sales price of $2.11/lb and $2.08/lb for 775 lb and 875 lb sales weight respectively for 500 lb and 600 lb purchased steers.

For heifers, sale price for heavy feeders will be lower than comparably sized steers and they will not generally gain as well. In this analysis, we assumed the price discount for these heifers is $12 per hundredweight lower than the same weight steers and we assumed heifers would gain 10% slower than steers. With these assumptions, purchase prices would have to be $0.26/lb lower for 500 lb heifers and $0.24 lower for 600 lb heifers compared to the steer prices found in Table 2. Thus, when targeting a $150 per head gross profit, breakeven purchase prices were $2.33/lb for 500 lb heifers and $2.19/lb for 600 lb heifers.

Your cost structure may be different from that presented in Table 1, and if so, simply shift the targeted gross profit up or down to account for this. If your costs are $25 higher per calf, then you would shift each targeted profit down by one row: For example, you would use the $175 gross profit to estimate a $150 gross profit if your costs were $25 higher. Another way to evaluate this is that a $1 increase in costs would decrease the targeted purchase price by $0.20 per cwt for 500 lb steers and $0.17 per cwt for 600 lb steers.

It is important to note that the gross profits in Table 2 do not account for labor or investments in land, equipment, fencing, and other facilities (fixed costs). Thus, in the long-run, these target profits need to be high enough to justify labor and investment, as well as a management return. Typically, by the time this article is written in late-March, calf prices are approaching levels that would place returns on the upper end of the profit range analyzed. While there is a lot of variation in the price of calves across Kentucky right now, a lot of calves are selling well below many of the target purchase prices estimated in this analysis. This is all the more reason that stocker operators should carefully think through their budgets and make rational purchasing decisions.

There is a tendency for calf prices to reach their seasonal price peak when grass really starts growing in early spring. There is little reason to think this won't happen in 2023, which will result in tighter expected margins for stocker cattle placed in the upcoming weeks as those calf prices increase. Two other factors are worth discussion that may impact how strong the calf market gets this spring. First, CME© feeder cattle futures are suggesting that heavy feeder cattle prices will be much higher this fall than what we are seeing today. So, a stocker operator that was using the current market, rather than the futures-based approach taken in this article, would bid much less aggressively on calves this spring. Secondly, feed prices are so high that feedlots likely have almost no interest in purchasing these light calves this spring. That would mean less competition for calves in the marketplace and may prevent calf prices from getting as high as they would in a more normal feed price environment. While there is no way to know for sure what the next few weeks will bring, there could be significant opportunities for stocker operators to place calves at a favorable margin this spring.

Finally, the placement of calves into stocker programs represents a significant cost and there is always a great deal of uncertainty about fall sale price. For this reason, stocker operators should also consider risk management to protect their potential returns. Forward contracts, futures and options have long been utilized for price risk management and remain viable strategies today. However, there has been a considerable increase in the use of Livestock Risk Protection (LRP) insurance over the last few years. LRP works similar to a put option in that it provides downside price protection (for a premium), but also allows the producer to capitalize on rising prices. However, it can be purchased in most any quantity, so producers are not tied to 50,000 lb contract sizes as they would be with futures and options strategies. Some recent changes to LRP insurance have made it more attractive, including increases in subsidy levels and no longer requiring premiums to be paid up front. Regardless of what risk management strategy is utilized, time spent considering price risk management is likely time well spent in these volatile markets. The best way to ensure profitability is to budget carefully and to manage downside price risk.

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