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Delivering Slaughter Steers on a Live Cattle Futures Contract[1]

This NebGuide discusses how to estimate when it might be profitable to deliver on a live cattle futures contract and outlines delivery costs and procedures.

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[Previous Category] [Catalog] [Order Info]

- When To Deliver
- Size of Delivery Unit
- Delivery Period
- Delivery Costs
- Delivery Points
- Delivery Procedure
- Explanation of The Certificate of Delivery Procedure
- Grading, Weight, and Yield Estimates
- Summary

Although most hedgers do not actually make delivery on a live cattle futures contract, the threat of delivery is an important feature of the futures market. A producer who hedges using the futures market normally offsets the futures position by buying back a futures contract and selling the slaughter cattle on the cash market.

However, there are times when it is advantageous to actually deliver on the contract. Actual delivery should be made only when the basis during contract maturity is wider than anticipated and greater than the delivery cost.

In theory, the price difference (basis) between the futures and the cash markets should be less than the delivery costs; hence no deliveries are made. But, as is often the case, reality may differ from theory, and there are times when the basis is greater than the delivery costs.

Delivery may be feasible in some market areas and not in others because cash prices differ by regions. The futures price represents the national price, whereas cash prices vary by the specific supply/demand conditions in each local area. Therefore, hedgers in some areas may make deliveries because of a wide basis, while in other areas the basis may be sufficiently narrow so that delivery is not appropriate.

Delivery will most likely be made by producers who are located near a futures delivery point, but any producer who has fed cattle which meet the contract specifications can make delivery.

When To Deliver

Delivery should be made only when the basis in the contract maturity month is greater than the delivery costs. The basis is determined by subtracting the local cash market price from the appropriate futures contract price. For example, if the delivery costs were $2.00 per cwt. and the basis was $3.50 per cwt., the basis would be greater than the delivery costs and delivery should be made. Delivery in this case would net the producer an additional $1.50 per cwt. ($3.50 - $2.00 = $1.50). If the basis was only $1.00 per cwt. and the delivery cost $2.00 per cwt., delivery should not be made. Instead, the producer would gain $1.00 per cwt. by selling the fed steers on the local market and buying a futures contract.

Before making delivery, a hedger should carefully calculate all delivery costs, and if possible, contact a livestock commission firm at the delivery point for assistance in selecting steers to be included in the delivery unit. The broker or firm representative also can give information on any contract specification changes.

If the difference between the basis and the delivery costs is less than $.50 per cwt., it is generally advisable to buy back a contract rather than deliver. The reason is that the delivery costs can only be estimated before actual delivery. Due to quality or weight discounts, the delivery costs could be larger than estimated.

Size of Delivery Unit

The delivery unit on the Chicago Mercantile Exchange must weigh 40,000 lbs, or contain 34 to 40 steers averaging between 1,050 lbs and 1,200 lbs. The actual number depends on the weight of the steers.

The delivery unit on the MidAmerica Exchange must weigh 20,000 lbs or contain 17 to 20 steers. Again, the number of steers depends on the weight. The delivery unit cannot deviate by more than 5 percent (Chicago Mercantile Exchange 38,000-42,000 lbs., MidAmerica Exchange 19,000-21,000 lbs.).

Delivery Period

Cattle can be delivered any business day of the contract month, except: (1) on a holiday or the day preceding a holiday; or (2) prior to the fourth business day after the first Friday of the contract month. All contracts not offset by the last trading day for the contract must be delivered. The cattle feeder should consult the Chicago Mercantile Exchange rules for a detailed description of tender, demand, retender, reclaim and assignment of Certificates of Delivery.

Delivery Costs

Delivery costs for cattle involve six major factors--marketing fee, transportation (added), shrink (added),

quality and yield grade discounts, dressing percent discount, and weight discount. See the delivery cost worksheet example for an estimate of total delivery costs for the Omaha delivery point.

Marketing Fee

Cattle delivered on a futures contract are normally assigned to a livestock commission firm at the delivery point. It is this firm's responsibility to weigh, sort, and pen the cattle, notify the grader, and collect the money due on the cattle. The livestock commission firm charges a fee for this service.

The delivery point public market charges a fee for feeding, watering, and weighing, and for the use of the pens.

The USDA Market News Service charges a fee for grading the livestock.

The estimated 1992 costs for delivering slaughter cattle against the futures contract at Omaha are:

Commission	$ 3.75 per head
Yardage	4.00 per head
Meat Board	1.00 per head
Ante-Mortem Inspection	.06 per head
Insurance (50 miles)(Optional)	.60 per head
Grading (36 head per load)	.83 per head
Total	$10.24 per head

The cost per cwt. on a 1,100-pound steer is 93 cents per cwt. including the insurance, and 88 cents per cwt. without the insurance.

These factors make up the marketing fee, which should not exceed $1.00 per cwt. A 95 cent marketing fee is used in the delivery cost worksheet example.

Transportation Costs

A producer estimating transportation costs for delivery should estimate only the added cost for transportation to the delivery point. To do this, subtract the cost of hauling to the local market from the cost of hauling to the delivery point.

If, for example, it costs a producer $.50 per cwt. to haul fed steers to the local market and $.75 per cwt. to the delivery point, only the $.25 per cwt. additional cost is used for delivery decision purposes.

Shrink Costs

Shrink loss for delivery is estimated in a manner similar to that used in estimating transportation cost; only the added shrink loss is considered.

Assume that a producer's shrink loss to the local market is 3 percent, and the shrink loss to the more distant delivery point is 4 percent. By subtracting the local shrink loss (3 percent) from the delivery shrink loss (4 percent) you get an added loss of 1 percent.

The 1 percent shrink loss is then multiplied by the market price per cwt. to estimate the shrink cost of delivery. If the price level of $65 per cwt. is multiplied by the 1 percent added shrink loss, the producer's shrink cost of delivery is $0.65 per cwt. ($65 × .01 = $0.65).

Quality Grade Discounts

The futures contract calls for delivery of USDA Choice or better steers. USDA select steers in the delivery unit are discounted $3.00/cwt., and only eight select grade steers are allowed in the delivery unit. No heifers are allowed in the delivery unit.

Yield Grade Discounts

The futures contract requires that only USDA Yield Grade 1, 2, or 3 steers be allowed in the delivery unit. Four USDA Yield Grade 4 steers are allowed at par. Delivery units with more than four head of estimated Yield Grade 4 Choice steers are not deliverable. No steers with estimated Yield Grade of 5 shall be deliverable.

Dressing Percent Discount

Steers in the delivery unit must meet minimum hot dressing percent standards. Any delivery unit not meeting the minimum standards is discounted 50 cents per cwt. for each 1/2 percent below the minimum. A delivery unit that has less than 60 percent dress will not be accepted. The minimum dressing percent for 1,050 lbs to 1,125 lbs steers is 62 percent. For 1,125 lbs to 1,200 lbs steers the minimum is 63 percent.

Weight Discounts

Steers weighing 100-200 lbs over or under the average weight of the shipment are discounted $3.00 per cwt. No individual steer can weigh more than 200 lbs above or below the average weight of the unit, and no steer weighing less than 950 lbs or more than 1,300 lbs will be accepted. The grader may weigh individual steers to obtain accurate weights.

Delivery Points

The delivery points for the Chicago Mercantile Exchange live cattle contract are at public markets at the cities listed below. All delivery points for Choice steers are par; that is, no delivery point requires a discount.

- Amarillo, TX
- Dodge City, KS
- Greeley, CO
- Omaha, NE
- Sioux City, IA

Weighing times and conditions differ at each delivery point, so the cattle feeder should check with the commission firm to insure that the cattle arrive at the proper time.

Delivery Procedure

All Choice steer futures contracts must follow the "certificate of delivery" procedure. See *Figure 1* for potential paths for a Certificate of Delivery in Live Cattle.

Under the procedure, the producer making delivery must notify the broker of the date and place of delivery three business days before the intended delivery date.

Explanation of The Certificate of Delivery Procedure

Under the certificate of delivery, the trader (long) who receives the delivery notice may take or avoid delivery by offsetting the futures position (retendering) and paying $600 per contract, which is added to the value of the cattle. Once a delivery notice has been issued, the "oldest long" still in the market (the trader who bought the first contract) is assigned the contract.

If the oldest long retenders, any long desiring the cattle may issue a demand notice. The long issuing the demand notice will receive the cattle and the $600 paid by the retenderer.

If the oldest long retenders and no demand notice is issued, the deliverer can issue a reclaim notice. Under the reclaim notice, the deliverer will not have to deliver the cattle and will obtain the $600 paid by the retenderer. A reclaim notice may not be issued until the deliverer has established a new long position. The new long position must be taken before the contract is tendered, or before any demand notices are issued. Therefore, the deliverer must take a new long position before it is known if the reclaim is to be accepted. A demand notice supersedes a reclaim notice.

If the oldest long retenders and no demand notice or reclaim notice is issued, the contract is assigned to the second oldest long.

The second oldest long can follow the same procedure as the first oldest long. Again, a demand notice or a reclaim notice can be issued as in the preceding case, but now the contract is worth $1200 plus the cattle.

If the second oldest long retenders and there is no demand notice or reclaim notice, the contract is assigned to the third oldest long. The third oldest long, when assigned the contract, must receive the cattle plus collect the $1200 per contract penalty paid by the first and second oldest longs when they retendered.

Grading, Weight, and Yield Estimates

The official grader for a delivered futures contract is the USDA Market News Service representative at the delivery point, who examines the live cattle. The grader establishes both the USDA quality and yield grade by visual appraisal.

The weight of the entire unit is determined by weighing on scales; individual steers may be weighed by the grader. If the grader determines that an individual steer (or steers) in the shipment is 100-200 lbs over or under the average weight established by the scales, a penalty is attached. This penalty is assessed on the basis of the weight of the individual steers.

The dressing percent of the delivery unit is also established through visual appraisal by the grader. Actual carcass weights are not obtained; only live estimation of the dressing percent (yield) is used to determine the dressing percent penalty.

After cattle are surrendered for inspection and grading by USDA Livestock Market News Service personnel, the grader's decisions are final.

Summary

The cattle feeder or Commission firm representative must be able to identify deliverable steers. Any apparent delivery advantage is quickly eliminated if quality, dressing percentage, yield grade or weight discounts are incurred.

Live Beef Delivery Cost Worksheet (Example)

Futures price (current price, appropriate contract)	*$65.00 per cwt.*
Delivery Costs	
Marketing fee	*$.95 per cwt.*
Transportation (added)	*.25 per cwt.*
Shrink (added)	*.65 per cwt.*
Quality discount	*.33 per cwt.*
Dressing percent discount	*0 per cwt.*
Yield Grade discount	*0 per cwt.*
Weight discount	*0 per cwt.*
Total Delivery Costs	*$2.18 per cwt.*
Net futures price (Futures price minus total delivery costs)	*$62.82 per cwt.*

Rules to Remember

Rule 1: If the net futures prices is the same as or lower than the current cash price for Choice steers, the hedger should buy back futures and sell cattle on the cash market.

Rule 2: If the net futures price is higher than the current cash price for Choice steers, the hedge should either deliver on the futures or delay lifting the hedge.

Live Beef Delivery Cost Worksheet

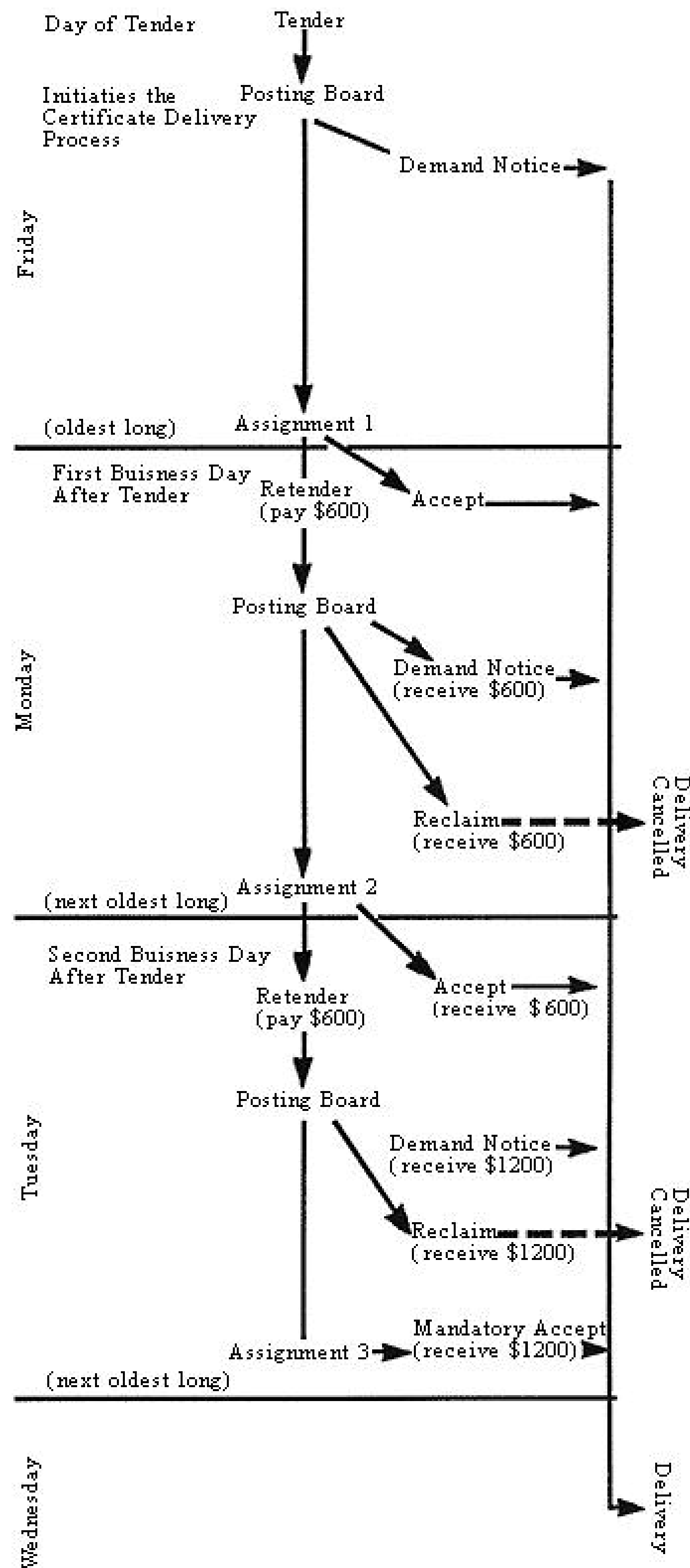
Futures price (current price, appropriate contract)	____________
Delivery Costs	
Marketing fee	____________
Transportation (added)	____________
Shrink (added)	____________
Quality discount	____________
Dressing percent discount	____________
Yield Grade discount	____________
Weight discount	____________
Total Delivery Costs	____________
Net futures price (Futures price minus total delivery costs)	____________

Rules to Remember

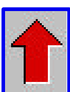
Rule 1: If the net futures prices is the same as or lower than the current cash price for Choice steers, the hedger should buy back futures and sell cattle on the cash market.

Rule 2: If the net futures price is higher than the current cash price for Choice steers, the hedge should either deliver on the futures or delay lifting the hedge.

Figure 1. Potential paths for a typical Certificate of Delivery in Live Cattle (Source: Chicago Mercantile Exchange)



[1] Definitions of futures market terms are contained in NebGuide G84-709, *Livestock Market Terms, Part II*.



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