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1984

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G84-724-A
(Revised May 1992)

Delivering Slaughter Hogs On a Live Hog Futures Contract

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

Allen C. Wellman, Extension Marketing Specialist

- When to Deliver
- Size of Delivery Unit
- Delivery Period
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- Hog Delivery Cost Worksheet

Although most hedgers do not actually make delivery on a live hog futures contract, it is the threat of delivery that makes hedging an effective market risk reduction technique. Normally, to fulfill the futures obligation, a producer buys an offsetting futures contract rather than making delivery.

Actual delivery on a futures contract should occur only when the basis during contract maturity is wider than anticipated -- and greater than the delivery costs.

In theory, the price difference (basis) between the futures and cash markets should be less than the delivery costs; hence no deliveries. But, as is often the case, reality may differ from theory, and sometimes 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 a 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 that delivery is not a good alternative.

Delivery will most likely be made by producers located near a futures delivery point, but any producer

with hogs meeting the contract specifications can make delivery.

An alternative to delivery of the producer's own hogs would be for the producer to buy hogs at the market where the delivery is to be made and to make delivery of those hogs. The producer should check with a livestock commission firm or market representative at the delivery point before making this decision.

Delivery months for slaughter hogs are February, April, June, July, August, October and December. Mid-America Exchange delivery units equal one-half the size and have the same delivery conditions as the Chicago Mercantile Exchange (CME).

When to Deliver

As stated previously, delivery should be made only when the current basis is greater than delivery costs. The basis is determined by subtracting the local cash market price from the appropriate futures contract price. If, for example, the delivery costs were $2.35 per cwt and the basis was $3.50 per cwt, the basis would be greater than delivery costs and delivery should be made. Delivery in this case would net the producer an additional $1.15 per cwt ($3.50 - $2.35 = $1.15). However, if the basis was only $1.00 per cwt and the delivery cost $2.35 per cwt, delivery should not be made. Instead, the producer would gain $1.35 per cwt by selling the hogs on the local market and buying back a futures contract.

When the difference between the basis and the delivery cost is less than $.50 per cwt, it is usually better to buy back a contract rather than delivering. The reason is that 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

A par delivery unit (contract) contains 40,000 lbs of U.S. No. 1, No. 2, and No. 3 grade barrows and gilts in the weight range of 230 to 260 lbs, which, depending on the weight of the hogs would require from 155 to 175 hogs. The delivery unit (20,000 lbs) on the MidAmerica exchange would be approximately 78 to 87 hogs. The delivery unit cannot deviate by more than 5 percent (CME 38,000-42,000 lbs, MidAmerica 19,000-21,000 lbs).

Delivery Period

Hogs can be delivered on Monday, Tuesday, Wednesday and Thursday of the contract month; except: (1) Deliveries may not be made on a holiday or the day preceding a holiday; (2) Deliveries may not be made prior to the second business day after the first Friday of the contract month. Delivery is mandatory after trading has been closed for any contract that has not been offset.

Delivery Costs

Before making delivery, a hedger needs to estimate the delivery costs including the marketing fee, transportation costs, shrink loss, quality and weight discounts, and delivery point discounts. It is important to check current contract specifications since they are revised periodically.

Marketing Fee

Hogs 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 hogs in preparation for grading, and to

collect the money due on the hogs. The firm charges a fee for this service.

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

The USDA Market News Service charges a fee for grading the livestock. The commission firm pays all fees due on the hogs, calculates the money due, and remits the remainder to the deliverer.

Estimated 1992 costs for delivering slaughter hogs against the futures contract at Omaha are as follows:

Commission	$1.20 per head
Yardage	1.30 per head
Meat Board (.0035 of value)	.43 per head
Ante-Mortem Inspection	.06 per head
Insurance (50 miles)(optional)	.60 per head
Grading (165 head load)	.24 per head
-----*Total*	$3.83 per head

The cost per cwt on a 245 lb hog is $1.56 with the insurance contribution, and $1.32 per cwt without the insurance.

These factors make up the marketing fee, which should not exceed $1.70 per cwt. A $1.60 marketing fee is used in the delivery cost worksheet example.

Transportation Costs

A producer estimating the transportation costs for delivery should consider 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.

For example, if it costs a producer $.50 per cwt to haul hogs to the local market and $.75 per cwt to the delivery point, only the $.25 per cwt additional cost is used for delivery decisions 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 the shrink loss to the local market is 3 percent, whereas that 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 shrink 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 $50 per cwt is multiplied by the 1 percent added shrink loss, then the producer's shrink cost of delivery is $0.50 per cwt ($50 × .01 = $.50).

Quality Discounts

The futures contract specifies U.S. No. 1, No. 2 and No. 3 grade barrows and gilts as defined by the

official United States Standards for Grades of Slaughter Swine (Barrows and Gilts). Most U.S. slaughter hogs that reach the market weights specified in the contract will meet the contract quality grade specifications.

Hogs that are excluded as unmerchantable include crippled, sick, obviously damaged or bruised, large jointed, or those which for any reason do not appear to be in satisfactory condition to withstand shipment by rail or truck. U.S. No. 4, medium and cull grade and piggy gilts are not acceptable.

Producers must do an excellent job of sorting so that no quality discounts are incurred.

Weight Discounts

A par delivery unit is barrows and gilts in the weight range of 230 to 260 lbs. Weight specifications and discounts are as follows:

1. Both the average weight of the delivery unit and at least 150 hogs must fall into the 230-260 lb weight range.
2. Hogs weighing under 220 lbs, but not less than 215 lbs are deliverable at a discount of $3.00 per cwt.
3. Hogs weighing under 230 lbs, but not less than 220 lbs are deliverable at a discount of $1.00 per cwt.
4. Hogs weighing over 260 lbs, but not more than 270 lbs are deliverable at a discount of $1.00 per cwt.
5. Hogs weighing over 270 lbs, but not more than 280 lbs are deliverable at a discount of $2.00 per cwt.
6. For purposes of computing such discounts, the weight of such hogs weighing under or over shall be the same as the average weight per head of the delivered unit (contract).
7. Hogs weighing under 215 lbs and hogs weighing over 280 lbs are not deliverable.
8. The judgment of the graders as to such underweight and overweight hogs shall be final.
9. Weighing shall be within 1 hour after grading. Hogs shall not receive feed or water during the interval between grading and weighing.

The producer and market representatives must be able to sort the hogs accurately to ensure that the delivery unit does not have any weight discounts. Extra hogs need to be available to replace hogs that would incur weight discounts.

Delivery Point Discounts

Hogs delivered to delivery points other than the par delivery points are discounted from $.25 to $.75 per cwt depending on the specific delivery point.

DELIVERY POINTS

The delivery points for the futures contracts are at terminal/public markets in the following cities:

	Discounts
Omaha, NE	Par (no discount)
Sioux City, IA	Par (no discount)
Sioux Falls, SD	Par (no discount)

Peoria, IL	Par (no discount)
East St. Louis, IL	25¢ per cwt
St. Joseph, MO	50¢ per cwt
St. Paul, MN	75¢ per cwt

Delivery Procedures

A producer intending to deliver on a futures contract must notify the broker of the number of contracts, the delivery point, and the delivery date. The broker is required to notify the clearinghouse in writing (a Notice of Intent to Deliver) no later than one business day prior to the actual delivery date.

On the delivery date, the hogs must arrive at the delivery point (by noon) to be weighed, penned, and graded with an official *USDA Agricultural Products Certificate*.

The producer will usually assign the hogs to a livestock commission firm at the delivery point. The responsibility of the livestock commission firm is to weigh the hogs, assign them to a pen, sort them if necessary, and notify the grader about the delivery unit. Once the hogs have been accepted, the commission firm will collect the money due, subtract the marketing charges, and pay the producer for the hogs. If substitutions have to be made in the delivery unit, the commission firm will handle these transactions. It is strongly advisable for the producer intending to make delivery to notify his or her livestock commission firm at the delivery point about the intention to make delivery. By doing this, the producer can receive some assistance in selecting the appropriate hogs and be assured that delivery is made in time to meet all requirements.

The hog producer delivering hogs against the futures contract will quickly lose the bulk of his estimated delivery cost versus basis advantage if he incurs quality or weight discounts.

Grading and Weight Estimation

USDA Market News Service personnel have been designated by the exchanges as official graders. The grader's responsibility is to grade the hogs and determine the weights of individual hogs that fall out of the par weight range. Live weight of the total shipment is obtained by weighing the hogs; individual hog weights, if needed, are obtained by the grader sorting out these hogs and weighing them. These weights become the official weights and are used in computing discounts for individual hogs.

Hog grades are established by viewing the live hog. Carcass grades are not used in grade determination for future contract delivery.

Hog Delivery Cost Worksheet (Example)

Use this worksheet to calculate deliver costs. (See the *Rules to Remember* section below.)

Futures price		*$50/cwt*
Delivery Costs (current price, appropriate contract)		
Marketing fee	*$1.60/cwt*	
Transportation (added)	*.25/cwt*	
Shrink (added)	*.50/cwt*	

Quality discount	.00/cwt	
Weight discount	.00/cwt	
Delivery point discount	.00/cwt	
	Total delivery costs	- $2.35/cwt
Net futures price (*Futures price* minus *Total delivery* costs)		$47.65/cwt

Rules to Remember

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

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

Hog Delivery Cost Worksheet

Use this worksheet to calculate deliver costs. (See the *Rules to Remember* section below.)

Futures price		________
Delivery Costs (current price, appropriate contract)		
Marketing fee	________	
Transportation (added)	________	
Shrink (added)	________	
Quality discount	________	
Weight discount	________	
Delivery point discount	________	
	Total delivery costs	-________
Net futures price (*Futures price* minus *Total delivery* costs)		________

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File G724 under: FARM MANAGEMENT
L-2, Futures Trading
Revised May 1992; 5,000 printed.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Elbert C. Dickey, Director of Cooperative Extension, University of Nebraska, Institute of Agriculture and Natural Resources.

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