

Exercise

Purchase Put: Feeder Cattle

Part 1

Assumptions

- A cattle rancher is producing 130 head of steers estimated to weigh 675 lbs. on April 1.
- The current date is December 15.
- Variable costs of production are \$52/cwt.
- The April 1 basis is expected to be \$1/cwt. over the CME April feeder cattle futures contract.
- The CME April feeder cattle futures contract (44,000 lbs.) is currently trading at \$64/cwt.
- A CME April feeder cattle \$64 put option contract can be purchased for \$2.50/cwt.

Determine

1. How could the producer use the option market to establish a minimum price?
2. When does a CME April feeder cattle option contract expire?
3. How many option contracts would the producer need to purchase to protect the price of the anticipated output?
4. Calculate the expected minimum price.

Part 2

Assumption

- For the following calculations, assume a CME April feeder cattle \$64 put was purchased on December 15 for \$2.50/cwt. and the cattle are being sold on April 1.

Determine

1. If the April 1 feeder cattle cash market is \$59/cwt. and a CME April feeder cattle futures contract is trading for \$58/cwt.:
 - a. What is the actual basis?
 - b. What is the minimum value of a CME April feeder cattle \$64 put option contract?
 - c. What is the net price received?
2. If the April 1 feeder cattle cash market is \$71/cwt. and a CME April feeder cattle futures contract is trading for \$70/cwt.:
 - a. What is the actual basis?
 - b. What is the minimum value of a CME April feeder cattle \$64 put option contract?
 - c. What is the net price received?