

**True/False or Fill in the Blank (2 points each)**

1. T F Livestock Risk Protection (LRP) works like a call option.
2. T F Basis = Cash price – Futures price.
3. T F Option premiums are set at predetermined levels by the exchange.
4. T F If a person is a “bull”, then they expect prices to rise.
5. T F Options contracts are on the underlying futures contract and not the commodity itself.
6. A put option contains the right to \_\_\_\_\_ a futures contract.
7. \_\_\_\_\_ are willing to make or take physical delivery because they are producers or users of the commodity.
8. \_\_\_\_\_ have no use for the physical commodity and are attempting to profit from price movements.
9. If I take a long position in the futures market, then I have \_\_\_\_\_ a futures contract.
10. Hedging means having equal and opposite positions in the \_\_\_\_\_ and \_\_\_\_\_ markets.
11. In a hedge, the net price will differ from the expected price only by the amount that the \_\_\_\_\_ basis differs from the \_\_\_\_\_ basis.

**Short Answer (6 points each)**

12. Name 3 of the 5 factors that affect the value of an option premium.

13. On Mar. 2<sup>nd</sup>, June 2012 Lean Hog futures were priced at \$99.50 per cwt. Given that futures price, is a \$102 put option in-the-money or out-of-the-money?

What is the intrinsic value for the option on Mar. 2<sup>nd</sup>?

14. I put on a short hedge using May 2012 soybean futures on Mar. 2<sup>nd</sup>. The futures price was \$13.33 per bushel. If my expected basis is -\$0.50 per bushel and the broker charges me a 2 cent per bushel commission, what is my expected price under the short hedge?

In May, I will want to offset the short hedge, how will I do that?

15. Calculate a seasonal index price projection for July hogs, given a February price of \$65.50 per cwt.

2002-2011 Hog Prices (\$/cwt.)		
	Average Price	% of Annual Price
Jan	42.78	89.9%
Feb	45.27	95.2%
Mar	45.62	95.9%
Apr	46.62	98.0%
May	51.80	108.9%
Jun	51.97	109.2%
Jul	51.90	109.1%
Aug	51.58	108.4%
Sept	48.45	101.8%
Oct	46.39	97.5%
Nov	43.76	92.0%
Dec	44.71	94.0%
Annual	47.57	

**Matching (2 points each)**

Answer questions matching the following action to the appropriate statement. Terms may be used more than once.

- |                       |                      |                            |
|-----------------------|----------------------|----------------------------|
| a) Sell a call option | c) Sell a put option | e) Sell a futures contract |
| b) Buy a call option  | d) Buy a put option  | f) Buy a futures contract  |

16. \_\_\_\_ Lose on price increases, but gain on price decreases.
17. \_\_\_\_ Receive a premium, but maybe obligated to buy a futures contract at the strike price.
18. \_\_\_\_ Have the right, but not the obligation, to sell a futures contract at the strike price.
19. \_\_\_\_ Receive payment into a margin account if futures price increases.
20. \_\_\_\_ Limited risk if futures prices rise, but unlimited profit potential if they fall.
21. \_\_\_\_ Known profit for futures prices below the strike price, but unlimited losses otherwise.
22. \_\_\_\_ Protects against lower prices but doesn't prevent gains from higher prices.
23. \_\_\_\_ Have the right, but not the obligation, to buy a futures contract at the strike price.
24. \_\_\_\_ Must pay into a margin account if futures price increases.

**Margins (12 points)**

25. I am a hedger that went short on December 2012 live cattle on Feb. 27, 2012 at \$134.00 per cwt. (1 cwt. is equal to 100 pounds). Each live cattle futures contract covers 40,000 pounds. The initial margin requirement is \$1,620. The maintenance margin is \$1,200. Fill out my margin account for one futures contract.

Date	Futures Price	Gain/Loss	Margin Call	Account Balance
2/27/2012	\$134.00	<b>X</b>	<b>X</b>	\$1,620.00
2/28/2012	\$133.75			
2/29/2012	\$134.95			
3/1/2012	\$135.55			
3/2/2012	\$135.10			

**Math and Graph (16 points, please show your work)**

26. A corn producer is looking to put a floor price on her upcoming production. She buys a \$5.00 put option on Dec. 2011 corn. The premium for the option is \$0.24 and the commission is 1 cent per bushel. When she offsets or exercises the option, there is no additional commission. She expects a harvest time basis of -\$0.30 per bushel.

Please graph the relevant cash price, option return, and net price lines.

What is her floor price?

At what price does she breakeven on the option?

If the Dec. 2011 corn futures price falls to \$4.75 and the harvest time basis in -\$0.10, what is her net price?

Return/Net Price

