

## **Livestock Gross Margin - Swine**

### **What is the Livestock Gross Margin for Swine Insurance policy?**

The Livestock Gross Margin for Swine (LGM for Swine) Insurance Policy provides protection against the loss of gross margin (market value of livestock minus feed costs) on swine. The indemnity at the end of the 6-month insurance period is the difference, if positive, between the gross margin guarantee and the actual gross margin. The LGM for Swine Insurance Policy uses futures prices to determine the expected gross margin and the actual gross margin. The price the producer receives at the local market is not used in these calculations.

### **Who is eligible for the LGM for Swine Insurance policy?**

Any producer who owns swine in any of the 50 states is eligible for LGM Swine insurance coverage.

### **What swine are eligible for coverage under the LGM for Swine Insurance policy?**

Only swine sold for commercial or private slaughter primarily intended for human consumption and fed in any of the 50 states are eligible for coverage under the LGM for Swine Insurance Policy. Swine cannot be insured under more than one livestock policy issued under the Act.

### **What are some of the key features of the LGM for Swine Insurance policy?**

LGM for Swine has two key features.

Producers can sign up for LGM for Swine each Thursday and insure all the swine they expect to market over a rolling 6-month insurance period. The producer does not have to decide on the mix of options to purchase, the strike price of the options, or the date of entry.

The LGM for Swine policy can be tailored to any size farm. Options cover fixed amounts of commodities and those amounts may be too large to be used in the risk management portfolio of some farms.

### **How is LGM for Swine different from traditional options?**

LGM for Swine is different from traditional options in that LGM for Swine is a bundled option that covers the cost of feed. This bundle of options effectively insures the producer's gross margin (swine price minus feed costs) over the insurance period.

### **Can LGM for Swine be exercised?**

No. LGM for Swine cannot be exercised. LGM works as a bundle of options that pay the difference, if positive, between the value at purchase of the options and the value at the end of a certain time period. So, LGM for Swine would pay the difference, if positive, between the gross margin guarantee and the actual gross margin, as defined in the policy provisions.

### **Does LGM for Swine use the price the producer actually receives at the market?**

No. The prices for LGM for Swine are based on simple averages of futures contract daily settlement prices and are not based on the actual prices the producer receives at the market.

### **Does LGM for Swine make early indemnity payments?**

Yes. If an indemnity is due under LGM for Swine coverage, the company will send the producer a notice of probable loss after the last month of the producer's marketing plan. The last month of the producer's marketing plan is the last month in which the producer indicated target marketings on the Target Marketing Report.

### **When is LGM for Swine sold and how long do the sales periods last?**

LGM for Swine is sold every Thursday . The sales period begins when the coverage prices and rates are posted on RMA's website and ends on the following calendar day at 9:00 AM Central Standard Time. If expected gross margins are not available on the RMA website, LGM for Swine will not be offered for sale for that sales period.

### **How are the feed equations for LGM for Swine determined?**

The feed equations for LGM for Swine are based on an optimal feeding ration developed through Iowa State University.

### **What is the yield factor?**

The yield factor converts lean hog prices to live hog prices. The yield factor is set at 0.74 for LGM for Swine.

### **What types of losses are covered by LGM for Swine?**

LGM for Swine covers the difference between the gross margin guarantee and the actual gross margin. LGM for Swine does not insure against death loss or any other loss or damage to the producer's swine.

### **Where can I purchase LGM for Swine coverage?**

LGM for Swine is available for sale at your authorized crop insurance agent's office. Crop insurance agents must be certified by an insurance company to sell LGM for Swine and that agent's identification number must be on file with the Federal Crop Insurance Corporation.

## **What makes up the insurance period?**

The insurance period contains the 6 months following the sales closing date. For example, the insurance period for any January sales closing date contains the months of February, March, April, May, June, and July. However, coverage begins in the second month of the insurance period, so the coverage period for this example is the months of March through July.

## **What are the Producer's Target Marketings?**

A determination made by the insured as to the maximum number of slaughter ready swine that the producer will market (sell) during the insurance period. The target marketings must be less than or equal to that producer's applicable approved target marketings as certified by the producer.

## **What are the Producer's Approved Target Marketings?**

The Producer's Approved Target Marketings are the maximum number of swine that may be stated as Target Marketings on the application. Approved Target Marketings are certified by the producer and are subject to inspection by the insurance company. A producer's Approved Target Marketings will be the capacity of the producer's swine operation for the 6-month insurance period as determined by the insurance provider.

## **What is the expected corn price?**

Expected corn prices for months in an insurance period are determined using three-day average settlement prices on CME Group corn futures contracts. For months with unexpired corn futures contracts, the expected corn price is the simple average of the CME Group corn futures contract for that month during the expected price measurement period expressed in dollars per bushel. For example, for a sales period beginning on April 28, the expected corn price for July equals the simple average of the daily settlement prices on the CME Group July corn futures contract during the

expected price measurement period in this case, the three trading days prior to and including April 28. For months with expired corn futures contracts, the expected corn price is the simple average of daily settlement prices for the CME Group corn futures contract for that month expressed in dollars per bushel in the last three trading days prior to contract expiration. For example, for a sales period beginning on April 28, the expected corn price for March is the simple average of the daily settlement prices on the CME Group March corn futures contract for the three trading days prior to contract expiration. For months without a corn futures contract, the futures prices used to calculate the expected corn price are the weighted average of the futures prices used to calculate the expected corn prices for the two surrounding months which have a futures contract. The weights are based on the time difference between the month and the futures contract months. For example, for the sales period beginning April 28, the expected corn price for June equals one-half times the simple average of the daily settlement prices on the CME Group May corn futures contract during the same expected price measurement, the three trading days prior to and including April 28 plus one-half times the simple average of the daily settlement prices on the CME Group July corn futures contract during the expected price measurement period. See the LGM for Swine Commodity Exchange Endorsement for additional detail on exchange prices.

## **What is the expected soybean meal price?**

Expected soybean meal prices for months in an insurance period are determined using three-day average settlement prices on CME Group soybean meal futures contracts. For months with unexpired soybean meal futures contracts, the expected soybean meal price is the simple average of the CME Group soybean meal futures contract for that month during the expected price measurement period in the week of the sales closing date expressed in dollars per ton. For example, for a sales period beginning on April 28, the expected soybean meal price for July equals the simple average of the daily settlement daily settlement prices on the CME Group July soybean meal futures contract during the expected price measurement period, in this case, the three trading days prior to and including April 28. For months with expired soybean meal futures contracts, the expected soybean meal price is the simple average of daily settlement prices for the CME Group soybean meal futures contract for that month expressed in dollars per ton in the last three trading days prior to contract expiration. For example, for a sales period beginning on April 28,

the expected soybean meal price for March is the simple average of the daily settlement daily settlement prices on the CME Group March soybean meal futures contract over the last three trading days prior to sales closing. For months without a soybean meal futures contract, the futures prices used to calculate the expected soybean meal price are the weighted average of the futures prices used to calculate the expected soybean meal prices for the two surrounding months which have a futures contract. The weights are based on the time difference between the month and the futures contract months. For example, for a sales period beginning April 28, the expected soybean meal price for June equals one half times the simple average of the daily settlement prices on the CME Group May soybean meal futures contract during the expected price measurement period, the three trading days prior to and including April 28, plus one-half times the simple average of the daily settlement prices on the CME Group July soybean meal futures contract during the same expected price measurement period. See the LGM for Swine Commodity Exchange Endorsement for additional detail on exchange prices.

## **What is the actual cost of feed?**

The actual cost of feed depends on the type of operation. For farrow-to-finish operations, the actual cost of feed equals 12 bushels times the Actual Corn Price plus 138.55 pounds divided by 2000 pounds per ton times the Actual Soybean Meal Price. For finishing feeder operations, the actual cost of feed equals 9 bushels times the Actual Corn Price plus 82 pounds divided by 2000 pounds per ton times the Actual Soybean Meal Price. For finishing SEW operations, the actual cost of feed equals 9.05 bushels times the Actual Corn Price plus 91 pounds divided by 2000 pounds per ton times the Actual Soybean Meal Price.

## **What is the expected swine price?**

Expected swine prices for months in an insurance period are determined using three-day average settlement prices on CME Group lean hog futures contracts. For months with unexpired lean hog futures contracts, the expected swine price is the simple average of the CME Group lean hog futures contract for that month during the expected price measurement period expressed in dollars per hundredweight. For example, for a sales period beginning on April 28, the expected swine price for July

equals the simple average of the daily settlement prices on the CME Group July lean hog futures contract during the expected price measurement period, in this case, the three trading days prior to and including April 28. For months without a lean hog futures contract, the futures prices used to calculate the expected swine price are the weighted average of the futures prices used to calculate the expected swine prices for the two surrounding months which have a futures contract. The weights are based on the time difference between the month and the futures contract months. For example, for a sales period beginning April 28, the expected swine price for September equals one-half times the simple average of the daily settlement prices on the CME Group August lean hog futures contract during the expected price measurement period, the three trading days prior to and including April 28, plus one-half times the simple average of the daily settlement prices on the CME Group October lean hog futures contract during the same expected price measurement period. See the LGM for Swine Commodity Exchange Endorsement for additional detail on exchange prices.

### **How is the expected total gross margin calculated for each insurance period?**

The target marketings times the expected gross margin per swine for each month of an insurance period and totaled. If the producer from the above example has 10,000 swine to sell in June and an expected gross margin per head of \$55, the expected total gross margin would be \$550,000 ( $10,000 \times \$55 = \$550,000$ ).

### **What is the expected gross margin per swine?**

The expected gross margin per swine in a month for a farrow-to-finish operation is the Expected Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Expected Cost of Feed for the month three months prior to the month the swine are marketed.

Expected gross margin per swine for a farrow-to-finish operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (12 * \text{Corn}_{t-3}) - ((138.55/2000) * \text{Soybean Meal}_{t-3})$ .
- The expected gross margin per swine in a month for a finishing feeder operation is the Expected Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Expected Cost of Feed for the month two months prior to the month the swine are marketed.

Expected gross margin per swine for a finishing feeder operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (9 * \text{Corn}_{t-2}) - ((82/2000) * \text{Soybean Meal}_{t-2})$ .
- The expected gross margin per swine in a month for a finishing SEW operation is the Expected Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Expected Cost of Feed for the month two months prior to the month the swine are marketed.

Expected gross margin per swine for a finishing SEW operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (9.05 * \text{Corn}_{t-2}) - ((91/2000) * \text{Soybean Meal}_{t-2})$ .

## **How is the gross margin guarantee calculated for each insurance period?**

The gross margin guarantee for an insurance period is the expected total gross margin for an insurance period minus the deductible times the total of target marketings. If our example producer has a \$10 per head deductible, the gross margin guarantee equals \$450,000 [ $\$550,000 - (10,000 \times \$10)$ ].

## **What is the actual corn price?**

For months in which a CME Group corn futures contract expires, the actual corn price is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date for the CME Group corn futures contract for that month expressed in dollars per bushel. For months when there is no expiring CME Group corn futures contract, the actual corn price is the weighted average of



the prices on the nearest two contract months. The weights depend on the time between the month in question and the nearby futures contract months. For example, the actual corn price in April is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date of the corn futures contracts that expire in March and May. For the month of January, the actual corn price will equal two-thirds times the simple average of the daily settlement prices in the last three trading days prior to expiration of the December CME Group corn futures contract plus one-third times the simple average of the daily settlement prices in the last three trading days prior to expiration of the March CME Group corn futures contract.

### **What is the actual soybean meal price?**

For months in which a CME Group soybean meal futures contract expires, the actual soybean meal price is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date for the CME Group soybean meal futures contract for that month expressed in dollars per ton. For months when there is no expiring CME Group soybean meal futures contract, the actual soybean meal price is the weighted average of the prices on the nearest two contract months. The weights depend on the time period between the month in question and the nearby futures contract months. For example, the actual soybean meal price in April is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date of the soybean meal futures contracts that expire in March and May.

### **What is the expected cost of feed?**

The expected cost of feed depends on the type of operation. For farrow-to-finish operations, the expected cost of feed equals 12 bushels times the Expected Corn Price plus 138.55 pounds divided by 2000 pounds per ton times the Expected Soybean Meal Price. For finishing feeder operations, the expected cost of feed equals 9 bushels times the Expected Corn Price plus 82 pounds divided by 2000 pounds per ton times the Expected Soybean Meal Price. For finishing SEW operations, the expected cost of feed equals 9.05 bushels times the Expected Corn Price plus 91 pounds divided by 2000 pounds per ton times the Expected Soybean

Meal Price.

## **What is the actual swine price?**

For months in which a CME Group lean hog futures contract expires, the actual swine price is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date for the CME Group lean hog futures contract for that month expressed in dollars per hundredweight. For months when there is no expiring CME Group lean hog futures contract, the actual swine price is the weighted average of the prices on the nearest two contract months. The weights depend on the time between the month in question and the nearby futures contract months. For example, the actual swine price in March is the simple average of the daily settlement prices in the last three trading days prior to the contract expiration date of the lean hog futures contracts that expire in February and April.

## **What is the actual gross margin per swine?**

The actual gross margin per swine in a month for a farrow-to-finish operation is the Actual Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Actual Cost of Feed for the month three months prior to the month the swine are marketed.

Actual gross margin per swine for a farrow-to-finish operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (12 * \text{Corn}_{t-3}) - ((138.55/2000) * \text{Soybean Meal}_{t-3})$ .
- The actual gross margin per swine in a month for a finishing feeder operation is the Actual Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Actual Cost of Feed for the month two months prior to the month the swine are marketed.

Actual gross margin per swine for a finishing feeder operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (9 * \text{Corn}_{t-2}) - ((82/2000) * \text{Soybean Meal}_{t-2})$ .

- The actual gross margin per swine in a month for a finishing SEW operation is the Actual Swine Price for the month the swine are marketed times the assumed weight of the swine at marketing (2.6 cwt.) times the yield factor (0.74) to convert the price to a live weight basis, minus the Actual Cost of Feed for the month two months prior to the month the swine are marketed.

Actual gross margin per swine for a finishing SEW operation =

- $(0.74 * 2.6 * \text{Swine}_t) - (9.05 * \text{Corn}_{t-2}) - ((91/2000) * \text{Soybean Meal}_{t-2})$ .

## **How is the actual total gross margin calculated?**

The actual total gross margin is the sum of the target marketings times the actual gross margin per head of swine for each month of an insurance period. If the producer in the example sold 10,000 head of swine in June and had an actual gross margin per head of swine of \$40, the actual total gross margin would be \$400,000 ( $10,000 \times \$40 = \$400,000$ ).

## **How are indemnities determined?**

Indemnities to be paid will equal the difference between the gross margin guarantee and the actual total gross margin for the insurance period. The producer in our example would receive an indemnity of \$50,000 ( $\$450,000 - \$400,000 = \$50,000$ ).

## **Is a marketings report required and when should the company receive it?**

Yes, in the event of a loss the producer must submit a Marketings Report and sales receipts showing evidence of actual marketings. The producer must submit the Marketings Report within 15 days of receipt of Notice of Probable Loss.

## **Is this a continuous policy?**

This is a continuous policy with twelve overlapping insurance periods per year. Target marketings must be submitted for each sales period in which the producer wishes to establish coverage.

### **When must the Application for insurance be turned into the company?**

The sales closing dates are every Thursday that is a business day. The Application must be completed and filed not later than the sales closing date of the initial insurance period for which coverage is requested. Coverage for the swine described in the Application will not be provided unless the insurance company receives and accepts a completed Application and a Target Marketings Report, and the company sends the producer a written Summary of Insurance.

### **When does coverage begin?**

Coverage begins one month after the sales closing date. For example, for any January sales closing date, coverage begins on March 1.

### **When are the contract change dates for the policy?**

The contract change date is April 30. Any changes to the LGM for Swine Policy will be made prior to this contract change date.

### **When are the cancellation dates for the policy?**

The cancellation date is June 30 for all insurance periods.

### **When is the end of insurance for the policy?**

The end of insurance for the policy is 6 months after the sales closing date. For example, for any January sales closing date, the insurance period ends on July 31.

## **What deductibles are available for the policy?**

The producer may select deductibles from \$0 to \$20 per head of swine, in \$2 per head increments.

## **How is the producer's premium calculated?**

The producer's premium is calculated by a premium calculator program that determines the premium per swine based on target marketings, expected gross margins for each period, premium subsidies, and deductibles.

## **When is the premium for the policy due?**

The premium billing date is the earlier of the first day of the month following the last month of the insurance period in which you have target marketings or the billing date published in the actuarial documents. For example, if your insurance period is February-July, and you only have target marketings in March-May, your billing date is June 1.

## **What portion of a producer's swine will be insured under the LGM for Swine policy?**

A producer can insure any amount of swine that the producer owns. Ownership of insured swine must be certified by the producer and may be subject to inspection and verification by the insurance company.

## **What information is required for acceptance of an Application for the LGM for Swine Insurance Policy?**

The Application for the LGM for Swine Insurance Policy must contain all the information required by us to insure the gross margin for the animals. Applications that do not contain all social security numbers and employer identification numbers, as applicable (except as stated in the policy), deductible, Target Marketings Report, and any other material information required to insure the gross margin for the animals, will not be acceptable.

**If a producer has a combination of farrow-to-finish, feeder finishing, and SEW finishing operations on the same policy, are the guarantees and the loss payments separate?**

Yes. Guarantees and loss payments are calculated separately for each of these three types of swine.

**Can LGM sales be suspended?**

Yes. Sales of LGM for Swine may be suspended for the next sales period if unforeseen and extraordinary events occur that interfere with the effective functioning of the corn, soybean meal, or lean hog commodity markets. Coverage may not be available in instances of a news report, announcement, or other event that occurs during or after trading hours that is believed by the Secretary of Agriculture, Manager of the RMA, or other designated RMA staff, to result in market conditions significantly different than those used to rate the LGM for Swine program. In these cases, coverage will no longer be offered for sale on the RMA Website. LGM for Swine sales will resume, after a halting or suspension in sales, at the discretion of the Manager of RMA.

**What if the expected gross margins are not posted on the RMA website on Thursday for the sales period that week?**

LGM for Swine will not be available for sale for that sales period.

**Does LGM for Swine have producer subsidy?**

Yes, but only if you have target marketings in at least two (2) months of an insurance period. No subsidy is available if you have only reported one (1) month of target marketings in an insurance period. The subsidy will range from 18 percent with 0 deductible up to 50 percent with a deductible of \$12 or greater.