

**LIVESTOCK GROSS MARGIN (LGM)  
LIABILITY/PREMIUM CALCULATIONS**  
Edit Description

**Livestock Gross Margin (LGM)  
(Insurance Plan Code 82)**

**GROSS MARGIN GUARANTEE**

$$\begin{aligned} \text{EXPECTED GROSS MARGIN} = & (\text{TARGET\_MARKET\_1} * \text{EXP\_GROSS\_MARGIN\_1}) + \\ & (\text{internal}) \qquad \qquad \qquad (\text{field 18}) \qquad \qquad \qquad (\text{field 24}) \\ & (\text{TARGET\_MARKET\_2} * \text{EXP\_GROSS\_MARGIN\_2}) + (\text{TARGET\_MARKET\_3} * \\ & (\text{field 19}) \qquad \qquad \qquad (\text{field 25}) \qquad \qquad \qquad (\text{field 20}) \\ & \text{EXP\_GROSS\_MARGIN\_3}) + (\text{TARGET\_MARKET\_4} * \text{EXP\_GROSS\_MARGIN\_4}) + \\ & (\text{field 26}) \qquad \qquad \qquad (\text{field 21}) \qquad \qquad \qquad (\text{field 27}) \\ & (\text{TARGET\_MARKET\_5} * \text{EXP\_GROSS\_MARGIN\_5}) + (\text{TARGET\_MARKET\_6} * \\ & (\text{field 22}) \qquad \qquad \qquad (\text{field 28}) \qquad \qquad \qquad (\text{field 23}) \\ & \text{EXP\_GROSS\_MARGIN\_6}) \\ & (\text{field 29}) \\ \text{GROSS\_MARGIN\_GUAR} = & \text{EXPECTED GROSS MARGIN} * \text{COVERAGE\_LEVEL} \\ & (\text{field 31}) \qquad \qquad \qquad (\text{internal}) \qquad \qquad \qquad (\text{field 30}) \end{aligned}$$

**LIABILITY**

$$\text{LIABILITY} = \text{GROSS\_MARGIN\_GUAR} \\ (\text{field 32}) \qquad \qquad (\text{field 31})$$

**SIMULATED LOSSES**

$$\begin{aligned} \text{SIMULATED GROSS MARGINS}(i) = & (\text{FIRST MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{internal}) \\ & \text{TARGET\_MARKET\_1}) + (\text{SECOND MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{field 18}) \\ & \text{TARGET\_MARKET\_2}) + (\text{THIRD MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{field 19}) \\ & \text{TARGET\_MARKET\_3}) + (\text{FOURTH MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{field 20}) \\ & \text{TARGET\_MARKET\_4}) + (\text{FIFTH MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{field 21}) \\ & \text{TARGET\_MARKET\_5}) + (\text{SIXTH MONTH GROSS MARGIN DRAW}(i) * \\ & (\text{field 22}) \\ & \text{TARGET\_MARKET\_6}) \\ & (\text{field 23}) \end{aligned}$$

**Note: (i) = 1,2,..., 25000**

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$$\text{SIMULATED\_LOSSES} = \sum (\text{MAX} (\text{GROSS\_MARGIN\_GUAR} - \text{SIMULATED GROSS MARGINS}(i), 0))$$
  
(field 33) (field 31)

**Note: only use simulated gross margins greater than zero in calculation**

**TOTAL PREMIUM**

$$\text{TOTAL\_PREMIUM} = 1.03 * (1/25,000) * \text{SIMULATED LOSSES}$$
  
(field 34) (field 33)

**PRODUCER PREMIUM**

$$\text{PRODUCER\_PREMIUM} = \text{TOTAL\_PREMIUM}$$
  
(field 40) (field 34)

**Note: Subsidy not applicable for LGM.**

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Tag	No.	Picture	Rounding	Description
<TARGET_MARKET_1>	18	9(05)	whole number	Number of swine the insured expects to market in the first month of the insurance period (Feb. or Aug.).
<EXP_GROSS_MARGIN_1>	24	(+ / - ) 9999.9999	per ADM	Expected Gross Margin per swine for First Month from ADM L Suffix P. This is a signed field. <b>Only the negative symbol ( - ) will appear if applicable.</b>
<TARGET_MARKET_2>	19	9(05)	whole number	Number of swine the insured expects to market in the second month of the insurance period (Mar. or Sept.).
<EXP_GROSS_MARGIN_2>	25	(+ / - ) 9999.9999	per ADM	Expected Gross Margin per swine for Second Month from ADM L Suffix P. <b>Only the negative symbol ( - ) will appear if applicable.</b>
<TARGET_MARKET_3>	20	9(05)	whole number	Number of swine the insured expects to market in the third month of the insurance period (Apr. or Oct.).
<EXP_GROSS_MARGIN_3>	26	(+ / - ) 9999.9999	per ADM	Expected Gross Margin per swine for Third Month from ADM L Suffix P. <b>Only the negative symbol ( - ) will appear if applicable.</b>
<TARGET_MARKET_4>	21	9(05)	whole number	Number of swine the insured expects to market in the fourth month of the insurance period (May or Nov.).
<EXP_GROSS_MARGIN_4>	27	(+ / - ) 9999.9999	per ADM	Expected Gross Margin per swine for Fourth Month from ADM L Suffix P. <b>Only the negative symbol ( - ) will appear if applicable.</b>
<TARGET_MARKET_5>	22	9(05)	whole number	Number of swine the insured expects to market in the fifth month of the insurance period (June or Dec.).
<EXP_GROSS_MARGIN_5>	28	(+ / - ) 9999.9999	per ADM	Expected Gross Margin per swine for Fifth Month from ADM L Suffix P. <b>Only the negative symbol ( - ) will appear if applicable.</b>

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<TARGET_MARKET_6>	23	9(05)	whole number	Number of swine the insured expects to market in the sixth month of the insurance period. (July or Jan.)
<EXP_GROSS_MARGIN_6>	29	( + / - ) 9999.9999	per ADM	Expected Gross Margin per swine for Sixth Month from ADM L Suffix P. <b>Only the negative symbol ( - ) will appear if applicable.</b>
<EXPECTED GROSS MARGIN>	internal	9(10).99	dollars and cents	Sum of (Target Marketings by month times Expected Gross Margins by month).
<COVERAGE_LEVEL>	30	9.999999	NA	Valid coverage Levels are 0.800000, 0.850000, 0.900000, 0.950000, 1.000000. Within a practice (insurance period) the coverage level is by type without regards to county.
<GROSS_MARGIN_GUAR>	31	9(10).99	dollar and cents	Expected Gross Margin times Coverage Level.
<LIABILITY>	32	9(10)	nearest whole dollar	Gross Margin Guarantee to nearest whole dollar.
FIRST MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	First Month Gross Margin Draw from ADM L Suffix C.
SECOND MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	Second Month Gross Margin Draw from ADM L Suffix C.
THIRD MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	Third Month Gross Margin Draw from ADM L Suffix C.
FOURTH MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	Fourth Month Gross Margin Draw from ADM L Suffix C.
FIFTH MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	Fifth Month Gross Margin Draw from ADM L Suffix C.
SIXTH MONTH GROSS MARGIN DRAW(i)	Internal	( + / - ) 999.999	per ADM	Sixth Month Gross Margin Draw from ADM L Suffix C.
SIMULATED GROSS MARGINS(i)	Internal	9(10).99	dollars and cents	Six month Simulated Gross Margins(i) is the sum of (Gross Margin Draws(i) times Target Marketings by month).

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<SIMULATED_LOSSES>	33	9(10).99	dollars and cents	Sum of (MAX (Gross Margin Guarantee minus Simmulated Gross Margins(i), 0).
<TOTAL_PREMIUM>	34	9(10)	nearest whole dollar	The result of 1.03 times (1/25,000) times Simmulated Losses.
<PRODUCER_PREMIUM>	40	9(10)	nearest whole dollar	Producer Premium equals Total Premium.

**Note: (i) = 1,2,...., 25000**