

Managing the newly created LGM-Dairy insurance under seasonal climate variability

By July 2008, dairy farmers in 35 states will be able to lock-in their margins through the new livestock gross margin for dairy insurance (LGM-Dairy). LGM-Dairy is a risk management tool that allows farmers to hedge against loss of gross margin (market value of milk minus feed costs). LGM-Dairy gives farmers a way to control volatility in feed costs and milk prices. Farmers will estimate the volume of milk to be sold and the amount of feed (equivalents to corn and soybean) to be bought each month. Then, the expected gross margin (EGM) will be calculated using the Chicago Mercantile Exchange Class III milk futures and the Chicago Board of Trade corn and soybean futures. Prices for milk and corn (not soybeans) will be adjusted monthly by state. If the EGM is greater than the actual gross margin, the farmer will be paid an indemnity according to a selected deductible. Seasonal climate variability (e.g., El Niño Southern Oscillation) may impact feed costs and milk prices as well as milk production and feed consumption. Consequently, advancements in climate forecasting could play an important role in assisting farmers to decide on the most appropriate risk management strategy. The goal of this study is to offer an analytical tool to help farmers select the optimum level of LGM-Dairy when accounting for seasonal climatic variability. This paper (1) characterizes the historical climate impacts on dairy profit margins; (2) systematizes the indemnity calculation of LGM-Dairy; (3) introduces climate uncertainties to the optimal selection of a LGM-Dairy contract; and (4) explores the potential economic outcomes of locking-in margins under uncertain climatic conditions. Preliminary results indicate that seasonal climate variability impacts feed costs, milk production, feed consumption and milk price. Dairy producers could use climate forecasting to decide if it is convenient to purchase LGM-Dairy and at what EGM level.