SUMMARY OF CHANGES FOR THE CONFECTIONERY SUNFLOWER PRICING METHODOLOGY (23-CEPP-M0078) (Released June 2022)

The following is a brief description of changes to the Confectionery Sunflower Pricing Methodology for the 2023 and succeeding crop years. Please refer to the Confectionery Sunflower Pricing Methodology document below for complete information.

• The document was reformatted to be more consistent with other policy documents.

UNITED STATES DEPARTMENT OF AGRICULTURE Federal Crop Insurance Corporation



Confectionery Sunflower Pricing Methodology

RMA establishes distinct oil type and confectionary type sunflower prices in accordance with the Common Crop Insurance Policy Basic Provisions and the Commodity Exchange Price Provisions: Section II – Sunflowers (CEPP). The CEPP states that the confectionary sunflower price will be the CEPP price determined for oil type sunflowers, multiplied by a factor "determined by RMA." The method used to determine this factor is explained in this document.

The adjustment factor applied to the oil type CEPP price is calculated by forecasting both oil type and confectionary type sunflower prices using Holt's two-parameter, double exponential smoothing technique. National Agricultural Statistics Service (NASS) price series beginning with the year 1975 are used.

The exponentially smoothed series or current level estimate is: $L_t = \propto y_t + (1 - \alpha)(L_{t-1} + b_{t-1})$

The trend estimate is: $b_t = \beta (L_t - L_{t-1}) + (1 - \beta) b_{t-1}$

Forecast *m* periods into the future: $F_{t+m} = L_t + m b_t$

Where:

 L_t = Estimate of the level of the series at time t

- \propto = 0.25 (smoothing constant for the data)
- y_t = new observation or actual value of series in period t
- β = 0.10557 (smoothing constant for trend estimate)
- b_t = estimate of the slope of the series at time t
- m = periods to be estimated into the future

After both the oil type and confectionary type sunflower prices are forecast, the factor applied to the oil type CEPP price is computed by dividing the oil type forecast from the confectionary forecast.