

Exhibit Name: Premium Calculation Exhibit Number: P18-1, Plan 83 Record Name: DRP Premium Record Code: P18	Reinsurance Year: 2019 Version: Approved Release Date: 12/6/2019
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Insurance Plan Code	83 Dairy Revenue Protection
Commodity Code	0830 Milk

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 1: Simulated Yield Adjustment Factor Calculation						
For sequence 1 to 5000: SimulatedMilkPerCow[sequence] = Round(ExpectedYield + NORMSINV(DRPYieldDrawQuantity[sequence]) * ExpectedYieldStandardDeviation,4)	Simulated Milk Per Cow	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Expected Yield	A00832	6	999.9999	None	
	DRP Yield Draw Quantity	A00831	22	999.9999	None	
For sequence 1 to 5000: SimulatedYieldAdjustmentFactor[sequence] = Round(SimulatedMilkPerCow[sequence] / ExpectedYield, 4)	Expected Yield Standard Deviation	A00832	8	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Yield Adjustment Factor	Internal		999.9999	4 decimals	
	Simulated Milk Per Cow	Internal		999.9999	None	
	Expected Yield	A00832	6	999.9999	None	

Class Price Calculation
Section 2: Simulated Class Price III Calculations

For sequence 1 to 5000: SimulatedMonth1ClassIIIPrice[sequence] = Round(EXP(Round(NORMSINV(Month1ClassIIIPriceDraw[sequence]) * Month1ClassIIISigma + LN(Month1ExpectedClassIIIPrice), 4) - Round(0.5 * (Round(Month1ClassIIISigma^2,4)), 4)), 4)	Simulated Month 1 Class III Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 1 Class III Price Draw	A00831	7	999.9999	None	
	Month 1 Class III Sigma	A00833	22	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ClassIIIPrice[sequence] = Round(EXP(Round(NORMSINV(Month2ClassIIIPriceDraw[sequence]) * Month2ClassIIISigma + LN(Month2ExpectedClassIIIPrice), 4) - Round(0.5 * (Round(Month2ClassIIISigma^2,4)), 4)), 4)	Month 1 Expected Class III Price	A00833	7	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 2 Class III Price	Internal		999.9999	4 decimals	
	Month 2 Class III Price Draw	A00831	8	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3ClassIIIPrice[sequence] = Round(EXP(Round(NORMSINV(Month3ClassIIIPriceDraw[sequence]) * Month3ClassIIISigma + LN(Month3ExpectedClassIIIPrice), 4) - Round(0.5 * (Round(Month3ClassIIISigma^2,4)), 4)), 4)	Month 2 Class III Sigma	A00833	23	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 2 Expected Class III Price	A00833	8	999.9999	None	
	Simulated Month 3 Class III Price	Internal		999.9999	4 decimals	
For sequence 1 to 5000: SimulatedMonth3ClassIIIPrice[sequence] = Round(EXP(Round(NORMSINV(Month3ClassIIIPriceDraw[sequence]) * Month3ClassIIISigma + LN(Month3ExpectedClassIIIPrice), 4) - Round(0.5 * (Round(Month3ClassIIISigma^2,4)), 4)), 4)	Month 3 Class III Price Draw	A00831	9	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 3 Class III Sigma	A00833	24	999.9999	None	
	Month 3 Expected Class III Price	A00833	9	999.9999	None	
For sequence 1 to 5000: SimulatedClassIIIPrice[sequence] = Round((Simulated Month1ClassIIIPrice[sequence] + SimulatedMonth2ClassIIIPrice[sequence] + SimulatedMonth3ClassIIIPrice[sequence]) / 3.00, 2)	Month 3 Class III Price	A00833	9	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Class III Price	Internal		999.9999	2 decimals	
	Simulated Month 1 Class III Price	Internal		999.9999	None	
	Simulated Month 2 Class III Price	Internal		999.9999	None	
	Simulated Month 3 Class III Price	Internal		999.9999	None	

Section 3: Simulated Class Price IV Calculations

For sequence 1 to 5000: SimulatedMonth1ClassIVPrice[sequence] = Round(EXP(Round(NORMSINV(Month1ClassIVPriceDraw[sequence]) * Month1ClassIVSigma + LN(Month1ExpectedClassIVPrice), 4) - Round(0.5 * (Round(Month1ClassIVSigma^2,4)), 4)),4)	Simulated Month 1 Class IV Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 1 Class IV Price Draw	A00831	10	999.9999	None	
	Month 1 Class IV Sigma	A00833	25	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ClassIVPrice[sequence] = Round(EXP(Round(NORMSINV(Month2ClassIVPriceDraw[sequence]) * Month2ClassIVSigma + LN(Month2ExpectedClassIVPrice), 4) - Round(0.5 * (Round(Month2ClassIVSigma^2,4)), 4)),4)	Month 1 Expected Class IV Price	A00833	10	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 2 Class IV Price	Internal		999.9999	4 decimals	
	Month 2 Class IV Price Draw	A00831	11	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ClassIVPrice[sequence] = Round(EXP(Round(NORMSINV(Month2ClassIVPriceDraw[sequence]) * Month2ClassIVSigma + LN(Month2ExpectedClassIVPrice), 4) - Round(0.5 * (Round(Month2ClassIVSigma^2,4)), 4)),4)	Month 2 Class IV Sigma	A00833	26	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 2 Expected Class IV Price	A00833	11	999.9999	None	
	Simulated Month 3 Class IV Price	Internal		999.9999	4 decimals	
For sequence 1 to 5000: SimulatedMonth3ClassIVPrice[sequence] = Round(EXP(Round(NORMSINV(Month3ClassIVPriceDraw[sequence]) * Month3ClassIVSigma + LN(Month3ExpectedClassIVPrice), 4) - Round(0.5 * (Round(Month3ClassIVSigma^2,4)),4)),4)	Month 3 Class IV Price Draw	A00831	12	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 3 Class IV Sigma	A00833	27	999.9999	None	
	Month 3 Expected Class VI Price	A00833	12	999.9999	None	

For sequence 1 to 5000: SimulatedClassIVPrice[sequence] = Round((Simulated Month1ClassIVPrice[sequence] + SimulatedMonth2ClassIVPrice[sequence] + SimulatedMonth3ClassIVPrice[sequence]) / 3.00, 2)	Simulated Class IV Price	Internal		999.9999	2 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Class IV Price	Internal		999.9999	None	
	Simulated Month 2 Class IV Price	Internal		999.9999	None	
	Simulated Month 3 Class IV Price	Internal		999.9999	None	
Section 4: Class Price Expected Revenue Guarantee Calculations						
For sequence 1 to 5000: SimulatedRevenueAmount[sequence] = Round(Round([Round((SimulatedClassIIIPrice[sequence] * ClassPriceWeightingFactor), 4) + Round((SimulatedClassIVPrice[sequence] * (1-ClassPriceWeightingFactor)), 4)], 4) * Round(DeclaredCoveredMilkProduction * SimulatedYieldAdjustmentFactor[sequence], 4) / 100.00, 0)	Simulated Revenue Amount	Internal		9999999999	0 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Class III Price	Internal		999.9999	None	
	Class Price Weighting Factor	P18	30	999.9999	None	
	Simulated Class IV Price	Internal		999.9999	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
	Simulated Yield Adjustment Factor	Internal		9.99999	None	
ExpectedRevenueAmount = Round(Round([Round((ExpectedClassIIIPrice * ClassPriceWeightingFactor), 4) + Round((ExpectedClassIVPrice * (1-ClassPriceWeightingFactor)), 4)], 4) * DeclaredCoveredMilkProduction / 100.00, 0)	Expected Revenue Amount	P18	49	9999999999.99	0 decimals	The total value of the milk Declared; determined by multiplying the class prices by their respective weights and the volume of Declared milk production, divided by 100.
	Expected Class III Price	A00833	37	999.9999	None	
	Class Price Weighting Factor	P18	30	999.9999	None	
	Expected Class IV Price	A00833	38	9999.9999	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
Expected Revenue Guarantee = Round(ExpectedRevenueAmount * CoverageLevelPercent, 0)	Expected Revenue Guarantee	P18	50	9999999999.99	0 decimals	
	Expected Revenue Amount	P18	49	9999999999.99	None	
	Coverage Level Percent	P18	27	9.9999	None	

Component Price Calculation						
Section 5: Simulated Component Price Calculations						
For sequence 1 to 5000: SimulatedMonth1ButterPrice[sequence] = Round(EXP(Round(NORMSINV(Month1ButterPriceDraw[sequence])) * Month1ButterSigma + LN(Month1ExpectedButterPrice),4) - Round(0.5 * (Round(Month1ButterSigma^2,4)),4)),4)	Simulated Month 1 Butter Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 1 Butter Price Draw	A00831	13	999.9999	None	
	Month 1 Butter Sigma	A00833	28	999.9999	None	
	Month 1 Expected Butter Price	A00833	13	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ButterPrice[sequence] = Round(EXP(Round(NORMSINV(Month2ButterPriceDraw[sequence])) * Month2ButterSigma + LN(Month2ExpectedButterPrice),4) - Round(0.5 * (Round(Month2ButterSigma^2,4)),4)),4)	Simulated Month 2 Butter Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 2 Butter Price Draw	A00831	14	999.9999	None	
	Month 2 Butter Sigma	A00833	29	999.9999	None	
	Month 2 Expected Butter Price	A00833	14	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3ButterPrice[sequence] = Round(EXP(Round(NORMSINV(Month3ButterPriceDraw[sequence])) * Month3ButterSigma + LN(Month3ExpectedButterPrice),4) - Round(0.5 * (Round(Month3ButterSigma^2,4)),4)),4)	Simulated Month 3 Butter Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 3 Butter Price Draw	A00831	15	999.9999	None	
	Month 3 Butter Sigma	A00833	30	999.9999	None	
	Month 3 Expected Butter Price	A00833	15	999.9999	None	
For sequence 1 to 5000: SimulatedButterPrice[sequence] = Round((SimulatedMonth1ButterPrice[sequence] + SimulatedMonth2ButterPrice[sequence] + SimulatedMonth3ButterPrice[sequence]) / 3.00,2)	Simulated Butter Price	Internal		999.9999	2 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Butter Price	Internal		999.9999	None	
	Simulated Month 2 Butter Price	Internal		999.9999	None	
	Simulated Month 3 Butter Price	Internal		999.9999	None	
For sequence 1 to 5000: SimulatedMonth1CheesePrice[sequence] = Round(EXP(Round(NORMSINV(Month1CheesePriceDraw[sequence])) * Month1CheeseSigma + LN(Month1ExpectedCheesePrice),4) - Round(0.5 * (Round(Month1CheeseSigma^2,4)),4)), 4)	Simulated Month 1 Cheese Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 1 Cheese Price Draw	A00831	16	999.9999	None	
	Month 1 Cheese Sigma	A00833	31	999.9999	None	
	Month 1 Expected Cheese Price	A00833	16	999.9999	None	

For sequence 1 to 5000: SimulatedMonth2CheesePrice[sequence] = Round(EXP(Round(NORMSINV(Month2CheesePriceDraw[sequence]) * Month2CheeseSigma + LN(Month2ExpectedCheesePrice),4) - Round(0.5 * (Round(Month2CheeseSigma^2,4)),4)),4)	Simulated Month 2 Cheese Price	Internal		999.9999	4 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Month 2 Cheese Price Draw	A00831	17	999.9999	None	
	Month 2 Cheese Sigma	A00833	32	999.9999	None	
	Month 2 Expected Cheese Price	A00833	17	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3CheesePrice[sequence] = Round(EXP(Round(NORMSINV(Month3CheesePriceDraw[sequence]) * Month3CheeseSigma + LN(Month3ExpectedCheesePrice), 4) - Round(0.5 * (Round(Month3CheeseSigma^2,4)),4)),4)	Simulated Month 3 Cheese Price	Internal		999.9999	4 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Month 3 Cheese Price Draw	A00831	18	999.9999	None	
	Month 3 Cheese Sigma	A00833	33	999.9999	None	
	Month 3 Expected Cheese Price	A00833	18	999.9999	None	
For sequence 1 to 5000: SimulatedCheesePrice[sequence] = Round((SimulatedMonth1CheesePrice[sequence] + SimulatedMonth2CheesePrice[sequence] + SimulatedMonth3CheesePrice[sequence]) / 3.00, 2)	Simulated Cheese Price	Internal		999.9999	2 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Cheese Price	Internal		999.9999	None	
	Simulated Month 2 Cheese Price	Internal		999.9999	None	
	Simulated Month 3 Cheese Price	Internal		999.9999	None	
For sequence 1 to 5000: SimulatedMonth1DryWheyPrice[sequence] = Round(EXP(Round(NORMSINV(Month1DryWheyPriceDraw[sequence]) * Month1DryWheySigma + LN(Month1ExpectedDryWheyPrice),4) - Round(0.5 * (Round(Month1DryWheySigma^2,4)),4)),4)	Simulated Month 1 Dry Whey Price	Internal		999.9999	4 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Month 1 Dry Whey Price Draw	A00831	19	999.9999	None	
	Month 1 Dry Whey Sigma	A00833	34	999.9999	None	
	Month 1 Expected Dry Whey Price	A00833	19	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2DryWheyPrice[sequence] = Round(EXP(Round(NORMSINV(Month2DryWheyPriceDraw[sequence]) * Month2DryWheySigma + LN(Month2ExpectedDryWheyPrice),4) - Round(0.5 * (Round(Month2DryWheySigma^2,4)),4)),4)	Simulated Month 2 Dry Whey Price	Internal		999.9999	4 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Month 2 Dry Whey Price Draw	A00831	20	999.9999	None	
	Month 2 Dry Whey Sigma	A00833	35	999.9999	None	
	Month 2 Expected Dry Whey Price	A00833	20	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3DryWheyPrice[sequence] = Round(EXP(Round(NORMSINV(Month3DryWheyPriceDraw[sequence]) * Month3DryWheySigma + LN(Month3ExpectedDryWheyPrice),4) - Round(0.5 * (Round(Month3DryWheySigma^2,4)),4)),4)	Simulated Month 3 Dry Whey Price	Internal		999.9999	4 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Month 3 Dry Whey Price Draw	A00831	21	999.9999	None	
	Month 3 Dry Whey Sigma	A00833	36	999.9999	None	
	Month 3 Expected Dry Whey Price	A00833	21	999.9999	None	
For sequence 1 to 5000: SimulatedDryWheyPrice[sequence] = Round((SimulatedMonth1DryWheyPrice[sequence] + SimulatedMonth2DryWheyPrice[sequence] + SimulatedMonth3DryWheyPrice[sequence]) / 3.00,2)	Simulated Dry Whey Price	Internal		999.9999	2 decimals	sequence = [1,....,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Dry Whey Price	Internal		999.9999	None	
	Simulated Month 2 Dry Whey Price	Internal		999.9999	None	
	Simulated Month 3 Dry Whey Price	Internal		999.9999	None	

For sequence 1 to 5000: SimulatedMonth1ButterfatPrice[sequence] = Round((SimulatedMonth1ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield, 4)	Simulated Month 1 Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Butter Price	Internal		999.9999	None	
	Butter Make Allowance	A00835	12	999.9999	None	
	Butter Manufacturing Yield	A00835	5	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ButterfatPrice[sequence] = Round((SimulatedMonth2ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield,4)	Simulated Month 2 Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 2 Butter Price	Internal		999.9999	None	
	Butter Make Allowance	A00835	12	999.9999	None	
	Butter Manufacturing Yield	A00835	5	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3ButterfatPrice[sequence] = Round((SimulatedMonth3ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield,4)	Simulated Month 3 Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 3 Butter Price	Internal		999.9999	None	
	Butter Make Allowance	A00835	12	999.9999	None	
	Butter Manufacturing Yield	A00835	5	999.9999	None	
For sequence 1 to 5000: SimulatedButterfatPrice[sequence] = Round((SimulatedMonth1ButterfatPrice[sequence] + SimulatedMonth2ButterfatPrice[sequence] + SimulatedMonth3ButterfatPrice[sequence]) / 3.00,2)	Simulated Butterfat Price	Internal		999.9999	2 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Butterfat Price	Internal		999.9999	None	
	Simulated Month 2 Butterfat Price	Internal		999.9999	None	
	Simulated Month 3 Butterfat Price	Internal		999.9999	None	
For sequence 1 to 5000: SimulatedMonth1OtherSolidsPrice[sequence] = Round((SimulatedMonth1DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	Simulated Month 1 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Dry Whey Price	Internal		999.9999	None	
	Dry Whey Make Allowance	A00835	14	999.9999	None	
	Dry Whey Manufacturing Yield	A00835	7	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2OtherSolidsPrice[sequence] = Round((SimulatedMonth2DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	Simulated Month 2 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 2 Dry Whey Price	Internal		999.9999	None	
	Dry Whey Make Allowance	A00835	14	999.9999	None	
	Dry Whey Manufacturing Yield	A00835	7	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3OtherSolidsPrice[sequence] = Round((SimulatedMonth3DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	Simulated Month 3 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 3 Dry Whey Price	Internal		999.9999	None	
	Dry Whey Make Allowance	A00835	14	999.9999	None	
	Dry Whey Manufacturing Yield	A00835	7	999.9999	None	

For sequence 1 to 5000: SimulatedOtherSolidsPrice[sequence] = Round((SimulatedMonth1OtherSolidsPrice[sequence] + SimulatedMonth2OtherSolidsPrice[sequence] + SimulatedMonth3OtherSolidsPrice[sequence]) / 3.00,2)	Simulated Other Solids Price	Internal		999.9999	2 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Other Solids Price	Internal		999.9999	None	
	Simulated Month 2 Other Solids Price	Internal		999.9999	None	
	Simulated Month 3 Other Solids Price	Internal		999.9999	None	
For sequence 1 to 5000: SimulatedMonth1ProteinPrice[sequence] = Round(Round(((SimulatedMonth1CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) + Round(((Round(((SimulatedMonth1CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth1ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio),4),4)	Simulated Month 1 Protein Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Cheese Price	Internal		999.9999	None	
	Cheese Make Allowance	A00835	15	999.9999	None	
	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
	Cheese Manufacturing Yield Butterfat	A00835	9	999.9999	None	
	Simulated Month 1 Butterfat Price	Internal		999.9999	None	
	Butterfat Retention Rate	A00835	10	999.9999	None	
Butterfat To Protein Ratio	A00835	11	999.9999	None		
For sequence 1 to 5000: SimulatedMonth2ProteinPrice[sequence] = Round(Round(((SimulatedMonth2CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) + Round(((Round(((SimulatedMonth2CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth2ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio),4),4)	Simulated Month 2 Protein Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 2 Cheese Price	Internal		999.9999	None	
	Cheese Make Allowance	A00835	15	999.9999	None	
	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
	Cheese Manufacturing Yield Butterfat	A00835	9	999.9999	None	
	Simulated Month 2 Butterfat Price	Internal		999.9999	None	
	Butterfat Retention Rate	A00835	10	999.9999	None	
Butterfat To Protein Ratio	A00835	11	999.9999	None		

For sequence 1 to 5000: SimulatedMonth3ProteinPrice[sequence] = Round(Round(((SimulatedMonth3CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) + Round(((Round(((SimulatedMonth3CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth3ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio), 4),4)	Simulated Month 3 Protein Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 3 Cheese Price	Internal		999.9999	None	
	Cheese Make Allowance	A00835	15	999.9999	None	
	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
	Cheese Manufacturing Yield Butterfat	A00835	9	999.9999	None	
	Simulated Month 3 Butterfat Price	Internal		999.9999	None	
	Butterfat Retention Rate	A00835	10	999.9999	None	
For sequence 1 to 5000: SimulatedProteinPrice[sequence] = Round((SimulatedMonth1ProteinPrice[sequence] + SimulatedMonth2ProteinPrice[sequence] + SimulatedMonth3ProteinPrice[sequence]) / 3.00,2)	Butterfat To Protein Ratio	A00835	11	999.9999	None	
	Simulated Protein Price	Internal		999.9999	2 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Protein Price	Internal		999.9999	None	
Simulated Month 2 Protein Price	Internal		999.9999	None		
Simulated Month 3 Protein Price	Internal		999.9999	None		
Section 6: Component Expected Revenue Guarantee Calculations						
For sequence 1 to 5000: SimulatedRevenueAmount[sequence] = Round(Round([Round((SimulatedButterfatPrice[sequence] * DeclaredButterfatTest),4) + Round((SimulatedProteinPrice[sequence] * DeclaredProteinTest),4) + Round((SimulatedOtherSolidsPrice[sequence] * 5.7),4)], 4) * Round(DeclaredCoveredMilkProduction * SimulatedYieldAdjustmentFactor[sequence],4) / 100.00,0)	Simulated Revenue Amount	Internal		9999999999	0 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Simulated Butterfat Price	Internal		999.9999	None	
	Declared Butterfat Test	P18	31	999.9999	None	
	Simulated Protein Price	Internal		999.9999	None	
	Declared Protein Test	P18	32			
	Simulated Other Solids Price	Internal		999.9999	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
ExpectedRevenueAmount = Round(Round([Round((ExpectedButterfatPrice * DeclaredButterfatTest),4) + Round((ExpectedProteinPrice * DeclaredProteinTest),4) + Round((ExpectedOtherSolidsPrice * 5.7),4)],4) * DeclaredCoveredMilkProduction /100.00,0)	Simulated Yield Adjustment Factor	Internal		9.99999	None	
	Expected Revenue Amount	P18	49	9999999999.99	0 decimals	The value determined by multiplying the declared component tests by the expected component value and then multiplying by the volume of milk Declared, divided by 100.
	Expected Butterfat Price	A00833	39	999.9999	None	
	Declared Butterfat Test	P18	31	999.9999	None	
	Expected Protein Price	A00833	40	9999.9999	None	
	Declared Protein Test	P18	32	9999999999	None	
	Expected Other Solids Price	A00833	41	999.9999	None	
Declared Covered Milk Production	P18	28	9999999999	None		
Expected Revenue Guarantee = Round(ExpectedRevenueAmount * CoverageLevelPercent,0)	Simulated Yield Adjustment Factor	Internal		9.9999	None	
	Expected Revenue Guarantee	P18	50	9999999999.99	0 decimals	
	Expected Revenue Amount	P18	49	9999999999.99	None	
	Coverage Level Percent	P18	27	9.9999	None	

Section 7: Total Premium and Liability Amount Calculations						
SimulatedLoss[sequence] =	Simulated Loss	Internal		999999999.99	2 decimals	
Round(MAX(ExpectedRevenueGuarantee - SimulatedRevenueAmount[sequence], 0.00),2)	Expected Revenue Guarantee	P18	50	999999999.99	None	
	Simulated Revenue Amount	Internal		9.9999	None	
SimulatedLossAverage =	Simulated Loss Average	Internal		999999999.99	2 decimals	
ROUND(MAX(SUM(SimulatedLoss[sequence]) / 5000.00, 0.02 * DeclaredCoveredMilkProduction / 100.00), 2)	Simulated Loss	Internal		999999999.99	2 decimals	Minimum premium of \$0.02/cwt.
PreliminaryTotalPremium =	Preliminary Total Premium	P18	52	999999999	None	
Round(SimulatedLossAverage * DeclaredShare * ProtectionFactor,0)	Simulated Loss Average	Internal		999999999.99	2 decimals	
	Declared Share	P18	26	999.9999	None	
	Protection Factor	P18	29	99.9999	None	
TotalPremiumAmount =	Total Premium Amount	P18	44	999999999	0 decimals	
ROUND(PreliminaryTotalPremium * LoadingFactor, 0)	Loading Factor	A00833	6	999.9999	None	
	Preliminary Total Premium	P18	52	999999999.99	2 decimals	
Liability =	Liability	P18	51	999999999	0 decimals	
ExpectedRevenueGuarantee * DeclaredShare * ProtectionFactor	Expected Revenue Guarantee	P18	50	999999999.99	None	
	Declared Share	P18	26	999.9999	None	
	Protection Factor	P18	29	99.9999	None	
Section 8: Subsidy and Producer Premium Amount Calculations						
SubsidyAmount = Round(TotalPremiumAmount * SubsidyPercent,0)	Subsidy Amount	P18	23	999999999	Round to whole number.	If this record qualifies for Beginning Farmer and Rancher, see Section 9 for subsidy calculation.
	Subsidy Percent	ADM		9.999	None	Edit with ADM Subsidy Percent, "A00070".
ProducerPremiumAmount = MAX(Round(TotalPremiumAmount - SubsidyAmount,0),1)	Producer Premium Amount	P18	45	999999999	Round to whole number.	Minimum \$1 Premium
Section 9: Beginning Farmer and Rancher (BFR), Veteran Farmer Rancher (VFR), and Conservation Compliance (CC) Subsidy Calculations						
BaseSubsidyAmount = Round(TotalPremiumAmount * SubsidyPercent,0)	Base Subsidy Amount	Internal		999999999	Round to whole number.	Cupped by the standard rule of \$1 if applicable.
	Subsidy Percent	ADM		9.999	None	Edit with ADM Subsidy Percent, "A00070".
BFR/VFR SubsidyAmount = Round(TotalPremiumAmount * 0.10 * (1 - CCSubsidyReductionPercent),0)	BFR/VFR Subsidy Amount	P18	54	999999999	Round to whole number.	Beginning Farmer Rancher/Veteran Farmer Rancher Subsidy Amount. If applicable; else 0. 0.10 (10%).
CCSubsidyReductionAmount = Round(BaseSubsidyAmount * CCSubsidyReductionPercent,0)	CC Subsidy Reduction Percentage	P18	34	9.9999	None	If applicable; else 0.
	CC Subsidy Reduction Amount	P18	55	999999999	Round to whole number	CC Subsidy Reduction Amount. If applicable; else 0.
SubsidyAmount = Round(BaseSubsidyAmount + BFR/VFR SubsidyAmount - CCSubsidyReductionAmount,0)	Subsidy Amount	P18	43	999999999	Round to whole number	Subsidy Amount cannot exceed Total Premium Amount. Subsidy Amount will be cupped at \$0.
ProducerPremiumAmount = MAX(Round(TotalPremiumAmount - SubsidyAmount,0),1)	Producer Premium Amount	P18	45	999999999	Round to whole number.	

