Exhibit Name: Premium Calculation
Exhibit Number: P18-1, Plan 83 **Reinsurance Year:** 2024
Record Name: DRP Premium **Version:** Approved
Record Code: P18 **Release Date:** 7/1/2023

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] =	Simulated Milk Per Cow	Internal		99999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
	Expected Yield	A00832	6	99999	None	
	DRP Yield Draw Quantity	A00831	22	999.9999	None	
Round(ExpectedYield + Round(NORMSINV(DRPYieldDrawQuantity[sequence]), 4) * ExpectedYieldStandardDeviation, 4)	Expected Yield Standard Deviation	A00832	8	999.9999	None	
For sequence 1 to 5000: SimulatedYieldAdjustmentFactor[sequence] =	Simulated Yield Adjustment Factor	Internal		999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
Round(SimulatedMilkPerCow[sequence] / ExpectedYield, 4)	Simulated Milk Per Cow	Internal		99999.9999	None	
	Expected Yield	A00832	6	99999	None	
Class Price Calculation						
Section 2: Simulated Class Price III Calculations						
For sequence 1 to 5000: SimulatedMonth1ClassIIIPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month1ClassIIIDraw[sequence]), 4) * Month1ClassIIISigma, 4) + Round(LN(Month1ClassIIIPrice), 4) - 0.5 * Round(Month1ClassIIISigma^2, 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	
	Month 1 Expected Class III Price	A00833	7	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ClassIIIPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month2ClassIIIDraw[sequence]), 4) * Month2ClassIIISigma, 4) + Round(LN(Month2ClassIIIPrice), 4) - 0.5 * Round(Month2ClassIIISigma^2, 4)), 4)	Simulated Month 2 Class III Price	Internal		999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
	Month 2 Class III Price Draw	A00831	8	999.9999	None	
	Month 2 Class III Sigma	A00833	23	999.9999	None	
	Month 2 Expected Class III Price	A00833	8	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3ClassIIIPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month3ClassIIIDraw[sequence]), 4) * Month3ClassIIISigma, 4) + Round(LN(Month3ClassIIIPrice), 4) - 0.5 * Round(Month3ClassIIISigma^2, 4)), 4)	Simulated Month 3 Class III Price	Internal		999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
	Month 3 Class III Price Draw	A00831	9	999.9999	None	
	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)	Simulated Class III Price	Internal		999.99	2 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
	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	

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Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 3: Simulated Class Price IV Calculations						
For sequence 1 to 5000: SimulatedMonth1ClassIVPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month1ClassIVDraw[sequence]), 4) * Month1ClassIVSigma, 4) + Round(LN(Month1ClassIVPrice), 4) - 0.5 * Round(Month1ClassIVSigma^2, 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	
	Month 1 Expected Class IV Price	A00833	10	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2ClassIVPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month2ClassIVDraw[sequence]), 4) * Month2ClassIVSigma, 4) + Round(LN(Month2ClassIVPrice), 4) - 0.5 * Round(Month2ClassIVSigma^2, 4)), 4)	Simulated Month 2 Class IV Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 2 Class IV Price Draw	A00831	11	999.9999	None	
	Month 2 Class IV Sigma	A00833	26	999.9999	None	
	Month 2 Expected Class IV Price	A00833	11	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3ClassIVPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month3ClassIVDraw[sequence]), 4) * Month3ClassIVSigma, 4) + Round(LN(Month3ClassIVPrice), 4) - 0.5 * Round(Month3ClassIVSigma^2, 4)), 4)	Simulated Month 3 Class IV Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 3 Class IV Price Draw	A00831	12	999.9999	None	
	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		999.99	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] * DeclaredClassPriceWeightingFactor), 4) + Round((SimulatedClassIVPrice[sequence] * (1-DeclaredClassPriceWeightingFactor)),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		999.99	None	
	Declared Class Price Weighting Factor	P18	30	9.99	None	
	Simulated Class IV Price	Internal		999.99	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
	Simulated Yield Adjustment Factor	Internal		999.9999	None	

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Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
ExpectedRevenueAmount = When Class Price Weighting Factor Restricted Value is not published: ROUND(((ROUND((ROUND((ExpectedClassIIIPrice * DeclaredClassPriceWeightingFactor), 4) + ROUND((ExpectedClassIVPrice * (1 - DeclaredClassPriceWeightingFactor)), 4)), 4) * DeclaredCoveredMilkProduction) / 100.00), 0)	Expected Revenue Amount	P18	50	9999999999	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. If Class Price Weighting Factor Restricted Value is not NULL, the Class Price Weighting Factor must be equal to Class Price Weighting Factor Restricted Value.
	Expected Class III Price	A00833	37	999.9999	None	
	Declared Class Price Weighting Factor	P18	30	9.99	None	
	Expected Class IV Price	A00833	50	9999.9999	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
When Class Price Weighting Factor Restricted Value is equal to 1: ROUND(((ExpectedClassIIIPrice * DeclaredCoveredMilkProduction) / 100.00), 0) When Class Price Weighting Factor Restricted Value is equal to 0: ROUND(((ExpectedClassIVPrice * DeclaredCoveredMilkProduction) / 100.00), 0)	Class Price Weighting Factor Restricted Value	A00833	54	9.99	None	
Expected Revenue Guarantee = Round(ExpectedRevenueAmount * CoverageLevelPercent, 0)	Expected Revenue Guarantee	P18	51	9999999999'	0 decimals	
	Expected Revenue Amount	P18	50	9999999999.99	None	
	Coverage Level Percent	P18	27	9.9999	None	

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Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Component Price Calculation						
Section 5: Simulated Component Price Calculations						
For sequence 1 to 5000: SimulatedMonth1ButterPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month1ButterDraw[sequence]), 4) * Month1ButterSigma, 4) + Round(LN(Month1ButterPrice), 4) - 0.5 * Round(Month1ButterSigma^2, 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(Round(NORMSINV(Month2ButterDraw[sequence]), 4) * Month2ButterSigma, 4) + Round(LN(Month2ButterPrice), 4) - 0.5 * Round(Month2ButterSigma^2, 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(Round(NORMSINV(Month3ButterDraw[sequence]), 4) * Month3ButterSigma, 4) + Round(LN(Month3ButterPrice), 4) - 0.5 * Round(Month3ButterSigma^2, 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: SimulatedMonth1CheesePrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month1CheeseDraw[sequence]), 4) * Month1CheeseSigma, 4) + Round(LN(Month1CheesePrice), 4) - 0.5 * Round(Month1CheeseSigma^2, 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(Round(NORMSINV(Month2CheeseDraw[sequence]), 4) * Month2CheeseSigma, 4) + Round(LN(Month2CheesePrice), 4) - 0.5 * Round(Month2CheeseSigma^2, 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(Round(NORMSINV(Month3CheeseDraw[sequence]), 4) * Month3CheeseSigma, 4) + Round(LN(Month3CheesePrice), 4) - 0.5 * Round(Month3CheeseSigma^2, 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: SimulatedMonth1DryWheyPrice[sequence] = Round(EXP(Round(Round(NORMSINV(Month1DryWheyDraw[sequence]), 4) * Month1DryWheySigma, 4) + Round(LN(Month1DryWheyPrice), 4) - 0.5 * Round(Month1DryWheySigma^2, 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	

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Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
For sequence 1 to 5000: SimulatedMonth2DryWheyPrice[sequence] =	Simulated Month 2 Dry Whey Price	Internal		999.9999	4 decimals	
Round(EXP(Round(Round(NORMSINV(Month2DryWheyDraw[sequence]), 4) * Month2DryWheySigma, 4) + Round(LN(Month2DryWheyPrice), 4) - 0.5 * Round(Month2DryWheySigma^2, 4)), 4)	Month 2 Dry Whey Price Draw	A00831	20	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	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] =	Simulated Month 3 Dry Whey Price	Internal		999.9999	4 decimals	
Round(EXP(Round(Round(NORMSINV(Month3DryWheyDraw[sequence]), 4) * Month3DryWheySigma, 4) + Round(LN(Month3DryWheyPrice), 4) - 0.5 * Round(Month3DryWheySigma^2, 4)), 4)	Month 3 Dry Whey Price Draw	A00831	21	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	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: SimulatedMonth1NonfatDryMilkPrice[sequence] =	Simulated Month 1 Nonfat Dry Milk Price	Internal		999.9999	4 decimals	
Round(EXP(Round(Round(NORMSINV(Month1NonfatDryMilkPriceDraw[sequence]), 4) * Month1NonfatDryMilkSigma, 4) + Round(LN(Month1ExpectedNonfatDryMilkPrice), 4) - 0.5 * Round(Month1NonfatDryMilkSigma^2, 4)), 4)	Month 1 Nonfat Dry Milk Price Draw	A00831	19	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 1 Nonfat Dry Milk Sigma	A00833	34	999.9999	None	
	Month 1 Expected Nonfat Dry Milk Price	A00833	19	999.9999	None	
For sequence 1 to 5000: SimulatedMonth2NonfatDryMilkPrice[sequence] =	Simulated Month 2 Nonfat Dry Milk Price	Internal		999.9999	4 decimals	
Round(EXP(Round(Round(NORMSINV(Month2NonfatDryMilkPriceDraw[sequence]), 4) * Month2NonfatDryMilkSigma, 4) + Round(LN(Month2ExpectedNonfatDryMilkPrice), 4) - 0.5 * Round(Month2NonfatDryMilkSigma^2, 4)), 4)	Month 2 Nonfat Dry Milk Price Draw	A00831	20	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 2 Nonfat Dry Milk Sigma	A00833	35	999.9999	None	
	Month 2 Expected Nonfat Dry Milk Price	A00833	20	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3NonfatDryMilkPrice[sequence] =	Simulated Month 3 Nonfat Dry Milk Price	Internal		999.9999	4 decimals	
Round(EXP(Round(Round(NORMSINV(Month3NonfatDryMilkPriceDraw[sequence]), 4) * Month3NonfatDryMilkSigma, 4) + Round(LN(Month3ExpectedNonfatDryMilkPrice), 4) - 0.5 * Round(Month3NonfatDryMilkSigma^2, 4)), 4)	Month 3 Nonfat Dry Milk Price Draw	A00831	21	999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Month 3 Nonfat Dry Milk Sigma	A00833	36	999.9999	None	
	Month 3 Expected Nonfat Dry Milk Price	A00833	21	999.9999	None	
For sequence 1 to 5000: SimulatedMonth1ButterfatPrice[sequence] =	Simulated Month 1 Butterfat Price	Internal		999.9999	4 decimals	
Round((SimulatedMonth1ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield, 4)	Simulated Month 1 Butter Price	Internal		999.9999	None	sequence = [1,...,5000] Prices are simulated for 5000 rounds
	Butter Make Allowance	A00835	12	999.9999	None	
	Butter Manufacturing Yield	A00835	5	999.9999	None	

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Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
For sequence 1 to 5000: SimulatedMonth2ButterfatPrice[sequence] =	Simulated Month 2 Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth2ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield,4)	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] =	Simulated Month 3 Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth3ButterPrice[sequence] - ButterMakeAllowance) * ButterManufacturingYield,4)	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] =	Simulated Butterfat Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth1ButterfatPrice[sequence] + SimulatedMonth2ButterfatPrice[sequence] + SimulatedMonth3ButterfatPrice[sequence]) / 3.00,4)	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] =	Simulated Month 1 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth1DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	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] =	Simulated Month 2 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth2DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	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] =	Simulated Month 3 Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth3DryWheyPrice[sequence] - DryWheyMakeAllowance) * DryWheyManufacturingYield,4)	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] =	Simulated Other Solids Price	Internal		999.9999	4 decimals	sequence = [1,...,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth1OtherSolidsPrice[sequence] + SimulatedMonth2OtherSolidsPrice[sequence] + SimulatedMonth3OtherSolidsPrice[sequence]) / 3.00,4)	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	

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For sequence 1 to 5000: SimulatedMonth1ProteinPrice[sequence] =	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	
Round(Round(((SimulatedMonth1CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) +	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
Round(((Round(((SimulatedMonth1CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth1ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio),4),4)	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] =	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	
Round(Round(((SimulatedMonth2CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) +	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
Round(((Round(((SimulatedMonth2CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth2ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio),4),4)	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] =	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	
Round(Round(((SimulatedMonth3CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldCasein),4) +	Cheese Manufacturing Yield Casein	A00835	8	999.9999	None	
Round(((Round(((SimulatedMonth3CheesePrice[sequence] - CheeseMakeAllowance) * CheeseManufacturingYieldButterfat),4) - SimulatedMonth3ButterfatPrice[sequence] * ButterfatRetentionRate) * ButterfatToProteinRatio), 4),4)	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	
	Butterfat To Protein Ratio	A00835	11	999.9999	None	
For sequence 1 to 5000: SimulatedProteinPrice[sequence] =	Simulated Protein Price	Internal		999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth1ProteinPrice[sequence] + SimulatedMonth2ProteinPrice[sequence] + SimulatedMonth3ProteinPrice[sequence]) / 3.00,4)	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	
For sequence 1 to 5000: SimulatedMonth1NonfatSolidsPrice[sequence] =	Simulated Month 1 Nonfat Solids Price	Internal		9999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
	Simulated Month 1 Nonfat Dry Milk Price	Internal		9999.9999	None	
Round((SimulatedMonth1NonfatDryMilkPrice[sequence] - NonfatDryMilkMakeAllowance) * NonfatDryMilkManufacturingYield, 4)	Nonfat Dry Milk Make Allowance	A00835	13	999.9999	None	
	Nonfat Dry Milk Manufacturing Yield	A00835	6	999.9999	None	

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For sequence 1 to 5000: SimulatedMonth2NonfatSolidsPrice[sequence] =	Simulated Month 2 Nonfat Solids Price	Internal		9999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth2NonfatDryMilkPrice[sequence] - NonfatDryMilkMakeAllowance) * NonfatDryMilkManufacturingYield, 4)	Simulated Month 2 Nonfat Dry Milk Price	Internal		9999.9999	None	
	Nonfat Dry Milk Make Allowance	A00835	13	999.9999	None	
	Nonfat Dry Milk Manufacturing Yield	A00835	6	999.9999	None	
For sequence 1 to 5000: SimulatedMonth3NonfatSolidsPrice[sequence] =	Simulated Month 3 Nonfat Solids Price	Internal		9999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth3NonfatDryMilkPrice[sequence] - NonfatDryMilkMakeAllowance) * NonfatDryMilkManufacturingYield, 4)	Simulated Month 3 Nonfat Dry Milk Price	Internal		9999.9999	None	
	Nonfat Dry Milk Make Allowance	A00835	13	999.9999	None	
	Nonfat Dry Milk Manufacturing Yield	A00835	6	999.9999	None	
For sequence 1 to 5000: SimulatedNonfatSolidsPrice[sequence] =	Simulated Nonfat Solids Price	Internal		9999.9999	4 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds
Round((SimulatedMonth1NonfatSolidsPrice[sequence] + SimulatedMonth2NonfatSolidsPrice[sequence] + SimulatedMonth3NonfatSolidsPrice[sequence]) / 3.00, 4)	Simulated Month 1 Nonfat Solids Price	Internal		9999.9999	None	
	Simulated Month 2 Nonfat Solids Price	Internal		9999.9999	None	
	Simulated Month 3 Nonfat Solids Price	Internal		9999.9999	None	
Section 6: Component Expected Revenue Guarantee Calculations						
For sequence 1 to 5000: SimulatedRevenueAmount[sequence] =	Simulated Revenue Amount	Internal		9999999999	0 decimals	sequence = [1,…,5000] Prices are simulated for 5000 rounds. If Component Price Weighting Factor Restricted Value is not NULL, the Component Price Weighting Factor must be equal to Component Price Weighting Factor Restricted Value.
Round((Round(DeclaredComponentPriceWeightingFactor * (Round(SimulatedButterfatPrice[sequence] * DeclaredButterfatTest, 4) + Round(SimulatedProteinPrice[sequence] * DeclaredProteinTest, 4) + Round(SimulatedOtherSolidsPrice[sequence] * 5.7, 4)), 4) + Round((1 - DeclaredComponentPriceWeightingFactor) * (Round(SimulatedButterfatPrice[sequence] * DeclaredButterfatTest, 4) + Round(SimulatedNonfatSolidsPrice[sequence] * (DeclaredProteinTest + 5.7), 4)), 4)) * (DeclaredCoveredMilkProduction * SimulatedYieldAdjustmentFactor[sequence] / 100.00), 0)	Simulated Butterfat Price	Internal		999.9999	None	
	Declared Butterfat Test	P18	31	9.99	None	
	Simulated Protein Price	Internal		999.9999	None	
	Declared Protein Test	P18	32	9.99		
	Simulated Other Solids Price	Internal		999.9999	None	
	Declared Covered Milk Production	P18	28	9999999999	None	
	Simulated Yield Adjustment Factor	Internal		999.9999	None	
	Simulated Nonfat Solids Price	Internal		9999.9999	None	
	Declared Component Price Weighting Factor	P18	35	9.99	None	

Exhibit Name: Premium Calculation
Exhibit Number: P18-1, Plan 83 **Reinsurance Year:** 2024
Record Name: DRP Premium **Version:** Approved
Record Code: P18 **Release Date:** 7/1/2023

Insurance Plan Code	83 Dairy Revenue Protection
Commodity Code	0830 Milk

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Expected Revenue Amount =	Expected Revenue Amount	P18	50	9999999999'	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.
When Component Price Weighting Factor Restricted Value is not published:						
ROUND((ROUND(Component Price Weighting Factor * (ROUND(Expected Butterfat Price * Declared Butterfat Test, 4) + ROUND(Expected Protein Price * Declared Protein Test, 4) + ROUND(Expected Other Solids Price * 5.7, 4)), 4) + ROUND((1 - Component Price Weighting Factor) * (ROUND(Expected Butterfat Price * Declared Butterfat Test, 4) + ROUND(Expected Nonfat Solids Price * (Declared Protein Test + 5.7), 4)), 4)) * (Declared Covered Milk Production / 100.00), 0)	Expected Butterfat Price	A00833	39	999.9999	None	
	Declared Butterfat Test	P18	31	9.99	None	
	Expected Protein Price	A00833	40	9999.9999	None	
	Declared Protein Test	P18	32	9.99	None	
	Expected Other Solids Price	A00833	41	999.9999	None	
When Component Price Weighting Factor Restricted Value is 1:	Declared Covered Milk Production	P18	28	999999999	None	
ROUND(ROUND((ROUND(Expected Butterfat Price * Declared Butterfat Test, 4) + ROUND(Expected Protein Price * Declared Protein Test, 4) + ROUND(Expected Other Solids Price * 5.7, 4)), 4) * (Declared Covered Milk Production / 100.00), 0)	Simulated Yield Adjustment Factor	Internal		9.9999	None	
	Expected Nonfat Solids Price	A00833	52	999.9999	None	
When Component Price Weighting Factor Restricted Value is 0:	Component Price Weighting Factor Restricted Value	A00833	53	9.99	None	
ROUND(ROUND((ROUND(Expected Butterfat Price * Declared Butterfat Test, 4) + ROUND(Expected Nonfat Solids Price * (Declared Protein Test + 5.7), 4)), 4) * (Declared Covered Milk Production / 100.00), 0)						
Expected Revenue Guarantee =	Expected Revenue Guarantee	P18	51	9999999999'	0 decimals	
Round(ExpectedRevenueAmount * CoverageLevelPercent,0)	Expected Revenue Amount	P18	50	9999999999'	None	
	Coverage Level Percent	P18	27	9.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P18-1, Plan 83 **Reinsurance Year:** 2024
Record Name: DRP Premium **Version:** Approved
Record Code: P18 **Release Date:** 7/1/2023

Insurance Plan Code	83 Dairy Revenue Protection
Commodity Code	0830 Milk

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 7: Total Premium and Liability Amount Calculations						
SimulatedLoss[sequence] =	Simulated Loss	Internal		9999999999.99	2 decimals	
Round(MAX(ExpectedRevenueGuarantee - SimulatedRevenueAmount[sequence], 0.00),2)	Expected Revenue Guarantee	P18	51	9999999999'	None	
	Simulated Revenue Amount	Internal		9.9999	None	
SimulatedLossAverage =	Simulated Loss Average	Internal		9999999999.99	2 decimals	
ROUND(MAX(SUM(SimulatedLoss[sequence]) / 5000.00, 0.02 * DeclaredCoveredMilkProduction / 100.00), 2)	Simulated Loss	Internal		9999999999.99	2 decimals	Minimum premium of $0.02/cwt.
PreliminaryTotalPremium =	Preliminary Total Premium	P18	53	9999999999	None	
Round(SimulatedLossAverage * DeclaredShare * ProtectionFactor,0)	Simulated Loss Average	Internal		9999999999.99	2 decimals	
	Declared Share	P18	26	9.9999	None	
	Protection Factor	P18	29	9.99	None	
TotalPremiumAmount =	Total Premium Amount	P18	45	9999999999	0 decimals	
ROUND(PreliminaryTotalPremium * LoadingFactor, 0)	Loading Factor	A00833	6	999.9999	None	
	Preliminary Total Premium	P18	53	9999999999.99	2 decimals	
Liability =	Liability	P18	52	9999999999	0 decimals	Cup at $1.
ExpectedRevenueGuarantee * DeclaredShare * ProtectionFactor	Expected Revenue Guarantee	P18	51	9999999999'	None	
	Declared Share	P18	26	9.9999	None	
	Protection Factor	P18	29	9.99	None	
Section 8: Subsidy and Producer Premium Amount Calculations						
SubsidyAmount = Round(TotalPremiumAmount * SubsidyPercent,0)	Subsidy Amount	P18	23	9999999999	Round to whole number.	If this record qualifies for Beginning Farmer and Rancher, see Section 9 for subsidy calculation.
	Subsidy Percent	A00070	15	9.999	None	Edit with ADM Subsidy Percent, "A00070".
ProducerPremiumAmount = MAX(Round(TotalPremiumAmount - SubsidyAmount,0),1)	Producer Premium Amount	P18	46	9999999999	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		9999999999	Round to whole number.	Cupped by the standard rule of $1 if applicable.
	Subsidy Percent	A00070	15	9.999	None	Edit with ADM Subsidy Percent, "A00070".
BFR/VFR SubsidyAmount = Round(TotalPremiumAmount * 0.10 * (1 - CCSubsidyReductionPercent),0)	BFR/VFR Subsidy Amount	P18	55	9999999999	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	56	9999999999	Round to whole number	CC Subsidy Reduction Amount. If applicable; else 0.

Exhibit Name: Premium Calculation
Exhibit Number: P18-1, Plan 83
Reinsurance Year: 2024
Record Name: DRP Premium
Version: Approved
Record Code: P18
Release Date: 7/1/2023

Insurance Plan Code	83 Dairy Revenue Protection
Commodity Code	0830 Milk

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
SubsidyAmount = Round(BaseSubsidyAmount + BFR/VFR SubsidyAmount - CCSubsidyReductionAmount,0)	Subsidy Amount	P18	44	9999999999	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	46	9999999999	Round to whole number.	