Exhibit Name: Premium Calculation
Exhibit Number: P19-1 Plan 76
Record Name: WFRP Farm Reports
Record Code: P19

Reinsurance Year: 2017
Version: Approved
Release Date: 1/31/2017

Insurance Plan Code **76 Whole Farm Revenue Protection (WFRP)**

Commodity Code 0076 Whole Farm Revenue Protection (WFRP)

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 1: Liability Calculation						**If Native Sod (NS) applies to any commodity under WFRP, see Section 9 for Liability calculations.**
Liability Amount = Approved Revenue Amount * Coverage Level Percent	Liability Amount	P19	71	9999999999	Round to whole number.	Liability Amount is 'Insured Revenue'. Liability Amount Cap, cannot exceed $8.5 million for WFRP. Liability Amount must be set to $1.00 when less than $1.00.
	Approved Revenue Amount	P19	69	9999.9999	None	
	Coverage Level Percent	P14	34	9.999	None	
MAX MPCI = Liability Amount / 2	MAX MPCI	Internal		9999999999	Round to whole number.	
Premium Liability Amount = Liability Amount - lesser of: (MPCI Liability Amount or MAX MPCI)	Premium Liability Amount	Internal		9999999999	Round to whole number.	Premium Liability must be set to $1.00 when less than $1.00.
	MPCI Liability Amount	P19	33	9999999999	None	
Section 2: Total Weighted Farm Rate Calculation						
Percent of Revenue = Expected Revenue Amount / Total Expected Revenue Amount	Percent of Revenue	Internal		9.999	Round to 3 decimals.	
	Expected Revenue Amount	P19A	15 or 23	9999999999	None	Summed per commodity if more then one Expected Revenue Amount for a commodity code due to Native Sod.
	Total Expected Revenue Amount	P19	68	9999999999	None	
Weighted Commodity Rate = Commodity Rate * Percent of Revenue	Weighted Commodity Rate	Internal		99.999	Round to 3 decimals.	
	Commodity Rate	Internal		999999.9999	None	Edit with ADM AGR Rate, "A01000" base rate.
Total Weighted Farm Rate = sum of Weighted Commodity Rate	Total Weighted Farm Rate	P19	90	99.999	Round to 3 decimals.	
Section 3: Diversty Factor (DF) Calculation						
Commodity Factor = 1.00 / Qualifying Commodity Count	Commodity Factor	Internal		9.999	Round to 3 decimals.	
	Qualifying Commodity Count	P19	94	999	None	Combined total of eligible commodity count and grouped commodity count. See Exhibit P14-7.
For each Eligible Commodity (not grouped): Commodity Deviation "Absolute Value" = Round(ABS((Expected Revenue Amount/Total Expected Revenue Amount) - Commodity Factor),3)	Commodity Deviation	Internal		9.999	Round to 3 decimals.	

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If Grouped Commodity Count > 0:		Commodity Deviation	Internal		9.999	Round to 3 decimals.	
Commodity Deviation "Absolute Value"	= Round(ABS((MQA/Total Expected Revenue Amount) - Commodity Factor),3) * Grouped Commodity Count	MQA	Internal		9999999999	None	See Exhibit P14-7.
		Grouped Commodity Count	P19	93	999	None	See Exhibit P14-7.
Sum of Commodity Deviation (DEV) Factors	= sum of all Commodity Deviations	Sum of Commodity Deviation Factors	Internal		9.999	Round to 3 decimals.	"DEV" will be used in determination of Diversity Factor (DF).
	QUALIFYING COMMODITY COUNT	**FORMULA**					
	1 Commodity	DF = 1.000					
	2 Commodities	DF = 0.668 + (0.0179999 * DEV) + (0.3142858 * DEV^2)					
	3 Commodities	DF = 0.523 + (0.0607623 * DEV) + (0.2229000 * DEV^2)					
	4 Commodities	DF = 0.474 + (0.0248208 * DEV) + (0.2184720 * DEV^2)					
	5 Commodities	DF = 0.437 + (0.0710358 * DEV) + (0.1760129 * DEV^2)					
	6 Commodities	DF = 0.412 + (0.0325131 * DEV) + (0.1945816 * DEV^2)					
	7 Commodities or more	DF = 0.410					
Diversity Factor (DF)	= See above	Diversity Factor	P19	95	9.999	Round to 3 decimals.	
Section 4: Optional Coverage Calculation							
Additive Optional Rate Adjustment Factor	= **When Rate Method Code is Additive, "A":** ∑ Option Rate * Rate Differential Factor	Additive Optional Rate Adjustment Factor	Internal		999999.9999	Round to 4 decimals.	
		Option Rate	ADM		99999.9999	None	Option Rate will be the Sum of all Option Rate with Rate Method Code equal to Additive, "A". Edit with ADM Option Rate, "A01060".
		Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040".
Multiplicative Optional Rate Adjustment Factor	= **When Rate Method Code is Multiplicative, "M":** ∑ Option Rate1 * Option Rate2 * Option Rate3...	Multiplicative Optional Rate Adjustment Factor	Internal		999999.9999	Round to 4 decimals.	
		Option Rate	ADM		9.9999	None	Edit with ADM Option Rate, "A01060".
Section 5: Premium Rate Calculation							
Premium Rate	= Diversity Factor * Total Weighted Farm Rate * Multiplicative Optional Rate Adjustment Factor + Additive Optional Rate Adjustment Factor	Premium Rate	P19	96	.999	Round to 3 decimals.	Premium Rate is capped at 0.999.
Section 6: Total Premium, Subsidy, and Producer Premium Calculation							**If Beginning Farmer and Rancher (BFR) applies see Section 8. If Native Sod (NS) applies see Section 10. If both BFR and NS applies see Section 10.**
Preliminary Total Premium Amount	= Premium Liability Amount * Premium Rate	Preliminary Total Premium Amount	Internal		9999999999	Round to whole number	
Total Premium Amount	= Preliminary Total Premium Amount	Total Premium Amount	P19	72	9999999999	Round to whole number	Total Premium Amount must be set to $1.00 when less than $1.00.

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Subsidy Amount = Total Premium Amount * Subsidy Percent	Subsidy Amount	P19	73	9999999999	Round to whole number	Subsidy Amount must be set to $1.00 when less than $1.00.
	Subsidy Percent	ADM		9.999	None	Edit with ADM Subsidy Percent, "A00070". Subsidy Percent will be based on Coverage Level Percent and Qualifying Commodity Count.
Producer Premium Amount = Total Premium Amount - Subsidy Amount	Producer Premium Amount	P19	74	9999999999	Round to whole number	
Section 7: A&O Expense Subsidy Calculation						
A&O Expense Subsidy Amount = Total Premium Amount * A&O Expense Subsidy Percent	A&O Expense Subsidy Amount	P19	77	9999999999.99		
	A&O Expense Subsidy Percent	Internal			None	
Section 8: Beginning Farmer and Rancher (BFR) and Conservation Compliance (CC) Subsidy and Producer Premium Calculation						**If Native Sod (NS) applies along with BFR see Section 10.**
Preliminary Total Premium Amount = Premium Liability Amount * Premium Rate	Preliminary Total Premium Amount	Internal		9999999999	Round to whole number	
Total Premium Amount = Preliminary Total Premium Amount	Total Premium Amount	P19	72	9999999999	Round to whole number	Total Premium Amount must be set to $1.00 when less than $1.00.
Base Subsidy Amount = Total Premium Amount * Subsidy Percent	Base Subsidy Amount	Internal		9999999999	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". Subsidy Percent will be based on Coverage Level Percent and Qualifying Commodity Count.
BFR Subsidy Amount = Total Premium Amount * 0.10 * (1 - CC Subsidy Reduction Amount	BFR Subsidy Amount	P19	104	9999999999	Round to whole number	Beginning Farmer Rancher Subsidy Amount. If Applicable; else 0. 0.10 (10%).
CC Subsidy Reduction Amount = Base Subsidy Amount * CC Subsidy Reduction Percent	CC Subsidy Reduction Percent	P19	54	9.9999	None	If Applicable; else 0.
	CC Subsidy Reduction Amount	P19	107	9999999999	Round to whole number	CC Subsidy Reduction Amount. If Applicable; else 0.
Subsidy Amount = Base Subsidy Amount + BFR Subsidy Amount - CC Subsidy Reduction Amount	Subsidy Amount	P19	73	9999999999	Round to whole number	Subsidy Amount cannot exceed Total Premium Amount. Subsidy Amount will be cupped at $0.
Producer Premium Amount = Total Premium Amount - Subsidy Amount	Producer Premium Amount	P19	74	9999999999	Round to whole number	
Section 9: Native Sod (NS) Liability Calculation						
Insured Revenue Amount = Approved Revenue Amount * Coverage Level Percent	Insured Revenue Amount	Internal		9999999999	Round to whole number.	Insured Revenue cannot exceed $8.5 million for WFRP.
	Approved Revenue Amount	P19	69	9999.9999	None	
	Coverage Level Percent	P14	34	9.999	None	

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Native Sod Percent of Revenue = Expected Revenue Amount (Native Sod) / Total Expected Revenue Amount	Native Sod Percent of Revenue	P19	97	9.999	Round to 3 decimals.	
	Expected Revenue Amount	P19A	15 or 23	9999999999	None	Only the Expected Revenue Amount for Native Sod. Summed P19A Expected Revenue Amount if more then one commodity with Native Sod.
	Total Expected Revenue Amount	P19	68	9999999999	None	
Native Sod Liability Amount = Insured Revenue Amount * Native Sod Percent of Revenue * 0.65	Native Sod Liability Amount	P19	98	9999999999	Round to whole number.	
Non Native Sod Liability Amount = Insured Revenue Amount * (1.000 - Native Sod Percent of Revenue)	Non Native Sod Liability Amount	P19	99	9999999999	Round to whole number.	
Liability Amount = Native Sod Liability Amount + Non Native Sod Liability Amount	Liability Amount	P19	71	9999999999	Round to whole number.	Liability Amount Cap, cannot exceed $8.5 million for WFRP. If Native Sod does not apply then Liability Amount will equal Insured Revenue Amount. Liability Amount must be set to $1.00 when less than $1.00.
MAX MPCI = Liability Amount / 2	MAX MPCI	Internal		9999999999	Round to whole number.	
Base Premium Liability Amount = Liability Amount - lesser of: (MPCI Liability Amount or MAX MPCI)	Base Premium Liability Amount	Internal		9999999999	Round to whole number	Base Premium Liability Amount must be set to $1.00 when less than $1.00.
	MPCI Liability Amount	P19	33	9999999999	None	
Native Sod Premium Liability Amount = Round(Native Sod Liability Amount / Liability Amount, 3) * Base Premium Liability Amount	Native Sod Premium Liability Amount	P19	100	9999999999	Round to whole number	
Non Native Sod Premium Liability Amount = Base Premium Liability Amount - Native Sod Premium Liability Amount	Non Native Sod Premium Liability Amount	P19	101	9999999999	Round to whole number	
Section 10: Native Sod (NS) Total Premium, Subsidy, and Producer Premium Calculation						**If Beginning Farmer and Rancher (BFR) applies along with Native Sod (NS) this calculation will be used. See Section 8 if only BFR.**
Native Sod Preliminary Total Premium Amount = Native Sod Premium Liability Amount * Premium Rate	Native Sod Preliminary Total Premium Amount	P19	102	9999999999	Round to whole number	
Non Native Sod Preliminary Total Premium Amount = Non Native Sod Premium Liability Amount * Premium Rate	Non Native Sod Preliminary Total Premium Amount	P19	103	9999999999	Round to whole number	
Total Premium Amount = Native Sod Preliminary Total Premium Amount + Non Native Sod Preliminary Total Premium Amount	Total Premium Amount	P19	72	9999999999	Round to whole number	Total Premium Amount must be set to $1.00 when less than $1.00.
Base Subsidy Amount = Total Premium Amount * Subsidy Percent	Base Subsidy Amount	Internal		9999999999	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". Subsidy Percent will be based on Coverage Level Percent and Qualifying Commodity Count.

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BFR Subsidy Amount = Total Premium Amount * 0.10	BFR Subsidy Amount	P19	104	9999999999	Round to whole number	Beginning Farmer Rancher Subsidy Amount. If Applicable; else 0. 0.10 (10%).
Native Sod Subsidy Amount = Native Sod Preliminary Total Premium Amount * 0.50	Native Sod Subsidy Amount	P19	105	9999999999	Round to whole number	Native Sod Subsidy Amount. If Applicable; else, 0. 0.50 (50%).
Subsidy Amount = Base Subsidy Amount + BFR Subsidy Amount - Native Sod Subsidy Amount	Subsidy Amount	P19	73	9999999999	Round to whole number	Subsidy Amount cannot exceed Total Premium Amount. Subsidy Amount will be cupped at $0.
Producer Premium Amount = Total Premium Amount - Subsidy Amount	Producer Premium Amount	P19	74	9999999999	Round to whole number	