Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Insurance Plan Code 90 Actual Production History

Commodity Code

0012 Blueberries	0053 Grapes	0107 Alfalfa Seed	0233 Dark Air Tobacco
0013 Onions	0054 Apples	0114 Buckwheat	0234 Cigar Filler Tobacco
0016 Oats	0055 Culti Wild Rice	0132 Cucumbers	0235 Cigar Bindr Tobacco
0017 Millet	0058 Cranberries	0147 Pumpkins	0236 Cigar Wrapper Tobacco
0019 Avocados	0059 Silage Sorghum	0156 Sweet Potatoes	0255 Banana
0022 Cotton Extra Long	0060 Figs	0158 Triticale	0256 Coffee
0023 Macadamia Nuts	0064 Green Peas	0201 Grapefruit	0257 Papaya
0028 Almonds	0067 Dry Peas	0202 Lemons	0309 Mandarins/Tangerines
0029 Walnuts	0069 Mustard	0203 Tangelos	0333 Camelina
0031 Flax	0072 Cabbage	0218 Fresh Apricots	0396 Sesame
0033 Forage Production	0074 Mint	0219 Processing Apricots	0470 Pistachios
0034 Peaches	0079 Clary Sage	0220 Fresh Nectarines	0501 Olives
0036 Prunes	0084 Potatoes	0221 Processing Cling Peaches	1302 Tangors
0038 Sugar Cane	0086 Fresh Tomatoes	0222 Processing Freestone	1218 Hemp
0039 Sugar Beets	0087 Tomatoes	0223 Fresh Freestone Peaches	6000 Caneberries
0042 Sweet Corn	0089 Pears	0227 Oranges	
0046 Processing Beans	0092 Fresh Plums	0229 Flue Cured Tobacco	
0047 Dry Beans	0094 Rye	0230 Fire Cured Tobacco	
0049 Safflower	0102 Grass Seed	0231 Burley Tobacco	
0052 Table Grapes	0105 Fresh Market Beans	0232 Maryland Tobacco	

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 1: Liability Calculation						
Guarantee Per Acre1 = Approved Yield * Coverage Level Percent	Guarantee Per Acre1	Internal		99999999.99	When Unit of Measure equals Pounds, "LBS", then Round to whole Number. When Unit of Measure equals Tons, "Tons", then Round to 2 decimals. Otherwise, Round to 1 decimal.	Guarantee Per Acre1 should be rounded to whole pounds for Dry Beans, "0047" (all types), and Dry Peas, "0067" (all types).
	Approved Yield	P11	42	99999999.99	None	
	Coverage Level Percent	P14	34	9.9999	None	For APH Trend, Yield Cup, Quality Loss and Yield Exclusion the Coverage Level Percent in this section is ALWAYS the chosen coverage level and NOT the Effective Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Premium Acre Guarantee Quantity = Guarantee Per Acre1 * Yield Conversion Factor	Premium Acre Guarantee Quantity	Internal		99999999.99	When Unit of Measure equals Pounds, "LBS", then Round to whole Number. When Unit of Measure equals Tons, "Tons", then Round to 2 decimals. Otherwise, Round to 1 decimal.	Premium Acre Guarantee Quantity should be rounded to whole pounds for Dry Beans, "0047" (all types), and Dry Peas, "0067" (all types).
	Yield Conversion Factor	P11	59	9.999	None	When Commodity Code is '0021' and Skip Row Code is not one of the following values: '117', '217', '317' and Practice Code is one of the following values: '063', '073', '083', '729', '730', '731', '732', '733', '734' and Yield Conversion Factor exists Yield Conversion Factor must be valid; edit with the Yield Conversion ICE, "D00064" record.
Acre Guarantee Quantity = Round(Guarantee Per Acre1 * Yield Conversion Factor, lbs to 0, tons to 2, all other 1) * Guarantee Adjustment Factor	Acre Guarantee Quantity	P11	106	99999999.99	When Unit of Measure equals Pounds, "LBS", then Round to whole Number. When Unit of Measure equals Tons, "Tons", then Round to 2 decimals. Otherwise, Round to 1 decimal.	Acre Guarantee Quantity should be rounded to whole pounds for Dry Beans, "0047" (all types), and Dry Peas, "0067" (all types).
	Yield Conversion Factor	P11	59	9.999	None	When Commodity Code is '0021' and Skip Row Code is not one of the following values: '117', '217', '317' and Practice Code is one of the following values: '063', '073', '083', '729', '730', '731', '732', '733', '734' and Yield Conversion Factor exists Yield Conversion Factor must be valid; edit with the Yield Conversion ICE, "D00064" record.
	Guarantee Adjustment Factor	P11	69	0.999	None	Edit with the Guarantee Adjustment ICE, "D00068" or ADM Guarantee Adjustment, "A01220" for Prevented Planting.

Premium Total Guarantee Amount	= Premium Acre Guarantee Quantity * Reported Acreage	Premium Total Guarantee	Internal		99999999.99	When Unit of Measure equals Barrels or Tons, then Round to 1 decimal. Otherwise, Round to whole number.	
		Reported Acreage	P11	48	999999.99	None	Reported Acreage must equal the sum of all Land, P27, Reported Acreage.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Total Guarantee Amount = Acre Guarantee Quantity * Reported Acreage	Total Guarantee Amount	P11	103	99999999.99	When Unit of Measure equals Barrels or Tons, then Round to 1 decimal. Otherwise, Round to whole number.	
	Reported Acreage	P11	48	999999.99	None	Reported Acreage must equal the sum of all Land, P27, Reported Acreage.
Price Election Amount = ADM Price (or Contract Price) * Price Election Percent	Price Election Amount	P11 (Internal)	45	9999.9999	See Appendix III Price Election Amount Rounding Exhibit P11-8.	Result will be capped if based on Contract Price and it exceeds Contract Price Max.
	ADM Price	ADM		99999.9999		Edit with ADM Price, "00810".
	Contract Price	P11	46	9999.9999	None	Contract Price, if applicable, should be entered in the Contract Price field.
	Price Election Percent	P14	35	9.9999	None	
Premium Liability Amount = Premium Total Guarantee Amount * Price Election Amount * Insured Share Percent	Premium Liability Amount	Internal		9999999999	Round to whole number	
	Price Election Amount	P11	45	9999.9999	None	Edit with ADM Price, "A00810".
	Insured Share Percent	P11	43	9.9999	None	
For Mustard (commodity 0069): Premium Liability Amount = (Lesser of "Reported Pounds or Premium Total Guarantee Amount") * Price Election Amount * Insured Share Percent	Premium Liability Amount	Internal		9999999999	Round to whole number	
	Reported Pounds	P11	32	9999999999	None	
	Price Election Amount	P11	45	9999.9999	None	Edit with ADM Price, "A00810".
	Insured Share Percent	P11	43	9.9999	None	
Liability Amount = Total Guarantee Amount * Price Election Amount * Insured Share Percent	Liability Amount	P11	94	9999999999	Round to whole number.	
	Price Election Amount	P11	45	9999.9999	None	
	Insured Share Percent	P11	43	9.9999	None	
For Mustard (commodity 0069): Liability Amount = (Lesser of "Reported Pounds or Total Guarantee Amount") * Price Election Amount * Insured Share Percent	Liability Amount	P11	94	9999999999	Round to whole number	
	Reported Pounds	P11	32	9999999999	None	
	Price Election Amount	P11	45	9999.9999	None	Edit with ADM Price, "A00810".
	Insured Share Percent	P11	43	9.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 2: Base Premium Rate Calculation							
Current Year Yield Ratio = Rate Yield / Reference Yield		Current Year Yield Ratio	Internal		9999999.99	Round to 2 decimals.	Cup at 0.50 and Cap at 1.50.
		Rate Yield	P15	35	99999999.99	None	
		Reference Yield	ADM		99999.99	None	Edit with ADM Base Rate, "A01010".
When previous year yield limitation code = '03', Insurance Option Code List contains Yield Cup (YC), and Commodity Code Dry Beans "0047" and Type Code equals Contract "62", or Commodity Code equals Dry Peas "0067" and Type Code equals Spring Contract "98":							
Prior Year Yield Ratio = Round(Approved Yield * Contract Price,0) / Prior Year Reference Amount		Prior Year Yield Ratio	Internal		9999999.99	Round to 2 decimals.	
		Approved Yield	P11	42	99999999.99	None	
		Contract Price	P11	46	9999.9999	None	
		Prior Year Reference Amount	ADM		99999.99	None	Edit with ADM Base Rate, "A01010".
When previous year yield limitation code = '03' and Insurance Option Code List contains Yield Cup (YC) and the aforementioned commodities/types are not applicable:							
Prior Year Yield Ratio = Approved Yield / Prior Year Reference Yield Amount		Prior Year Yield Ratio	Internal		9999999.99	Round to 2 decimals.	
		Approved Yield	P11	42	99999999.99	None	
		Prior Year Reference Yield Amount	ADM		99999.99	None	Edit with ADM Base Rate, "A01010".
Otherwise:							
Prior Year Yield Ratio = Rate Yield / Prior Year Reference Amount		Prior Year Yield Ratio	Internal		9999999.99	Round to 2 decimals.	
		Rate Yield	P15	35	99999999.99	None	
		Prior Year Reference Amount	ADM		99999.99	None	Edit with ADM Base Rate, "A01010".
Current Year Rate Multiplier = Current Year Yield Ratio ^ Exponent Value		Current Year Rate Multiplier	Internal		999999.99999999	Round to 8 decimals.	
		Exponent Value	ADM		S99.999	None	Edit with ADM Base Rate, "A01010".
Prior Year Rate Multiplier = Prior Year Yield Ratio ^ Prior Year Exponent Value		Prior Year Rate Multiplier	Internal		999999.99999999	Round to 8 decimals.	
		Prior Year Exponent Value	ADM		S99.999	None	Edit with ADM Base Rate, "A01010".
Current Year Base Rate =	**When Rate Method Code equals Fixed Rate, "F":** Sub County Rate	Current Year Base Rate	Internal		999999.99999999	Round to 8 decimals.	
	When Rate Method Code equals Additive, "A": Sub County Rate + (Current Year Rate Multiplier * Reference Rate + Fixed Rate)	Sub County Rate	ADM		9.9999	None	Edit with ADM Sub County Rate, "A01050".
	When Rate Method Code equals Multiplicative, "M": Sub County Rate * (Current Year Rate Multiplier * Reference Rate + Fixed Rate)	Reference Rate	ADM		9.9999	None	Edit with ADM Base Rate, "A01010".
	Otherwise: Current Year Rate Multiplier * Reference Rate + Fixed Rate.	Fixed Rate	ADM		9.9999	None	Edit with ADM Base Rate, "A01010".

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Prior Year Base Rate =	**When Rate Method Code equals Fixed Rate, "F":** Sub County Rate	Prior Year Base Rate	Internal		999999.99999999	Round to 8 decimals.	
	When Rate Method Code equals Additive, "A": Sub County Rate + (Prior Year Rate Multiplier * Prior Year Reference Rate + Prior Year Fixed Rate)	Sub County Rate	ADM		9.9999	None	Edit with ADM Sub County Rate, "A01050".
	When Rate Method Code equals Multiplicative, "M": Sub County Rate * (Prior Year Rate Multiplier * Prior Year Reference Rate + Prior Year Fixed Rate)	Prior Year Reference Rate	ADM		9.9999	None	Edit with ADM Base Rate, "A01010".
	Otherwise: Prior Year Rate Multiplier * Prior Year Reference Rate + Prior Year Fixed Rate	Prior Year Fixed Rate	ADM		9.9999	None	Edit with ADM Base Rate, "A01010".
Current Year Base Premium Rate =	Current Year Base Rate * Rate Differential Factor * Unit Residual Factor.	Current Year Base Premium Rate	Internal		999999.99999999	Round to 8 decimals.	If Option Code "YC", "QL", "YE" or "TA" is applicable and the effective coverage level exceeds the highest coverage level for the offer in the ADM, see Section 14 for the Current Year Base Premium Rate calculation.
		Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040". When Option Code 'YC', 'QL', 'YE' or 'TA' is elected, see section 12.
		Unit Residual Factor	ADM		9.999	None	Edit with ADM Coverage Level Differential, "A01040". When Unit Structure Code equals "OU", "UA", "UD", or "BU", then Unit Residual Factor. When Unit Structure Code equals "EU" or "EP," then Enterprise Unit Residual Factor. When Option Code'YC', 'QL', 'YE' or 'TA' is elected, see section 13.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
When previous year yield limitation code = '03' and Insurance Option Code List contains Yield Cup (YC):							
Prior Year Base Premium Rate	= Prior Year Base Rate * 1.05 * Prior Year Rate Differential Factor * Prior Year Residual Factor * 1.2	Prior Year Base Premium Rate	Internal		999999.99999999	Round to 8 decimals.	
		Prior Year Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040".
		Prior Year Unit Residual Factor	ADM		9.999	None	Edit with ADM Coverage Level Differential, "A01040". When Unit Structure Code equals "OU", "UA", "UD", or "BU", then Prior Year Unit Residual Factor. When Unit Structure Code equals "EU" then Prior Year Enterprise Unit Residual Factor.
Otherwise:							
Prior Year Base Premium Rate	= Prior Year Base Rate * Prior Year Rate Differential Factor * Prior Year Residual Factor * 1.2	Prior Year Base Premium Rate	Internal		999999.99999999	Round to 8 decimals.	
		Prior Year Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040". When Option Code 'YC', 'QL','YE' or 'TA' is elected, see section 12.
		Prior Year Unit Residual Factor	ADM		9.999	None	Edit with ADM Coverage Level Differential, "A01040". When Unit Structure Code equals "OU", "UA", "UD", or "BU", then Prior Year Unit Residual Factor. When Unit Structure Code equals "EU" then Prior Year Enterprise Unit Residual Factor. When Option Code 'YC', 'QL', 'YE' or 'TA' is elected, see section 13.
Base Premium Rate	= MIN (Current Year Base Premium Rate, Prior Year Base Premium Rate, or .999)	Base Premium Rate	P11	97	999999.99999999	None	
Section 3: Optional Coverage Calculation							
Additive Optional Rate Adjustment Factor	= **When Rate Method Code = A** SUM (Option Rate(s)) * Rate Differential Factor	Additive Optional Rate Adjustment Factor	Internal		999999.9999	Round to 4 decimals.	
		Option Rate	ADM		9.9999	None	Edit with ADM Option Rate, "A01060".
		Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040". When Option Code 'YC', 'QL', 'YE' or 'TA' is elected, see section 12.
Multiplicative Optional Rate Adjustment Factor	= **When Rate Method Code = M** Product (Option Rate(s))	Multiplicative Optional Rate Adjustment Factor	Internal		999999.9999	Round to 4 decimals.	
		Option Rate	ADM		9.9999	None	Edit with ADM Option Rate, "A01060".

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 4: Premium Rate Calculation						
	Premium Rate	Internal		999999.99999999	Round to 8 decimals.	Premium Rate is capped at 0.99900000.
Premium Rate = Base Premium Rate * Unit Structure Discount Factor * Multiplicative Optional Rate Adjustment Factor + Additive Optional Rate Adjustment Factor	Unit Structure Discount Factor	ADM		9.999	None	Edit with ADM Unit Discount, "A01090". When Unit Structure Code equals "OU", "UA", or "UD", then Unit Structure Discount Factor equals Optional Unit Discount Factor. When Unit Structure Code equals "BU", then Unit Structure Discount Factor equals Basic Unit Discount Factor. If commodity (ie Dry Beans and Dry Peas) uses acres for determination of Unit Structure Discount Factor when Unit Structure Code equals "BU", Basic Unit Discount Factor is contingent upon the sum of reported acres which were not prevented from planting for the unit being greater than or equal to Area Low Quantity and less than or equal to Area High Quantity fields contained on the ADM Unit Discount, "A01090" for Coverage Level. If unit only has prevented planted acres then no discount, factor = 1.000. When Unit Structure Code equals "EU" then Unit Structure Discount Factor equals Enterprise Unit Discount Factor.
Section 5: Total Premium, Subsidy, and Producer Premium Calculation						
	Preliminary Total Premium Amount	Internal		9999999999	Round to whole number	
	Experience Factor	P11	47	9.999	None	Must be a value between minimum and maximum on ICE, "D10023".

Preliminary Total Premium Amount = Premium Liability Amount * Premium Rate * Experience Factor * Premium Surcharge Percent	Premium Surcharge Percent	Internal		9.99	None	When Surcharge Applied Flag equals "Y", then Premium Surcharge Percent must equal 0.05, otherwise must equal 0.00. Does not apply when option "YC" is elected. Set to 1.00.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Total Premium Amount = Preliminary Total Premium Amount * Multiple Commodity Adjustment Factor	Total Premium Amount	P11	95	9999999999	Round to whole number	
	Multiple Commodity Adjustment Factor	ICE		9999.999	None	Edit with ICE Multiple Cropping, "D00063".
Subsidy Amount = Total Premium Amount * Subsidy Percent	Subsidy Amount	P11	93	9999999999	Round to whole number	If this record qualifies for Beginning Farmer and Rancher or Native Sod, see Section 10 for subsidy calculations.
	Subsidy Percent	ADM		9.999	None	Edit with ADM Subsidy Percent, "A00070".
Producer Premium Amount = Total Premium Amount - Subsidy Amount	Producer Premium Amount	P11	96	9999999999	Round to whole number	
Cottonseed Endorsement Option 'SE'						Information (Approved Yield, Rate Yield, Reported Acreage, Insured Share Percent, Base Premium Rate) will be obtained from ELS Cotton P11 record associated with the Cottonseed record. If Yield Cup, Yield Exclusion, Quality Loss, or Trend APH is elected, see section 14 and 15 for the current year base premium rate calculation when the Effective Coverage Level exceeds the MAX ADM coverage level.
Section 6: Liability Calculation						
Modified Yield = Approved Yield * Option Conversion Factor	Modified Yield	Internal		99999999.99	Round to whole Number.	
	Approved Yield	P11	42	99999999.99	None	From ELS cotton P11 record.
	Option Conversion Factor	ADM		9.9999	None	Edit with ADM Option Rate, "A01060".
Guarantee Per Acre1 = Modified Yield * Coverage Level Percent	Guarantee Per Acre1	Internal		99999999.99	Round to whole Number.	
	Coverage Level Percent	P14	34	9.9999	None	For APH Trend, Quality Loss, and Yield Exclusion the Coverage Level Percent in this section is ALWAYS the chosen coverage level and NOT the Effective Coverage Level.
Premium Acre Guarantee Quantity = Guarantee Per Acre1	Premium Acre Guarantee Quantity	Internal		99999999.99	Round to whole Number.	
Acre Guarantee Quantity = Guarantee Per Acre1 * Guarantee Adjustment Factor	Acre Guarantee Quantity	P11	106	99999999.99		
	Guarantee Adjustment Factor	P11	69	0.999	None	Edit with the Guarantee Adjustment ICE, "D00068" or ADM Guarantee Adjustment, "A01220" for Prevented Planting.
Premium Total Guarantee Amount = Premium Acre Guarantee Quantity * Reported Acreage	Premium Total Guarantee Amount	Internal		99999999.99	Round to whole number.	
	Reported Acreage	P11	48	999999.99	None	From ELS cotton P11 record.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Total Guarantee Amount = Acre Guarantee Quantity * Reported Acreage	Total Guarantee Amount	P11	103	99999999.99	Round to whole number.	
	Reported Acreage	P11	48	999999.99	None	From ELS cotton P11 record.
Premium Liability Amount = Premium Total Guarantee Amount * Price Election Amount * Insured Share Percent	Premium Liability Amount	Internal		9999999999	Round to whole number	
	Price Election Amount	P11	45	9999.9999	None	Edit with ADM Price, "A00810". Will always equal 100% of Cottonseed Established Price.
	Insured Share Percent	P11	43	9.9999	None	
Liability Amount = Total Guarantee Amount * Price Election Amount * Insured Share Percent	Liability Amount	P11	94	9999999999	Round to whole number.	
	Price Election Amount	P11	45	9999.9999	None	
	Insured Share Percent	P11	43	9.9999	None	
Section 7: Optional Coverage Calculation						
Additive Optional Rate Adjustment Factor = **When Rate Method Code = A** SUM (Option Rate(s)) * Rate Differential Factor	Additive Optional Rate Adjustment Factor	Internal		999999.9999	Round to 4 decimals.	
	Option Rate	ADM		9.9999	None	Edit with ADM Option Rate, "A01060".
	Rate Differential Factor	ADM		9.99999999	None	Edit with ADM Coverage Level Differential, "A01040". When Option Code 'YC', 'QL' ,'YE' or 'TA' is elected, see section 12.
Multiplicative Optional Rate Adjustment Factor = **When Rate Method Code = M** Product (Option Rate(s))	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 8: Premium Rate Calculation						
Premium Rate = Base Premium Rate * Unit Structure Discount Factor * Multiplicative Optional Rate Adjustment Factor + Additive Optional Rate Adjustment Factor	Premium Rate	Internal		999999.99999999	Round to 8 decimals.	
	Base Premium Rate	P11	97	999999.99999999	None	From ELS cotton P11 record.
	Unit Structure Discount Factor	ADM		9.999	None	From ELS cotton P11 record. Edit with ADM Unit Discount, "A01090". When Unit Structure Code equals "OU", "UA", or "UD", then Unit Structure Discount Factor equals Optional Unit Discount Factor. When Unit Structure Code equals "BU", then Unit Structure Discount Factor equals Basic Unit Discount Factor. When Unit Structure Code equals "EU" then Unit Structure Discount Factor equals Enterprise Unit Discount Factor.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 9: Total Premium, Subsidy, and Producer Premium Calculation						
Preliminary Total Premium Amount = Premium Liability Amount * Premium Rate * Experience Factor * Premium Surcharge Percent	Preliminary Total Premium Amount	Internal		9999999999	Round to whole number	
	Experience Factor	P11	47	9.999	None	Must be a value between minimum and maximum on ICE, "D10023".
	Premium Surcharge Percent	Internal		9.99	None	When Surcharge Applied Flag equals "Y", then Premium Surcharge Percent must equal 0.05, otherwise must equal 0.00. Does not apply when option "YC" is elected. Set to 1.00.
Total Premium Amount = Preliminary Total Premium Amount * Multiple Commodity Adjustment Factor	Total Premium Amount	P11	95	9999999999	Round to whole number	
	Multiple Commodity Adjustment Factor	ICE		9999.999	None	Edit with ICE Multiple Cropping, "D00063".
Subsidy Amount = Total Premium Amount * Subsidy Percent	Subsidy Amount	P11	93	9999999999	Round to whole number	If this record qualifies for Beginning Farmer and Rancher or Native Sod, see Section 10 for subsidy calculations.
	Subsidy Percent	ADM		9.999	None	Edit with ADM Subsidy Percent, "A00070".
Producer Premium Amount = Total Premium Amount - Subsidy Amount	Producer Premium Amount	P11	96	9999999999	Round to whole number	
Section 10: Beginning Farmer and Rancher (BFR), Veteran Farmer Rancher (VFR), Native Sod (NS) and Conservation Compliance (CC) Subsidy Calculations						
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".
BFR/VFR Subsidy Amount = Total Premium Amount * 0.10 * (1 - CC Subsidy Reduction Percent)	BFR/VFR Subsidy Amount	Internal		9999999999	Round to whole number	Beginning Farmer Rancher/Veteran Farmer Rancher Subsidy Amount. If Applicable; else 0. 0.10 (10%).
Native Sod Subsidy Amount = Total Premium Amount * 0.50	Native Sod Subsidy Amount	Internal		9999999999	Round to whole number	If Applicable; else 0. 0.50 (50%). For CAT coverage, Native Sod Subsidy Amount is always 0.
CC Subsidy Reduction Amount = Base Subsidy Amount * CC Subsidy Reduction Percent	CC Subsidy Reduction Percent	P11	76	9.9999	None	If Applicable; else 0.
	CC Subsidy Reduction Amount	P11	111	9999999999	Round to whole number	CC Subsidy Reduction Amount. If Applicable; else 0.
Subsidy Amount = Base Subsidy Amount + BFR/VFR Subsidy Amount - Native Sod Subsidy Amount - CC Subsidy Reduction Amount	Subsidy Amount	P11	93	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	P11	96	9999999999	Round to whole number	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Trend APH (Option 'TA'), Yield Cup (Option 'YC'), Quality Loss (Option 'QL'), and Yield Exclusion (Option 'YE')						Trend Adjustment Option (TA), Yield Cup Option (YC), Quality Loss (QL), and Yield Exclusion Option (YE) ONLY available in select counties for selected crops.
Section 11: Effective Coverage Level Calculation						
When Commodity Code equals Dry Beans "0047" and Type Code equals Contract "62", or Commodity Code equals Dry Peas "0067" and Type Code equals Spring Contract "98":						
Effective Coverage Level Percent = Coverage Level Percent * Round(Approved Yield * Contract Price,0) / Adjusted Yield	Effective Coverage Level Percent	Internal		99.9999	Round to 2 decimals.	
	Coverage Level Percent	P14	34	9.9999	None	
	Approved Yield	P11	42	99999999.99	None	For APH Trend, Yield Cup, Quality Loss, and Yield Exclusion, the Approved Yield will be the greater of the calculated Approved Yield and the Adjusted Yield. For skip row commodities, the approved yield is the converted Approved Yield from the P15 record with skip row (yield conversion factor) applied.
	Contract Price	P11	46	9999.9999	None	
	Adjusted Yield	P15	44	99999999.99	None	For skip row commodities, the Adjusted Yield is the converted Adjusted Yield from the P15 record with skip row (yield conversion factor) applied.
For all others:						
Effective Coverage Level Percent = Coverage Level Percent * Approved Yield/Adjusted Yield	Effective Coverage Level Percent	Internal		99.9999	Rounded to 2 decimal places.	
	Coverage Level Percent	P14	34	9.9999	None	
	Approved Yield	P11	42	99999999.99	None	For APH Trend, Yield Cup, Quality Loss, and Yield Exclusion, the Approved Yield will be the greater of the calculated approved yield and the adjusted yield.
	Adjusted Yield	P15	44	99999999.99	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 12: Rate Differential Factor						When Trend Adjustment Option (TA) was chosen and yield reflects a trend or when Yield Cup Option "YC" was chosen or when Quality Loss Option "QL" is chosen or when Yield Exclusion Option "YE" was chosen.
When the Insurance Option Code List contains Options "YE" , "QL", or "YC":						
Rate Differential Factor = (1+ (ROUND (MIN (((MAX (0.85,Effective Coverage Level Percent) -0.85) / 0.15) ,1)^3 ,7)) * 0.05) * (Round(Base Rate Differential Factor + (Upper Bound Rate Differential Factor - Lower Bound Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9))	Rate Differential Factor	Internal		9.999999999	Round to 9 decimal places	
	Base Rate Differential Factor	ADM		9.999999999	None	Base Rate Differential Factor is equal to Rate Differential for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Upper Bound Rate Differential Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
	Lower Bound Rate Differential Factor	ADM		9.999999999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Rate Differential Factor (contintued)	**= (1+ (ROUND (MIN (((MAX (0.85,Effective Coverage Level Percent) -0.85) / 0.15) ,1)^3 ,7)) * 0.05) * (Round(Base Rate Differential Factor + (Upper Bound Rate Differential Factor - Lower Bound Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9))**	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
Prior Year Rate Differential Factor	= Round(Base Prior Year Rate Differential Factor + (Upper Bound Prior Year Rate Differential Factor - Lower Bound Prior Year Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9)	Prior Year Rate Differential Factor	Internal		9.999999999	Round to 9 decimal places.	
		Base Prior Year Rate Differential Factor	ADM		9.999999999	None	Base Prior Year Rate Differential Factor is equal to Prior Year Rate Differential for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
		Upper Bound Prior Year Rate Differential Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
	Lower Bound Prior Year Rate Differential Factor	ADM		9.999999999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
Prior Year Rate Differential Factor (continued) = Round(Base Prior Year Rate Differential Factor + (Upper Bound Prior Year Rate Differential Factor - Lower Bound Prior Year Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9)	Effective Coverage Level Percent	Internal		99.9999	None	
	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
When Trend Adjustment Option "TA" is elected alone (excludes "YC", "QL", and "YE")						
Rate Differential Factor = Round(Base Rate Differential Factor + (Upper Bound Rate Differential Factor - Lower Bound Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9)	Rate Differential Factor	Internal		9.999999999	Round to 9 decimal places	
	Base Rate Differential Factor	ADM		9.999999999	None	Base Rate Differential Factor is equal to Rate Differential for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Upper Bound Rate Differential Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
	Lower Bound Rate Differential Factor	ADM		9.999999999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
		Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
		Prior Year Rate Differential Factor	Internal		9.999999999	Round to 9 decimal places.	
Prior Year Rate Differential Factor	Round(Base Prior Year Rate Differential Factor + (Upper Bound Prior Year Rate Differential Factor - Lower Bound = Prior Year Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9)	Base Prior Year Rate Differential Factor	ADM		9.999999999	None	Base Prior Year Rate Differential Factor is equal to Prior Year Rate Differential for Minimum of 1)
		Upper Bound Prior Year Rate Differential Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
		Lower Bound Prior Year Rate Differential Factor	ADM		9.999999999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
		Effective Coverage Level Percent	Internal		99.9999	None	
Prior Year Rate Differential Factor (continued)	= Round(Base Prior Year Rate Differential Factor + (Upper Bound Prior Year Rate Differential Factor - Lower Bound Prior Year Rate Differential Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 9)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
Section 13: Unit Residual Factor							The lookup/interpolation/extrapolation procedure for 'Unit Residual Factor and Prior Unit Residual Factor' when Trend Adjustment Option (TA) was chosen and yield reflects a trend or when Yield Cup Option "YC" was chosen or when Quality Loss Option "QL" was chosen, or when Yield Exclusion Option "YE" was chosen.
When Unit Structure Code is equal to Optional Unit, "OU", "UA", "UD", or Basic Unit, "BU", use the following calculations for Unit Residual Factor and Prior Year Unit Residual Factor:							
		Unit Residual Factor	Internal		999.999	Round to 3 decimal places.	The cap value for the Residual Factors is the MAX(Residual Factor) from all coverage levels within the chosen unit structure
Unit Residual Factor	= Round(Base Unit Residual Factor + (Upper Bound Unit Residual Factor - Lower Bound Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Base Unit Residual Factor	ADM		999.999	None	Base Unit Residual Factor is equal to Unit Residual for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
	Upper Bound Unit Residual Factor	ADM		999.999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Lower Bound Unit Residual Factor	ADM		999.999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
Unit Residual Factor (continued) = Round(Base Unit Residual Factor + (Upper Bound Unit Residual Factor - Lower Bound Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Effective Coverage Level Percent	Internal		99.9999	None	
	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Prior Year Unit Residual Factor = Round(Base Prior Year Unit Residual Factor + (Upper Bound Prior Year Unit Residual Factor - Lower Bound Prior Year Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Prior Year Unit Residual Factor	Internal		999.999	Round to 3 decimal places.	The cap value for the Residual Factors is the MAX(Residual Factor) from all coverage levels within the chosen unit structure
	Base Prior Year Unit Residual Factor	ADM		999.999	None	Base Prior Year Unit Residual Factor is equal to Prior Year Unit Residual for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to
	Upper Bound Prior Year Unit Residual Factor	ADM		999.999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
	Lower Bound Prior Year Unit Residual Factor	ADM		999.999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Prior Year Unit Residual Factor (continued)	= Round(Base Prior Year Unit Residual Factor + (Upper Bound Prior Year Unit Residual Factor - Lower Bound Prior Year Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
When Unit Structure Code is equal to Enterprise Unit, 'EU', use the following calculations for Enterprise Unit Residual Factor and Prior Year Enterprise Unit Residual Factor:							
Enterprise Unit Residual Factor	= Round(Base Enterprise Unit Residual Factor + (Upper Bound Enterprise Unit Residual Factor - Lower Bound Enterprise Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Enterprise Unit Residual Factor	Internal		999.999	Round to 3 decimal places.	The cap value for the Residual Factors is the MAX(Residual Factor) from all coverage levels within the chosen unit structure
		Base Enterprise Unit Residual Factor	ADM		999.999	None	Base Enterprise Unit Residual Factor is equal to Enterprise Unit Residual for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
		Upper Bound Enterprise Unit Residual Factor	ADM		999.999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
	Lower Bound Enterprise Unit Residual Factor	ADM		999.999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	
Enterprise Unit Residual Factor = (continued) Round(Base Enterprise Unit Residual Factor + (Upper Bound Enterprise Unit Residual Factor - Lower Bound Enterprise Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level Percent equals an existing ADM Coverage Level then this will be the Effective Coverage Level Percent. If the Effective Coverage Level Percent falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level Percent is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
	Prior Year Enterprise Unit Residual Factor	Internal		999.999	Round to 3 decimal places.	The cap value for the Residual Factors is the MAX(Residual Factor) from all coverage levels within the chosen unit structure

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Prior Year Enterprise Unit Residual Factor = Round(Base Enterprise Prior Year Unit Residual Factor + (Upper Bound Prior Year Enterprise Unit Residual Factor - Lower Bound Prior Year Enterprise Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Base Enterprise Prior Year Unit Residual Factor	ADM		999.999	None	Base Enterprise Prior Year Unit Residual Factor is equal to Enterprise Prior Year Unit Residual for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Upper Bound Prior Year Enterprise Unit Residual Factor	ADM		999.999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
	Lower Bound Prior Year Enterprise Unit Residual Factor	ADM		999.999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Prior Year Enterprise Unit Residual Factor	= Round(Base Enterprise Prior Year Unit Residual Factor + (Upper Bound Prior Year Enterprise Unit Residual Factor - Lower Bound Prior Year Enterprise Unit Residual Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 3)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
Section 14: Yield Cup, Yield Exclusion, Quality Loss, and Trend APH Current Year Base Premium Rate Calculations (only use when the Effective Coverage Level for the record exceeds the highest coverage level for the offer in the ADM).							
Unadjusted Liability Amount	= Round((Coverage Level Percent/Effective Coverage Level Percent),10) * Premium Liability Amount	Unadjusted Liability Amount	Internal		9999999999	Round to whole number	
		Coverage Level Percent	P14	34	9.9999	None	
		Effective Coverage Level Percent	Internal		99.9999		
		Premium Liability Amount	Internal		9999999999	Round to whole number	
Max Coverage Level Adjustment Factor	= **When Unit Structure Code is equal to Optional Unit, "OU", "UA" &"UD:** ROUND(1.00/ Current Year Base Rate,8) – ROUND(Unadjusted Liability Amount/(Current Year Base Rate * Premium Liability Amount),8) + ROUND(ROUND(Base Rate Differential Factor * Base Unit Residual Factor * Unit Structure Discount Factor * Unadjusted Liability Amount,8)/Premium Liability Amount,8)	Max Coverage Level Adjustment Factor	Internal		999999999.99999999	Round to 8 decimals.	
		Unadjusted Liability Amount	Internal		9999999999	Round to whole number	
		Current Year Base Rate	Internal		9999999999.99999	Round to 8 decimals.	
		Premium Liability Amount	Internal		9999999999	Round to whole number	
		Base Rate Differential Factor	ADM		9.999999999	None	
		Base Unit Residual Factor	ADM		999.999	None	
		Unit Structure Discount Factor	ADM		9.999999999	None	Base Optional Unit Structure Discount Factor is equal to Optional Unit Discount Factor for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040". See Section 13 for more info.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11

Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Marginal Rate Adjustment Factor	= **When Unit Structure Code is equal to Optional Unit, "OU", "UA", "UD", or Basic Unit, "BU":** Max Coverage Level Adjustment Factor /(Rate Differential Factor * Unit Residual Factor * Unit Structure Discount Factor)	Marginal Rate Adjustment Factor	Internal		9.99999999	Round to 8 decimals.	
		Max Coverage Level Adjustment Factor	Internal		999999999.99999999	Round to 8 decimals.	
		Rate Differential Factor	ADM		9.999999999	None	Edit with ADM Coverage Level Differential, "A01040." See Section 12 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), Quality Loss "QL",and "YE" (Yield Exclusion).
		Unit Residual Factor	ADM		999.999	None	Edit with ADM Coverage Level Differential, "A01040." See Section 13 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion).
		Unit Structure Discount Factor	Internal		9.99999999	None	Capped at 1.0.
	When Unit Structure code is Enterprise Unit, "EU": Max Coverage Level Adjustment Factor /(Rate Differential Factor * Enterprise Unit Residual Factor * Unit Structure Discount Factor)	Enterprise Unit Residual Factor	ADM		9.999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 13 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss) and "YE" (Yield Exclusion) where Unit Structure Code equal to Enterprise Unit, 'EU'.
Current Year Base Premium Rate	= **When Unit Structure Code is equal to Optional Unit, "OU", "UA", "UD", or Basic Unit, "BU":** Round(Current Year Base Rate * Rate Differential Factor * Unit Residual Factor, 8) * MIN(Marginal Rate Adjustment Factor, 1.00)	Current Year Base Premium Rate	Internal		9999999999.99999999	Round to 8 decimals.	
		Rate Differential Factor	ADM		9.999999999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 12 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion).

	Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
		Unit Residual Factor	ADM		999.999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 13 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion) where Unit Structure Code equal to Optional Unit, "OU", "UA", "UD", or Basic Unit, 'BU'.
		Marginal Rate Adjustment Factor	Internal		9999999999.99999999	Round to 8 decimals.	
	When Unit Structure code is Enterprise Unit, "EU": = Round(Current Year Base Rate * Rate Differential Factor * Enterprise Unit Residual Factor, 8) * MIN(Marginal Rate Adjustment Factor, 1.00)	Enterprise Unit Residual Factor	ADM		9.999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 13 for Option Code "TA" (Trend Adjustment). "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion) where Unit Structure Code equal to Enterprise Unit, 'EU' .
Section 15: Yield Cup, Quality Loss, Yield Exclusion and Trend APH for Cottonseed--Current Year Base Premium Rate Calculations (only use when the Effective Coverage Level for the record exceeds the highest coverage level for the offer in the ADM).							
Current Year Base Premium Rate	= Round(Current Year Base Rate * Rate Differential Factor * Unit Residual Factor, 8) * MIN(Marginal Rate Adjustment Factor, 1.00)	Current Year Base Premium Rate	Internal		9999999999.99999999	Round to 8 decimals.	
		Rate Differential Factor	ADM		9.999999999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 12 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion).
		Unit Residual Factor	ADM		999.999	None	Edit with ADM Coverage Level Differential, "A01040". See Section 13 for Option Code "TA" (Trend Adjustment), "YC" (Yield Cup), "QL" (Quality Loss), and "YE" (Yield Exclusion) where Unit Structure Code equal to Optional Unit, "OU", "UA", "UD", or Basic Unit, 'BU'.
		Marginal Rate Adjustment Factor	Internal		9999999999.99999999	Round to 8 decimals.	Copy value over from the base lint line.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Section 16: Unit Structure Discount Factor for Yield Cup, Yield Exclusion, Quality Loss, and Trend APH	The lookup/interpolation/extrapolation procedure for 'Optional Unit Discount Factor, Basic Unit Discount Factor, and Enterprise Unit Discount Factor' when Trend Adjustment Option (TA), Yield Cup Option (YC), Quality Loss (QL), or Yield Exclusion Option (YE) was chosen and yield reflects a trend.					
When Unit Structure Code is equal to Optional Unit, "OU", "UA", or "UD", use the following calculation for Unit Structure Discount Factor:						
Unit Structure Discount Factor = Round(Base Coverage Level Percent Optional Unit Discount Factor + (Upper Bound Coverage Level Percent Optional Unit Discount Factor - Lower Bound Coverage Level Percent Optional Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Unit Structure Discount Factor	Internal		9.999999999	Round to 4 decimal places.	Capped at 1.0
	Base Coverage Level Percent Optional Unit Discount Factor	ADM		9.999999999	None	Base Coverage Level Percent Optional Unit Discount Factor is equal to Percent Optional Discount for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Upper Bound Coverage Level Percent Optional Unit Discount Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Unit Structure Discount Factor cont'd	Lower Bound Coverage Level Percent Optional Unit Discount Factor	ADM		9.999999999	None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	
Unit Structure Discount Factor = (continued) Round(Base Coverage Level Percent Optional Unit Discount Factor + (Upper Bound Coverage Level Percent Optional Unit Discount Factor - Lower Bound Coverage Level Percent Optional Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
When Unit Structure Code is equal to Basic Unit, 'BU', use the following calculation for Unit Structure Discount Factor:						
Unit Structure Discount Factor = Round(Base Coverage Level Percent Basic Unit Discount Factor + (Upper Bound Coverage Level Percent Basic Unit Discount Factor - Lower Bound Coverage Level Percent Basic Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Unit Structure Discount Factor	Internal		9.999999999	Round to 4 decimal places.	Capped at 1.0
	Base Coverage Level Percent Basic Unit Discount Factor	ADM		9.999999999	None	Base Coverage Level Percent Basic Unit Discount Factor is equal to Basic Unit Discount Factor for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or
	Upper Bound Coverage Level Percent Basic Unit Discount Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.
Unit Structure Discount Factor cont'd	Lower Bound Coverage Level Percent Basic Unit Discount Factor	ADM			None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
	Effective Coverage Level Percent	Internal		99.9999	None	

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Unit Structure Discount Factor (continued) = Round(Base Coverage Level Percent Basic Unit Discount Factor + (Upper Bound Coverage Level Percent Basic Unit Discount Factor - Lower Bound Coverage Level Percent Basic Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.
When Unit Structure Code is equal to Enterprise Unit, 'EU', use the following calculation for Unit Structure Discount Factor:						
Unit Structure Discount Factor = Round(Base Coverage Level Percent Enterprise Unit Discount Factor + (Upper Bound Coverage Level Percent Enterprise Unit Discount Factor - Lower Bound Coverage Level Percent Enterprise Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Unit Structure Discount Factor	Internal		9.999999999	Round to 4 decimal places.	Capped at 1.0
	Base Coverage Level Percent Enterprise Unit Discount Factor	ADM		9.999999999	None	Base Coverage Level Percent Enterprise Unit Discount Factor is equal to Enterprise Unit Discount Factor for Minimum of 1) Maximum available Coverage Level or; 2) available Coverage Level less than or equal to Effective Coverage Level. Edit with ADM Coverage Level Differential, "A01040".
	Upper Bound Coverage Level Percent Enterprise Unit Discount Factor	ADM		9.999999999	None	Based on the 'upper bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the higher ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the highest ADM Coverage Level.

Exhibit Name: Premium Calculation
Exhibit Number: P11-9, Plan 90
Record Name: Acreage
Record Code: P11
Reinsurance Year: 2023
Version: Approved
Release Date: 7/1/2022

Calculations		Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Unit Structure Discount Factor (continued)	= Round(Base Coverage Level Percent Enterprise Unit Discount Factor + (Upper Bound Coverage Level Percent Enterprise Unit Discount Factor - Lower Bound Coverage Level Percent Enterprise Unit Discount Factor) * (Effective Coverage Level Percent - Floored Effective Coverage Level Percent) * 20, 4)	Lower Bound Coverage Level Percent Enterprise Unit Discount Factor	ADM			None	Based on the 'lower bound' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be based on the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be based on the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be based on the second highest ADM Coverage Level.
		Effective Coverage Level Percent	Internal		99.9999	None	
		Floored Effective Coverage Level Percent	Internal		99.9999	None	Based on the 'floored' Coverage Level. Edit with ADM Coverage Level Differential, "A01040". If the Effective Coverage Level equals an existing ADM Coverage Level then this will be the Effective Coverage Level. If the Effective Coverage Level falls between existing ADM Coverage Levels then this will be the lower ADM Coverage Level. If the Effective Coverage Level is greater than the maximum ADM Coverage Level then this will be the highest ADM Coverage Level.