

Exhibit Name: Indemnity Calculations
Exhibit Number: P21-8, Plan 55
Record Name: Acreage Claim
Record Code: P21

Reinsurance Year: 2022
Version: Approved
Release Date: 8/5/2021

Insurance Plan Code	55 Yield Based Dollar Amount of Insurance					
Commodity Code	0050 Hybrid Sorghum Seed	0066 Hybrid Vegetable Seed	0080 Hybrid Seed Rice	0093 Hybrid Sweet Corn Seed	0062 Hybrid Seed Corn	0334 Hybrid Popcorn Seed
Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules

Section 1: Stage Guarantee Calculation

When Commodity is not "0093," Hybrid Sweet Corn Seed, "0334," Hybrid Popcorn Seed, or "0066," Hybrid Vegetable Seed:

$\text{Approved Yield} = \frac{(\text{County Yield} * \text{Yield Price Factor}) - \text{Minimum Payment Quantity}}{\text{Payment Quantity}}$	Approved Yield	P11	42	99999999.99	If Unit of Measure equals pounds, "LBS", then round to whole number. Otherwise, round to 1 decimal.	
	County Yield	ADM		999.9	None	Edit with ADM Base Rate, "A01010".
	Yield Price Factor	ICE		9.9999	None	Coverage Level Factor from SPOI. Edit with Yield Price Factor ICE, "D00041".
	Minimum Payment Quantity			999999.9		Minimum Payment Quantity must be converted to applicable Unit of Measure (whole number for pounds, 1 decimal for bushels).
$\text{Guarantee Per Acre Amount} = \text{Approved Yield} * \text{Price Election Amount}$	Guarantee Per Acre Amount	Internal			Round to whole number.	
	Price Election Amount	P11	45	9999.9999	None	IF "HS" elected, price should reflect the higher value of MPC1 or HPSE (A00810 Hybrid Seed Option Price).

When Commodity is "0093," Hybrid Sweet Corn Seed or "0334," Hybrid Popcorn Seed:

$\text{Approved Yield} = \text{County Yield} * \text{Coverage Level Percent}$	Approved Yield	P11	42	99999999.99	If Unit of Measure equals pounds, "LBS", then round to whole number. Otherwise, round to 1 decimal.	
	County Yield	ADM		999.9	None	Edit with ADM Base Rate, "A01010".
	Coverage Level Percent	P14	34		None	
$\text{Guarantee Per Acre Amount} = \text{MIN}(\text{ROUND}(\text{Contract Value} * \text{Coverage Level Percent}, 0), \text{ROUND}(\text{Approved Yield} * \text{Price Election Amount}, 0))$	Guarantee Per Acre Amount	Internal			Round to whole number.	This value will be cupped at zero.
	Price Election Amount	P11	45	9999.9999	None	If "HS" elected, price should reflect the higher value of MPC1 or HPSE (A00810 Hybrid Seed Option Price).
	Contract Value	P11	78	9999999999		"Total compensation specified in the hybrid sweet corn seed processor contract" or "stated seed contract value" in whole dollar amount.

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Insurance Plan Code	55 Yield Based Dollar Amount of Insurance		
Commodity Code	0050 Hybrid Sorghum Seed 0062 Hybrid Seed Corn	0066 Hybrid Vegetable Seed	0080 Hybrid Seed Rice 0093 Hybrid Sweet Corn Seed 0334 Hybrid Popcorn Seed

Calculations	Field Name	Record Number	Field Number	Field Format	Field Rounding	Rules
Acre Stage Guarantee Amount = $\frac{\text{Guarantee Per Acre Amount} * \text{Guarantee Adjustment Factor}}{\text{Factor}}$	Acre Stage Guarantee Amount	P21	58	99999999.99	Round to whole number.	
	Guarantee Adjustment Factor	P11	69	0.999	None	

When Commodity is "0066", Hybrid Vegetable Seed:

Approved Yield = County Yield * Coverage Level Percent	Approved Yield	P11	42	99999999.99	If Unit of Measure equals pounds, "LBS", then round to whole number. Otherwise, round to 1 decimal.	
	County Yield	ADM		999.9	None	Edit with ADM Base Rate, "A01010".
	Coverage Level Percent	P14	34		None	
Guarantee Per Acre Amount = $\frac{\text{ROUND}(\text{Approved Yield} * \text{Price Election Amount} - \text{Minimum Payment Quantity}, 0)}{\text{Minimum Payment Quantity}}$	Guarantee Per Acre Amount	Internal			Round to whole number.	This value will be cupped at zero.
	Price Election Amount	P11	45	9999.9999	None	
	Minimum Payment Quantity	P11	79	999999.9		Minimum Payment Quantity must be in dollars (whole numbers).
Acre Stage Guarantee Amount = $\frac{\text{Guarantee Per Acre Amount} * \text{Guarantee Adjustment Factor}}{\text{Factor}}$	Acre Stage Guarantee Amount	P21	58	99999999.99	Round to whole number.	
	Guarantee Adjustment Factor	P11	69	0.999	None	

Section 2: Loss Guarantee Calculation

Loss Guarantee Amount = $\frac{\text{Acre Stage Guarantee Amount} * \text{Determined Acreage}}{\text{Liability Adjustment Factor}}$	Loss Guarantee Amount	P21	64	99999999.99	Round to whole number.	
	Determined Acreage	P21	18	99999999.99	None	
	Liability Adjustment Factor	P21	39	9.999999	None	

Section 3: Indemnity Calculation

When Commodity is NOT "0093," Hybrid Sweet Corn Seed or "0334," Hybrid Popcorn Seed:

Unit Deficiency Quantity = $\frac{\text{Loss Guarantee Amount} - \text{Production to Count Quantity}}{\text{Quantity}}$	Unit Deficiency Quantity	P21	63	99999999.99	Round to whole number.	
	Production to Count Quantity	P21	34	99999999.99	None	
Preliminary Indemnity Amount = Unit Deficiency Quantity * Insured Share Percent	Preliminary Indemnity Amount	P21	66	9999999999	Round to whole number.	
	Insured Share Percent	P11	43	9.9999	None	
Indemnity Amount = $\frac{\text{Preliminary Indemnity Amount} * \text{Multiple Commodity Adjustment Factor}}{\text{Adjustment Factor}}$	Indemnity Amount	P21	67	9999999999	Round to whole number.	
	Multiple Commodity Adjustment Factor	ICE		9999.999	None	Edit with ICE Multiple Cropping, "D00063". Not applicable for Hybrid Seed Rice.

When Commodity is "0093," Hybrid Sweet Corn Seed or "0334," Hybrid Popcorn Seed:

Unit Deficiency Quantity = $\frac{\text{Loss Guarantee Amount} - \text{Production to Count Quantity}}{\text{Quantity}}$	Unit Deficiency Quantity	P21	63	99999999.99	Round to whole number.	
	Loss Guarantee Amount	P21	64	99999999.99	Round to whole number.	
	Production to Count Quantity	P21	34	99999999.99	None	

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<u>Commodity Code</u>		0050 Hybrid Sorghum Seed	0066 Hybrid Vegetable Seed	0080 Hybrid Seed Rice	0093 Hybrid Sweet Corn Seed	0334 Hybrid Popcorn Seed	
<u>Calculations</u>		<u>Field Name</u>	<u>Record Number</u>	<u>Field Number</u>	<u>Field Format</u>	<u>Field Rounding</u>	<u>Rules</u>
Preliminary Indemnity Amount = Unit Deficiency Quantity		Preliminary Indemnity Amount	P21	66	S999999999	Round to whole number.	
Indemnity Amount CAP = Loss Guarantee Amount - Minimum Payment Quantity * Determined Acreage		Indemnity Amount CAP	Internal		S999999999	Round to whole number.	
		Minimum Payment Quantity	P11	79	999999.9		Minimum Payment Quantity must be in dollars (whole numbers).
Indemnity Amount = MIN(Indemnity Amount CAP, Preliminary Indemnity Amount) * Multiple Commodity Adjustment Factor * Insured Share Percent		Indemnity Amount	P21	67	S999999999	Round to whole number.	
		Multiple Commodity Adjustment Factor	ICE		9999.999	None	Edit with ICE Multiple Cropping, "D00063". Not applicable for Hybrid Seed Rice.
		Insured Share Percent	P11	43	9.9999	None	