

Florida Citrus Crop Insurance Policies: Participation and Coverage

October 16, 2024

Ariel Singerman
Associate Professor / Extension Economist
Citrus Research and Education Center (CREC)

singerman@ufl.edu

(863) 956-8870

Crop Insurance: A Risk Mitigating Tool

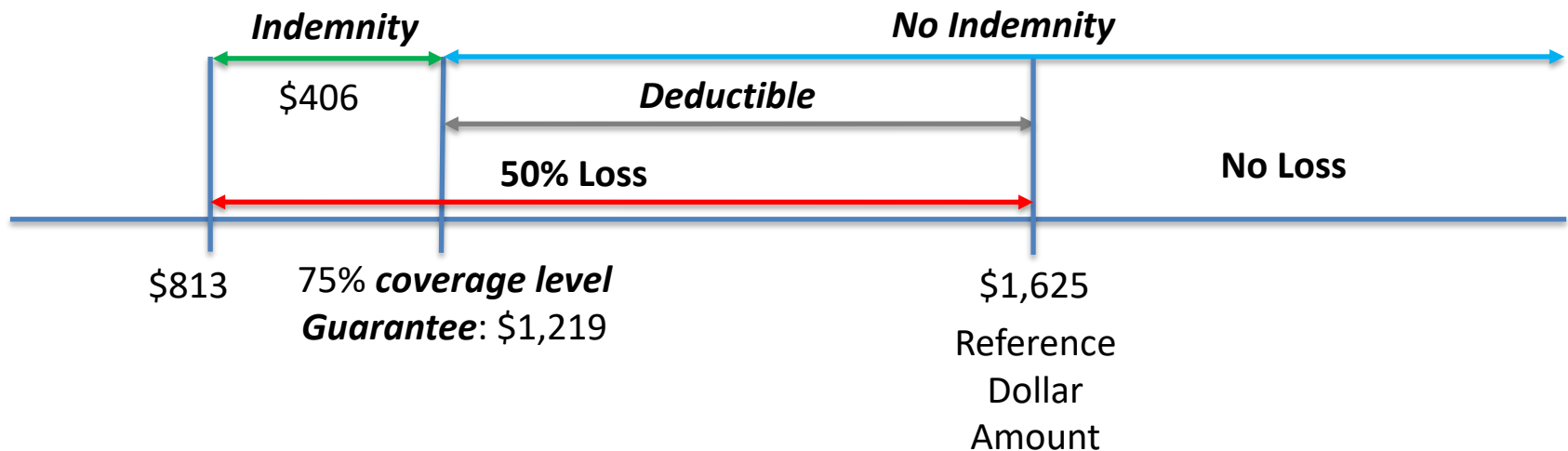
- Can lessen the effects of unfavorable outcomes
- Growers transfer part of the risk (to insurance company) in exchange for a **premium**

The **coverage level** elected by the farmer at time of enrollment determines the:

- **guarantee** (or **liability**) -> amount at which grower is insuring (trees or crop)
- **deductible**-> amount of loss for which the grower will not receive indemnity

In the event of a loss, any level below guarantee will trigger a payment (**indemnity**)

The **premium** and **indemnity** depend on multiple factors (i.e.: type of crop, coverage level, county, etc.)



Crop Insurance Policies for Citrus: Dollar Amount

- A dollar amount policy guarantees an amount of coverage set by RMA

2 such policies available:

1. Tree insurance based on **Tree Reference Price**
2. Fruit/crop insurance based on **Reference Maximum Dollar Amount per Acre**
 - Guarantees a dollar amount of coverage based on the cost of production
 - Is available for fruit produced from trees that are at least 5 years old
 - Causes of loss include fire; freeze; hail; hurricane; tornado; excess wind

Dollar Amount per acre for mature processed Early- and Mid-Season and Late Season Oranges in Polk County planted at standard density are \$1,625 and \$1,775, respectively

FCIC will terminate the Florida Citrus Fruit Dollar Plan following the 2026 crop year

Example

EXAMPLE 4
(COMPANY NAME)

ADJUSTER'S CITRUS WORKSHEET

(Illustrates Hurricane Damage to Tangors - Fresh)

1. Insured's Name: I. M. Insured	2. Policy No.: XXXXXX	3. Claim No.: XXXXXXXX	4. Unit No.: 0003-0002OU	5. Commodity/Group: Tangors	6. Commodity Type: Temples 051	7. Practice: 997
8. Intended Use:	9. Crop Year:	10. Acres:	11. No. of Trees:	12. No. of Trees Harvested	13. Inspection Type:	14. Inspection Date:

SECTION I: FRUIT ON GROUND

Grove ID	No. of Trees	Fruit Size per Box	Ground Fruit per Tree	Boxes per Tree (18 ÷ 17)	Cause(s) of Damage	Date(s) of Damage	Boxes Produced (16 x 19)	Boxes Lost (from 21)
					20a	20b	21	22
15	16	17	18	19				
1	300	252	1033	4.1	Hurricane/Hail	MM/DD/YYYY	1230.0	1230.0
2	300	252	479	1.9	Hurricane/Hail	MM/DD/YYYY	570.0	570.0
3	100	252	252	1.0	Hurricane/Hail	MM/DD/YYYY	100.0	100.0

SECTION II: FRUIT ON TREE, PRODUCTION AND LOSS (HAIL/WIND-SCAR AND FREEZE DETERMINATION METHODS)

Grove ID	No. of Trees	Cause(s) and Date(s) of Damage	Fruit Size per Box	On-tree Fruit Count/Tree	Boxes Per Tree (29 ÷ 28)	No. @ 70%	Col. 31 x 0.7	No. @ 40%	Col. 33 x 0.4	% Damage	Boxes Produced (26 x 30)	Boxes Lost (35 x 36)	
25	26	27	28	29	30	31	32	33	34	35	36	37	
1	300	Hurricane MM/DD/YYYY	252	375	1.5	No fruit harvested				1.000	450.0	450.0	
2	300	Hurricane MM/DD/YYYY				All fruit sold as fresh - see Section IV							
3	100	Hurricane MM/DD/YYYY				All fruit sold as fresh - see Section IV							
38. NOTES:											39. TOTALS	450.0	450.0

SECTION III: FRUIT PRODUCTION AND LOSS BASED ON DATA FROM TEST HOUSE JUICE ANALYSIS

Grove ID	Wt. Boxes	Date Harvested	Name of Processing Plant	Avg. Lbs. Juice/Box	Juice Base Lbs./Box	Off. Wt. Lbs./Box	Juice Fruit [(45 - 44) ÷ (46 - 44)] X (46 ÷ 45)	Fresh Fruit Factor	Fresh sold as Juice (((1 - 47) x 48) + 47)	% Decay + % Un-wholesome Fruit	% Damage (49 + 50) Or (47 + 50)	Boxes Produced $\frac{(46 - 44)}{(46 - 45)} \times 41$	Boxes Lost (51 x 52)
40	41	42	43	44	45	46	47	48	49	50	51	52	53
54. TOTALS												55. TOTALS	

SECTION IV: TOTAL PRODUCTION AND PRODUCTION LOSS

56. Grove ID	57. Date Harvested	58. Name and Address of Buyer or Packer (Fruit Harvested Before Damage Occurred, Within 7 Days After Freeze, Prior to Inspection or Damaged by Uninsured Causes)					59. Boxes Produced	60. Boxes Lost
2 & 3	MM/DD/YY	ACE Packing, Any Town, Any State XXXXX (Boxes lost are rotten due to hail/limb punctures, discarded by packer and not salvaged)					891.9	239.0
61. Coverage Level Percent Deductible:		.250	62. Production Lost Uninsured Causes:			63. Subtotals:	3241.9	2589.0
64. Box Increase to Meet Minimum Boxes Per Acre:			67. Adjusted Percent Loss:				0.549	
65. Total Boxes Produced:			68. Adjusted Percent Damage:				0.732	
66. Percent Boxes Lost:		0.799	69. Dollar Amount of Insurance Per Acre:				1020	

Crop Insurance Policies for Citrus: APH

Actual Production History (APH)

- Started being offered to citrus growers in Florida in 2022
- Policy provides coverage based on the grower's historical records:
 - The basis for guarantee is the average yield for last 10 seasons
- Coverage is offered for fresh and processed oranges and grapefruit, fresh mandarins/tangerines, tangelos and tangors grown in central and southwest Florida
- Growers can elect to insure at a lower price than established by RMA or, alternatively, can provide a contract price, if available
- Given impact of HLB, coverage based on past seasons causes the guarantees to be higher than what they would otherwise be (if downward trend were considered)

Citrus Crop Policies Performance Comparison During the Last Few Seasons

Oranges RMA Crop Year 2022 (Growing Season 2021/22)

APH

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Coverage Level	Number of Policies Sold	Number of Acres Enrolled	Number of Policies that Received Indemnity	Percent of Policies that Received Indemnity	Average indemnity per acre (\$/acre)	Average Grower Premium (\$/acre)	Average Payoff (\$/acre)
60%	72	18,863	48	67%	470	11.69	459
65%	24	1,441	18	75%	780	30.17	750
70%	27	8,896	18	67%	1,076	20.70	1,056
75%	81	8,895	73	90%	923	45.71	877
80%	1	3	1	100%	2,281	490.67	1,791
85%	4	86	3	75%	591	105.52	486
Total	209	38,344	161	77%	726	22.59	703

Dollar Amount

50%	170	22,170	22	13%	23	12.66	10
55%	10	1,059	5	50%	96	14.98	81
60%	723	157,810	226	31%	126	15.98	110
65%	72	4,097	16	22%	93	22.62	70
70%	68	8,432	18	26%	176	27.55	149
75%	109	22,214	61	56%	469	35.17	434
80%	29	3,480	13	45%	260	40.44	220
85%	17	1,136	4	24%	74	57.77	17
Total	1,198	220,398	365	30%	153	18.75	134

Oranges RMA Crop Year 2023 (Growing Season 2022/23)

APH

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Coverage Level	Number of Policies Sold	Number of Acres Enrolled	Number of Policies that Received Indemnity	Percent of Policies that Received Indemnity	Average indemnity per acre (\$/acre)	Average Grower Premium (\$/acre)	Average Payoff (\$/acre)
60%	89	33,550	75	84%	855	10.85	844
65%	11	1,021	10	91%	1,010	14.86	995
70%	38	3,419	36	95%	1,216	28.60	1,188
75%	79	9,440	76	96%	1,306	32.03	1,274
80%	6	7,240	5	83%	862	23.77	839
85%	3	70	3	100%	1,150	84.24	1,066
Total	227	54,934	205	90%	958	17.44	941

Dollar Amount

50%	154	16,043	88	57%	429	10.51	419
55%	8	93	3	38%	1,084	13.31	1,071
60%	602	98,098	396	66%	921	15.29	906
65%	56	2,048	30	54%	837	22.29	815
70%	66	14,202	46	70%	979	35.95	943
75%	87	13,378	65	75%	1,140	35.71	1,105
80%	25	3,138	20	80%	992	38.86	953
85%	14	857	8	57%	613	73.70	540
Total	1,012	147,857	656	65%	892	19.54	872

Oranges RMA Crop Year 2024 (Growing Season 2023/24)

APH

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Coverage Level	Number of Policies Sold	Number of Acres Enrolled	Number of Policies that Received Indemnity	Percent of Policies that Received Indemnity	Average Indemnity per Acre (\$/acre)	Average Premium per Acre (\$/acre)	Average Payoff per Acre (\$/acre)
50%	3	113	2	67%	808	19	788
55%	0	0	0	0%	0	0	0
60%	36	21,745	18	50%	184	39	145
65%	17	3,549	12	71%	470	50	420
70%	67	4,957	50	75%	627	72	555
75%	130	27,866	119	92%	1,097	115	982
80%	16	2,064	15	94%	1,871	162	1,708
85%	42	5,705	37	88%	1,146	164	982
Total	311	75,999	253	81%	807	99	708

Dollar Amount

50%	188	39,880	2	1%	2	19	-17
55%	5	1,016	0	0%	0	35	-35
60%	387	51,837	6	2%	4	38	-33
65%	48	1,559	1	2%	13	49	-36
70%	57	11,254	2	4%	6	60	-55
75%	107	9,823	10	9%	70	88	-18
80%	25	3,244	0	0%	10	102	-92
85%	14	351	1	7%	0	90	-90
Total	831	118,964	22	3%	9	40	-30

Oranges RMA Crop Year 2025 (Growing Season 2024/25: Current Season)

APH

	(1)	(2)	(3)	(4)
	Coverage Level	Number of Policies Sold	Number of Acres Enrolled	Average Premium per Acre (\$/acre)
	50%	3	224	20
	55%	2	863	30
	60%	39	30,487	47
	65%	30	8,326	69
	70%	79	8,328	93
	75%	137	29,122	142
	80%	32	6,167	187
	85%	17	6,469	236
	Total	339	89,986	107

Dollar Amount

50% (Catastrophic)	35	17,612	15
50% (Buy-up)	104	9753	32
55%	2	10	25
60%	324	29,596	35
65%	52	3,392	77
70%	50	12,251	66
75%	72	3,493	65
80%	18	2,147	65
85%	11	261	93
Total	668	78,515	39

Take Home Messages

- Data for crop years 2022, 2023 and 2024 show that, on average, Florida orange growers:
 - Were more likely to receive an indemnity under APH relative to Dollar Amount
 - Also received a higher indemnity amount under APH relative to Dollar Amount
- In the current season:
 - Most orange acreage is insured under APH
 - Orange acreage insured under APH and Dollar Amount accounts for 73% total, does not imply that the remainder is not insured (could be under WFRP but not traceable)

Important considerations:

- RMA's standards for APH include testing for a downward trend to determine whether any adjustments are warranted
 - an adjustment is implemented if the average yield of the last 3 seasons decreases by more than 25% relative to the average yield of the last 10 seasons
 - If that is the case, the APH yield (guarantee) is reduced by 20%
- As long as the downward trend continues and RMA's test for it does not trigger the adjustment, obtaining coverage under APH will likely continue to be beneficial

Thank you for your attention

Ariel Singerman

Citrus Research and Education Center

University of Florida

singerman@ufl.edu

+1 (863) 956-8870

www.crec.ifas.ufl.edu/research/economics