

A crop insurance policy that has paid off for citrus growers

By Ariel Singerman

Federal crop insurance is a key component of the farm safety net because it allows growers to obtain coverage against losses and, therefore, manage risk at a subsidized premium rate. In 2022, the U.S. Department of Agriculture Risk Management Agency (RMA) started offering Florida citrus growers the option to insure their crop under a policy called Actual Production History (APH). The basis for establishing the guarantee and premium under such a policy is called the APH approved yield, which consists of averaging the grower's yield records for the last 10 seasons. Thus, the policy provides coverage for yield losses based on a farm's historical records. This is in contrast to the Dollar Amount policy that offers coverage based on a reference maximum dollar amount per acre established by RMA.

HOW APH WORKS

At the time of APH policy enrollment, the grower chooses a certain coverage level, which determines the guarantee (or liability) and the deductible (the amount of loss for which the grower will not receive an indemnity). In the event of a loss, any level of yield below the guarantee will trigger an indemnity. Because the policy offers coverage based on the yields of past

seasons — despite the downward trend affecting Florida citrus due to HLB — the guarantees under the APH policy are higher than what they would be if the downward trend was considered. Thus, obtaining coverage under APH is likely going to be beneficial for most growers if such conditions continue.

POLICY PAYOFF COMPARISONS

This article estimates how much (on average) the APH policy has paid to growers compared to the Dollar Amount policy using RMA data for the 2022 and 2023 seasons.

Table 1 summarizes the performance

of APH and Dollar Amount by coverage level (from 50% to 85%) for Florida orange growers in 2022. Columns 1 and 2 show the number of policies sold by policy and coverage level, as well as the percent they represent out of the total. Thus, for example, there were 81 policies sold under APH with 75% coverage, representing 39% (the largest percentage) of the total 209 policies sold for APH that year.

In contrast, the total number of policies sold under Dollar Amount were 1,198. The vast majority of those (60%) were for 60% coverage. Columns 3 and 4 in Table 1 show the number of acres insured under each

Policy name/ Coverage Level	(1) Number of Policies Sold	(2) Percent of Policies Sold by Coverage Level	(3) Number of Acres Enrolled	(4) Percent of Enrolled Acres by Coverage Level	(5) Number of Policies That Received Indemnity	(6) Percent of Policies That Received Indemnity	(7) Average Indemnity per Acre (\$/Acre)	(8) Average Grower Premium (\$/Acre)	(9) Average Payoff (\$/Acre)
APH									
50%									
55%									
60%	72	34%	18,863	49%	48	67%	470	11.69	459
65%	24	11%	1,441	4%	18	75%	780	30.17	750
70%	27	13%	8,896	23%	18	67%	1,076	20.70	1,056
75%	81	39%	8,895	23%	73	90%	923	45.71	877
80%	1	0%	3	0%	1	100%	2,281	490.67	1,791
85%	4	2%	86	0%	3	75%	591	105.52	486
Total	209	100%	38,344	100%	161	77%	726	22.59	703
Dollar Amount									
50%	170	14%	22,170	10%	22	13%	23	12.66	10
55%	10	1%	1,059	0%	5	50%	96	14.98	81
60%	723	60%	157,810	72%	226	31%	126	15.98	110
65%	72	6%	4,097	2%	16	22%	93	22.62	70
70%	68	6%	8,432	4%	18	26%	176	27.55	149
75%	109	9%	22,214	10%	61	56%	469	35.17	434
80%	29	2%	3,480	2%	13	45%	260	40.44	220
85%	17	1%	1,136	1%	4	24%	74	57.77	17
Total	1,198	100%	220,398	100%	365	30%	153	18.75	134

Table 1. Summary of Performance of Actual Production History (APH) and Dollar Amount Insurance for Florida Orange Growers in 2022. (Source: Risk Management Agency and author's calculations)



Policy name/ Coverage Level	(1) Number of Policies Sold	(2) Percent of Policies Sold by Coverage Level	(3) Number of Acres Enrolled	(4) Percent of Enrolled Acres by Coverage Level	(5) Number of Policies That Received Indemnity	(6) Percent of Policies That Received Indemnity	(7) Average Indemnity per Acre (\$/Acre)	(8) Average Grower Premium (\$/Acre)	(9) Average Payoff (\$/Acre)
APH									
50%									
55%									
60%	89	39%	33,550	61%	75	84%	855	10.85	844
65%	11	5%	1,021	2%	10	91%	1,010	14.86	995
70%	38	17%	3,419	6%	36	95%	1,216	28.60	1,188
75%	79	35%	9,440	17%	76	96%	1,306	32.03	1,274
80%	6	3%	7,240	13%	5	83%	862	23.77	839
85%	3	1%	70	0%	3	100%	1,150	84.24	1,066
Total	227	100%	54,934	100%	205	90%	958	17.44	941
Dollar Amount									
50%	154	15%	16,043	11%	88	57%	429	10.51	419
55%	8	1%	93	0%	3	38%	1,084	13.31	1,071
60%	602	59%	98,098	66%	396	66%	921	15.29	906
65%	56	6%	2,048	1%	30	54%	837	22.29	815
70%	66	7%	14,202	10%	46	70%	979	35.95	943
75%	87	9%	13,378	9%	65	75%	1,140	35.71	1,105
80%	25	2%	3,138	2%	20	80%	992	38.86	953
85%	14	1%	857	1%	8	57%	613	73.70	540
Total	1,012	100%	147,857	100%	656	65%	892	19.54	872

Table 2. Summary of Performance of Actual Production History (APH) and Dollar Amount Insurance for Florida Orange Growers in 2023 (Source: Risk Management Agency and author’s calculations)

policy and the percentage they represent out of the total, respectively. Therefore, there were 38,344 acres enrolled in APH and 18,863 of those acres — representing 49% of the total, the largest percentage — were enrolled for 60% coverage. In contrast, there were 220,398 acres enrolled under Dollar Amount, and 157,810 acres were enrolled for 60% coverage.

Columns 5 and 6 of Table 1 show the number of policies that received indemnities in 2022 and the percent those represent out of the total, respectively. On average, APH paid indemnities to 77% of the policies. It is interesting to note the differences in the percentage of policies that received indemnities among different coverage levels. The lowest coverage levels, namely 60%, 65% and 70%, received an indemnity in 67%, 75% and 67% of the cases, on average. The highest coverage levels, namely 75%, 80% and 85%, received an indemnity in 90%, 100% and 75% of the cases, on average. Contrastingly, the Dollar Amount coverage paid indemnities to 30% of the policies in 2022, on average. The coverage level that had the largest percentage of policies that received an indemnity (56%) under such a policy was 75% coverage.

Columns 7, 8 and 9 of Table 1 show the average indemnity per acre, the average grower premium and the average payoff (which is the difference between the former two columns), respectively. Thus, in 2022, the average

APH indemnity was \$726 per acre while the average grower premium was \$22.59 per acre, resulting in an average policy payoff of \$703 per acre. But it was the 80% coverage level that yielded the highest APH average payoff. On average, a grower that obtained such coverage obtained a payoff of \$1,791 per acre.

For Dollar Amount, the average indemnity in 2022 was \$153 per acre while the average grower premium was \$18.75 per acre, making the average policy payoff \$134 per acre. The coverage level that yielded the highest Dollar Amount average payoff was 75%. A grower that obtained such coverage, on average, obtained a payoff of \$434 per acre. Therefore, orange growers in Florida that insured their crop under the APH policy in 2022 were, on average, not only more than twice as likely to obtain an indemnity relative to those that obtained Dollar Amount coverage, but also better off by an average of \$569 per acre (\$703 per acre - \$134 per acre) relative to those that obtained coverage under the Dollar Amount policy.

THE IAN IMPACT

During insurance year 2023 (crop year 2022–23), Hurricane Ian hit Florida in September 2022, causing significant yield losses in groves near the hurricane path. Columns 1 and 2 of Table 2 show that in that crop year orange growers purchased 227 APH policies that insured 54,934 acres. Most of the policies, 89 (which represented

39% of the total), and most of the insured acres, 33,550 (which represented 61% of the total), were enrolled in 60% coverage.

On average, 90% of the APH policies received an indemnity. For the most part, the percent of policies that received indemnities increased with the coverage level (with the exception of those that enrolled in 80% coverage, for which 83% received an indemnity). The average APH indemnity in 2023 was \$958 per acre while the average grower premium was \$17.44 per acre, making the average policy payoff for such a policy \$941 per acre. That year, the 75% coverage level yielded the highest APH average payoff because, on average, a grower that obtained such coverage obtained a payoff of \$1,274 per acre.

As shown in Table 2, in 2023, orange growers purchased 1,012 policies under the Dollar Amount policy, which insured 147,875 acres. Most of the policies (59%) were underwritten for 60% coverage and insured 98,098 acres (66% of the total). The average indemnity under Dollar Amount that year was \$892 per acre while the average grower premium was \$19.54 per acre, making the average policy payoff for such a policy \$872 per acre. The coverage level that yielded the highest average payoff was 75%. On average, a grower that obtained such coverage obtained a payoff of \$1,105 per acre.

In 2023, growers that insured their crop under the APH policy were not only more likely to obtain an indemnity relative to those that obtained Dollar Amount coverage, but also better off by an average of \$69 per acre (\$941 per acre - \$872 per acre) relative to those that purchased the Dollar Amount policy. It is worth noting, however, that in 2023 the Dollar Amount policy provided higher average payoffs relative to APH for the 60% and 80% coverage levels.

PICKING A POLICY

There are two important considerations for growers when deciding what crop insurance policy to purchase in future years.

First, RMA’s standards for APH include a procedure for testing high variability in yields to determine whether any adjustments to the APH

Orange growers in Florida that insured their crop under the APH policy in 2022 were, on average, not only more than twice as likely to obtain an indemnity relative to those that obtained Dollar Amount coverage, but also better off by an average of \$569 per acre.

database are warranted, either due to alternate bearing or downward trend patterns. The test for a downward trend establishes that the adjustment is only implemented if the average actual yields of the last three seasons decreases by more than 25% relative to the average actual yields of the last 10 seasons. If that is the case, the APH yield is reduced by 20%.

The second consideration is that given the catastrophic weather events affecting citrus production in Florida during the insurance crop year 2023, the RMA instructed insurance companies to exclude that crop year from

high variability tests calculations. This means that if the downward trend continues in 2025 (or if the yield in 2025 will be lower than the APH average yield for 2013–2022), growers will likely benefit from insuring their crop under APH.

SUMMARY AND CONCLUSIONS

The APH policy offers coverage against yield losses based on farm yield records for the previous 10 seasons. But given the negative impact of HLB on Florida citrus yield and the reliance of APH on the average yield for

previous seasons, the APH guarantees are higher than what they should be if the downward trend is considered.

Data was used for crop years 2022 and 2023 to show that, on average, orange growers in Florida were not only more likely to receive an indemnity when obtaining coverage under the APH policy relative to the Dollar Amount policy but also, on average, received a higher dollar amount when doing so. Growers that obtained APH indemnities have been able to use those payments to maintain their level of caretaking costs.

Even though RMA standards for APH contemplate reducing yields by 20% due to a downward trend, the adjustment is only implemented when the average actual yields of the last three seasons decreases by more than 25% relative to the average actual yields of the last 10 seasons. For growers, this means that 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. 🍊



Brenda Eubanks Burnette



Save those citrus documents and memorabilia!

This is the first installment of four Q&A features with Brenda Eubanks Burnette, the winner of this year's Citrus Achievement Award. This month she asks industry members to help preserve citrus history and discusses her belief in the citrus industry's future.

If someone has old family documents and records related to the citrus industry, what should they do?
BURNETTE: As the industry has contracted over the years, there is much history being lost. Family members, who might no longer be in the industry, could be throwing out old records and documents from the family citrus business and

not realize what they have from a historical standpoint. Don't throw it out. Please give these records or other photos and memorabilia to the Florida Citrus Hall of Fame, so we can help make the determination of whether it has historical value. This is very important to help us preserve the history of the people who came before us

and are no longer here to tell their story.

Why do you believe in the future of Florida's citrus industry?

BURNETTE: The citrus industry is part of Florida's history. I've always said that Florida citrus pioneers helped shape the state of Florida. We have been working on a book of how they did this through the biographies of our Florida Citrus Hall of Fame members.

Citrus is such an iconic part of our state that it will not go away. The industry has

changed and will be different, but it will remain. I think we've begun to turn a corner in a more positive direction, so it is extremely important we keep the story of Florida citrus alive. I look forward to helping preserve the story of our future as well. 🍊



Special thanks to TJ BioTech for sponsoring the Citrus Achievement Award program.