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RISK MANAGEMENT
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Strengthening Risk Management Tools for Growers in South Florida: Crop Insurance Training.

Whole Farm Revenue Protection Crop Insurance Handbook

USDA

United States Department of Agriculture
National Institute of Food and Agriculture

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Introduction

This manual, developed by the Agricultural Economics Unit of the University of Florida, Tropical Research and Education Center, is intended to provide general guidelines about the Whole Farm Revenue Protection program for growers in South Florida. Specifically, the manual is aimed at simplifying the process, and increasing the understanding of growers, of how production risk might be mitigated by taking advantage of available federal crop insurance programs.

The manual is divided into three sections. Section 1 provides basic information about insurance eligibility and basic crop insurance concepts. Section 2 covers aspects related to how to obtain a crop insurance estimate using the United States Department of Agriculture, Risk Management Agency (USDA/RMA) online tool. Section 3 provides some exercises on how to calculate an indemnity using an Excel tool to simplify the indemnity calculation process. Additionally, the Excel tool will allow the grower to compare the financial results with and without crop insurance, based on simulated yield losses and coverage levels selected by the grower. By using this tool, the grower may be in a better position to make an informed decision on how to minimize the production risk.

We cannot guarantee the legal effect nor the appropriate use of the contents as individual results depend upon specific crop insurance policy details. Most of the information presented here was obtained from USDA/RMA and other industry sources.

Note: Growers should consult with their crop insurance agents for a detailed crop insurance quote, and for more specific information about dates, specific conditions, and exclusions.

I. The Basics of Crop Insurance

Background

Federal crop insurance was established in the 1930s, with multiple-peril crop insurance (MPCI) being the first crop insurance plan designed to cover yield losses from most natural causes. MPCI is better known as yield insurance or APH (Actual Production History) insurance. As is the case in other types of insurance, producers are able to select the coverage amount and structure of their crop insurance policy according to their needs. Loss payments (indemnities) are received when actual production (revenue) is below the yield (revenue) guaranteed as stated in the insurance policy. The federal government is directly involved with determining crop insurance policy provisions and rates.

What Types of Losses Are Covered under Crop Insurance?

- Adverse weather;
- Earthquake;
- Volcanic eruption;
- Fire (due to natural causes);
- Wildlife;
- Insects, but not damage due to insufficient or improper application of pest control measures;
- Plant disease, but not damage due to insufficient or improper application of disease control measures; or
- Failure of the irrigation water supply if due to unavoidable causes.

Why Purchase Crop Insurance?

Uncertainties about weather, yields, prices, government policies, global markets, and other factors make agriculture a risky business. Crop insurance is a risk management tool designed to mitigate the financial impact of adverse events; it may be the difference between financially surviving a bad year or leaving the industry.

Whole Farm Revenue Protection Insurance Eligibility

Eligibility for Whole Farm Revenue Protection (WFRP) coverage requires you to

- Be a U.S. citizen or resident;
- Be eligible to receive federal benefits;
- File either a Schedule F tax form or other farm tax form that can be converted to a Substitute Schedule F for a specified number of years;
- Have no more than $8.5 million in insured revenue which is the farm revenue allowed to be insured under the policy multiplied by the coverage level you select;
- Have no more than $1 million expected revenue from animals and animal products;
- Have no more than $1 million from greenhouse and nursery products;
- Have no more than 50 percent of total revenue from commodities purchased for resale;
- Have buy-up coverage levels on any federal crop insurance plan you choose with WFRP plan;
- Meet the diversification requirements of the policy by having two or more commodities, if a commodity you are raising has revenue protection or actual revenue history insurance available; and
- Meet the diversification requirements of the policy by having two or more commodities, if there are potatoes on the farm.

WFRP Insurance Coverage

WFRP protects your farm against the loss of farm revenue that you earn or expect to earn from

- Commodities you produce during the insurance period, whether they are sold or not;
- Commodities you buy for resale during the insurance period; and
- All commodities on the farm, except timber/forest/forest products or animals for sport/show/pets.

WFRP also provides replant coverage for

- Annual crops, except those covered by another policy;
- Equal to cost of replanting, up to a maximum of 20 percent of the expected revenue; and
- Events when 20 percent, or 20 acres, of the crop needs to be replanted.

The approved revenue amount, determined on your Farm Operation Report, is the lower of the expected revenue or your whole-farm historic average revenue. Coverage levels range from 50 to 85 percent.

WFRP Insurance Availability

WFRP insurance is available in all counties in all 50 states.

WFRP Insurance Covered Loss

WFRP insurance provides protection against the loss of insured revenue due to an unavoidable natural cause of loss that occurs during the insurance period and also provides carryover loss coverage if you are insured the following year. ***See the policy for a list of covered causes of loss***.

Important Dates (crop year 2017)

- **Sales closing, cancellation, and termination dates**

The sales closing date, cancellation date, and termination date are the dates by which you must buy coverage, change coverage, or terminate coverage. For the crop year 2017, the following dates apply: Sales closing date: February 28, Cancellation date: February 28, Contract change date: August 31.

- **Revised farm operation report dates**

If you need to revise your farm operation report, the day the revised report is due is based on how you file your taxes. If you are a calendar year filer or an early fiscal year filer, your revised report is due on or before July 15. If you are a late fiscal year filer, your report is due on the last day of the month in which your fiscal year begins, but no later than October 31.

Note: For up-to-date information about important dates, please talk to your crop insurance agent for more information.

Insurance Year

The insurance year is a calendar year if taxes are filed by calendar year, or a fiscal year if taxes are filed by fiscal year.

Basic WFRP Crop Insurance Concepts

Insurance Coverage

Catastrophic Risk Protection (CAT) is the most basic insurance policy; it is a fixed coverage product. It provides a 50 percent coverage level, and 55 percent of the reference maximum dollar amount. CAT is 100 percent subsidized with no premium paid by the grower. There is an administrative fee of $ 300 per crop per county which the grower must pay in order to be eligible, regardless of the acreage. If you have CAT, you are not eligible to buy WFRP.

Any coverage above CAT is considered buy-up coverage. It ranges from 50 to 75 percent (80 and 85 percent in some crop insurance policies) in 5 percent increments. WFRP is a revenue insurance product; it offers coverage ranging from 50 to 85 percent of the farm approved revenue, in 5 percent increments. If the farm has 2 commodities to insure, then the grower may select a WFRP coverage level from 50 to 75 percent. To qualify for the 80 and 85 percent coverage levels; there is a minimum 3 commodity requirement.

Insurance Premium

The premium is the cost paid by the grower for crop insurance protection; premiums are set by the USDA. Premium amount depends on the desired coverage level (usually from 50 to 75 percent; WFRP up to 85 percent), and price election percentages (fixed in some policies). To encourage crop insurance adoption, a percentage of the premium is subsidized by the federal government. For the crop insurance year 2017, the premium is due on August 15, or when an indemnity payment is received, whichever comes first.

Table 1 shows WFRP premium subsidy and producer's share based on specific coverage levels, and number of commodities insured. One of the key distinctions of the WFRP is that it is designed to protect diversified farm operations. A minimum of 1 but not more than 2 commodities is required to select a maximum coverage level of 75 percent, with producer's share constant at 20 percent of the insurance premium. A minimum of 3 commodities is required to select the 80 to 85 percent coverage levels. Producer's share of the premiums for 3 (or more) commodities depends on the desired coverage level. For example, if you insure 3 commodities and select the 85-percent coverage level, your premium share is 44 percent of the base premium (Table 1).

Table 1. Crop Insurance Premium Subsidies and Producer Premiums based on Coverage Level

Subsidies	**Coverage Level (%)**							
	50	**55**	**60**	**65**	**70**	**75**	**80**	**85**
Qualifying Commodity Count: 2 (%)	80	80	80	80	80	80		
Qualifying Commodity Count: 3 or more (%)	80	80	80	80	80	80	71	56
Producer's Premium Share (%)	20	20	20	20	20	20	29	44

Insurance Deductible

It is the loss limit that you as a crop insurance policy holder must absorb before benefits from the insurance policy are paid; in other words, the insurer generally pays all the losses beyond the deductible. WFRP deductibles range from 15 to 50 percent in 5 percent increments (25 to 50 percent deductibles are available in most crop insurance products).

Insurance Unit

The type of unit to be insured also determines crop insurance premiums. There are four unit types available for crop insurance policies: basic, optional, enterprise, and whole-farm.

- *Basic unit*: this type of unit is determined by ownership of the commodity, cash rents, and owned land, is considered one basic unit.
- *Optional unit*: this type of unit is subdivided basic units (irrigated/non irrigated, by section), and it allows insurance to be customized according to risk management needs. Insurance premiums for optional units carry a surcharge, and are available only for coverage levels above CAT.
- *Enterprise unit*: this type of unit includes all shares of the crop in the county which aggregates sharecropped land with owned and rented land.
- *Whole-farm unit*: this type of unit is available only on certain revenue insurance policies; it allows aggregation of all eligible insured crops grown in the county.

Insurance Guarantee

The maximum insurable farm revenue under the WFRP is $8,500,000; however, it is subject to a minimum commodity count, and its respective Maximum Farm Approved Revenue (MFAR). Table 2 shows that as coverage level increases, the MFAR associated with it decreases; it also shows that the 80 and 85 percent coverage levels are subject to a minimum of 3 commodities. If the grower has less than 3 commodities to insure, the MFAR will determine what would be the respective coverage level for the WFRP policy. For example, a grower with a MFAR of up to $17 million can only choose a 50 percent coverage level ($8.5 million insured farm revenue). If the grower has a diversified farm (under WFRP guidelines) with 3 (or more) eligible commodities, the applicable coverage level will be based on the MFAR value. For example, a grower with 3 insurable commodities and a MFAR of up to $10 million maybe able to select the higher 85 percent coverage level ($8.5 million insured farm revenue).

Table 2. WFRP Commodity Count, and Maximum Farm Approved Revenue Requirement.

Coverage Level (%)	Commodity Count Minimum Required	Maximum Farm Approved Revenue	Insured Revenue
85	3	$10,000,000	$8,500,000
80	3	$10,625,000	$8,500,000
75	1	$11,333,333	$8,500,000
70	1	$12,142,857	$8,500,000
65	1	$13,067,923	$8,500,000
60	1	$14,166,167	$8,500,000
55	1	$15,454,545	$8,500,000
50	1	$17,000,000	$8,500,000

Insurance Indemnity

Is the payment made by a crop insurer (insurance company) to the insured (grower) when an insured grower experiences a loss. Technically, a loss occurs when the actual yield (revenue) is below the yield (revenue) guarantee as stated in the crop insurance policy. After experiencing a loss, usually the grower receives a net indemnity (the calculated value of the indemnity minus producer's insurance premium).

Application for WFRP

There are certain documents you must provide to your crop insurance agent to get WFRP insurance. First, you must provide 5 consecutive years of Schedule F or other farm tax forms (it may be possible to complete a Substitute Schedule F form if you filed farm tax forms other than Schedule F, see Appendix).

For the 2017 insurance year, tax forms from 2011 to 2015 are required, except

- If you qualify as a Beginning Farmer or Rancher under the USDA RMA procedures, you may qualify with 3 consecutive years of Schedule F or other farm tax forms if you also farmed during the past year (it may be possible to complete a Substitute Schedule F form if you filed farm tax forms other than Schedule F). For the 2017 insurance year, tax forms for 2013–2015 are required and you also must have farmed during 2016
- If you were physically unable to farm for 1 of the 5 required historic years but were farming the past year
- If you are a tax-exempt entity (such as a Tribal entity) and have acceptable third-party records available that can be used to complete Substitute Schedule F tax forms for the five-year history

A grower seeking WFRP coverage for crop year 2017 has to specify Allowable Revenue, and Allowable Expenses. The IRS Schedule F form (or its equivalent) contains the historical information of the farm's financial history. Allowable Revenue is the farm revenue from the production of commodities produced on the farm or purchased for further growth that the IRS requires to be reported. It includes revenues from the insurable commodities.

Part I of the IRS Schedule F reports farm income (Figure 1). Allowable revenue items for WFRP are limited to specific items (usually revenue reported on lines 1 to 3b). Excluded is most of the farm income that would be reported on lines 4a through 8 in Part I of the Schedule F.

SCHEDULE F (Form 1040)
Department of the Treasury
Internal Revenue Service (99)

Profit or Loss From Farming
► Attach to Form 1040, Form 1040NR, Form 1041, Form 1065, or Form 1065-B.
► See Instructions for Schedule F (Form 1040).

OMB No. 1545-0074
2011
Attachment Sequence No. **14**

Name of proprietor

Social security number (SSN) 000-000-000

A Principal crop or activity: Fruit farming
B Enter code from Part IV ► 1 1 1 3 0 0
C Accounting method: ☑ Cash ☐ Accrual
D Employer ID number (EIN), (see instr)

E Did you "materially participate" in the operation of this business during 2011? If "No," see instructions for limit on passive losses. ☑ Yes ☐ No
F Did you make any payments in 2011 that would require you to file Form(s) 1099 (see instructions) ☐ Yes ☑ No
G If "Yes," did you or will you file all required Forms 1099? ☐ Yes ☑ No

Part I Farm Income—Cash Method. Complete Parts I and II (Accrual method. Complete Parts II and III, and Part I, line 9.)

1a	Specified sales of livestock and other resale items (see instructions)	1a			
b	Sales of livestock and other resale items not reported on line 1a	1b			
c	Total of lines 1a and 1b (see instructions)	1c			
d	Cost or other basis of livestock or other items reported on line 1c	1d			
e	Subtract line 1d from line 1c			1e	0 00
2a	Specified sales of products you raised (see instructions)			2a	128,840 00
b	Sales of products you raised not reported on line 2a			2b	0 00
3a	Cooperative distributions (Form(s) 1099-PATR)	3a	3,800 00	3b Taxable amount	3,800 00
4a	Agricultural program payments (see instructions)	4a	18,200 00	4b Taxable amount	18,200 00
5a	Commodity Credit Corporation (CCC) loans reported under election			5a	0 00
b	CCC loans forfeited	5b		5c Taxable amount	0 00
6	Crop insurance proceeds and federal crop disaster payments (see instructions)				
a	Amount received in 2011	6a	31,875 00	6b Taxable amount	31,875 00
c	If election to defer to 2012 is attached, check here ► ☐			6d Amount deferred from 2010	0 00
7a	Specified custom hire (machine work) income (see instructions)			7a	5,000 00
b	Custom hire income not reported on line 7a			7b	0 00
8a	Specified other income (see instructions)			8a	4,600 00
b	Other income not reported on line 8a (see instructions)			8b	0 00
9	**Gross income.** Add amounts in the right column (lines 1e, 2a, 2b, 3b, 4b, 5a, 5c, 6b, 6d, 7a, 7b, 8a, and 8b). If you use the accrual method, enter the amount from Part III, line 50 (see instructions) ►			9	192,315 00

Part II Farm Expenses—Cash and Accrual Method. Do not include personal or living expenses (see instructions).

10	Car and truck expenses (see instructions). Also attach **Form 4562**	10	3,750 00	23	Pension and profit-sharing plans	23	0 00
				24	Rent or lease (see instructions):		
11	Chemicals	11	8,520 00	a	Vehicles, machinery, equipment	24a	1,000 00
12	Conservation expenses (see instructions)	12	2,640 00	b	Other (land, animals, etc.)	24b	5,750 00
13	Custom hire (machine work)	13	3,900 00	25	Repairs and maintenance	25	6,000 00
14	Depreciation and section 179 expense (see instructions)	14	3,500 00	26	Seeds and plants	26	10,410 00
				27	Storage and warehousing	27	0 00
15	Employee benefit programs other than on line 23	15	0 00	28	Supplies	28	4,780 00
				29	Taxes	29	5,450 00
16	Feed	16	0 00	30	Utilities	30	5,500 00
17	Fertilizers and lime	17	11,200 00	31	Veterinary, breeding, and medicine	31	0 00
18	Freight and trucking	18	3,550 00	32	Other expenses (specify):		
19	Gasoline, fuel, and oil	19	11,400 00	a	Association Membership	32a	350 00
20	Insurance (other than health)	20	3,650 00	b	Computer Software	32b	750 00
21	Interest:			c	Legal Fees	32c	950 00
a	Mortgage (paid to banks, etc.)	21a	10,000 00	d		32d	
b	Other	21b	4,500 00	e		32e	
22	Labor hired (less employment credits)	22	10,300 00	f		32f	

33 **Total expenses.** Add lines 10 through 32f. If line 32f is negative, see instructions ► 33 117,900 00
34 **Net farm profit or (loss).** Subtract line 33 from line 9 34 74,415 00
If a profit, stop here and see instructions for where to report. If a loss, complete lines 35 and 36.
35 Did you receive an applicable subsidy in 2011? (see instructions) ☐ Yes ☑ No
36 Check the box that describes your investment in this activity and see instructions for where to report your loss.
a ☐ All investment is at risk. b ☐ Some investment is not at risk.

For Paperwork Reduction Act Notice, see your tax return instructions. Cat. No. 11346H **Schedule F (Form 1040) 2011**

Figure 1. Schedule F, tax year 2011

Allowable farm expenses can be found on Part II of the IRS Schedule F (Figure 1). Allowable expense items for WFRP are limited to certain items. For example, depreciation, employee benefit programs, and other expenses are not considered allowable expenses under WFRP. After the allowable revenue and expense items for the farm's last 5 years (or less if allowed) have been determined, preparing the documentation needed to buy WFRP is a three-step procedure.

Step 1: Fill out the allowable revenue and expenses worksheets

The process to apply for WFRP is illustrated below. Assume that a grower in Miami-Dade County wants to obtain WFRP for crop year 2017. The grower cultivates four crops on 39 acres as follows: avocados (30 acres), fresh market sweet corn (4 acres), fresh market tomatoes (4 acres), and papaya (1 acre).

Information to complete the Allowable Revenue (AR) and Allowable Expenses (AE) worksheets for the period 2011–2015 comes from Schedule F, specifically farm income (Part I) and farm expenses (Part II). For simplicity, we illustrate how to complete the AR and AE worksheets for year 2011 (see Schedule F 2011 in Figure 1), Part I contains information about the farm income received; gross income for 2011 was $192,315 (Part I, Line 9). Not all the items on the farm gross income are allowed revenue under WFRP. Allowable revenue items for a specific tax year come from the sales of commodities raised on the farm during the respective tax year. Table 3 shows the AR worksheet for year 2011. Allowable (adjusted) revenue items include sales of commodities raised on the farm ($127,740) on line 6b; cooperative distributions ($560) on line 6c; and other income on line 6i, including income from bartering ($200), payments from buyers of commodities ($1,000), and payment from marketing orders ($1,000). After the revenue adjustments, the AR for year 2011 is $130,500.

Table 3. Allowable revenue worksheet for year 2011

Allowable Revenue Worksheet				
1. Producer Information : I.M. Insured Person Type : Individual Box 1 Anytown , USA , 11111 Phone : 999.999.9999	2. Policy Number : XXXXXX		3. State / County : Florida / Miami Dade	
	4 . Tax Year : 2011			
5. Adjustment Codes : A = Schedule F income specifically excluded B=Cost of post- production operations C = Co-op distributions not directly related	G = Net gain from commodity hedges H = Not directly related to production I = Other			
6. Schedule F Part I (cash) or III (accrual) Revenue	**7. Schedule F Line Number**	**8. Amount on Schedule F**	**9. Revenue Adjustment Amount and Code**	**10. Allowable Revenue per Item**
a. Sales of animals and other resale items , less the cost or other basis of such items	1 c or 37	$0	0	
b. Sales of livestock , produce , grains , and other products you raised	2 or 37	$128,840	$1,100 (B)	$127,740
c. Cooperative distributions	3 b or 38 b	$3,800	$3,240 (C)	$560
d. Agricultural program payments	4 b or 39 b	$18,200	$18,200 (A)	$0
e. Commodity Credit Corporation (CCC) loans reported under election	5 a or 40 a	$0	0	$0
f. CCC loans forfeited	5 c or 40 c	$0	0	$0
g. Crop insurance proceeds and federal crop disaster payments	6 b or 41	$31,875	$31,875 (A)	$0
h. Custom hire (machine work) income	7 or 42	$5,000	$5,000 (A)	$0
i. Other income , including federal and state gasoline or fuel tax credit or refund				
Federal and state gasoline or fuel tax credit or refund	8 or 43	$2,400	$2,400 (A)	$0
Income from bartering		$200	0	$200
Payments from buyers of commodities for bypassed acreage		$1,000	0	$1,000
Payment from marketing orders		$1,000	0	$1,000
11. Total Schedule F Part I or III Revenue		**$192,315**	**$61,815**	**$130,500**
	12. Allowable Revenue for Tax Year			**$130,500**

Total farm expenses are located on Line 33, Part II, Schedule F (Figure 1). For year 2011, total expenses were $117,900. Table 4 shows the AE worksheet for the year 2011, allowed (adjusted) expense items include those directly related to agricultural production such as chemicals, labor hired, and fertilizers (highlighted in yellow), and excludes items such as depreciation, interest, rent or lease expenses, taxes, etc. After the expense adjustments, the AE for year 2011 is $83,500.

Table 4. Allowable expenses worksheet for year 2011

Allowable Expenses Worksheet				
1. Producer Information : I.M. Insured Person Type : Individual Box 1 Anytown , USA , 11111 Phone : 999.999.9999	2. Policy Number : XXXXXX 3. State / County : Florida / Miami Dade 4 . Tax Year : 2011		5. Adjustment Codes : A = Schedule F expenses specifically excluded B=Cost of post- production operations H = Not directly related to production I = Other	
6. Schedule F Part II Expenses	**7. Schedule F Line Number**	**8. Amount on Schedule F**	**9. Expense Adjustment Amount**	**10. Allowable Expense per Item**
Car and truck expenses	10	$3,750	0	$3,750
Chemicals	11	$8,520	0	$8,520
Conservation expenses	12	$2,640	0	$2,640
Custom hire	13	$3,900	0	$3,900
Depreciation and section 179 expense	14	$3,500	$3,500 (I)	$0
Employee benefit programs other than on line 23	15	$0	0	$0
Feed	16	$0	0	$0
Fertilizers and lime	17	$11,200	0	$11,200
Freight and trucking	18	$3,550	0	$3,550
Gasoline, fuel, and oil	19	$11,400	0	$11,400
Insurance (other than health)	20	$3,650	0	$3,650
Interest : Mortgage and Other	21 a + 21 b	$14,500	$14,500 (A)	$0
Labor hired	22	$10,300	0	$10,300
Pension and profit - sharing plans	23	$0	0	$0
Rent or lease : Vehicles , machinery , equipment , and Other (land , animals , etc.)	24 a + 24 b	$6,750	$6,750 (A)	$0
Repairs and maintainance	25	$6,000	0	$6,000
Seeds and plants	26	$10,410	0	$10,410
Storage and warehousing	27	$0	0	$0
Supplies	28	$4,780	$2,500 (B)	$2,280
Taxes	29	$5,450	$5,450 (A)	$0
Utilities	30	$5,550	0	$5,550
Veterinary , breeding , and medicine	31	$0	$0	$0
Other expenses (specify) :				
Association membership	32	$350	0	$350
Computer / software		$750	$750 (H)	$0
Legal fees		$950	$950 (H)	$0
Commodity grading		$0	0	$0
11. Total Schedule F Part II Expenses		**$117,900**	**$34,400**	**$83,500**
	12. Cost or other basis of livestock or other items reported on line 1 a or 37 of the Schedule F			$0
	13. Accounts Payable Adjustment			$0
	14. Allowable Expenses for Tax Year			**$83,500**

Step 2: Create the whole farm history report

After the AR and AE expenses worksheets for the 2011–2015 period have been created, the next step is to generate the Whole Farm History Report (WFHR). The purpose of this report is to establish the Whole Farm Historic Average revenue and expenses. Table 5 shows the WFHR for the grower in our example, it has AR and AE for the tax years 2011-2015. The whole-farm historic average revenue (expenses) is the highest of one of the following:

- Simple average
- Indexed average revenue (expenses) (if applicable)
- Expanded operation adjusted revenue (expenses) (if applicable).

The simple averages for the AR and AE for the farm during the 2011–2015 period are $138,392 and $92,186, respectively.

Table 5. Whole farm history report, tax years 2011–2015

Tax Year	Allowable Revenue	AR Index	Allowable Expenses	AE Index
2011	$ 130,500		$ 83,500	
2012	$ 149,500	1.146	$ 109,660	1.200
2013	$ 112,000	0.800	$ 83,500	0.800
2014	$ 139,600	1.200	$ 73,900	0.885
2015	$ 160,360	1.149	$ 110,370	1.200
Total	$ 691,960		$ 460,930	
Simple Average	$ 138,392		$ 92,186	
Indexed	1.074		1.021	
	1.331		1.087	
	$ 184,200		$ 100,206	
Add. Revenue	$ 10,000			
Expanded Oper.	1.07		1.07	
	$ 148,079		$ 98,639	
Whole-Farm Historic Average	**$ 184,200**		**$ 100,206**	

Revenue indexing is allowed when the last two years of AR exceed the simple average revenue over the farm's five-year history. The AR indexing procedure consists of dividing the 2012 value by the 2011 value (1.146); the 2013 value by the 2012 value (0.800); the 2014 value by the 2013 value (1.200); and the 2015 value by the 2014 value (1.149). Each of these four ratios is capped at 1.200, and cupped at 0.800. After calculating the indices, they are summed and the average is calculated (1.074). Average is raised to the fourth power (1.331) and multiplied by the simple average AR ($138,392*1.331=$184,200).

To qualify as an expanding operation, it is necessary to demonstrate that the farm is increasing its production capacity. It may be anything that expands production capacity (other than just a change in price). An expansion factor is calculated by adding the expected revenue due to the expansion to the simple average AR, and then dividing it for the simple average AR. Assuming that the grower expects to increase his revenue by **$10,000** for the 2017 crop year, the expansion factor will be 1.07 ((**$10,000**+$138,392)/$138,392), and the AR under the expanding operation will be $148,079 ($138,392*1.07). The maximum value allowed for an expansion factor during a five-year period is 1.35. In the illustration above, the whole-farm historic average revenue is $184,200, which is the highest of the simple average, the indexed revenue, and the expanding operation revenue.

Step 3: Complete an intended farm operation report

After the farm's financial history for the last 5 tax years has been documented, an Intended Farm Operation Report must be completed. The idea of this report is to provide information about the commodities that will be produced in the insurance year, and the estimated revenue from them. Assume that the grower in our illustration continues to raise the same four crops for the 2017 insurance year. Based on historical yields for the four crops and expected local market conditions, the farm's expected revenue for crop year 2017 is estimated at $170,960 (Table 6).

Table 6. Intended farm operation report

Intended Farm Operation Report							
6. Commodity Name/Code	**7. Method of Establishment**	**8. Yield**	**9. Expected Value**	**10. Expected Revenue (8X9)**	**11A. Intended Quantity**	**11B. Cost/ Basis and/or Value**	**11C. Total Expected Revenue (10X 11A)-11B**
Avocado 0019	acres	200 bu	$ 17.5/bu	$3,500	30 acres		$105,000
Sweet Corn 0044	acres	145 cwt	$32/cwt	$4,640	4 acres		$18,560
Tomatoes 0086	acres	1,200 boxes	$ 8/box	$9,600	4 acres		$38,400
Papaya 0257	acres	22,500 lbs	$ 0.40/lb	$9,000	1 acres		$9,000
14. Total At SCD							$170,960

After obtaining the Intended Farm Operation Report, it is necessary to carry out a commodity count to establish the number of commodities eligible for WFRP insurance. The commodity count calculation is used to establish whether the crops to be insured have sales sufficiently large to be included in the commodity count. The four crops in our example have the following codes:

- Avocados 0019
- Sweet corn (Fresh market) 0044
- Tomatoes (Fresh market) 0086
- Papaya 0257

- The formula for the commodity count determinant is
  (1.0/Number of commodities) x 0.333 x the farm's expected revenue

- For our example the commodity count determinant is
  (1/4) x 0.333 x $170,960 =$14,190

The objective of this procedure is to establish the number of commodities with expected revenues greater than the commodity count determinant. For the present illustration, 3 commodities satisfy this requirement (avocados, fresh market tomatoes, and fresh market sweet corn) because they have sales in excess of $14,190 (Table 6). This does not mean that papaya revenue will not be insured, it just means that papaya will not be considered as a separate commodity under WFRP. Papaya revenue can be grouped with one of the other 3 WFRP eligible commodities; as a result, total expected revenue for the farm can be insured under WFRP.

Finally, after the Whole Farm History Report, and the Intended Farm Operation Report have been created, it is necessary to establish the approved farm revenue for WFRP. The approved farm revenue to insure under a WFRP policy is the lesser of the **Whole Farm Historical Average Revenue** ($184,200) or the total **Expected Revenue** ($170,960). In our illustration, the **Whole Farm Historical Average Revenue** is $184,200, and the total **Expected Revenue** is $170,960. Therefore, the approved farm revenue to insure under WFRP is $170,960.

To summarize, a grower interested in WFRP needs to provide to the crop insurance agent the following documents:

- IRS Tax Forms 1040 Schedule F for the last five tax years (if applicable)
- Allowable Revenue Worksheets for the last five tax years
- Allowable Expenses Worksheets for the last five tax years
- Beginning Inventory Report (if applicable)
- Account Receivable and Payable Report (if applicable)
- Whole Farm Operation History Report
- The Intended Farm Operation Report for the insurance year.
- Application for WFRP

The Allowable Revenue, Allowable Expenses worksheets, the Whole Farm History Report, and the Intended Farm Operation Report formats are available in the excel file wfrp.xlsx located online at http://agecon.centers.ufl.edu/cropins.html

All multi-peril crop insurance policies, including CAT policies, are available from private crop insurance agents. A list of crop insurance agents is available at all USDA service centers and on the RMA website at http://www.rma.usda.gov/tools/agent.html.

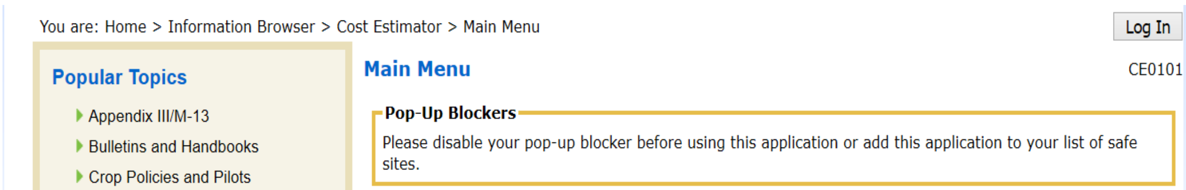
II. Crop Insurance Premium Estimator

A grower interested in obtaining a crop insurance quote for his operation may use the USDA/RMA website's online insurance premium calculator for that purpose. ***Please keep in mind that your actual premium may depend upon your specific conditions and exclusions; refer to your crop insurance agent for more details.***

Below are two exercises showing how to obtain an online WFRP insurance quote for crop year 2017 at the USDA/RMA website. In the first scenario, the grower, located in Miami-Dade County, producing avocados (30 acres), fresh market sweet corn (4 acres), fresh market tomatoes (4 acres), and papaya (1 acre) and having a 100 percent interest on the crop, wants to obtain crop insurance premium costs with different coverage levels. It is assumed that the grower had crop insurance in the previous crop year.

Step 1: Open the cost estimator at https://ewebapp.rma.usda.gov/apps/costestimator/Default.aspx

After loading the web page, please disable your pop-up blocker (see website message example below)



After the pop-up blocker has been disabled, click on the *Quick Estimate* link. Then choose *Quick Criteria* box, and select the following options using the drop-down menu:

- Commodity: Whole Farm Revenue Protection 0076
- Commodity Year: 2017
- State: Florida 12
- County: Miami-Dade 086
- Type: Calendar Year Filer 671
- Practice: No Practice Specified 997

Step 2: Farther down the screen, choose the *Individual Coverage* box and select:

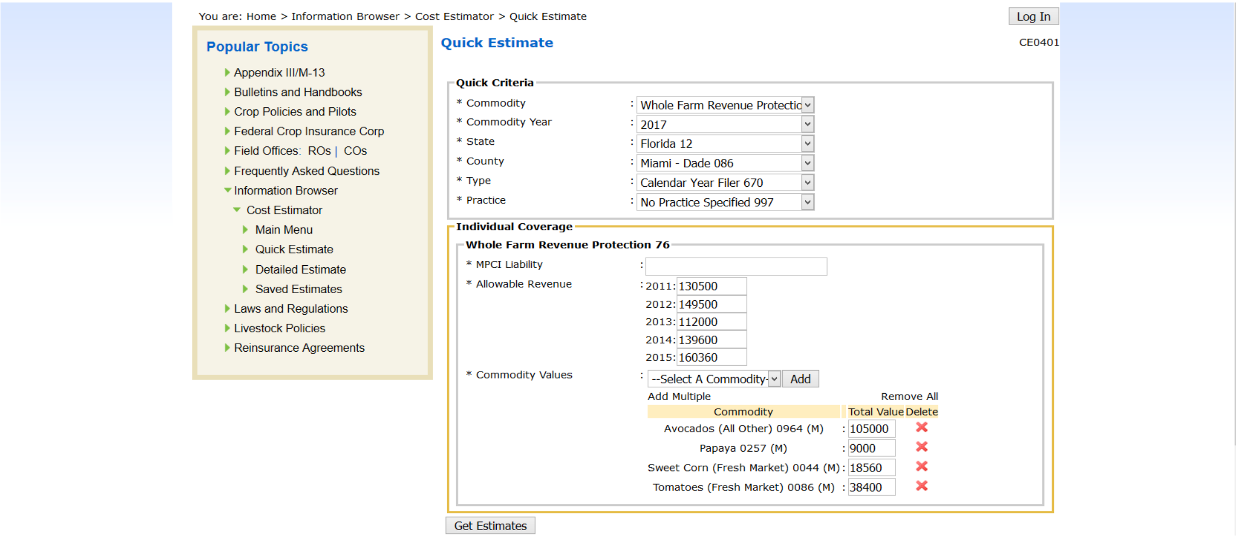
- MPCI Liability: 0
- Allowable Revenue: 2011: $130,500
- Allowable Revenue: 2012: $149,500
- Allowable Revenue: 2013: $112,000
- Allowable Revenue: 2014: $139,600
- Allowable Revenue: 2015: $160,360

Step 3: At the *Commodity Values* section, select *Add*, and enter the expected revenue for the farm commodities to be insured as follows:

- Avocados 0019 (M) $105,000
- Sweet corn (Fresh Market) 0044 (M) $18,560
- Tomatoes (Fresh Market) 0086 (M) $38,400
- Papaya 0257 (M) $9,000

Total expected farm revenue for crop year 2017 is $170,960

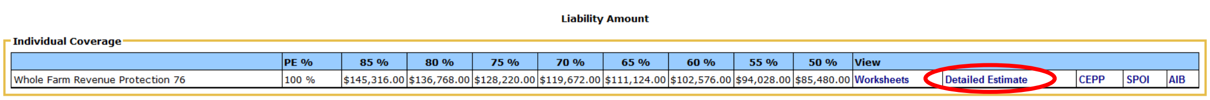
After the *Quick Criteria* parameters have been selected, the screen would look like this:



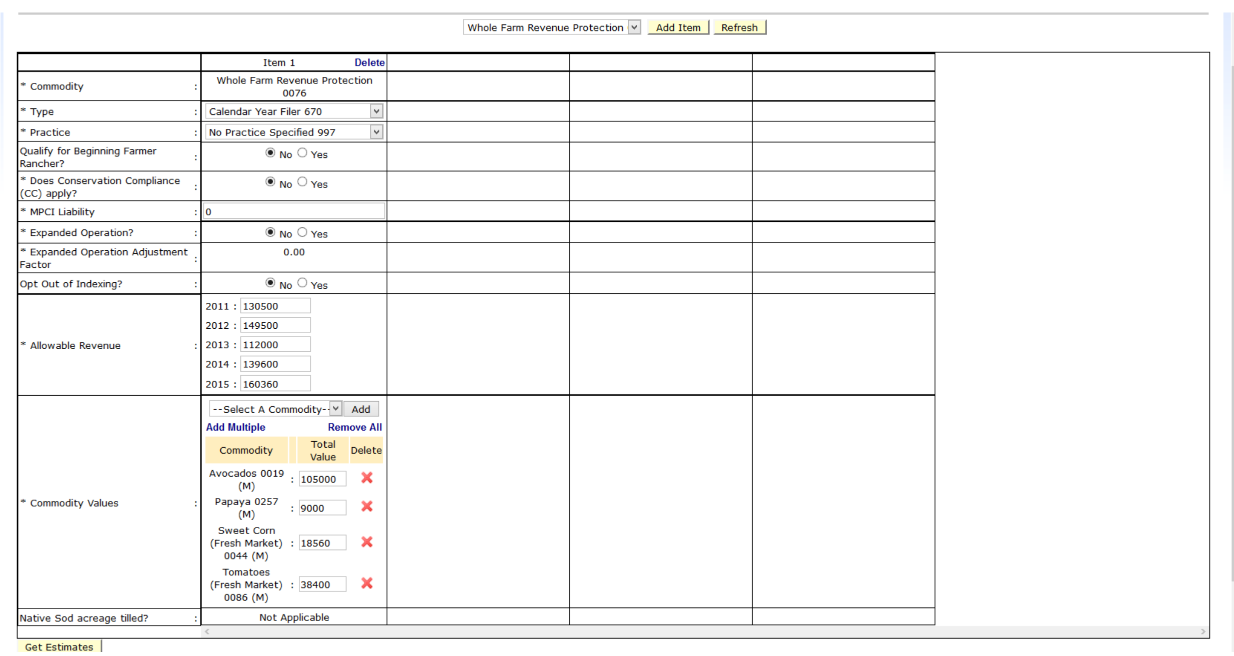
Step 4: Click on the *Get Estimates* link (at bottom of screen above)

A notice sign will appear and you will be asked if it is your first year of insurance. If that is the case, you will need a farm inspection before obtaining WFRP coverage. To continue with our exercise, we assume that the grower had crop insurance the year before.

On the next screen, at the *Individual Coverage* box, click on *Detailed Estimate*



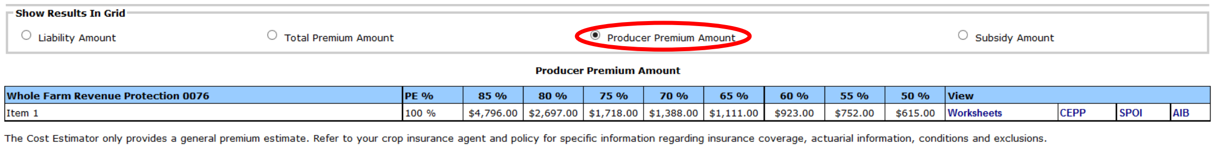
You will now see the following screen:



At this screen, it is possible to review the allowable revenue and the insurable commodities expected revenue, and to check whether other options such as expanding operation or revenue indexing apply.

Step 5: After reviewing input information, and selecting any applicable options, click on *Get Estimates*.

On the next screen, select *Producer Premium Amount* for WFRP



Show Results In Grid

Liability Amount　Total Premium Amount　Producer Premium Amount　Subsidy Amount

Producer Premium Amount

Whole Farm Revenue Protection 0076	PE %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	View			
Item 1	100 %	$4,796.00	$2,697.00	$1,718.00	$1,388.00	$1,111.00	$923.00	$752.00	$615.00	Worksheets	CEPP	SPOI	AIB

The Cost Estimator only provides a general premium estimate. Refer to your crop insurance agent and policy for specific information regarding insurance coverage, actuarial information, conditions and exclusions.

The exercise above shows the grower’s insurance premium under different coverage levels. If the grower selects the 85 percent coverage level, the premium is $4,796; if the grower selects the 75 percent coverage level, the premium is $1,718; or if the grower selects the 50 percent coverage level, the premium is $615. Producer premiums decrease with lower coverage levels, and increase with higher coverage levels.

Table 7 illustrates insurance guarantee, total premium, producer premium, premium subsidy, and producer premium share based on the available coverage levels for the grower in the exercise. A higher coverage level results in a higher insurance guarantee, and therefore a higher total premium. While higher protection (insurance guarantee) means higher premiums, the insurance premium reduction from the subsidies would be considerable if the producer were to pay the full cost.

Table 7.WFRP insurance guarantee, total premium, producer premium, and producer’s premium share under different coverage levels.

	Coverage Level							
	85%	**80%**	**75%**	**70%**	**65%**	**60%**	**55%**	**50%**
Insurance guarantee	$145,316	$136,768	$128,220	$119,672	$111,124	$102,576	$94,028	$85,480
Total Premium	$10,899	$9,300	$8,591	$6,941	$5,556	$4,616	$3,761	$3,077
Producer Premium	$4,796	$2,697	$1,718	$1,388	$1,111	$923	$752	$615
Subsidy	$6,103	$6,603	$6,873	$5,553	$4,445	$3,693	$3,009	$2,462
Your Premium Share	44%	29%	20%	20%	20%	20%	20%	20%

Now let us look at the second exercise. In this scenario, it is assumed the grower owns a diversified farm operation, and wants to obtain a **stand-alone WFRP** insurance quote for the 2017 crop year. The grower had insurance the previous crop year, is a calendar year tax filer, and does not want additional coverage.

The allowable revenue for the 2011–2015 period is as follows:

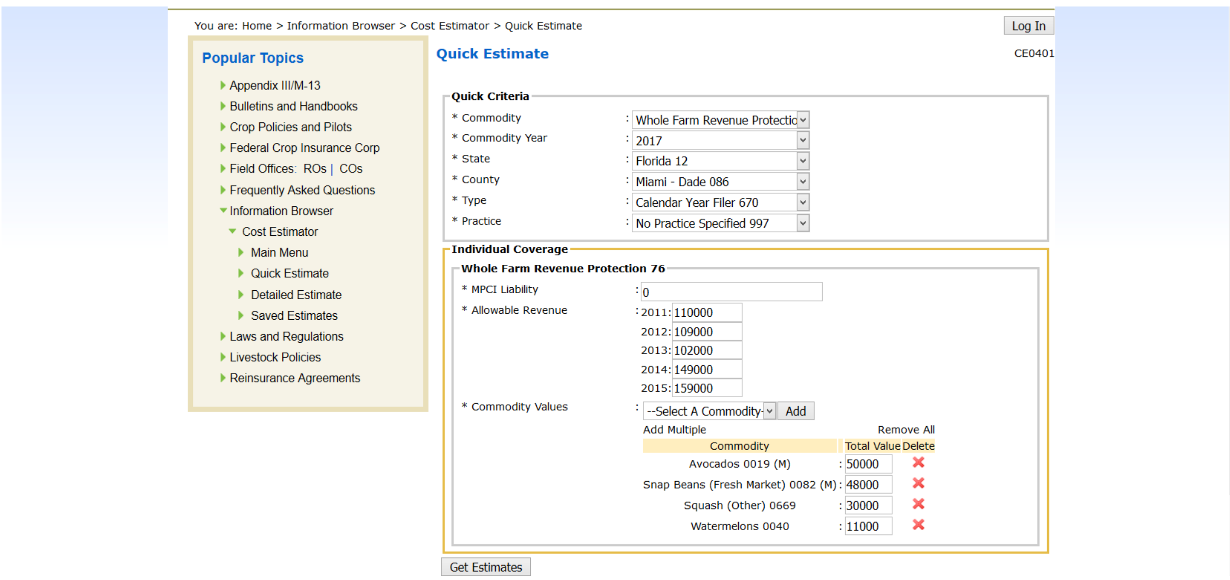
- Allowable Revenue: 2011: $110,000
- Allowable Revenue: 2012: $109,000
- Allowable Revenue: 2013: $102,000
- Allowable Revenue: 2014: $149,000
- Allowable Revenue: 2015: $159,000

The expected farm revenue from the following 4 commodities is

- Avocados 0019 (M) $50,000
- Squash (other) 0669 $30,000
- Snap beans (Fresh Market) 0082 (M) $48,000
- Watermelons 0040 $11,000

Using the USDA/RMA cost estimator website it is possible to get a quote for WFRP with different levels of coverage. What is the total premium for 85 percent coverage? What is the total premium for 75 percent coverage? What is the producer's premium based on the previous 85 and 75 percent coverage levels?

The input for the *Quick Estimate* box will look like this



The total WFRP premium for an 85 and 75 percent coverage level is **$9,688** and **$7,506**, respectively.

Show In Grid

○ Liability Amount ◉ Total Premium Amount ○ Producer Premium Amount ○ Subsidy Amount

Total Premium Amount

Individual Coverage

	PE %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	View	
Whole Farm Revenue Protection 76	100 %	$9,688.00	$8,229.00	$7,506.00	$6,033.00	$4,969.00	$4,253.00	$3,593.00	$2,989.00	Worksheets	Detailed Estimate

The grower's WFRP premium for an 85 and 75 percent coverage level is **$4,263** and **$1,501**, respectively.

Show In Grid

○ Liability Amount ○ Total Premium Amount ◉ Producer Premium Amount ○ Subsidy Amount

Producer Premium Amount

Individual Coverage

	PE %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	View	
Whole Farm Revenue Protection 76	100 %	$4,263.00	$2,386.00	$1,501.00	$1,207.00	$994.00	$851.00	$719.00	$598.00	Worksheets	Detailed Estimate

III. Estimating Indemnity Payments

Calculating Indemnities

As defined earlier, indemnities (insurance payouts) are received only if the actual revenue is less than the insurance guarantee. Continuing with the illustration above, let us assume the grower, located in Miami-Dade County producing avocados (30 acres), fresh market sweet corn (4 acres), fresh market tomatoes (4 acres), and papaya (1 acre) anticipates an active hurricane season and decides to manage his production risk by purchasing a ***stand-alone WFRP*** insurance with 75 percent coverage for crop year 2017. The premium cost is $1,718. Assume there is bad weather during the crop season, how will this affect indemnity payments? Table 8 shows the differences in the expected and actual revenues for this scenario. Based on the WFRP information for crop year 2017 (Table 8), the approved farm revenue is $170,960 with 75 percent coverage.

Table 8. Expected versus actual farm revenue for stand-alone WFRP

Commodity	Expected Revenue	Actual Revenue
Avocados	$105,000	$63,000
Sweet corn	$18,560	$10,000
Tomatoes	$38,400	$25,000
Papaya	$9,000	$9,000
Total	**$170,960**	**$107,000**

The indemnity payment would be calculated as follows based on a 75 percent coverage level:

Step (1): Determine the insured farm revenue guarantee

$170,960 Approved Farm Revenue
$170,960*0.75 Coverage level Elected = $128,220

Step (2): Determine the revenue to count

Sales of the four commodities insured under WFRP
$63,000 + $10,000 + $25,000 + $9,000 = $107,000

Step (3): Verify that the insured farm revenue is higher than the revenue to count

$128,220 (insured farm revenue) > $107,000 (revenue to count)

Step (4): If insured farm revenue is higher than actual farm revenue, then calculate indemnity; otherwise, no indemnity is due

Indemnity= insured farm revenue – revenue to count
$128,220 – $107,000 = $21,220

Step (5): Determine total net indemnity

Subtract the result of step 4 from the grower’s premium ($1,718)
$21,220 – $1,718 = $19,502 Total Net Indemnity to the grower.

The grower in the illustration would receive a net indemnity payment of $19,502. This simple exercise highlights the fact that as long as actual farm revenue is lower than the insured farm revenue guarantee, the grower is eligible for an indemnity payment.

It is important to highlight the fact that under WFRP, the expected revenue from a particular commodity is not insured, but the total revenue from the farm is insured. Now, assume that the grower had a lower than expected papaya revenue ($5,000 lower) and, at the same time, revenue from avocados was higher than expected ($5,000 extra received). In this case, the expected farm revenue does not change because the gain from avocado revenue offsets the papaya revenue loss, so no indemnity is due to the grower.

One of the interesting features of the WFRP is that the grower is protected from falling farm commodity prices, but that benefit kicks in only if the actual farm revenue is lower than the WFRP insured revenue.

Using a WFRP Excel Case Study

Should you choose to do so, you do not have to go through the calculations shown above each time you want to simulate different potential losses. Rather, you can use the Excel file wfrp.xlsx (available online at http://agecon.centers.ufl.edu/cropins.html) to simulate potential indemnity payments covered under the WFRP policy. Growers have the option to use the WFRP as a partial umbrella product; in other words, growers have the option of getting crop insurance for an individual commodity, and WFRP to insure other eligible commodities grown in the farm. To keep it simple, we continue to work with the previous exercise. Assume that the grower chooses to insure his avocado production by purchasing avocado APH insurance at the 75 percent coverage level. The grower also selects a basic unit of insurance with a yield guarantee of 150 bushels/acre and a 100 percent price election. The insured revenue under the avocado APH policy is $78,750 (150 bu/acre * $17.5/bu * 30 acres), and the producer's premium for a 75 percent coverage level is $1,804.

Note: For more details on the avocado APH policy, please consult the avocado insurance handbook available at http://agecon.centers.ufl.edu/cropins.html

To estimate the grower's premium using WFRP as a partial umbrella at the USDA/RMA website (https://ewebapp.rma.usda.gov/apps/costestimator/Default.aspx), go to the *Quick Estimate* box, and select *Quick Criteria*, followed by *Individual Coverage* and *MPCI Liability*. Enter the value of the insurance guarantee for $78,750 in the MPCI Liability box. Then complete the information for the allowable revenue and expected revenue from the insurable commodities as before. The input screen will show this

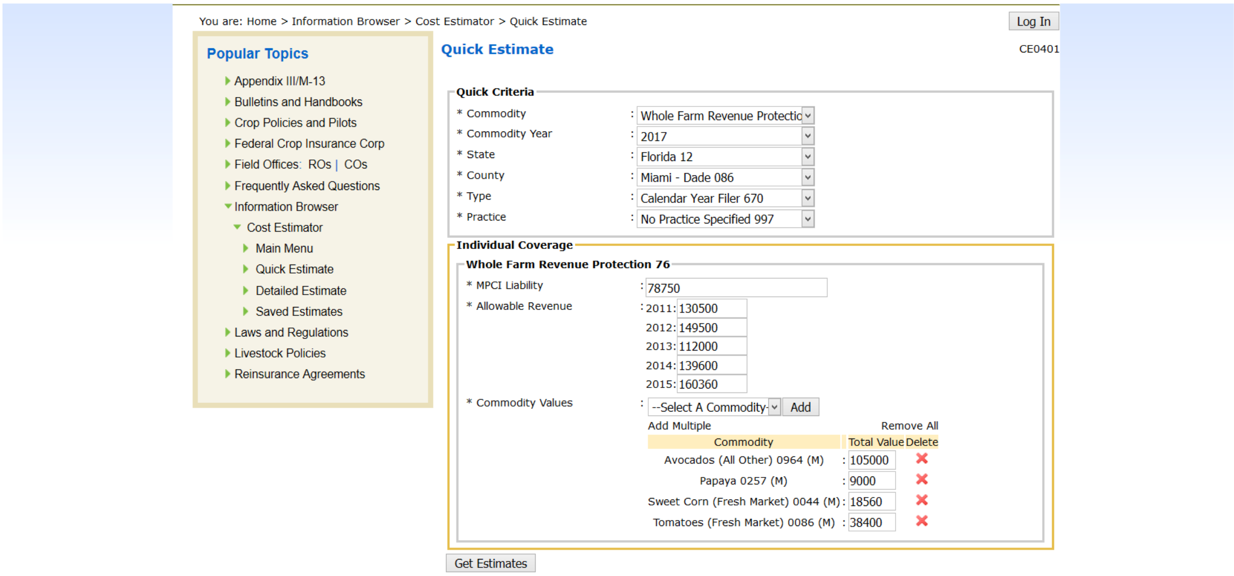


Table 9 shows the grower's insurance premiums under stand-alone WFRP, and under partial umbrella WFRP. If the grower selects the first option (stand-alone WFRP), the premium cost is $1,718; if the grower selects the second option (APH avocado, and WFRP partial umbrella), the premium cost is $2,663 ($1804 + $859). The second option implies an extra premium of $945.

Table 9. Grower's insurance premiums under stand-alone WFRP and partial-umbrella WFRP

	75 percent coverage level		
		Umbrella Insurance	
	Stand-alone WFRP	**APH Avocado**	**WFRP Partial Umbrella**
Grower premium	$1,718	$1,804	$859

Now we examine the options from the grower's perspective. Is it helpful to select the partial-umbrella WFRP? Is it worth the extra premium costs? To answer these questions, we continue with our previous exercise, the actual revenue of the farm was $107,000, and the expected revenue was $170,960 (Please see table 8).

Naturally, some questions arise: What is the indemnity payment if WFRP is used as a stand –alone product? and What is the indemnity payment using APH avocado and WFRP for partial-umbrella coverage?

To answer these questions, please open the wfrp.xlsx file, and go to the umbrella spreadsheet. The expected farm revenue, the coverage level, the WFRP insured revenue, the avocado APH insured revenue, and the premiums for both insurance options are pre-populated (blue cells) in Figure 2.

To estimate the indemnity payment (if any), the user needs to input information in the two green cells shown in Figure 2 below as follows. First, enter the actual farm revenue ($107,000), and then enter the farm avocado revenue ($63,000). After the farm actual revenue and avocado sales revenue have been entered, the indemnity payments (if any) will be calculated automatically in the table located at the bottom (yellow cells).

Under both crop insurance policies the grower is eligible for an indemnity payment of $21,220. If the grower in our exercise had chosen the WFRP as a stand-alone crop insurance policy, the total net indemnity payment would be $19,502 ($21,220 indemnity – $1,718 WFRP Premium). Using the partial-umbrella WFRP, indemnity benefits are paid following a two-step process; first, the grower receives an indemnity payment for the avocado yield loss under the avocado APH policy. In this case, the grower receives a $15,500 indemnity payment to make up for the revenue loss ($63,000 sales + $ 15,500 indemnity = $78,500 insurance guarantee). Then the WFRP policy pays benefits to cover the difference between the Indemnity and the Avocado APH indemnity $5,720 ($21,220-$15,500).

In this particular situation, both crop insurance options pay the same indemnity, the main difference is the total net indemnity. For the Stand –alone WFRP the net indemnity is $19,502, while for the Avocado APH Partial umbrella the net indemnity is $18,557 ($21,220 Indemnity- $1,804 Avocado APH Premium - $859 WFRP Partial umbrella), the WFRP Partial umbrella implies an extra $945 premium cost.

	Stand-alone and WFRP Partial Umbrella Indemnity Estimator						
Expected Revenue	**Coverage Level**	**WFRP Insured Revenue**	**APH Avocado Revenue**	**Actual Farm Revenue**	**Farm Avocado Revenue**	**Stand-alone WFRP Premium**	**Avocado APH Partial Umbrella WFRP Premium**
$ 170,960	0.75	$ 128,220	$78,500	$ 107,000	$ 63,000	$ 1,718	$ 2,663
	Stand-alone WFRP	**Avocado APH Partial Umbrella WFRP**	**No Insurance**			**Avocado APH Premium**	**Partial Umbrella WFRP Premium**
Indemnity	$ 21,220	$ 15,500	0			$1,804	$859
		$ 5,720					
Losses	$ 42,740	$ 42,740	$ 63,960				
Total Net Indemnity	$ 19,502	$ 18,557	0				
Revenue	$ 126,502	$ 125,557	$ 107,000				

Figure 2. Stand-alone WFRP and WFRP partial-umbrella indemnity estimator

Now the question is what is the financial benefit of getting crop insurance? If the grower in the present example had not had any crop insurance policy, losses for the crop year would be $63,960. If the grower had the stand-alone WFRP or the partial umbrella WFRP policies, losses would be $42,740 in both cases. However, there is a slight difference in revenue; given the extra $945 premium cost for the partial umbrella WFRP, the resulting net indemnity and revenue will be slightly lower compared to the Stand –alone WFRP.

So given the extra cost of the partial umbrella WFRP,

- What would be the benefit of getting it?
- Under what circumstances would it worth having it?

To answer these questions, we continue with the present exercise, and change some of the earlier assumptions.

Let us now assume that due to bad weather during the crop year, the grower experienced some losses, in other words avocado yield and revenue were lower than expected. Avocado yield was 120 bushels/acre, 30 bushels/acre lower that the 150 bushels/acre guarantee under the APH avocado policy. Table 10 shows the expected versus the actual revenue from the 4 commodities under this new scenario.

Table 10. Expected versus actual farm revenue using WFRP as a partial umbrella

Commodity	**Expected Revenue**	**Actual Revenue**
Avocados	$105,000	$63,000
Sweet corn	$18,560	$18,560
Tomatoes	$38,400	$38,400
Papaya	$9,000	$9,000
Total	**$170,960**	**$128,960**

Given these new assumptions, the following questions arise:

- What is the indemnity payment if WFRP is used as a stand –alone product?
- What is the indemnity payment using APH avocado and WFRP for partial-umbrella coverage?

To answer these questions, please go to the wfrp.xlsx file, and open the umbrella II spreadsheet. The expected farm revenue, the coverage level, the WFRP insured revenue, and the avocado APH insured revenue, and the premium costs for both insurance options are pre-populated (blue cells) for the new assumptions in Figure 3.

To estimate the indemnity payment (if any), the user needs to input information in the two green cells shown in Figure 3 below as follows. First, enter the actual farm revenue ($128,960), and then enter the farm avocado revenue ($63,000).

	Stand-alone and WFRP Partial Umbrella Indemnity Estimator						
Expected Revenue	**Coverage Level**	**WFRP Insured Revenue**	**APH Avocado Revenue**	**Actual Farm Revenue**	**Farm Avocado Revenue**	**Stand-alone WFRP Premium**	**Avocado APH Partial Umbrella WFRP Premium**
$ 170,960	0.75	$ 128,220	$78,500	$ 128,960	$ 63,000	$ 1,718	$ 2,663
	Stand-alone WFRP	**Avocado APH Partial Umbrella WFRP**	**No Insurance**			**Avocado APH Premium**	**Partial Umbrella WFRP Premium**
Indemnity	$ -	$ 15,500 $ -	0			$1,804	$859
Losses	$ 42,000	$ 26,500	$ 42,000				
Total Net Indemnity	$ (1,718)	$ 12,837	0				
Revenue	$ 127,242	$ 141,797	$ 128,960				

Figure 3. Stand-alone WFRP and WFRP partial-umbrella indemnity estimator under new assumptions

After the farm actual revenue and avocado sales revenue have been entered, the indemnity payments will be calculated automatically on the table at the bottom (yellow cells). If the grower in our exercise had chosen the WFRP as a stand-alone crop insurance product, no indemnity payment would be received, despite the significant drop in avocado revenue. The reason behind it is that the actual farm's revenue ($128,960) is larger than the farm's WFRP insured revenue ($128,220); therefore, the grower will not receive an indemnity payment.

Using the partial-umbrella WFRP, the grower receives an indemnity payment for the avocado yield loss under the avocado APH policy. The APH policy pays a benefit when the reduction in actual farm revenue does not trigger a sufficiently large indemnity payment from the stand-alone WFRP. In this scenario, the grower receives a $15,500 indemnity payment to make up for the revenue loss ($63,000 sales + $ 15,500 indemnity = $78,500 insurance guarantee). After accounting for the Avocado APH premium, the net indemnity received for the grower is $12,837.

What is the financial benefit of the partial umbrella WFRP? The grower is eligible to receive benefits from the partial umbrella WFRP plan when the reduction in actual farm revenue does not trigger a sufficiently large indemnity payment from the stand-alone WFRP. Of course, selecting the partial-umbrella WFRP comes with an extra cost, this option commands an extra $945 premium cost over the stand-alone WFRP. In this particular situation if the grower had the partial umbrella WFRP losses would be $26,500, compared to $42,000 for both no insurance and stand-alone WFRP.

Concluding Remarks

In summary, crop insurance should be viewed as a financial risk management tool to protect you from catastrophic events. It should not be viewed as supplemental income or as a potential source of income. Having crop insurance may be the difference between surviving a bad year and going out of business. While an indemnity payment helps minimize losses significantly, there will still be losses, although much smaller compared to the case of no crop insurance at all.

The decision to obtain crop insurance involves certain tradeoffs related to coverage level, insurance guarantee, and its associated costs. This issue is even more complex when considering the extra cost of additional protection for a specific commodity. In the end, it depends on risk tolerance, short-term expectations, and the availability of financial resources to stay afloat if a catastrophic event occurs.

References

USDA Federal Crop Insurance Corporation. 2017. *Whole-Farm Revenue Protection Pilot Handbook*. https://www.rma.usda.gov/handbooks/18000/2017/17_18160.pdf

USDA Risk Management Agency. 2016. *Whole-Farm Revenue Protection Fact Sheet*. Available at https://www.rma.usda.gov/pubs/rme/wfrpfactsheet.pdf

Johnson, B., V. Smith, J. Hewlett. 2016. *Agricultural Marketing Policy Paper No 51*. Available at http://www.ampc.montana.edu/documents/policypaper/policy51.pdf

Appendix

The following are commonly used IRS tax forms to report farm revenue and expenses. If forms other than the Schedule F are used, a Substitute Schedule F must be completed. The Substitute Schedule F must result in the same revenue as the alternative tax form used and records must be available to support the Substitute Schedule F to the Approved Insurance Provider's satisfaction.

- Schedule F (Form 1040), Profit or Loss from Farming
- Schedule J (Form 1040), Income Averaging for Farmers and Fisherman
- Schedule D (Form 1040), Capital Gains and Losses
- Form 4835, Farm Rental Income and Expenses
- Form 1065, U.S. Return of Partnership Income
- Form 1120, U.S. Corporation Income Tax Return
- Form 1120-S, U.S. Tax Return for an S Corporation
- Form 1120-C. U.S. Income Tax Return for Cooperative Associations
- Form 4797, Sales of Business Property