



Dyson
Cornell
SC Johnson College of Business



Crop Insurance for Tree Fruit Producers



“It’s farming, so it’s not easy that’s for sure. The weather and the changing variability in the weather in recent years has been a real challenge, with wet to dry extremes”

-NY organic grain farmer in 2016 testimonial for NYSDAM

What is crop insurance?

Crop insurance helps producers **manage risk**.

You pay an annual **premium** (the cost is shared with the Federal government) to buy an insurance policy.

Crop insurance is purchased from private agents

If your yields or revenues fall below a certain level due to a “covered cause”, you receive an **indemnity** payment.

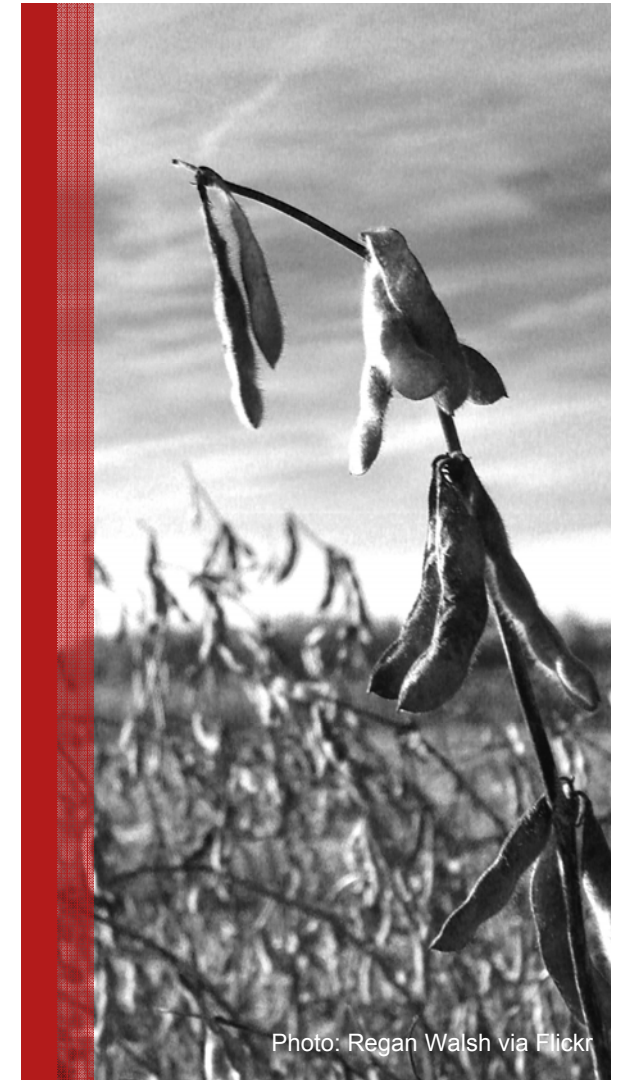


Photo: Regan Walsh via Flickr

Single Crop “Multi-Peril” Insurance

Most commonly, farmers buy crop insurance policies for one **single** crop at a time

Single crop policies are available as **yield**, **revenue** or **dollar plan** insurance

In New York, single crop policies are available for:

Field crops: Barley, Corn (silage and grain), Forage, Grain Sorghum, Oats, Soybeans, Wheat;

Vegetables: Cabbage, Dry Beans, Green Beans (fresh and processing), Green Peas, Onions, Potatoes, Sweet Corn, Tomatoes;

Fruit: Apples, Grapes, Peaches, Tart Cherries.



Photo: John Lillis via Flickr

Actual Production History (APH) Insurance

What is covered?

- In New York state the following fruits are covered by APH policies: **Apples, Grapes, Peaches.**
- Covers yield losses that cause production to fall below your historical production levels.
- Irrigated and non-irrigated practices are often available, as well as organic and transitional
- Protected losses may be caused by:
 - adverse weather
 - fire
 - wildlife
 - Insects or plant disease (when not due to insufficient control measures)

What is NOT covered?

- Protection is only for yield risk and NOT price risk
- Failure to market your crop is NOT covered
- Losses due to poor management practices are NOT covered

Crop Insurance for Apples

Things to be aware of...

- Important Dates:
 - Sales Closing Date: November 20th
 - Acreage Reporting: January 15th
 - Billing: August 15th
 - End of insurance period: December 31st
- Apples are insurable if:
 - They are grown on tree varieties that are adapted to the area
 - Acreage has produced at least 150 bushels per acre in 1 of the past 4 years
 - They are grown for fresh apple production or processing apple production



Crop Insurance for Apples

Things to be aware of...

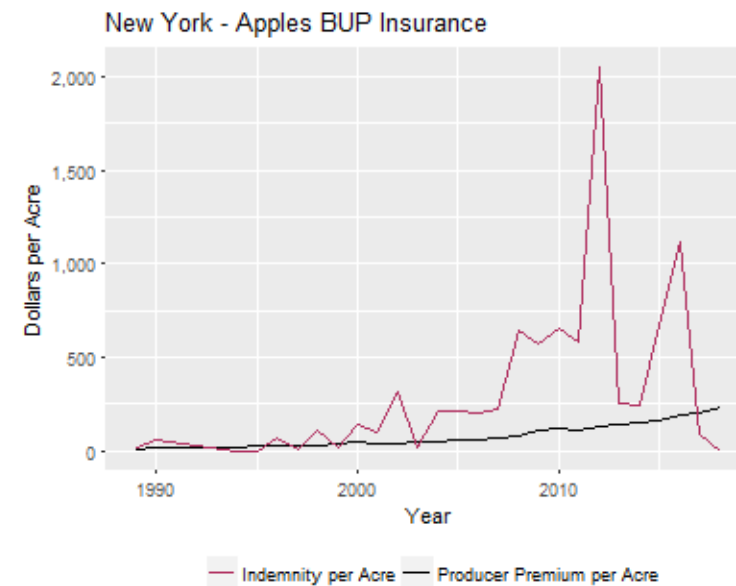
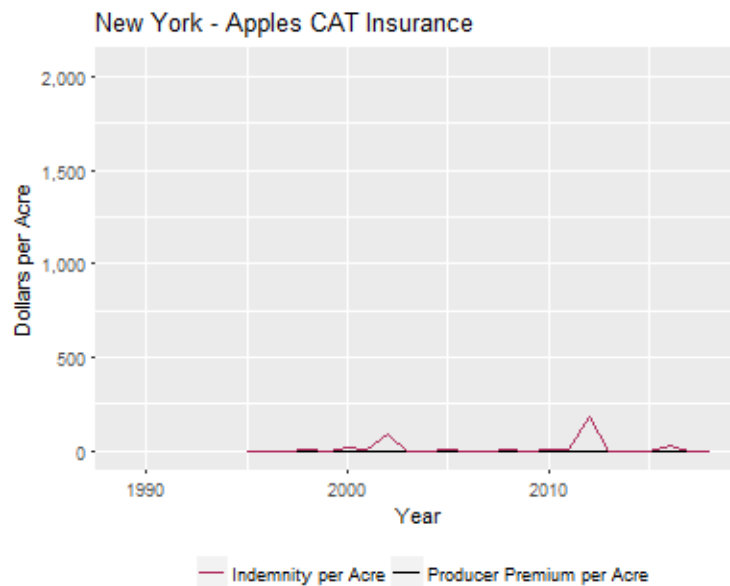
- Projected prices are different for the different varietal groups, but you must have separate APH records for each of the varietal groups.
- Additional coverage options:
 - Quality Adjustment – provides protection for loss of quality when apples do not grade below U.S. fancy.
 - Supplemental Coverage Option (SCO) – offers additional coverage based on county yields.
 - Yield Exclusion – available in some counties and allows producer to exclude some poor yields from the APH.



Apples APH Historic Experience

New York Apples Crop Insurance Trends (CAT and BUYUP) per Acre Enrolled

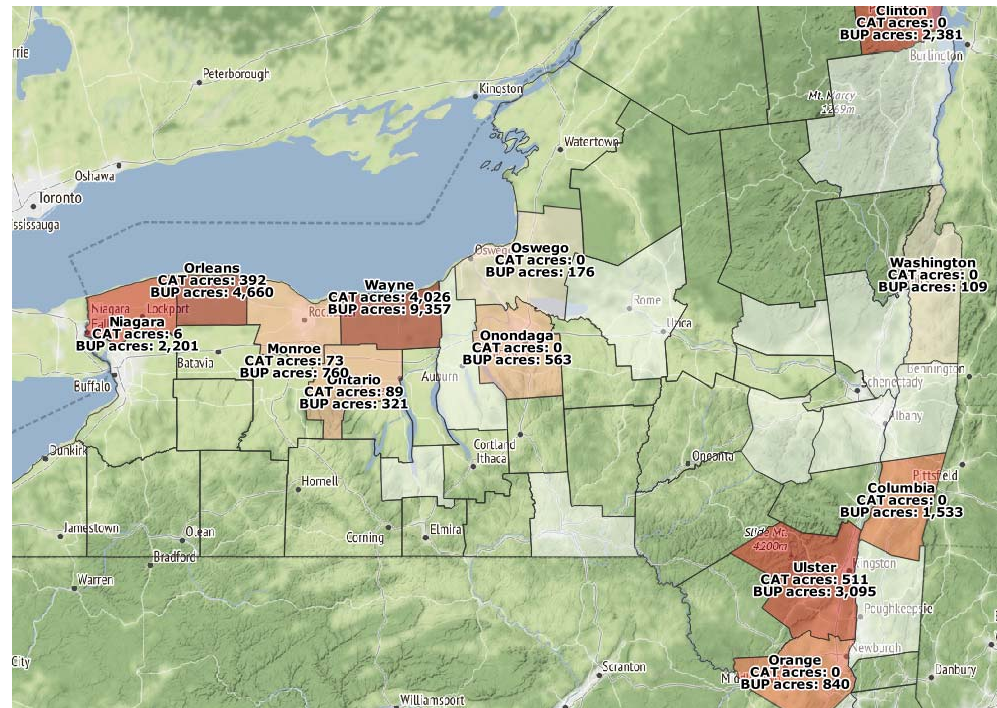
Please Note: Plots begin at first year with enrollments, CAT coverage has no premium other than administrative fee, 2017 indemnities are as of November 2017.



Source: USDA, Risk Management Agency

Apple APH Participation

New York Apple APH 2017 Reported Acres (all counties where available shown)



Source: USDA, Risk Management Agency

Whole Farm Revenue Protection (WFRP)

WFRP allows **diversified farmers** to insure their whole operation with just one policy

More diversified farms benefit from **higher premium subsidies** and **lower premium rates**

Schedule F tax records for farm activities over past 5 years are required

WFRP policies cover *all* crops or livestock produced by a farm

Record keeping requirements may be a challenge for “highly diversified” farms

Crops or livestock not on specified in RMA’s WFRP commodity list can typically be covered as “other”

So far, NY usage is low: 15 total policies sold in 2017



Photo: Michigan Municipal League via Flickr

Whole Farm Revenue Protection (WFRP)

Things to be aware of...

- \$8.5 million insured revenue is maximum that can be covered.
- WFRP is available in all New York counties
- Important Dates:
 - Sales Closing Date: March 15 (calendar and early fiscal filer), November 20 (late fiscal filer)
 - Acreage Reporting: July 15th
 - Billing Date: August 15th
- The insurable period coincides with the duration of the producer's tax year.
- CAT coverage is NOT available.
- This policy provides replant coverage under some conditions



Whole Farm Revenue Protection (WFRP) with APH policy:

- Suppose you are a Niagara Co. apple producer with the following expected revenue:

Crop	Acres	Yield	Price	Revenue
Honeycrisp	25	800 bu/acre	\$40/bu	\$800,000
Empire	25	800 bu/acre	\$10/bu	\$200,000
Processing	50	22 tons/acre	\$275/ton	\$302,500
			Total:	\$1,302,500

- You decide to protect against both yield and price risk. Following industry practice, you will be purchasing varietal APH policies for the fresh-market apples, but not the processing apples. You will also protect your operation's total revenue with a Whole Farm Revenue Protection policy, which offers some protection from losses due to both low yields and low prices.

(Yields are rough estimates based on data found in apple literature for the purpose of use in this example. Prices are rough estimates based on information provided by NY apple producers)

Whole Farm Revenue Protection (WFRP) – APH ONLY calculation

- Honeycrisp (Varietal Group A) and Empire (Varietal Group B) are both insured at the 65% level

Crop	Acres	Yield	Projected Price	Guaranteed Yield	Producer Premium
Honeycrisp	25	800 bu/acre	\$51.50/bu	520 bu/acre	\$19,022
Empire	25	800 bu/acre	\$15.60/bu	520 bu/acre	\$5,762
				Total:	\$24,784

- Thus far you have protected yourself from some of the losses that would arise from low yields. Now let us see how a Whole Farm Revenue Protection policy would look for this operation.

Estimated premium used for educational purposes only. Only insurance agents can quote actual rates.

Whole Farm Revenue Protection (WFRP) Policy Calculation

- You purchase a WFRP policy for your operation using the following scheme:

Crop	WFRP Commodity Code	Acres	Yield	Price	Revenue
Honeycrisp	Apples (fresh market) 0853	25	800 bu/acre	\$40/bu	\$800,000
Empire	Apples (fresh market) 0853	25	800 bu/acre	\$10/bu	\$200,000
Processing	Apples (processing) 0854	50	22 tons/acre	\$275/ton	\$302,500
Total:					\$1,302,500

level. The premium you pay is \$10,021 for a STANDALONE WFRP policy that guarantees revenue of **\$976,875** (\$1,302,500 X 75% coverage level)

- If you were to pair this WFRP with the additional APH insurance the premium you owe would be **\$8,010** for the same revenue guarantee.

Estimated premium used for educational purposes only. Only insurance agents can quote actual rates.

Whole Farm Revenue Protection (WFRP) with APH policy: Yield Loss Example

- A spring freeze causes yield losses of 50% for all your crops:

Crop	Acres	Yield	Price	Revenue
Honeycrisp	25	400 bu/acre	\$40/bu	\$400,000
Empire	25	400 bu/acre	\$10/bu	\$100,000
Processing	50	11 tons/acre	\$275/ton	\$151,250
Total:				\$651,250

- Your varietal APH policies will have the following payouts:

Crop	Acres	Guaranteed Yield - Yield	Projected Price	Indemnity	Producer Premium	Payout
Honeycrisp	25	120 bu/acre	\$51.60/bu	\$154,800	\$19,022	\$135,778
Empire	25	120 bu/acre	\$15.60/bu	\$46,800	\$5,560	\$41,240
Total:				\$201,600	\$24,582	\$177,018

Whole Farm Revenue Protection (WFRP) with APH policy: Yield Loss Example

- Standalone APH has an indemnity of **\$201,600** and a payout of **\$177,018** (\$201,600 indemnity - \$24,582 producer premium)
- Standalone WFRP policy would have an indemnity of **\$325,625** (\$976,875 guaranteed revenue - \$651,250 actual revenue). The payout would be **\$309,604** (\$325,625 indemnity - \$16,021 producer premium)
- The WFRP portion of a combined WFRP with APH policy would have an indemnity of **\$124,025** [\$976,875 guaranteed revenue - (\$651,250 actual revenue + \$201,600 APH indemnity)]. The payout would be **\$116,015** (\$124,025 indemnity – \$8,010 producer premium). The payout of the APH portion of this policy remains the same at **\$177,018**. The total payout of the WFRP with APH policy is **\$293,033**.

Whole Farm Revenue Protection (WFRP) with APH policy Outcome Comparison

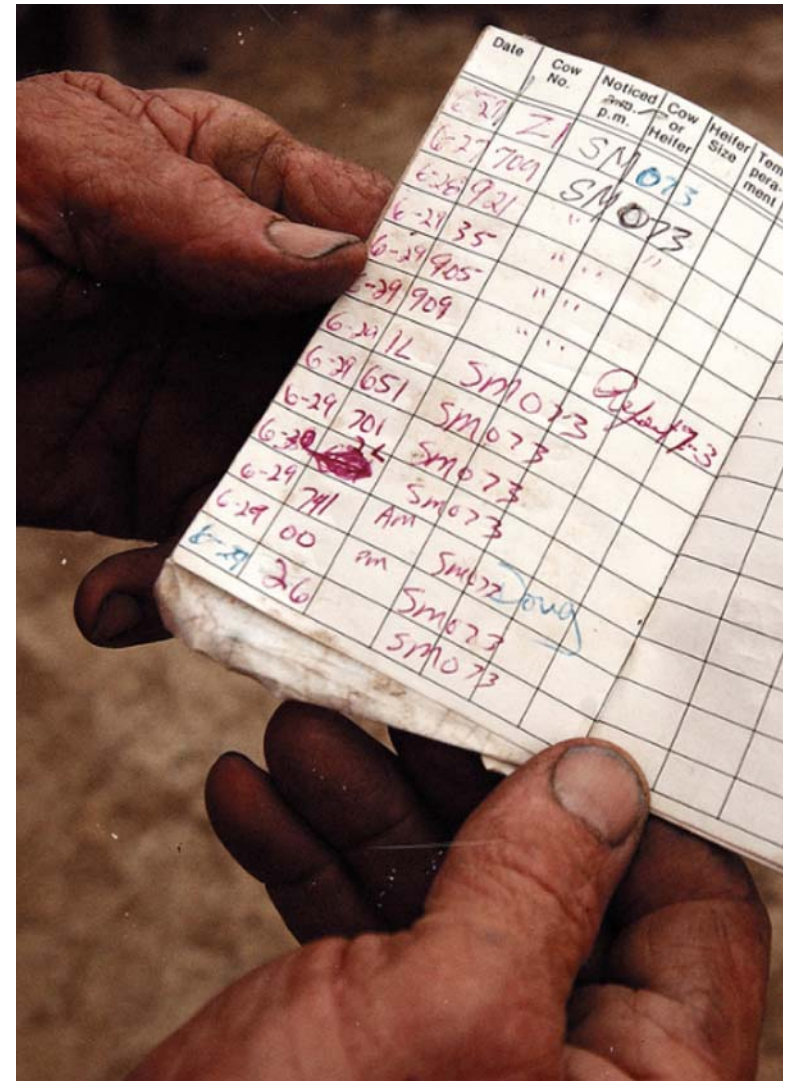
Policy	Payout
Standalone APH	\$177,018
Standalone WFRP	\$309,604
Combined WFRP and APH	\$293,033

- We see that even in this example where the producer only incurred a yield loss, the standalone WFRP had slightly better coverage than the combined WFRP and APH scheme.
- If the producer were to only incur a price loss, the WFRP schemes would provide coverage while the standalone APH would not.

Crop insurance record keeping

Keeping records of inputs, yields, revenue (including sales receipts and weight tickets) and losses is a good general management practice that many crop insurance products require

For Whole Farm Revenue Protection, having historical tax records (Schedule F) for farming activities is essential



Benefits for Beginning Farmers

In some cases can **use records from other operations** you managed

Extra 10% **premium subsidy**

May use **3 years of tax records (plus “gap year”)** instead of 5 for WFRP

“Beginning farmer” = ≤ 5 years of “insurable interest” in a farming operation



Photo: USDA

In conclusion: other things to know

Farms without a “production history” generally have to rely on county yields (RMA t-yields, not FSA county yields) to set crop insurance guarantee

“Quality loss” indemnities are possible for many commodities grown in NY: for example damage to apples insured under the fresh fruit option prevents selling in for fresh markets

NY had record drought-related indemnities (over \$28 million) in 2016. Other than 2016 and 2012, cold weather and excess moisture were the major causes of loss.

Lenders like crop insurance!

Not all single crop insurance products are available in every county for every crop. A “written agreement” is an option in this case: (<https://www.rma.usda.gov/pubs/rme/requestinginsurance.pdf>)

Interested farms can contact a crop insurance agent (<https://www.rma.usda.gov/tools/agent.html>)

Having a good relationship with your agent is critical. There are many deadlines and specific procedures to be followed when making a claim!

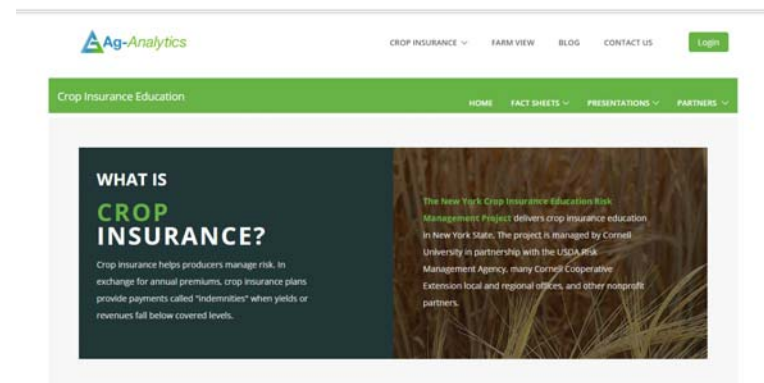
Cornell Crop Insurance & Risk Management Education Project Resources - ag-analytics.org/cropinsurance

Currently available

- Newly updated website including
 - Articles
 - Fact sheets
 - Presentations
 - Videos
 - Farmer testimonials

Coming soon

- Risk management podcast series
- More NY case studies
- More fact sheets
- Whole Farm Revenue Protection examples



Cornell University delivers crop insurance education in New York State in partnership with the USDA Risk Management Agency.

Diversity and Inclusion are a part of Cornell University's heritage. We are an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.



Dyson
Cornell
SC Johnson College of Business