Monthly Briefing from Rutgers New Jersey Agricultural Experiment Station
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NEWA Pest Forecasting Further Refines Grower Intuition

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For the second season, Rutgers NJAES is partnering with the Network for Environmental and Weather Applications (NEWA) at Cornell, bringing Jersey farmers and ag advisors insect and disease forecasting decision-making support.

Looking at what NEWA offers reminds me of the conversations I used to have with one of my mentors, County Ag Agent Norm Smith.

Norm was a great observational biologist, with his footprints *always* in the field - up at 4 am and out in the fields by daybreak. He used to remind me, "Jack, watch out for Forsythia blooming, usually 1st week of April, because that's when cabbage maggot becomes active."

Cabbage maggot typically damage young crops in NJ fields soon after farmers transplant in early spring ... when insect trouble is not expected.

Adults take flight and lay eggs; eggs hatch to maggots; maggots bore in and kill young cabbage plants. Crops loss can be extensive.

Spray Less - Control More
with Web-based Pest Models &
Local Weather Stations

http://newa.cornell.edu

County Ag Agent Norm Smith, 1964

Photo by Dick Chapin

Rutgers agriculturalists like Norm, and Phil Marucci on blueberry and cranberry, were the keenest observers of nature's crop-pest relationships such as this, in their time.

But, wait a moment

In 2012, spring temperatures arrived three weeks ahead of schedule. Depending on where you farm, forsythia looked to be in full bloom by March 20, not April 5.

This makes growers ask questions, like:

- Based on my farm location, when will cabbage maggot likely be active?
- When should I make my 1st spray application based on maggot activity risk?
- When are the later generations going to be active in my fields?

This is where NEWA comes in. NEWA can alert you to conditions favorable for pests that you might not recognize until it's too late. And, it can save you money by helping to avoid spraying when you don't need to.

How Many Sprays Saved?

Cabbage maggot is just a simple example of questions NEWA answers using your local weather station data. Previous North Jersey comparisons of calendar sprays on tomato showed growers could control early blight with 4-6 fewer sprays using blight forecast models. With late blight on potato and tomato, whole crops can be saved from devastating losses by spraying according model disease severity advisories.

NEWA users reported in a NY IPM survey that they can save, on average, $19,500 per year in spray costs and prevent, on average, $264,000 per year in crop losses as a direct result of using NEWA pest forecasting models.

Which Crops Have Pest Forecasting Available?

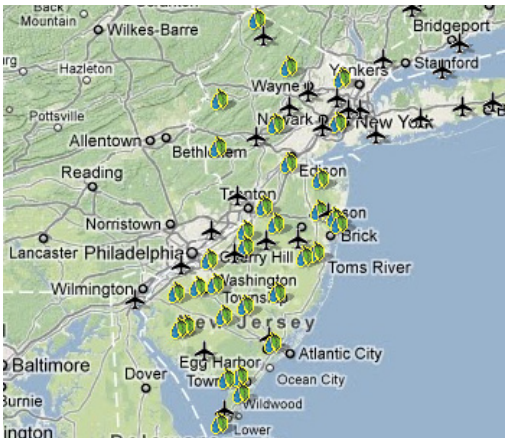
So far, NJ NEWA pest forecasts include alfalfa weevil, apple pests, cabbage maggot, cucurbit downy mildew warning, sweet corn Stewart's wilt warning, grape berry moth, onion, potato, and tomato pests, and turf diseases.

Peter Oudemans & colleagues are working toward making wine grape pest models available for powdery mildew, Phomopsis, black rot, and downy mildew.

How Much Does It Cost?

While there is no charge to growers for this web-based system, it is far from free.

Last year, the Outer Coastal Plain Vineyard Association made possible access to NEWA. This year, Rutgers paid the $5,700 NEWA subscription, integrating our weather stations data with NEWA. The NJwxnet weather stations are maintained by State Climatologist, David Robinson and staff. Your support of our budget allows us to continue delivering NEWA service.



How to Learn to Use NEWA

Visit the NEWA site http://newa.cornell.edu & browse through the materials found on the Snyder Farm Weather-Pest Forcasting Portal- including instructions in PowerPoint and information poster.
http://snyderfarm.rutgers.edu/weather-pest-forecasting.html

NJAES has a number of faculty and staff knowledgeable and willing to assist growers:

- Win Cowgill for apples
- Joe Mahar for vegetables
- Andy Wyenandt for potato and tomato
- Peter Oudemans for small fruit & wine grapes

This team will be providing outreach to grape, apple and vegetable growers through weekly reports, newsletters, and workshops.

NEWA complements and adds value to existing Rutgers IPM scouting and advisory programs - it does not replace them. No NEWA forecasts are available for corn earworm on vegetables, blueberry pests, or peach.

I think you will find using NEWA worth the effort. Talk to our NJAES ag agents and specialists to learn how to best use this new technology, complementing your farm's pest management program.

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