Dry conditions, which prevailed toward the end of August, have given way to widespread showers across south Florida. Since last week, almost daily showers have bought significant rainfall accumulations to most locations. Over the past few days, a tropical depression, now Tropical Storm Gabrielle, has dumped significant rainfall accumulations across the region resulting in local flooding in some areas. It is too early to determine possible affects on the vegetable industry but some losses and increased incidence of disease are likely.

In some areas of SW Florida, growers had reported difficulty in preparing fields due to dry conditions in August, indicating the necessity of pumping water into fields to get soil adequately moistened to allow bed formation. In the past few days, growers have reported some delays in land preparation due to excessive rain.

Rain associated with Tropical Storm Gabrielle is likely to delay planting over the next few days. Some older pepper is flowering and could drop buds if overcast and rainy weather persists. Temperatures are averaging around normal with lows in the 70's and highs in the 80's and 90's. As expected, interior locations are typically a few degrees warmer than traditionally cooler coastal sites.

There have been widespread reports of heat stress, and some salt injury across south Florida; some plants have died and many have been reset. Most of the problems with heat stress were associated with young plants set before recent rains. Recent rains and cloudy weather has improved the situation and overall stands in general are good for this time of year.

Although a few growers started planting from the middle of August, planting of fall crops is now gaining momentum across south Florida. Afternoon showers have boosted growth and development of recent plantings. Bell peppers and squash are in fair to good condition and cucumbers, eggplant, plum tomatoes, cherry tomatoes and hot peppers are in fair condition in southwest Florida. Hot weather with temperatures in the mid to upper 90’s in August and early September has hindered the development of tomato transplants around Immokalee with growers making spot resets of those dying. Although hot weather over the past few weeks has stressed round tomatoes and other crops around Immokalee, rains over the past few days should help crops. East Coast growers continue to plant eggplant, tomatoes and peppers with condition rated mostly good.
FAWN Weather Summary

<table>
<thead>
<tr>
<th>Date</th>
<th>Air Temp °F</th>
<th>Rainfall (Inches)</th>
<th>Hours Below Certain Temperature (hours)</th>
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<tr>
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<td>Min</td>
<td>Max</td>
<td>40°F</td>
</tr>
<tr>
<td>Homestead</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year to date</td>
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<td>94.3</td>
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<tr>
<td>9/1-13/2001</td>
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<td>Immokalee</td>
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<tr>
<td>Year to date</td>
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<td>96.9</td>
<td>52.72</td>
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<td>96.9</td>
<td>8.85</td>
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<td>9/1-9/13/2001</td>
<td>71.8</td>
<td>92.4</td>
<td>6.94</td>
</tr>
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</table>

At 9 AM, the National Weather Service in Miami has issued a Tropical Storm Warning for the west coast of Florida from Monroe to Suwannee counties and a hurricane watch from Lee County northward. In addition, there is a tropical storm warning in effect for Lake Okeechobee and an inland tropical storm wind warning for interior south Florida.

An inland tropical storm wind warning is in effect through tonight for Glades, Hendry, eastern Collier and western Palm Beach Counties. A wind advisory is in effect through tonight for eastern Palm Beach and all of Broward and Miami-Dade counties through tonight.

A flood watch continues in effect for all of South Florida through Saturday. Although the flood watch for south Florida has been in effect since last Saturday...an unprecedented period of time...the potential for flooding continues. Gabrielle has picked up speed this morning and will be moving across the Florida peninsula today. The flood watch may be discontinued later today or early tonight.

Through the rest of today and tonight additional rainfall amounts of 3 to 6 inches with isolated amounts in excess of 10 inches are possible particularly across the Lake Okeechobee region and the southeast Florida coast. The southwest Florida coast should experience a dry slot, a feature sometimes associated with strongly sheared tropical systems. This dry slot is good news in that it will allow a period of time in western portions of Collier, Hendry, and Glades counties for water from previous heavy rains to drain off. It does not mean the rain is completely over for the southwest coast.

The South Florida Water Management District has advised that canals are already near capacity and additional heavy rain will likely cause flooding.

There have been several reports in excess of 10 inches of rain in the last 4 to 5 days. In the last 24 hours, rainfall reports currently available in south Florida include over 4 inches at Palm Beach International Airport and almost 4 inches at Ochopee in Collier County. Almost 4 inches fell at North Palm Beach and Boynton Beach and over 3 inches fell at west Boca Raton and at Lakeport in Glades County.

Tropical Storm Gabrielle will move northeast across central Florida. Strong winds will be from the southwest and west across all of south Florida today with the strongest winds occurring over Glades, Hendry, eastern Collier and western Palm Beach counties. Gusts may be as high as 50 mph. Additional heavy rains of 3 to 6 inches and possibly as high as 10 inches are possible across south Florida.

Weather conditions are expected to improve over the weekend.

For additional information, visit the National Weather Service in Miami website at http://www.srh.noaa.gov.mia
Growers on both coasts are reporting a variety of worms in a wide range of crops.

In Palm Beach, respondents report seeing small loopers and mostly first instar armyworms on pepper, tomatoes, and eggplant. Beet armyworms are most common. The level of infestation is about the same or slightly higher than last year.

In southwest Florida, growers are seeing a few hornworms and some tomato fruitworm eggs and larvae on tomato. In pepper, we are seeing a mixed bag with fruitworms, southern armyworm and beet armyworms all being encountered. One report from the Devils Garden area indicates large numbers of southern armyworms defoliating sorghum/Sudan grass planted as a summer cover crop.

Although most growers are using Bt's as their first line of defense against worms, rainy weather is making worm control with Bt difficult.

Increased knowledge base has led to many improvements, including genetically improved Bt's. Today's Bt insecticides have a couple notable advantages over their predecessors:

More concentrated. Instead of using 2 pounds of product per acre as they did 20 years ago, growers now use 0.5 to 1 pound. Benefits are better control and fewer containers to be handled and disposed of.

Improved formulations. The first Bt insecticides were formulated as wettable powders. Newer products come as water dispersible granules (WDGs), dry flowables (DF) and stable liquids. These formulations are easier and more convenient to handle and mix, and they’re less susceptible to wash off. As a result of this progress, today's Bt's are more effective, especially on some key Florida pests such as armyworms and diamondback moth.

Bt's are recognized as "soft" insecticides. They're easy on beneficials, provide little or no threat of environmental pollution and are relatively safe to handlers and applicators. The "soft" approach of insect control with Bt insecticides has helped ensure that beneficials will remain in the field and help protect crops. These products are typically assigned a "caution" signal word, and they have short re-entry and preharvest intervals.

In spite of their advantages, Bt's have some inherent limitations. First, they're relatively short-lived in terms of residual on the plant. Most Florida growers apply them at weekly intervals, expecting only three to five days of optimum activity before photodegradation dilutes the control potential.

Bt's remain on plant surfaces and do not move into plant tissue. This leaves them susceptible to washoff during rainy periods.

Fortunately when Bt's fail to provide adequate control growers have access to a number of new 'soft' insecticides for the control of lepidopterous pests in vegetables. These newly introduced insecticides are notable in that their active ingredients are all unique chemistries with different modes of action. In addition, these products demonstrate differing routes of activity. Several of these compounds possess translaminar or locally systemic activity. These insecticides are capable of penetrating the leaf lamina causing mortality through contact and ingestion. In others ingestion is the primary type of activity.

<table>
<thead>
<tr>
<th>Product</th>
<th>Active ingredient</th>
<th>Mode of action</th>
<th>Route of Activity</th>
<th>Effective Rates (oz/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spintor</td>
<td>spinosad</td>
<td>neurotoxic</td>
<td>translaminar</td>
<td>4.0 – 6.0 oz</td>
</tr>
<tr>
<td>Confirm</td>
<td>tebufenozide</td>
<td>IGR</td>
<td>ingestion</td>
<td>6.0 – 8.0 oz</td>
</tr>
<tr>
<td>Proclaim</td>
<td>emamectin benzoate</td>
<td>neurotoxic</td>
<td>translaminar</td>
<td>2.4 – 4.8 oz</td>
</tr>
<tr>
<td>Avaunt</td>
<td>indoxacarb</td>
<td>neurotoxic</td>
<td>translaminar</td>
<td>2.5 – 3.5 oz</td>
</tr>
</tbody>
</table>
**Avaunt (indoxacarb - DuPont)** acts on the nervous system of beet armyworm and cabbage loopers after ingestion or contacting the larvae.

**Proclaim (emamectin-benzoate - Syngenta)** is also a neurotoxin but is ingested by the worm when in penetrates and moves from top to bottom of the leaf surface.

**Spintor (spinosad – Dow AgroSciences)** is similar to Proclaim in being a neurotoxin and moving translaminarly in the leaf tissues.

**Confirm (tebufenozide - formerly Rohm and Haas and now Dow AgroSciences)** is an ingested insect growth regulator that disrupts the larval molting process.

In addition to these, growers still have access to many of the traditional stand-bys such as Lannate and the various synthetic pyrethroids.

With careful scouting and all the choices available to growers worm control has become much easier in the past few years. By considering a chemical's characteristics, pest pressure development and feeding behavior, and growth patterns and susceptibility of the crop to the pests, growers should be able to fit these new insecticides into use patterns that will optimize efficacy and economics to manage worm pests.

In eastern Palm Beach County, there have been a scattered reports of a few red spider mites and two spotted mites on crops along beds near the ditch bank; probably coming from ditch bank weeds. Since mites often buildup in such locations and move onto crops, growers would be wise to monitor populations in weedy areas adjacent to fields.

Around Immokalee, there have been a few scattered pockets of broad mites showing up on peppers.

In Palm Beach County growers indicate that SLWF pressure is light on tomatoes and eggplant. Silverleaf whiteflies are being seen on tomato in southwest Florida, however some respondents indicate that they have appeared earlier and in possibly higher numbers than in past years.

From Palm Beach, there are reports of pinworms of eggplants coming in on transplants.

Respondents from East Coast locations indicate that a few leafminers are present but numbers are low and no sprays have been targeted for them yet.

Respondents in southwest Florida have observed bacterial spot in pepper and tomato in scattered locations across the region. Incidence and severity is low but the situation is likely to change over the next few days.

Reports from Palm Beach County indicate no bacterial leaf spot on either pepper or tomato. With the current rainy and overcast weather conditions, it is expected that these diseases will be detected soon.

**Bacterial spot** is one of the most serious diseases of tomato and pepper in Florida because it can spread rapidly during warm periods with wind driven rains, and because fruit symptoms reduce marketability. Bacterial spot is caused by the bacterium, Xanthomonas campestris pv vesicatoria. Entry into the plant occurs through natural plant openings or wounds made by wind driven soil, insects, or cultural operations. Bacterial spot can be seed transmitted, but most inocula comes from volunteers or infected debris from tomatoes or peppers in the soil. Temperatures of 75-87°F are ideal for bacterial spot but infections can occur at higher or lower temperatures.
Symptoms of bacterial spot appear as small, water-soaked, greasy spots about 1/8 inch in diameter on infected leaflets. On tomatoes, distinct spots with or without yellowing occur. Individual leaf spots may coalesce with each other, resulting in the browning of entire leaflets. Fruit spots often begin as dark specks with or without a white halo. As spots enlarge, they become raised and scab-like.

In pepper, symptoms are similar to those in tomato, except that spots may be lighter in color and fruit lesions may appear blistered. In mature plants, leaflet infection is most concentrated on older leaves and defoliation may occur in severe infections.

Other diseases may cause leaf spots that appear similar to those of bacterial spot. Positive diagnosis requires lab tests.

An integrated approach is needed to manage this disease. Sanitation is important. Pepper and tomato volunteers and solanaceous weeds should be destroyed between crops. Transplant houses should be located well away from tomato or pepper fields. Purchase only certified disease-free transplants.

Since water movement spreads the bacteria from diseased to healthy plants, workers and farm equipment should be kept out of fields when fields are wet because the disease will spread readily under wet conditions.

There are commercial pepper varieties that are resistant to races 1, 2 and 3, but researchers have identified no fewer than ten different races of Xanthomonas campestris. Since no variety incorporates resistance to all known races, it is important that growers use varieties that have resistance to races that occur in their area. Research indicates that use of resistant varieties over time will cause a shift in the make-up of bacterial spot populations toward races for which a given cultivar lacks resistance. The race situation is similar but less clear in tomato. No resistant tomato varieties are available commercially.

It is important to apply sprays before and during rainy periods. If conditions are favorable, frequent spraying may not be sufficient to maintain bacterial spot below damaging levels.

Tests support the traditional recommendation of copper and maneb or mancozeb for bacterial spot control. Attention to application techniques is as important as choice of material in achieving adequate control. In trials, bacterial spot control was better with applications twice a week compared to once a week. The effectiveness of copper is limited, because of the widespread occurrence of copper tolerance among strains of X. campestris pv. vesicatoria.

Although there was hope that the SAR elicitors (Messenger - Eden BioScience and Actigard - Syngenta) would be provide effective tools against bacterial spot experience indicates that these should be used in conjunction traditional copper-maneb tank mixes and can be expected to give only marginal improvement in control.

Some growers have reported success, using bacteriophages (bacterial virus) for the control of bacterial spot. Phages are most effective when applied at night or very early in the morning as they are rapidly deactivated by sunlight and drying.

Growers should be aware that the use of organosilicate adjuvants and applications of magnesium might increase the incidence and severity of bacterial spot infections.

There have been scattered reports from both coasts of phytophthora reported on pepper. Incidence is low.
Some pythium began to show up following the rainy weather that began last week. In most instances, occurrence is limited to low areas and the ends of rows. Respondents from Palm Beach indicate that the incidence is low and about normal for this time of year. In southwest Florida, incidence is and severity is mostly low although there has been at least on report of Pythium causing moderate problems on young pepper.

Abundant soil moisture and elevated temperatures make the fall planting season a prime time for vegetable growers in Florida to encounter problems with *Pythium* spp. on a variety of vegetables. Pythium typically attacks roots causing damping off, seedling blights, root rots and wilting of affected crops. In some instances, Pythium may affect the above ground portions of crops.

*Pythium myriotylum* and *P. aphanidermatum* are generally most abundant in Florida because they are adapted to high soil temperature. The optimum temperatures for their growth and infection of plants range between 86 and 98 °F.

The host range for *Pythium* spp. is extremely wide. Vegetable crops commonly infected include beans, cucurbits, peppers, southern peas, strawberries, and tomatoes. A number of broadleaf and grassy weeds may host *Pythium* spp. and serve as important sources of inocula.

**Pythium** is one of the “water molds.” It thrives in moist soils and multiplies and spreads rapidly under wet conditions. Although Pythium is capable of producing several spore types, zoospores and oospores are most important. Zoospores are mobile. They are produced rapidly and in great numbers and contribute to the organism’s ability to cause disease almost “over night.” Zoospores may be detected within half an hour after a site is flooded and can “swim” for up to 30 hours and move three or more inches through soil.

Oospores are extremely durable and can survive in soil and infected crop debris for more than 10 years.

**Pythium** is often associated with root rots and pre emergent and post emergent damping off. One of the characteristics of tissue infected with *Pythium* spp. is the presence of water-soaked or greasy appearing tissue. This is distinct from the orange to red to dark, sunken lesions caused by *Rhizoctinia solani*.

Infection with *Pythium* spp. also causes wilting of numerous crop species. Plants affected by Pythium root and stem rots commonly exhibit yellowing of the lower leaves.

In small plants planted thickly, such as greenhouse transplants, Pythium can infect and colonize the plants with the result that the entire plant is destroyed. Look for water-soaked tissue in this situation. It is also common to see white mycelial growth in such situations.

Excess fertilizer, flooded soils, insect feeding, and nematode feeding may also contribute to dysfunctional roots. For accurate diagnosis, it is best to submit samples to a reputable diagnostic laboratory.

Resistant cultivars do not exist so control of Pythium depends on a variety of tactics. Crops should be planted on raised beds in well-drained soils.

**Pre-plant soil fumigation is effective if applied correctly.** Soil solarization has successfully suppressed *Pythium* in some cases. If a solarization or a soil fumigant is used, raised beds are important since fumigated soil has minimal or no beneficial organisms to compete against pathogens.

A number of chemical treatments are available for the control of damping off. Seed treatments containing mefenoxam (Apron) work best. Mefenoxam should be used in combination with a broad-spectrum fungicide to avoid the development of resistance.
Fungicidal drenches such as Ridomil Gold (mefenoxam) are effective for the suppression of seedling blights and root rots if applied before infection occurs.

Several biological control agents, including actinomycetes and other bacteria and fungi, are available commercially for suppression of Pythium and other soil borne pathogens. Their success rate has been variable.

Some soils are naturally suppressive to diseases caused by Pythium or may become suppressive by increasing organic matter or manipulating soil pH. Incorporation of cover crops prior to planting may support competing organisms in the field, but in some cases may result in increased populations of the pathogen. Sunn hemp has been implicated in this regard.

There have been a few reports of growers finding Pythium and bacterial spot on transplants received from transplant producers. When purchasing transplants, growers should examine them carefully for symptoms of disease. Evidence that dead or dying transplants have been removed from flats may be an indication that further investigation is warranted. Evidence of poor sanitation may also indicate that you look more closely at your choice of transplant producer.

Up Coming Meetings

Palm Beach County

Sept 19, 2001 Vegetable Growers' Seminar on DuPont Insecticide Training and Results of Bell Pepper Variety Demonstrations
Holiday Inn Catalina, 1601 N. Congress Ave., Boynton Beach
Lunch 11:30 - 12:15 PM; Program 12:15 - 2:00 PM
1.5 CEU's (Private, Aerial, Ag Row Crop, Demo/Res), 2.0 CCA credits
Contact Ken Shuler at 561-233-1718 or 1725

October 3, 2001 Phytophthora and Pythium Research and Use of Tensiometers to Monitor Soil Moisture Levels
PB Co. Fire Station #42, 14276 Hagen Ranch Road, Delray Beach, FL
Dinner 5:30 PM, Program 6:15 PM
1.0 CEU credit (Private, Ag Row Crop, Demo/Res) and 1.5 CCA credit
Contact Ken Shuler at 561-233-1718 or 1725

October 3, 2001 Florida Lettuce Advisory Committee Small Meeting.
Drawbridge Café, Belle Glade, FL. Contact David Basore, Florida Lettuce Advisory Committee; 561-996-1655

Southwest Florida

September 18, 2001 Public Meeting with the Army Corp of Engineers and South Florida Water Management. District representatives will address citizens concerns regarding "water issues"-2 pm. Dallas Townsend Agricultural Center, 1085 Pratt Blvd., LaBelle. Contact 863-674-1163 for more information

September 19, 2001 SW Florida Vegetable Research Investment Fund Meeting - 6 - 8 PM
SW Florida Research and Education Center, State Road 29, Immokalee, FL.
Contact Gene McAvoy at 863-674-4092 for more information.
September 25, 2001 Vegetable Growers Meeting – Syngenta Product Update – Use of Actara, Platinum, Fulfill, Proclaim, and Actiguard in Vegetable Crops - 6 - 8 PM SW Florida Research and Education Center, State Road 29, Immokalee, FL. Contact Gene McAvoy at 863-674-4092 for more information.

September 25, 26, 27, 2001 Restricted Use Pesticide Applicator Training Classes and Testing. Dallas Townsend Agricultural Center. 1085 Pratt Blvd., LaBelle. Contact Sheila at 863-674-4092 to register or for more information.

September 28, 2001 WPS -Handler Training. Dallas Townsend Agricultural Center, 1085 Pratt Blvd., LaBelle. Contact Sheila at 863-674-4092 to register or for more information.

October 1, 2001 WPS -Train-The-Trainer. Dallas Townsend Agricultural Center, 1085 Pratt Blvd., LaBelle. Contact Sheila at 863-674-4092 to register or for more information.

Other Meetings

September 23-25, 2001 Annual Florida Fruit & Vegetable Association Convention, Ritz Carlton, Amelia Island. Contact Charlie Matthews or Rachelle Lucas at FFVA, 407-894-1351


November 8-9, 2001 17th Annual Tomato Disease Workshop West Palm Beach, Florida. Presentations and discussions on the occurrence and management of tomato diseases. Both processing and fresh market tomato problems will be addressed. For additional information visit: http://erec.ifas.ufl.edu/TDW.htm

December 8-12, 2002 Cucurbitaceae 2002 Naples Beach and Golf Club, Naples, Florida Contact Don Maynard at 941-751-7636 ext 239 or dnma@mail.ifas.ufl.edu.

Platinum and Actara Registered

The EPA recently registered two Syngenta Crop Protection products for control of sucking and chewing pests. Platinum is a soil insecticide for use in potatoes, tobacco and fruiting and cucurbit vegetable crops. Actara is a foliar insecticide for use in potatoes, pome fruit, tobacco, fruiting vegetables and cucurbits

The EPA registration of Actara is particularly good news for south Florida pepper producers, who have been awaiting labeling to provide them with a new tool against pepper weevils which can cause devastating losses particularly late in the season. Trials conducted by UF/IFAS entomologist Dr. Phil Stansly in Immokalee, have shown the product to be particularly efficacious against weevils.

"One application of Platinum at planting provides long-lasting control of major sucking and chewing insects," says Coby Long, Syngenta insecticide brand manager. "For growers who prefer foliar application, Actara offers excellent residual control with a wide margin of worker safety."
Platinum and Actara both contain the active ingredient thiamethoxam, a second-generation neonicotinoid insecticide. Thiamethoxam has unique chemical properties that offer several advantages over other chemistries, according to the company.

**Platinum works faster and more consistently than competitive soil insecticides, according to the company.** Platinum is quickly taken up by developing roots and moves rapidly throughout the plant. Once inside the plant, the active ingredient moves upward to protect new growth and provides long-lasting residual control.

**Actara foliar insecticide offers extended residual control because it quickly penetrates and moves throughout plant leaves.** "We're using a new term—trans-stemic—to describe this movement," White explains. "This means Actara combines translaminar and locally systemic action in one product."

**Thiamethoxam has minimal impact on most beneficial insects, which makes it well suited for integrated pest management programs.** It is not known to be cross-resistant to any other insecticide class.

While the labeling of Platinum and Actara is welcome news, both are in the nicotinoid class of insecticides and growers must be careful not to over use this class of compounds to avoid the development of resistance.

Most growers would agree that the silverleaf whitefly is one of the most important insect pests of tomato in Florida. The insect causes losses by inducing irregular ripening and by transmitting the geminiviruses tomato mottle virus and tomato yellow leaf curl virus. To avoid these losses nearly 100 percent of tomato transplant producers and field growers apply imidacloprid (Admire 2F® – Bayer) primarily as a drench. This heavy reliance on single insecticide for silverleaf whitefly management may lead to resistance to imidacloprid.

Resistance to imidacloprid has already been detected in greenhouse tomato production areas in Spain. In an effort to monitor and assess the susceptibility of whitefly populations in Florida to imidicloprid, Dave Schuster, entomologist at the UF/IFAS Gulf Coast Research and Education Center sampled a number of whitefly populations during the 2000-2001 growing season. Although most of the 13 populations sampled had relatively low LC$_{50}$ values indicating continued susceptibility to imidacloprid, two populations had significantly higher LC$_{50}$ values that could represent a trend toward increased tolerance. One of these two samples was collected in Immoklaee. Although the limited sampling period and small number of samples collected permit no conclusions to be drawn from these observations, the elevated LC$_{50}$ values should encourage growers to adhere resistance management recommendations.

This situation has become even more critical with the recent approval of the new insecticide, thiamethoxam – Syngenta Crop Protection for whitefly control on tomato and other crops. This insecticide is being formulated and marketed as Platinum® for soil applications and Actara® for foliar use. The use patterns of these formulations are anticipated to be similar to those of Admire® and Provado® respectively. Because imidacloprid and thiamethoxam are both in the nicotinoid class of insecticides, there is potential for the development of cross-resistance. This fact lends additional import to the necessity for attention to resistance management.

**Nicotinoid Resistance Management Strategies**

- **Reduce overall whitefly populations by strictly adhering to cultural practices including:**
  - Planting whitefly free transplants
  - Delay planting of new crops as long as possible and destroy old crops immediately after harvest to create or lengthen a tomato-free period
  - Do not plant new crops near or adjacent to infested weeds or crops, abandoned fields awaiting destruction or areas with volunteer plants
- Use UV reflective (aluminum) plastic soil mulch
- Control weeds on field edges if whiteflies are present and natural enemies are absent
- Manage weeds within crops to minimize interference with spraying
- Avoid U-Pick or pin-hooking operations unless effective whitefly control measures are continued

- Do not use a nicotinoid on transplants or apply only once 7 – 10 days before transplanting; use other products in other chemical classes, including pymetrozine (Fulfill®) before this time.
- Apply a nicotinoid at transplanting and use other products of other chemical classes, such as the insect growth regulators Knack® or Applaud® as the control with the nicotinoid diminishes
- Never follow an application (soil or foliar) of a nicotinoid with another application (soil or foliar) of the same or different nicotinoid on the same crop or in the same field within the same season (i.e. do not treat a double crop with a nicotinoid if the main crop had been treated previously)
- Save applications of nicotinoids for crops threatened by whitefly transmitted plant viruses or whitefly inflicted plant disorders (i.e. tomato, beans or squash) and consider the use of chemicals of other classes for whitefly control on other crops.

Growers are urged to follow these recommendations and help assure the continued effectiveness of these important whitefly management tools.


News from Up North - Possible Frost Friday Night-Saturday Morning

Keep tuned to local weather reports this Thursday and Friday. A large high-pressure area with cold arctic air will move into the northeast by the end of the week. The potential for scattered frost on Friday night into Saturday morning exists in some parts of northern OH.

Keep watch on the dew point temperatures. Temperatures at night usually fall to the dew point temperature. If the air is dry enough and dew points are below 32 degrees, there is a good chance of frost. Low lying areas may receive frost even though dew points are at or above 32 degrees because cold air settles in these areas.

From: Ohio State University Extension Vegetable Crops
VegNet Vol. 8, No. 29. September 12, 2001

Aren’t you glad we are in Florida?

Websites

EPA The Worker Protection Standard for Agricultural Pesticides - Are you ready for a WPS inspection? This website maintained by the NCSU Center for Integrated Pest Management, as a general reference for the agricultural community. Go to http://ipmwww.ncsu.edu/safety/epawps_intro.html#CONTENTS

Hendry County Horticulture Web Site – keep up with educational opportunities, find back issues of the SW Florida Vegetable Pest and Disease Hotline, or the SW Florida Vegetable Newsletter. It is all here and more http://www.ifas.ufl.edu/~gmcavoy/index.htm

Florida Tomato Scouting Guide – The Guide will assist growers and scouts in identifying insects and diseases commonly encountered in monitoring tomato fields in Florida. Great graphics depicting the situations most often experienced in Florida tomato fields. This guide should also benefit scouts, consultants, and growers in the southeast, southwest, and far west regions of the United States. http://FTSG.ifas.ufl.edu/intro.HTM
America: The Good Neighbor

"This Canadian thinks it is time to speak up for the Americans as the most generous and possibly the least appreciated people on all the earth. Germany, Japan and, to a lesser extent, Britain and Italy were lifted out of the debris of war by the Americans who poured in billions of dollars and forgave other billions in debts. None of these countries is today paying even the interest on its remaining debts to the United States.

When France was in danger of collapsing in 1956, it was the Americans who propped it up, and their reward was to be insulted and swindled on the streets of Paris. I was there. I saw it.

When earthquakes hit distant cities, it is the United States that hurries in to help. This spring, 59 American communities were flattened by tornadoes. Nobody helped. The Marshall Plan and the Truman Policy pumped billions of dollars into discouraged countries. Now newspapers in those countries are writing about the decadent, warmongering Americans.

I'd like to see just one of those countries that is gloating over the erosion of the United States dollar build its own airplane. Does any other country in the world have a plane to equal the Boeing Jumbo Jet, the Lockheed Tri-Star, or the Douglas DC10? If so, why don't they fly them? Why do all the International lines except Russia fly American Planes?

Why does no other land on earth even consider putting a man or woman on the moon? You talk about Japanese technocracy, and you get radios.

You talk about German technocracy, and you get automobiles. You talk about American technocracy, and you find men on the moon - not once, but several times - and safely home again.

You talk about scandals, and the Americans put theirs right in the store window for everybody to look at. Even their draft-dodgers are not pursued and hounded. They are here on our streets, and most of them, unless they are breaking Canadian laws, are getting American dollars from Ma and Pa at home to spend here.

When the railways of France, Germany and India were breaking down through age, it was the Americans who rebuilt them. When the Pennsylvania Railroad and the New York Central went broke, nobody loaned them an old caboose. Both are still broke.

I can name you 5000 times when the Americans raced to the help of other people in trouble. Can you name me even one time when someone else raced to the Americans in trouble? I don't think there was outside help even during the San Francisco earthquake.

Our neighbors have faced it alone, and I'm one Canadian who is damned tired of hearing them get kicked around. They will come out of this thing with their flag high. And when they do, they are entitled to thumb their nose at the lands that are gloating over their present troubles. I hope Canada is not one of those."

Stand proud, America!

Remarks of Gordon Sinclair, in an editorial broadcast on Canadian television in Toronto as printed in the Congressional Record:
Southwest Florida Vegetable Pest and Disease Hotline is now the South Florida Vegetable Pest and Disease Hotline

You may have noticed that the name of the hotline has changed to the South Florida Vegetable Pest and Disease Hotline. In response to numerous requests from readers and in an effort to better serve growers and the vegetable industry, we are expanding coverage of the hotline to include southwest Florida and eastern Palm Beach County. We hope to further expand our coverage over the next few weeks to include all of South Florida. Comments and suggestions are appreciated. Let us know what you think.

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