The *spring season* is rapidly coming to a close in southwest Florida. Many growers are finished for the year and are busy cleaning up fields and preparing to close down shop for a well-deserved break. The tomato and pepper crops are largely over, while some cantaloupes, watermelons, and miscellaneous specialty items are nearing completion and should be wrapped up in the next few weeks.

**Significant precipitation** has continued to fall throughout the area since the week of April 26. **Showers** have been *widespread but highly localized* and have dumped several inches of rain in some areas while nearby sites remain dry. There have been a few very widespread reports of up to golf ball sized *hail* accompanying torrential showers, resulting in some very localized crop damage being experienced by growers on a variety of crops.

The **FAWN Weather Station** at Immokalee has reported several rain fall events since April 29 with a total accumulation of just over one inch. In contrast, some farms in the Devil’s Garden area have seen nearly six inches while respondents from coastal sites such as Pine Island have yet to see any significant accumulation. Hopefully, a typical summer rainfall pattern will become established and replenish aquifers. Day time **temperatures** have ranged from the high 80’s to the low 90’s, while nights have fluctuated from to the mid 50’s to the mid 60’s.

**Downy mildew** has really taken off across the area in the past two weeks. Growers are reporting the disease widely in cantaloupe, squash, watermelon and specialty melons. A number of watermelon fields are showing severe levels of infection which will likely result in reduced yields. Rainy weather coupled with heavy morning dew and high levels of inoculum, particularly in old fields where crops are over, has contributed to the rapid spread of this disease. Favorable conditions are likely to continue and growers are advised to take protective measures.

Several reports of **pickleworms** have been received from widely scattered sites. **Rind worm** damage on melons – attributed mostly to *beet* and **southern armyworms** and **cabbage loopers** – has also been noted. Crop damage has been minor for the most part and several growers are reporting significant control as a result of efforts to combat melon thrips. Spray coverage is critical to prevent rind worm damage. Growers are combating worms in general to get off remaining crops.

**WISHING YOU ALL A SAFE AND RESTFUL SUMMER AND REMEMBER THE SUNSCREEN**
Melon thrips (Thrips palmi) have built up rapidly in number of locations around Immokalee and are causing some problems on cantaloupe and watermelon.

Armyworms are widely present across the area. A number of growers are reporting significant numbers of beet armyworm and southern armyworm in cantaloupe, pepper, tomato and watermelon.

Extremely high whitefly counts continue to be reported from a number of locations, particularly in cantaloupe, tomatoes and watermelons.

Pepper weevils are widely present on remaining pepper fields. Thorough destruction of crop residue to prevent over-summering populations is important in combating this and other pests and diseases.

Mosaic is widespread on melons across the region. Some fields have reached moderate to high infection levels. In some older fields, plants that were infected early are yellowing, wilting, and ultimately dying. In some instances, wilted leaves are burning on hot sunny afternoons and then present symptoms which mimic downy mildew.

Tomato yellow leaf curl virus is widely present on tomato across the region but levels appear to have remained in the 2-5% in most cases, although higher rates approaching 15-20% were observed in a few fields throughout the course of the season. The explosive spread of this disease in the unchecked situations was a real eye-opener to anyone who visited Dr. Phil Stansly’s research plots at our Spring Field Day held at SWFREC on May 6th.

Field sanitation is one of the most important tactics in vegetable pest and disease management. Remember back only a few years ago, that only by universal cooperation among growers were we able to survive the whitefly and Gemini-virus situation. The best thing that growers can do for themselves and their neighbors is to clean up crop residues promptly after harvest. Sanitation is an important IPM technique that should not be overlooked as an effective, preventative tool against many vegetable pest and disease problems. Sanitation includes any practice that eradicates or reduces the amount of pathogen inoculum, pests, or weed seeds present and thus helps reduce or eliminate subsequent pest and disease problems.

The prompt destruction of a crop at the end of the season will immediately end the production of disease inoculum and insects and eliminate the spread of diseases and pests to any other host plants in the vicinity. Downy and powdery mildew on melons can spread via wind from older, diseased plants to plants in surrounding fields that are still maturing. These diseases are obligate parasites. This means that they can only grow and multiply on living host tissue. Some plant pathogens, such as the bacterium that causes bacterial spot of tomato and pepper, are unable to survive for extended periods of time outside of the host tissue. Plowing or disking under infected plant debris helps not only by covering up the inoculum but also speeds up the disintegration of plant tissue and kills the pathogen.

Prompt destruction of tomato vines will kill off white fly populations and eliminate transmission of the tomato yellow leaf curl virus to subsequent crops and also eliminate inoculum from late blight and other fungal diseases. This is particularly important in the case of TYLCV, as sanitation and whitefly control are the only tools currently available for the management of this disease.

Weeds and volunteers should also be removed to prevent the survival and over-summering of pathogens that could serve as inoculum reservoirs for the next crop. Techniques such as mowing off pepper should not be relied upon as this often results in re-sprouts which can harbor pests and disease problems over summer.

The use of cover crops and summer fallowing of fields are also effective tools in reducing weed populations that can cause problems in the subsequent crop. Field sanitation will be come an increasingly important tool to growers in face of the impending loss of methyl bromide – whose ease of use and effectiveness in controlling a
wide range of problems allowed us to neglect some of these practical common sense pest management techniques.

At our monthly Vegetable Meeting, held at SWFREC on May 12, Bob Kreger of Hy-Yield Bromine had some **important reminders for users of methyl bromide**, that should be repeated here.

- Due to various factors related to the ability of the user to pay and allocations to certain critical priority users from existing methyl bromide stocks, the amount of methyl bromide available to vegetable growers will likely be less than the 25% reduction level indicated in the projected phase-out schedule but will feel **more like a 30 or 35% reduction** in phase 1.

- Growers are being advised to remember that when using **methyl bromide 67/33**, the time to planting after application is longer than with methyl bromide 98/2 due to the higher concentration of chloropicrin. Plants should not be set out until **14 days** and possibly longer under cool or wet conditions to avoid injury. Failure to account for this difference may cause disruptions in the fall planting schedule. Waiting times for alternative fumigants such as Telone or Vapam are even longer!

- **Vapam = Busan, Sectagon, and Basamid.** These are all names for essentially the same product. Do not be taken by claims of a hot new product with an unfamiliar name to replace methyl bromide.

- All the known methyl bromide **alternatives have some limitations** and are less effective then methyl bromide. In most cases, a herbicide in addition to the alternate fumigant will be necessary.

- The **cost** of alternative fumigants generally **exceeds** the cost of methyl bromide

- Growers would be **well advised to begin to evaluate** various methyl bromide alternatives on farm to begin to learn how they work and how they can best be incorporated into each individual operation in advance of the 2005 cutoff date. Each is different and will require some modification of existing equipment, cultural practices and weed, pest and disease management.

This will be the **last Pest and Disease Hotline** issued for **this season**. We will resume publication this fall and wish to acknowledge and extend our **sincerest thanks** to all our many **contributors** who shared valuable information and also the generous support of our **sponsors** with out which the hotline would not be possible.

Contributors include: Earl Bone/Pero, Kathy Carbiener/Severts, Fred Heald/Farmers Supply, Leon Lucas/Glades Crop Care, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Chuck Obern/C+B Farm, Wade Purvis/Silver Strand, Dr. Pam Roberts/SWFREC, Wes Roan/6 L’s, Kevin Seitzinger/Gargulio, Jay Shivler, F& F Farm, Mike Stanford/MED Farm, Dr. Phil Stansly/SWFREC, Don Tanner/Country Boy, and Dr. Charlie Vavrina/SWFREC.

The SW Florida Pest and Disease Hotline is compiled by Gene McAvoy and is issued on a biweekly basis by the Hendry County Cooperative Extension Office as a service to the vegetable industry.

Gene McAvoy  
Extension Agent II  
Vegetable/Ornamental Horticulture  
Hendry County Extension Office  
PO Box 68  
LaBelle, FL 33975  
941-674-4092 phone  
941-860-8811 mobile  
941-674-4097 fax  
gmcavoy@gnv.ifas.ufl.edu
Special Thanks to the generous support of our sponsors; who make this publication possible.

**Thomas Produce Company**  
Of South Florida  
Grower and Shippers of Quality Vegetables  
9905 Clint Moore Road  
Boca Raton, Florida 33496

**Rohm and Haas Company**  
368 Liberty Square  
Fort Myers, Florida 33908  
Phone 941-482-7337 Fax 941-482-7365

Michael P Seese  
**KeyPlex**  
PO Box 11094  
Naples, FL 34101  
Phone 941-910-4837 Fax 941-514-0168

Fred Heald  
**Farmers Supply Inc**  
710 Broward Street  
Immokalee, FL 34142  
Phone 941-657-8254 Fax 941-657-2005

**LaBelle Plant World, Inc.**  
Tommy Smith: President  
Scott Smith: Vice President  
We Grow Plants for the Pros  
LaBelle, Florida  
Phone 941-675-2020

Bob Conrad  
**Asgrow Vegetable Seeds**  
1923 Indian Creek Drive  
Fort Myers, Florida 33917  
Phone 941-370-5893 Fax 941-543-7003

**Gargiulo**  
Growers Shippers Importers Exporters  
David Pensabene: Production Manager  
Naples Operations  
Phone 941-353-0300 Fax 941-353-3407

Donna Peterson  
**Trece Incorporated**  
Insect Monitoring Systems and Pheromones  
Phone 660-794-2719 Fax 660-794-2718  
Cellular 916-718-1735

Shelby F. Hinrichs  
**AGTROL International**  
6943 Scarboro Drive  
Fort Myers, Florida 33919  
Phone 941-437-9970 Fax 941-437-2646

If you would like to help support this publication, please contact us. Your support is desperately needed!