The strong cold front that passed through SW Florida on January 26 – 27th caused growers a good deal of anxiety in anticipation of possible frost/freeze conditions. While temperatures in most areas hovered right at freezing on the morning of January 27th, and frost was widely reported throughout the area, most crops were spared and no reports of any major damage have been noted. Temperatures recorded at the Fawn Weather Station in Immokalee dropped to a low of 31.6°F, which persisted for about one hour.

Some growers have noted some minor injury to foliage resulting from frost. Strong winds, which proceeded the front and have persisted over the past two weeks, have damaged a number of crops, burning leaves and scarring fruit. Some sand blasting has also been noted. Young plantings and plants located at field margins were hardest hit. Beans and melons seem to have most affected by the cold and wind. Most crops should grow out nicely as conditions improve.

In general, temperatures have been several degrees below normal for the period, ranging in the mid-60’s to the mid-70’s in the day and the 40’s and 50’s at night. Mostly dry weather has prevailed over the past two weeks. Most areas received 1 to 1 ½ of sorely needed rain on January 24th. The FAWN Weather Station in Immokalee recorded a total of 1.01 inch for this event. Several growers have noted some improvement in ground water levels although others have reported scattered problems with accumulated fertilizer salts.

The five-day forecast predicts the passage of a cold front this evening dropping temperatures back into the low 40’s. This should be followed by clear cool conditions over the next five days.

Harvest of most crops is proceeding at this time with beans, cucumbers, eggplants, melons, peppers, pickles, squash, sweet corn and tomatoes now moving to market. Crops are looking good for the most part but cool weather is slowing growth on many crops. Insect and disease pressure remains relatively light.

Leafminer pressure has remained fairly steady at moderate levels across the area. While pressure seems to be declining to some extent many growers have noted a correlation to temperature with pressure rising as temperatures moderate. In addition to tomato, leafminers have been active in cucurbits, peppers, potato, and other vegetables. Pressure has been particularly severe in areas where new plantings are in close proximity.
to old fall crops. The situation has also been aggravated by the poor tomato market, which has caused some growers to abandon fields or reduce spraying schedules in response to low prices.

Pinworms have started to appear in tomato over the past two weeks. Counts have been quite variable from farm to farm, with numbers as high as 45 moths per trap per night in some places to as low as one per night in others. Many growers are reporting that they have not yet observed any pinworms to date. Growers should use pheromones for control once thresholds of 5 adults per trap per night are observed.

Respondents continue to report some significant increase in silver leaf whitefly populations. Most counts are still in the range of 1 – 3 whiteflies per plant, although there have been some higher counts of up to 10 whiteflies per plant in some cases. Although recommended thresholds are set at 10 adults/plant – the presence of TYLCSV suggests lower thresholds be set.

There have been no further reports of melon thrips, but several growers have reported problems with flower thrips (F. bispinosa) in peppers and cucurbits. Numbers are low in most places. Flower thrips primarily feed in flowers and buds where as melon thrips will feed on leaves along the vein and midrib as well as flowers and the surface of fruits.

Moderate levels of winged aphids continue to be seen across the area. Sizeable populations continue to be observed in several crops including leafy greens, pepper, potato and melons. Colony formation has been observed in pepper. Aphids have been implicated with virus problems in pepper and cucurbits.

Broad mites are still around on pepper and eggplant in widely scattered locations and there are continuing reports of persistent flare-ups here and there.

Several growers are experiencing problems with spider mites on eggplant, tomato and other crops. Occurrence is sporadic but damage is low to moderate in most cases.

A few worms continue to be seen here and there. Most growers are reporting little to no worm pressure at this time, although there have been some reports of loopers, southern armyworms and the occasional beet armyworm on some farms.

Diamondback moths are being reported in crucifers. Damage has been light.

Several respondents have noted an increase in pepper weevils numbers, particularly in older plantings. Overall weevils counts are relatively low.

Glades Crop Care reports the first occurrence of late blight on potato, in SW Florida this season. It was found on January 29th, since that time correspondence from Dr Pete Weingartner, UF/IFAS at Hastings, reports having verified two additional cases of late blight on potato in SW Florida. Dr Weingartner has indicated that so far the only late blight genotype isolated from this area has been US 8. Pete reports that while US 8 is normally considered a potato pathogen, isolates of the genotype tested in Florida have been equally aggressive on potato and tomato.

The Glades Crop Care memo on this report of late blight provides an excellent example of the importance of protective fungicides for late blight control on potatoes and tomatoes. The lesions were detected on potato plants in the corner of an odd shaped block with a utility pole near one end. The pole was situated so that the spray boom had to be folded up in order for the spray rig to be maneuvered around the pole and then unfolded to resume spraying. In this case, all the late blight lesions were present in the 4-5 feet of row behind the pole. In the remainder of the block and adjacent blocks, no lesions were detected.
**Note:** The Tattoo C - Section 18 for potato expired in November 1999. At this time, Tattoo is not registered for use on potato!

An explosion in the incidence of tomato yellow leaf curl virus has been reported on several farms in the Immokalee area. A reliable source has reported observing higher levels of the disease than has been seen in previous seasons. In other areas the incidence of TYLCV remains low. Most growers are still seeing only isolated occurrences of single infected plants here and there.

It is important that growers maintain their vigilance. Consistent whitefly control is essential in combating this disease. Reports of increasing whitefly populations coupled with the report of several hot spots of TYLCV can set the stage for problems with the spring crop. Grower complacency resulting in any appreciable relaxation of efforts in could easily result in significant increases in the incidence of this disease in the future.

A number of foliar diseases are being reported in tomato. Early blight and target spot have taken out the inner foliage in many mature tomato fields. For the most part, incidence and occurrence of foliar problems is low on new plantings.

Bacterial leaf spot is being seen sporadically across the area. Active infections are largely restricted to lower leaves that touch the plastic and remain wet for long periods. Incidence is low and occurrence patchy.

Some alternaria leaf blight is also being reported in watermelon. Incidence and crop damage is low.

Several growers are reporting significant levels of fusarium crown rot on tomato. Damage is severe in some fields. Several respondents have observed reported that the incidence of fusarium crown rot seems to be higher than in past years.

Fusarium wilt and rhizoctonia stem rot is being noted in potato, particularly on later plantings made in cool soils. Incidence is low.

A number of viruses have been detected in pepper including pepper mild mottle virus, potato virus Y, potyvirus and tobacco etch virus. Several of these may be spread from older plantings and nearby Solanaceous weed hosts, such as nightshade, horse nettle and ground cherry by aphids. Use of insecticides to control aphids and use of JMS stylet oil to prevent transmission of virus is recommended. As reported in the last edition of the SW Florida Pest and Disease Hotline, pepper mild mottle is mechanically transmitted and may be spread by tying and harvest operations.

Isolated cases of tomato mottle virus and tomato spotted wilt virus on tomato have been noted around Immokalee.

Given the fact that many fall plantings are finished or nearly finished, growers are again reminded of the importance of sanitation and prompt destruction of crop residues in an IPM program. Crop free intervals are an important aspect of pest and disease management.

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. Plowing or diskling 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. 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.
Attention: Tomato Growers - Dr Norm Nesheim: Pesticide Information Coordinator at UF/IFAS, has passed on the following information from the Bureau of Compliance Monitoring of the Florida Department of Agriculture and Consumer Services regarding the legality of the use of Gramoxone to burndown tomato vines at the end of the growing season.

The Florida Department of Agriculture and Consumer Services recently submitted a request for determination to the Pesticide Section at EPA Region IV Office in Atlanta, Georgia who in turn contacted EPA Headquarters in Washington, D.C.

Question #1: Can Gramoxone be used as a burndown agent on tomato vines at the end of the growing season?

EPA: Gramoxone cannot be used as a burndown agent on tomato vines at the end of the growing season. There are other products registered that could legally be applied for this purpose. Please contact your local County Extension Agent for products legally labeled for use.

Question #2: Can the applicator consider the tomato field to be fallow between plantings in the same growing season and the tomato vines considered weeds?

EPA: No. The OPP Glossary defines fallow land in part as: "cropland left idle during the growing season". In their opinion, the target site of the application does not meet the criteria as defined above. Therefore, use of Gramoxone as a burndown agent on tomato vines would constitute a misuse.

Up Coming Meetings:

February 4, 2000 Vegetable Growers Meeting – 5:30 PM – 7:30 PM
“Management of Spring Vegetable Insects” and “Spintor Up-Date
SW Florida Research and Education Center
Hwy 29 N, Immokalee, Florida
For more information contact: Gene McAvoy or Sheila Griffith at 941-674-4092

March 6, 2000 2000 POST HARVEST INSTITUTE -This years’ topic is “Innovations in Fresh Produce Transportation” – the conference will be held at the University of Florida in Gainesville as well as the Tropical Research & Education Center (Homestead), Southwest Florida Research & Education Center (Immokalee) and Indian River Research & Education Center (Ft. Pierce) via live, video-conferencing. For more information, contact Ms. Abbie Fox, at 352-392-1928, ext. 235 or Gene McAvoy at 941-674-4092 for information about the Immokalee site.

March 8-9, 2000 Pesticide Applicator Training and Testing - 8:00 AM – 5:00 PM
March 8 – CORE and Private Applicator
March 9 – Ag Row Crop, Tree Crop and Aquatic
Dallas B Townsend Agricultural Center, 225 Pratt Boulevard, LaBelle
Registration begins at 7:30 A.M. A $5.00 registration fee will apply.
This is a good opportunity for obtain CEU’s in CORE (3.5) and other pesticide applicator license categories.
For more information, contact Sheila Griffith at 941-674-4092
Web Sites:

The **AgriSurfer** – Agricultural information on the web, can’t find what you want? The AgriSurfer site may help – a guide to agricultural sites on the web. [http://www.agrisurfer.com](http://www.agrisurfer.com)

**Pesticide Labels and Material Safety Data Sheets** - labels and MSDS info can be found on the following sites for a number of different pesticides.

- [http://www.cdms.net/manuf/manuf.asp](http://www.cdms.net/manuf/manuf.asp)

**Weeds on the Web** – use the web to help identify weed problems. Some sites include:

- [http://ext.agn.uiuc.edu/wssa/.../herbarium0.html](http://ext.agn.uiuc.edu/wssa/.../herbarium0.html)
- [http://www.rcr.rutgers.edu/weeddocuments/](http://www.rcr.rutgers.edu/weeddocuments/)

**Electronic Newsletters:**

**IPMnet News** – a free global IPM information service sponsored by the Consortium for International Crop Protection. **To subscribe:** send an email message to IPMnetNUZ@bcc.orst.edu and write “subscribe” as the subject.

The **AgriSurfer** – receive weekly updates on new and interesting agricultural web sites. Subscribe via the web site at [http://www.agrisurfer.com](http://www.agrisurfer.com).

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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.

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