Near ideal weather conditions have prevailed across Southwest Florida for the past two weeks. Skies have been mostly sunny and clear and temperatures seasonably moderate. Breezy conditions have caused some wind damage and crop injury from sand blasting particularly on new plantings and tender crops such as cucurbits.

Respondents have reported only trace or no precipitation for the period. The FAWN Weather Station in Immokalee recorded a total of 0.01 inches of rain over the past three weeks. Dry weather has increased the demand for irrigation.

Daytime temperature for most of the period were in the mid to upper 80’s with nighttime temperatures in the high 50’s to mid 60’s.

The National Weather Service forecast for the next few days is for dry weather and mostly sunny skies. Highs will be in the mid-80’s with lows in the upper 50’s to low 60’s. Winds will be northeast 10 to 15 MPH.

Planting is going well throughout SW Florida. Potato planting is gaining momentum. Plantings of cucumbers, eggplants, pepper, squash, tomato and other crops remains steady. Acreage of most crops is similar to last year although there has been a significant fall in tomato acreage reported across the state.

Growers are laying plastic, staking and tying crops, and spraying to control insects and disease. Most reports indicate crops in fair to good condition. Picking of cucumbers, peppers, squash and tomato is underway.

IMMOKALEE Weather Summary: Note the full range of data normally presented here was unavailable at the time of printing.

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Respondents are indicating variable worm pressure from light to high according to the locale. The majority of reports, however, indicate that worm pressure continues to remain moderate to high across most farms in SW Florida. Beet armyworms are more prevalent on pepper, while reports indicate that southern armyworms make up the majority of the worms identified in tomato.

Growers and scouts are also seeing significant numbers of other worms species including loopers, hornworms, and tomato fruitworms. In general, worms are relatively easy to control with the range materials currently available to growers but damage can be significant if they are allowed to get out of control.

Reports indicate high levels of fall armyworm building up in sweet corn at this time. Pheromone trap counts at the Everglades REC are indicating extremely high fall armyworm pressure over the past two weeks with average catches running between 707 – 1260 moths per week. Counts in the previous three-week period varied between 2 and 66 moths per week.

Pheromone traps can provide relative estimates of moth activity within an area. A series of traps for five economically important moth pests have been in operation for many years at the Everglades Research and Education Center at Belle Glade, Florida. The purpose of this project is to provide growers, scouts and consultants with current and archived pheromone trap data for use in forecasting pest populations in their growing areas.

Fall and beet armyworms are primary pests of most of the vegetable crops grown in the Everglades Agricultural Area (EAA) and surrounding coastal growing areas. Fall armyworms are year-round pests of sweet corn and peppers, while beet armyworms cause most damage on peppers, tomatoes and leafy vegetables. These pests are active year-round in south Florida and serve as a reservoir for migration into north Florida and further into the southeastern United States. Diamondback moths are the primary pest of all cabbages and show the greatest amount of pesticide resistance of any of our lepidopterous pests. Cabbage loopers are pests of leafy vegetables, broccoli and cauliflower. Corn earworms are pests of sweet corn, but fall armyworms are much more common and important sweet corn pests in the EAA. Everglades REC Pheromone Trap Data can be seen on the web at http://erec.ifas.ufl.edu/PD/EPHTRDA.HTM.

High numbers of melonworms are being reported on cantaloupe, cucumbers and squash from a number of locations at this time. Some reports indicate populations are the highest that have been seen in many seasons.

The melonworm was recently featured on the UF/IFAS Department of Entomology and Nematology’s Featured Creatures website. A summary of the information provided is given below.

Common name: melonworm
Scientific name: Diaphania hyalinata Linnaeus (Insecta: Lepidoptera: Pyralidae)

The melonworm occurs throughout most of Central and South America and the Caribbean. The United States is the northern limit of its permanent range, and wintertime occurrence generally is limited to south Florida and perhaps south Texas. The melonworm can complete its life cycle in about 30 days. It is present throughout the year in southern Florida, where it is limited mostly by availability of host plants. Melonworm disperses northward annually.

Melonworm moths deposit oval, flattened eggs in small clusters, averaging two to six eggs per egg mass. They are deposited at night on buds, stems, and the underside of leaves. Initially they are white or greenish, but soon become yellow in color. They measure about 0.7 mm in length and 0.6 mm in width. Hatching occurs after three to four days.
There are five instars. Total larval development time is about 14 days, with mean (range) duration the instars about 2.2 (2-3), 2.2 (2-3), 2.0 (1-3), 2.0 (1-3), and 5.0 (3-8) days, respectively. Larvae attain lengths of about 1.5, 2.6, 4.5, 10, and 16 mm in instars one through five, respectively. Newly hatch larvae are colorless, but by the second instar larvae assume a pale yellow-green color. They construct a loose silken structure under leaves, which shelters them during the daylight hours. In the fifth instar, larvae have two subdorsal white stripes extending the length of the body. The stripes fade just prior to pupation, but they are the most distinctive characteristic of the larvae.

Prior to pupation, larvae spin a loose cocoon on the host plant, often folding a section of the leaf for added shelter. The pupa is 12 to 15 mm in length, about 3 to 4 mm in width, and fairly pointed at each end. It is light to dark brown in color. The pupal stage persists for nine to 10 days.

The moth's wingspan is about 2.5 cm. The wings are pearly white centrally, and slightly iridescent, but are edged with a broad band of dark brown. Moths frequently display brushy hairpencils at the tip of the abdomen when at rest. Melonworm moths remain in the crop during the daylight hours. While they are generally inactive during the day, they will fly short distances when disturbed.

Melonworm feeds principally on foliage, especially if foliage of a favored host plant such as summer or winter squash is available. Usually the leaf veins are left intact, resulting in lace-like plant remains. However, if the available foliage is exhausted, or the plant is a less preferred species such as cantaloupe, then the larva may feed on the surface of the fruit, or even burrow into the fruit. Growers sometimes refer to these insects as "rindworms" because they cause scars on the surface of melons. In a study of melonworm damage potential to summer squash conducted in south Florida, melonworm caused a 23 % yield loss due to foliage damage (indirect loss) and a 9 to 10% yield reduction due to fruit damage (direct loss).

Melonworm is restricted to feeding on cucurbits. Both wild and cultivated cucurbits may be attacked. Summer squash and the winter squash species are good hosts. Pumpkin is of variable quality as a host, probably because pumpkins have been bred from several Cucurbita species. The Cucumis species, cucumber, gerkin, and cantaloupe are attacked but not preferred. Watermelon is a rare host.

Among the common natural enemies of melonworm are a number of Braconidae, Ichneumonidae, and Trichogrammatidae wasps as well as several species of Tachinidae flies. Studies conducted in Puerto Rico reported levels of parasitism reaching 24%. Generalist predators such the soldier beetle and the red imported fire ant have also been reported to be mortality factors.

Pheromone production by female moths peaks at about sunset. The sex pheromone has been identified but is not available commercially. Moths are not attracted to light traps. Therefore, checking plants for early stages of leaf damage and the presence of larvae are the most effective ways to monitor crops.

Historically, melonworm was considered to be a very damaging pest, but because it feeds preferentially on foliage it is easy to control with a variety of insecticides. In temperate areas, and especially in commercial vegetable production areas, it is treated as only a minor pest. In insecticide-free cucurbit production and in home gardens, melonworm can cause serious damage.

Pollinators, particularly bees, are very important in cucurbit production, and insecticide application can interfere with pollination by killing honeybees. If insecticides are to be applied when blossoms are present, it is advisable to use insecticides with little residual activity, and to apply insecticides late in the day, when bee activity is minimal.

In addition to chemical insecticides, Bacillus thuringiensis is commonly recommended for suppression. The entomopathogenic nematode Steinernema carpocapsae provides only moderate suppression because the nematodes do not survive long on the foliage, where larvae are found resting and feeding.
Since melonworm prefers squash to most other cucurbits, trap cropping has been suggested, and of course destruction of crop residue which may contain melonworm pupae is recommended.

Read the entire article at [http://www.ifas.ufl.edu/~insect/veg/leaf/melonworm.htm](http://www.ifas.ufl.edu/~insect/veg/leaf/melonworm.htm)

Low levels of leafminer activity are being widely reported on a number of crops including tomato, beans and especially on cucurbits. Activity has been slowly increasing over the past few weeks, stippling as well as some mines are being seen. In general, numbers are below action thresholds although several growers have report populations reaching levels that warranted effecting control measures.

Winged aphids are being widely reported over the last seven to ten days. In some instances, numbers have been high enough to require control.

Whiteflies remain at fairly low levels across SW Florida. Most respondents are now reporting counts below one per plant for the most part. There have been few isolated reports of higher numbers of up to ten per plant. For the most part Admire seems to be keeping whitefly and aphids under control.

Broad mites continue to be reported widely in pepper from a number of sites. They have also been seen in eggplant. Infestations are scattered but seem to be increasing by most reports. Pepper and eggplant producers are advised to be on the look out for this pest. As with most pests, scouting to detect early infestation is important.

Growers have reported good control with a number of products including sulfur, Agrimek, Kelthane and oil. Some respondents have indicated success, using Trilogy to control broadmites. In all cases, frequent treatment is necessary to break the cycle of egg production.

Several reports of pepper weevil have been received in the past few weeks. Growers report finding adults in traps and feeding on pepper blossoms. In one instance reports of dropped fruit with weevil larvae inside has been received.

Dry conditions over the past month have bought several reports of red spider mites on tomato and eggplants. Initial infestations tend to occur in fields bordering weedy fields or grassy areas. Field perimeters and corners tend to exhibit the earliest symptoms of infestation. Dispersal over a wide area occurs when spider mites are carried on a balloon of their webbing by the wind. When environmental conditions are hot and dry, spider mites can multiply rapidly and become a pest in a wide range of vegetable crops.

In making an assessment of a spider mite infested field, it is important that one recognize the early signs of mite feeding, which is the stippling or speckled effect that initially appears on the foliage when foliage is still green. When conditions are optimal for spider mite outbreaks, early detection facilitates timely and effective treatment. For detection of spider mites, a 10X to 15X magnifying glass is a necessity. Examine the undersides of the leaves closely for mites, cast skins and webbing. A more efficient technique is to place a sheet of white typing paper beneath the leaves and strike the foliage sharply. The mites will fall onto the paper and can be more easily observed and identified than on the green foliage.

Predators are very important in regulating spider mite populations and should be protected whenever possible. Important genera include the predatory mites, Amblyseius, Metaseiulus, and Phytoseiulus, the lady beetle, Stethorus, the minute pirate bug, Orius, the thrips, Leptothrips, and the lacewing larvae, Chrysopa.

Growers report that improved weather conditions have assisted greatly in gaining the upper hand in attempting to gain control of bacterial spot.
A number of older tomato and pepper fields that went through favorable conditions during wet periods earlier in the season are showing high levels of infection where blowing wind and rain have carried bacteria high into the canopy. In some instances, bacterial spot lesions are being seen on fruit.

For the most part younger fields planted after this time are showing low levels of sporadic bacterial spot infection primarily restricted to the lower canopy.

**Target spot has been reported on tomato in several locations across the area.** Foliar symptoms of this disease are often difficult to distinguish from bacterial spot without lab diagnosis. Initially small water soaked lesions appear on the upper leaf surface. The lesions develop gradually increasing in size becoming round and pale brown with conspicuous yellow halos. Petiole and stem lesions are brown and oblong and may girdle and kill individual leaflets.

**The fruit lesions are quite distinct.** They first appear as dark pinpoint brown spots, which may enlarge and develop into sunken lesions with pale brown centers, that often crack open. Fruit lesions may be found anywhere on tomato fruit but are most often concentrated on the shoulders.

**Target spot is a polycyclic disease that develops rapidly under cool damp conditions.** Optimum conditions for disease development include temperatures of 68° to 82° F and long periods of high moisture. The heavy night dews and foggy mornings often experienced in the fall in conjunction with tomato canopy closure are optimal for the development of this disease. Spray programs based on copper and manzate aimed at bacterial spot are ineffective in controlling target spot; chlorothalonil based compounds are recommended for control and should be rotated into a tomato disease control.

**In cucurbits, sporadic occurrence of downy mildew, powdery mildew and gummy stem blight has been noted.** In general, incidence and severity is low.

**The onset of dry weather and improved soil moisture conditions has resulted in abatement of “tomato little leaf” symptoms that had been reported in the area.** Tomato little leaf is a non-parasitic disease of tomatoes that causes virus-like symptoms in tomato. Early symptoms of this condition are characterized by unusual growth consisting of interveinal chlorosis in young leaves. Subsequent growth becomes severely distorted with leaflets along the mid-rib failing to expand properly resulting in a “little leaf” appearance. In addition, leaflets are twisted and distorted. Overall the appearance is reminiscent of viral or phenoxy herbicide symptoms.

It occurs on wet soils and is apparently caused by the release of amino acid analogs by soil microorganisms under wet conditions. These compounds are taken up by plant causing the expression of virus-like symptoms. Control consists largely of managing soil moisture to avoid water logging. Maintaining soil pH below 6.3 or less can also reduce development of the problem. Affected plants generally resume normal growth once soil moisture levels become more favorable.

**The Florida Tomato Committee is currently funding a research project spearheaded by Dr Steve Olsen and several other UF research scientists to attempt to develop a reliable diagnostic tool for little leaf.**

**Fusarium wilt and crown rot continues to be reported in several tomato fields that were flooded at the beginning of the month.** Most of the affected plants are located at the end of rows and next to shovel ditches where water accumulated unless the field went entirely under water in which case infected plants can be found throughout the field.

**Tomato yellow leaf curl virus is widely present at low levels across the area.** In most cases, only an occasional infected plant every few of acres is present. In the worst cases, a plant or two every couple of acres can be spotted. Growers are universal in their use of Admire and whiteflies remain at low levels in most fields.
limiting the potential for spread. Growers should rogue out infected plants as identified. It is disturbing to see some fairly large infected plants in fields that have apparently been left in place for several weeks or more.

**Publications available**

If you missed this year's Tomato Institute or FACTS 2000, you can still keep abreast of what happened. The Hendry County Extension Office has copies of the following publications:

2000 Florida Tomato Institute Proceedings
FACTS 2000 Proceedings

We also have available:

Vegetable Production Guide for Florida
UF/IFAS Vegetable Variety Trial Results in Florida for 1999
Best Management Practices for Agrichemical Handling and Farm Equipment Maintenance
Methyl Bromide: Progress and Problems Identifying Alternatives
Worker Protection Standard Train the Trainer Manual
Worker Protection Standard Summary
WPS Checklist
WPS Inspection Forms

**WPS Update - Certification and Licensing Programs for the WPS Crop Advisor Exemption**

The statement “To be exempt from any WPS regulations, consultants must be certified through National Alliance of Independent Crop Consultants or the America Society of Agronomy,” which appeared in the last issue of the SW Florida Pest and Disease Hotline regarding crop consultants caused a bit of confusion and a clarification is in order.

In Florida, there is a third way in which crop consultants may be certified - FDACS Certification. The following information is taken from a fact sheet prepared by Dr Norman Nesheim of the UF Pesticide Information Office.

**Certification/Licensing of Crop Advisors**

Programs recognized as appropriate by EPA or a state lead agency for pesticide enforcement may certify or license crop advisors for purposes of this exemption. Crop-advisor certification programs must contain pesticide safety training that is at least equivalent to WPS handler training.

The following programs have been acknowledged by EPA and the FDACS as appropriate:

1. The Florida Department of Agriculture and Consumer Services (FDACS) WPS Crop Advisor certification/licensing program.

2. The Certified Crop Advisor (CCA) program sponsored by the American Society of Agronomy.

3. The Certified Professional Crop Consultant (CPCC) program sponsored by the National Alliance of Independent Crop Consultants (NAICC).
CCA Certification. The American Society of Agronomy has established a voluntary professional certification program in the area of crop production. The CCA certification process involves documenting education and crop-advising experience and passing comprehensive national and state exams. The exams are offered twice each year. A state board administers the program in Florida. For more information on CCA contact the Florida Fertilizer and Agrichemical Association (FFAA), Winter Haven, FL. (863/293-4827)

CPCC Certification. The National Alliance of Independent Crop Consultants has established a voluntary professional certification program that is not restricted to their members. The CPCC program requires, at a minimum, a bachelor's degree in an agricultural discipline and six years of field experience. Five years of experience is required with a master's and four years with a Ph.D. Passage of a licensing exam is also required. For more information on the CPCC program contact the National Alliance of Independent Crop Consultants, Memphis, TN. (901/683-9466.)

FDACS Certification. FDACS has established a certification and licensing program for crop advisors who want to use the WPS crop advisor exemption and who do not certify under another approved program. The FDACS certification process involves documenting education and/or crop-advising experience and passing an examination.

FDACS Certification Procedures

License Classification - A certified WPS crop advisor may be certified and licensed as a private, public or commercial applicator.

A private applicator is a licensed applicator who applies restricted-use pesticides for the purpose of producing an agricultural commodity on land owned or rented by him/herself or employer.

A public applicator is a licensed applicator employed by a public or governmental agency. A public applicator license is only valid when performing work for the public or governmental agency.

A commercial applicator is a licensed applicator who is licensed to apply restricted use pesticides on any property, provided they are certified in the category for which the applications are made. A commercial applicator is usually a contract applicator. It is anticipated that most WPS Crop Advisors will need a commercial license. Fees for a four-year license are $35 for a private or public applicator, $90 for a commercial applicator.

Certification Requirements. Requirements for a private WPS Crop Advisor certification include taking two examinations. They are:

1. The Private Applicator Agricultural Pest Control exam, which tests general knowledge of proper pesticide use and safety;

2. The WPS Crop Advisor exam, which tests knowledge of the crop advisor exemption, pesticide exposure and safety.

Certification requirements for public and commercial WPS Crop Advisors include taking three exams:

1. The general standards (core) exam, which tests general knowledge of proper pesticide use and safety;

2. A category specific exam for one of the agricultural categories, including Agriculture Row Crop, Agriculture Tree Crop, Soil or Greenhouse Fumigation, Ornamental and Turf or Forestry, which tests knowledge of pest control and pesticide use in these categories; and
3. The WPS Crop Advisor exam, which tests knowledge of the crop advisor exemption, pesticide exposure and safety.

If you already have a public or commercial license that includes one of the agricultural categories, or if you have a private license, you may add the crop advisor exemption certification by successfully completing the WPS Crop Advisor exam.

In addition to the examination requirement, applicants must provide documentation to FDACS of appropriate experience (1,000 hours work experience as a crop advisor/consultant) or of appropriate education (a minimum of an Associate of Arts/Science degree from an accredited college/university with a major in agronomy, entomology, plant physiology, plant pathology, biology, horticulture, agricultural engineering or pest control).

Examination Locations. Examinations are administered at University of Florida, Institute of Food and Agricultural Sciences, County Cooperative Extension Offices. The general standards (Core) exam can be taken by appointment at any Extension Office. The category exams, including the WPS Crop Advisor exam, are offered in 25 counties. If your county Extension office does not administer category exams, they can help you locate the nearest county that does. **Note: Hendry County has made arrangements to begin offering this exam.**

After the exams. The FDACS Certification and Licensing Office will notify you if you have passed or failed the exams. Failure necessitates re-applying and re-taking the failed exam/s. Note: Crop advisor exemption certification is not a category and will not be listed as a category on the license. When a license, including the crop advisor exemption certification, is issued, a "CAE" (Crop Advisor Exemption) sticker is applied to the license to indicate the crop advisor exemption certification. If you are adding the crop advisor exemption to your certification, you will receive the "CAE" sticker to place on your license.

Preparing for Examinations. Prior to taking exams, study the following training materials:


Agriculture Row Crop Exam, Agriculture Tree Crop Exam. All questions are based on information contained in: "Agricultural Pest Control: Plants," IFAS Publication SM-5 and "Agriculture Tree Crop Pest Control", IFAS Publication WPS Crop Advisor Exam. All questions are based on information contained in: "WPS Crop Advisor Reference", IFAS Publication SM-54.

IFAS for-sale publications may be bought from:

IFAS Publications
University of Florida
IFAS Building 440
Gainesville, FL 32611
Phone: (352) 392-1764
Fax: (352) 392-2628
Email: Pub@gnv.ifas.ufl.edu

Additional Information

For answers to questions your County Cooperative Extension Office cannot answer contact:

For license and license renewal information contact:
NOVA RECEIVES EPA REGISTRATION FOR MORE CROPS

Rohm and Haas Company has received U.S. Environmental Protection Agency (EPA) registration for the use of its NOVA fungicide (myclobutanil) in additional crops, for control of powdery mildew and rusts. The crops added to the NOVA label are asparagus, tomatoes, snap beans, mint, strawberries, mayhaws, cucurbits (including cantaloupes, cucumbers, squash, pumpkins, melons and others) and caneberries (including blackberries, raspberries and others).

NOVA fungicide is an effective choice for preventive and curative disease control. It has been used with a high level of satisfaction for several years for control of powdery mildew in commercially grown grapes, apples and stone fruit.

NOVA belongs to the sterol inhibitor class of fungicides. Because it is a systemic fungicide, NOVA resists wash-off from rain or irrigation once it is absorbed by treated foliage. The systemic properties of NOVA also mean that growers can rely on getting residual activity, including protection of new foliage that emerges between treatments; the fungicide is usually applied on either 7-to-10 day or 10-to-14 day application schedules. NOVA is active at relatively low usage rates of 1.25 to 5.0 ounces of product per acre. It is available as a 40% wettable powder sold in convenient, easy-handling water-soluble pouches. Other crops can be planted as soon as 30 days after the last NOVA fungicide treatment.

For further information, contact Rohm and Haas Company, NOVA Brand Manager, 100 Independence Mall West, Philadelphia, PA 19106; or for literature, call toll-free: 1-800-987-0467. Information may be found on the Internet at: [http://www.rohmhaas.com/businesses/AgChem/index.html](http://www.rohmhaas.com/businesses/AgChem/index.html).

SPRAY EFFICIENCY CHECKLIST

How many times in sports have we heard that - "We need to get back to the basics". Spraying our crops is no different. Sometimes we need to have a few reminders to make sure we are covering our bases.

* Scout regularly. The earlier you diagnose a problem, the easier it will be to correct.

* Learn about the disease or pest you detect, especially its life cycle so that your sprays are correctly timed.

* Check the labels of the materials you plan to use to make sure that they are, in fact, registered and effective against the problem in question.
* Apply pesticides early in the morning, after sundown or on cloudy days to reduce chance of phytotoxicity.

* Do not apply sprays in extreme wind or heat conditions. Remember also that no wind can cause temperature inversions that will "lift" the sprays and promote drift.

* Make sure that the crops have been properly irrigated and show no signs of moisture stress before you spray them.

* Spray small plants and flats (nurseries) carefully to avoid drenching the growing media with pesticides that are not intended for use around the root areas.

* Spray carefully to cover undersides of leaves - while trying to reduce run-off to a minimum.

* Do not split you applications at one-half strength. This may work for growth regulators, but not the rest of the pesticides.

* Drenches should be applied so that the entire growing mix is saturated, while keeping run-off to a minimum.

* Do not drench plants that have recently been irrigated, as the soil will not absorb the product.

* Fill your sprayer half-full of water, add the surfactant and then the chemicals, which you have previously diluted in buckets. Have the agitator running and add any sticker or acidifiers last. Top off the tank with water being careful not to overspill.

* Check you water pH. If too alkaline, add acid or buffering agent to the level for the chemicals used.

* Read labels to check for problem tank mixes and approved spray adjuvants.

* Do not use wettable powder (WP) if it fails to break up and suspend properly in the water. Do not use an emulsifiable concentrate (EC) if it fails to form a "milky" emulsion in the water.

* Never use more than one EC in a tank mix.

* Use a spreader-sticker only if it is allowed by the label(s) of the pesticides you are mixing and only when it will promote good coverage.

* Spreader stickers are dangerous in hot weather.

* Keep detailed records and index them by pest and disease as well as by crop to properly document successful tank mixes and methods. This can save your future crops.

* And finally: READ THE LABEL CAREFULLY. Remember: "The Label is the Law!"

SPRAY TIPS  http://www.spraytec.com
October 15, 2000
Vol. 3 Issue 11
If you depend on the continued use of EBDC fungicides in your crop protection program, you should consider participating in this survey. The EPA has targeted the EBDC fungicides and is requiring the manufacturers of these products to produce additional data regarding their potential for groundwater contamination.

The following questionnaire has been prepared by the EBDC/ETU Task Force and LFR Levine-Fricke. The intent of this questionnaire is twofold: 1) to inform you about the EBDC/ETU National Drinking Water Monitoring Program Survey and 2) to ask for your help and participation in this survey. Please take a moment to read over the following information and, if you are interested in participating, fill out the questionnaire and return it to the contact below.

Some of the manufacturers of EBDCs and members of the Task Force include BASF Corporation; Griffin, LLC; Elf Atochem North America, Inc.; and Rohm and Haas Company. The Task Force is sponsoring the EBDC/ETU National Drinking Water Program in order to collect groundwater data necessary to maintain their current registration of EBDC products. The continued EPA approval of EBDC's is contingent upon the results of this study.

EBDC products are a class of chemical compounds used as fungicides to protect trees, nuts, fruits, and vegetable crops. Some of the products containing EBDCs include Manex, Maneb, Dithane, Mancozeb, and Metiram.

Study Information

• Participation in this study requires collecting a water sample from your drinking water well (ideally from an outside spigot or faucet) four times per year for 2 years (8 samples total). Irrigation wells will not be sampled.
• This study is being conducted for scientific purposes only. Information regarding individual participants will be held confidential and will not be released to regulatory agencies.
• Results of the groundwater sampling will be shared with the individual well owners, upon request.
• Water samples will only be analyzed for ETU (EBDC degradation product).

Questionnaire

If you are interested in participating in the program, please answer the following questions and contact Spencer Mitchell at (850) 422-2555 or email: Spencer.Mitchell@lfr.com to arrange return of the completed questionnaire.

Thank you for your time and your interest in participating in the EBDC/ETU National Drinking Water Program.

1) Has your crop been treated with EBDC compounds in the past 10 years? Yes. No. If yes, which EBDC compound(s) were applied: __________________. Total acres treated: ________.
2) Approximately how close is your drinking water well to an EBDC use area? (feet).
3) Approximately how deep is groundwater in your area? (feet).
4) How many drinking water wells do you own (include wells for home, packing houses, and barns)?
5) Approximately how deep is your drinking water well? (feet).
6) Name: __________________________________________
   Address: __________________________________________
   City: __________________ State: ______ Zip: ____________
   Phone Number(s): ________________________________
7) Please indicate the location of your crop and well on the space provided.

Comments:
Required Workplace Posters

The following are posters which should be posted at the work site and numbers to call for information about obtaining these posters. Please note that FFVA does provide some posters for their members.

**Family & Medical Leave Act** - Needed if you hire 50 or more people at any one time during the year within 50 mile radius. (202-693-0023)

**Fair Labor Standards Act** - Federal Minimum Wage (Federal Dept. of Justice, 1-800-688-9889 or 202-693-0067)

**Job Safety & Health Protection** - OSHA Health & Safety (202-693-1888 or 1-800-367-4378 or 850-488-3044)

**The Law: Equal Employment Opportunity Commission** (Tampa, 813-228-2310)

**MSPA - Migrant & Seasonal Worker Protection Act** (Florida Dept of Labor, Tallahassee, 850-48 8-3131)

**Unemployment Compensation** (From your insurance carrier)

**Florida Human Relations Commission** (Tallahassee, 850-488-70812)

**Florida Child Labor** (needed only if anyone under 18 is hired) (FL Dept of Labor, Tallahassee, 850-488-3131)

**Tractor Decals** (Spanish and English, side-by-side) (These are available from FFVA to members only. This is supposedly related to an OSHA Training requirement, although when I called OSHA, they did not have it on their list of required posters.)

**Florida Right-to-Know** (only if you use toxic substances)

**Protect Yourself from Pesticides** (EPA WPS Poster) (Can be ordered from Gempler's along with other WPS materials at 1-800-382-8473)

**Workers’ Compensation** (get this from your carrier - broken arm poster)

**WH-516** (this is not a poster, but a MSPA disclosure statement that you can post)

(Source.- Florida Fruit & Vegetable Association – from the Manatee Vegetable Newsletter)

Business Opportunity

**Gielow Pickle is a food processor from Michigan.** Gielow is seeking additional growers in southwest Florida to grow pickling cucumbers in the spring and fall time period. Interested parties can contact Craig Gielow at Gielow Pickle - (810) 359-7680 ext. 104.
Up Coming Meetings:

November 16, 2000  
Weed Control in the Post-Methyl Bromide Era - Alternatives For Vegetable Growers – Dr Bill Stall – 6:00 PM

SW Florida Research and Education Center  
Hwy 29 N  
Immokalee, Florida

Contact Gene McAvoy at 863-674-4092 for more information.

Equipment for Sale

- Allis –Chalmers 7010 Hi Crop – clean, good running condition.
- Allis Chalmers D-19 Hi Crop - belly mounted cross ditcher, good running condition clean.
- 10' Bush-hog/Kewaunee tandem disk – good blades.
- Signode Spirit 220V carton strapper with 20 rolls of strap.

Contact Ted Winsberg: Green Cay Farm at 561-499-5345.

Web Sites:

Fahrenheit/Celsius Converter – Does temperature conversion sometimes get confusing? This neat little web based temperature converter automatically converts degrees Fahrenheit to Celsius and Celsius to Fahrenheit, by entering the value in the text box and clicking on compute.
http://www.geocities.com/SiliconValley/Vista/1234/old/converter.html

Popular Science - 50 Best of the Web – With more than 550 billion unique documents available on the Web and an estimated 7 million or more pages being added daily, it's not surprising that you can find science and technology sites around just about any virtual corner. But while there's plenty of good information on most of these pages, only the best sites make it onto the annual 50 Best of the Web list.

Selected sites that cover a broad range of topics, from spiral galaxies to an electronics treasure trove. Not only do these sites provide a wealth of information, they enliven it with interactive games, video clips, animations, and breathtaking pictures. http://www.popsci.com/features/bow00/index.html

Florida DOACS – Entomology Pests - This page provides links to insect pests that have recently arrived in Florida or that may possibly arrive soon. http://doacs.state.fl.us/~pi/enpp/ento/ent-pests.html

UF/IFAS Pesticide Trials Reports - http://www.ifas.ufl.edu/~entweb/pesticides.htm

    Bell Pepper - Pepper weevil
    Cantaloupe - Melon aphid

Update on the Southwest Florida Vegetable Research Investment Fund

The "SW Florida Vegetable Research Investment Fund." advisory committee recently received the final draft of “Solutions for Southwest Florida Vegetable Growers for the Post-Methyl Bromide Era.” This document was produced by Glades Crop Care as the result of a grant awarded by the SW Florida Vegetable Research Investment Fund Advisory Committee.
“Solutions for Southwest Florida Vegetable Growers for the Post-Methyl Bromide Era” is intended as a summary of the methyl bromide alternatives available to vegetable growers at this time. The document was prepared by researching more than 100 websites (including the USDA, EPA, and specific information sites dealing with MBr alternatives from the Universities of Florida, Georgia, Arizona, Texas A&M, and Univ. of California and industry), grower and industry trade magazines, examination of four years of the proceedings of the Annual International Research Conference on MBr alternatives, as well as interviews with 70 growers from seven states (60 from Florida).

“Solutions for Southwest Florida Vegetable Growers for the Post-Methyl Bromide Era” is currently being distributed to members only. The report is full of vital information of interest to vegetable growers that will help them to identify the most likely methyl bromide alternatives available to them at this time and plan an effective weed control strategy in the post-methyl bromide era.

You can obtain a copy of “Solutions for Southwest Florida Vegetable Growers for the Post-Methyl Bromide Era” by becoming a member of the SW Florida Vegetable Research Investment Fund.

The fund is envisioned as a strategic partnership of growers and others in the vegetable industry that pool their resources to address research needs of common concern. To date, over 35 individuals and companies have contributed over $34,000 to the research fund.

By participating in the SW Florida Vegetable Research Investment Fund, you will be helping to ensure the future of practical research that addresses the needs of the local vegetable grower. The strength and ultimately the future survival of not only the vegetable industry in southwest Florida, but also every vegetable grower will depend on cooperation and unity within the industry.

For more information on becoming a member of the SW Florida Vegetable Research Investment Fund, please contact any of the advisory committee members or Gene McAvoy at the Hendry County Extension Office.

Don't hesitate - join the fund today – every grower and industry partner is invited to help make the fund a success!

Contributors include: Karen Armbrester/SWFREC, Jim Connor/SWFREC, Bruce Corbitt/West Coast Tomato Growers, Fred Heald/Farmers Supply, Sarah Hornsby/AgCropCon, Cecil Howell/H&R Farm, Leon Lucas/Flades Crop Care, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Tim Nychk/Nychk Bros. Farm, Chuck 0bern/C+B Farm, Dr. Pam Roberts/SWFREC, Wes Roan/6 L’s, Kevin Seitzinger/Gargiulo, Jay Shivler/ F& F Farm, Ben Stanaland/Pacific Tomato Growers, John Stanford/LNA Farm, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Eugene Tolar/Red Star Farms, and Dr.Charlie Vavrina/SWFREC, Donna Verbeck/GulfCoast Ag.

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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