



UNIVERSITY OF  
FLORIDA

E X T E N S I O N

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# SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

March 11, 2006

Mostly mild temperatures characterized by mostly warm sunny days and cool nights have helped many crops recover from cold injury suffered as a result of frost/freezing temperatures in mid February.

Temperatures in most locations have been near seasonal norms with daytime temperatures in the mid 70's to low eighties. Nighttime temperatures have been in the 40's, 50's, and 60's fluctuating as fronts have traversed the peninsula.

Most South Florida growing areas reported minimal precipitation for the period with the exception of Homestead which recorded 2.17 inches over a two-day period. Favorable weather conditions have allowed growers to proceed on schedule with planting, harvest and cultural operations in most places.

Crops coming to market included cabbage, celery, cucumbers, eggplant, endive, escarole, lettuce, peppers, radishes, snap beans, sweet corn, squash, strawberries, tomatoes and variety of specialty items. Reports indicate that crops are coming on quickly. Quality is mostly good but prices have been variable.

### FAWN Weather Summary\*

Date	Air Temp °F		Rainfall (Inches)	Hours Below Certain Temperature (hours)							
	Min	Max		40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F
<b>Balm</b>											
2/20 – 3/11/06	43.0	82.3	0.38	0.0	7.3	29.1	22.9	55.4	37.1	2.7	55.2
<b>Ft Lauderdale</b>											
2/20 – 3/11/06	53.6	87.4	0.56	0.0	0.0	0.0	7.1	27.2	14.0	25.0	3.8
<b>Fort Pierce</b>											
2/20 – 3/11/06	45.1	85.1	0.46	0.0	0.0	16.4	8.7	19.0	34.2	18.1	59.1
<b>Homestead</b>											
2/20 – 3/11/06	48.9	86.9	2.17	0.0	0.0	4.9	32.1	23.7	68.6	77.8	11.6
<b>Immokalee</b>											
2/20 – 3/11/06	42.8	86.2	0.11	0.0	4.2	36.3	8.4	41.9	18.3	42.5	16.9

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**The short-term forecast from the National Weather Service in Miami indicates that weather for the next few days will be mild with clear skies and highs in the low to mid 80's.** A diffuse frontal boundary will move through on Tuesday bringing a slight chance of showers but little moderation of temperatures. For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

## **Insects**

### **Thrips**

**Around Southwest Florida, thrips numbers have increase dramatically in the past few weeks. Reports indicate that** thrips pressure is very high in many locations with some pepper, tomato and eggplant fields having counts of 10-20 plus per bloom. Growers and scouts report that have begun to observe flights of thrips in the field. In most cases these appear to be flower thrips (*Frankliniella bispinosa*). With citrus coming into bloom widely across the area, growers should expect to see thrips pressure increase over the next few weeks.

**Respondents on the East Coast report that flower thrips are beginning to build in a number of locations and can be found in moderate to high levels in eggplant, pepper and tomato blooms – 5 – 20 per bloom depending on location.** Reports also indicate that *Thrips palmi* are present in few locations and are building in pepper and eggplant.

**Reports from the Plant City area indicate that flower thrips have reached threshold levels in some strawberry fields and are being treated.**

**Thrips inflict damage on vegetable crops when feeding and laying eggs.** Damage from egg-laying is most common in species that infest blooms such as Florida flower thrips *Frankliniella bispinnosa*. When the eggs are inserted into the pistil walls, scars develop when the fruit expands. In some fruiting vegetables dimple scars develop when the fruit are fully matured. In tomatoes, such scars may result in uneven color development at maturity.

**Feeding injuries occur on both fruit and foliage.** Thrips infesting blooms typically lay their eggs in the pistil or other flower parts. By the time the larvae hatch, the petals and anther have often dried and fallen. Larvae in such circumstances seek shelter under the fruit's calyx. Several generations of thrips can feed and develop under the calyx of pepper fruit, damaging immature tissues that develop corky or leathery blemishes with maturity.

**Melon thrips *Thrips palmi* tend to utilize more of the host plant than other species that occur primarily in the blooms. In peppers and eggplants, affects both fruit and foliage.** The greatest damage occurs when thrips become established in the blooms, and lay eggs around the calyx. Thrips feeding under the calyx of the expanding fruit cause the characteristic scars, which may affect a sizable part of the fruit wall.

**In crops, such as snap beans and most of the vine crops, feeding on the foliage causes damage.** Foliar feeding often begins inside the tightly rolled leaves at the growing points of the plant. Larvae and adults soon appear on the undersides of the expanding leaves. The combined effect of feeding damage in the growing point and on young leaves can severely stunt and distort sensitive crops, such as peppers.

**For more information and photos of thrips, check out the Glades Crop Care Thrips KnowledgeBase at <http://www.gladescropcare.com/pg1.html>.**

## **Pinworms**

**Growers and scouts on the East Coast report that pinworms have reached high levels in some places on eggplant and tomato especially where successive crops have been planted in the same area.**

**Reports from Southwest Florida indicate that low levels of pinworm activity in several tomato fields with some low-moderate levels being observed around field edges.**

**Pinworm adults are small gray/brown moths that are active at dusk.** Eggs are usually found singly or in groups of 2 or 3's on the lower surface of foliage. Early stage larvae are orange and turn purplish-gray as they mature. To complete their life cycle, larvae drop to the ground and pupate near the soil surface.

**The caterpillar feeds on leaves and creates blotch-type mines, but causes most of its damage when it attacks the fruit leaving small pin size holes in fruit.** When abundant, the tomato pinworm may seriously damage foliage and infest nearly 100% of the fruit. When infested fruit is picked, caterpillars may be difficult to detect unless they have been feeding long enough to deposit frass at the edge of the calyx. Because the pinworm can have many generations per season, they often become more serious as the season advances. The greatest damage occurs where tomatoes are grown adjacent to early planted, infested fields.

**Since tomato, potato, eggplant, and tropical soda apple, are the only recorded hosts in Florida, a host-free period can be effective in reducing populations to low levels, except possibly where soda apple is prevalent.** Destroy residues by burning or plowing-under to help reduce summering populations of pinworm. If substantial tomato pinworm populations are present in an earlier planting and a second crop has been planted in an adjacent field, consider a combination of mowing and disking crop debris.

**Transplants are a potential source of infestation.** Check transplants for pinworm larvae and avoid infested plants.

**Early detection is important.** Pheromone traps help provide an early warning. At planting, place a minimum of one trap per 10 acres at least 25 paces inside of field. When 3 to 5 moths are caught per trap per night, then mating disruption should be initiated. If pinworms are present, increase trap numbers to ensure an accurate estimate of the population. Pinworms can be controlled with mating disruption techniques and pesticides. Mating disruption is most successful where fields are isolated or whole areas are treated.

**If using insecticides, treatment must begin when populations reach economic thresholds.** The UF/IFAS Florida Tomato Scouting Guide Tomato recommends season-long action thresholds of 5 adults/trap/night to initiate the application of mating disruptants and an action threshold of 0.7 larva per plant for the initiation of control measures.

**Once begun, treatments may be required until harvest.** If nearby infested tomato fields are abandoned, adults can immigrate into later planted fields in large numbers. If scouting detects a significant movement, consider border treatments.

**Pheromone-based mating disruptants, such as No Mate TPW spirals or Checkmate TPW dispensers provide a very effective means of combating pinworm.** These should be applied according to label instructions with good distribution throughout field.

**Chemical controls such as Agri-Mek and Spintor have the advantage of being effective against pinworms and leafminers as well as the additional benefit of being soft on beneficials.** Lannate (Methomyl) and a variety of synthetic pyrethroids are also effective materials for the control of pinworm. Development of resistance to Lannate has been documented in pinworms in some parts of the country and excessive use of these broad-spectrum insecticides may result in outbreaks of leafminers and mites if they are present.

Organically acceptable biological and cultural control methods include the use of mating disruptants, field sanitation, and pyrethrin. Parasites can also be important in aiding in pinworm control.

### Worms

**Beet armyworm pressure is reported to variable in East Coast growing areas from Palm Beach to St Lucie County with a few hotspots being noted.** Moderate numbers of southern armyworms are also being observed.

**Around Immokalee, growers and scouts reported low to moderate worm pressure depending on the location.** These are mostly southern armyworms with a few beet armyworms, and loopers mixed in for good measure. Some respondents noted an increase in southern armyworm hatch outs in a few hotspots around the area before temperatures dipped.

**Strawberry producers around Hillsborough County report little or no worm pressure.**

### Whiteflies

**Respondents in Palm Beach and Martin Counties indicate that whiteflies are mostly low with the exception of a few hotspots in scattered locations.**

**Around Southwest Florida, reports indicate whitefly numbers remain mostly low although whiteflies are starting to increase in a number of places around the area.** It seems the warmer weather; crop stage and longer days are giving them an opportunity to begin to build off.

**Reports from the Manatee area indicate that whitefly pressure is very high in some locations where crops were carried over through the winter.**

**There are several old fields around and many people have starting some crop destruction.** Growers are reminded to maintain vigilance and keep up whitefly control measures to avoid a buildup of whiteflies and prevent the movement of infected whiteflies carrying TYLCV into younger plantings.

**In older plantings growers should strive to maintain control of adults with oils, soaps and materials OTHER THAN nicotinoids.** A strong emphasis should be placed on PROMPT destruction, block by block, as harvest is completed, including oil with herbicide for quick burndown and control of existing whiteflies in those blocks, thus minimizing movement out to other blocks.

### Leafminer

**Growers and scouts around Immokalee indicate that leafminer pressure has drooped off in most places and is at mostly low levels.**

**On the East Coast reports indicate that leafminers are low to moderate mostly on tomatoes.**

### Aphids

**Respondents from Palm Beach and surrounding counties indicate heavy aphids pressure in pepper as well as tomato and eggplant as well as leafy vegetables in a number of places.** Reports indicate that growers knock them back but they keep on coming.

**Strawberry producers in Hillsborough area report low aphid pressure.**

**Around Immokalee reports indicate aphids are around at mostly low levels in tomato and pepper. Some reports indicate that aphids are also beginning to show up in watermelons.**

### **Pepper Weevils**

**Around Southwest Florida, pepper weevils are present at mostly low levels but are causing some problems in older fields.**

**Growers and scouts on the East Coast report that pepper weevils are present in scattered locations.**

### **Spider mites**

**Reports from Plant City indicate that two-spotted spidermites are present at low to moderate on strawberries in some places.**

**Around Immokalee, respondents indicate that spider mites are starting to build up in places on eggplant, tomato and melons.**

**Growers and scouts in Palm Beach report problems with spider mites in eggplant and cucurbits.**

### **Broad mites**

**Around Southwest Florida, reports indicate that broad mite pressure is beginning to increase in pepper in some locations.**

**Growers in Palm Beach report that broad mites are around and can be found on peppers and that specialty producers are also battling broadmites in herbs.**

## **Diseases**

### **Late Blight**

**Late blight is present on both tomato and potato around Immokalee. Pressure seemed to ease for a few weeks but new outbreaks have been reported in several locations. Organic producers in particular have been having difficulty in controlling the disease in tomato where it is widespread in some locations.**

**There have been no reports of late blight from Homestead or East Coast respondents at this time.**

**The disease can spread quickly and devastate a tomato or potato field within a few weeks if not properly controlled. Since the disease can spread so rapidly, growers should scout their fields thoroughly each day, especially when cool and wet conditions conducive to disease development prevails. No other disease will find an unprotected field as rapidly as late blight.**

### **Bacterial Leaf Spot**

**Growers and scouts on the East Coast indicate that bacterial spot flared in some places around the end of February following rainy weather and has been creeping along aided by foggy weather since that time on peppers and tomatoes.**

**Growers and scouts in the Immokalee area indicate that bacterial come back strong in a number of locations on tomato and pepper after the freeze but has subsided in most places in recent days.**

**Around Homestead reports indicate that bacterial spot is present at low to moderate levels depending on the location.**

### **Tomato Yellow Leaf Curl Virus**

**Growers and scouts around Manatee County indicate that they are battling very high levels of tomato yellow leaf curl virus in some locations where crops were held over longer than usual to take advantage of market conditions. Incidence as high as 60% has been reported in places.**

**Reports from the East Coast indicate that TYLCV incidence remains mostly low.**

**Dr Aaron Palmateer, Plant Pathologist at UF/IFAS TREC reports that TYLCV has reached moderate levels in some tomato plantings around Homestead.**

**Around Southwest Florida of tomato yellow leaf curl virus is mostly low but has begun to increase in some locations. A few hotspots have been reported with fairly high disease incidence.**

### **Target Spot**

**Growers and scouts around Southwest Florida report that target spot continues to attack the inner foliage in some older tomato fields and is present on fruit in some places as well.**

### **Early Blight**

**Reports from growers In Southwest Florida indicate that early blight is beginning to increase in potato and tomato number of locations. Incidence is low to moderate depending on the location.**

**Reports from Homestead indicate that early blight is present on tomato. Incidence is high in some fields.**

### **Alternaria**

**Alternaria is present on beans in the Devils Garden area. Incidence is mostly low.**

### **Downy Mildew**

**Downy mildew is widely present on cucumber and squash in a number of locations around Palm Beach. Incidence and severity is moderate to high in some locations especially on cucumbers.**

**Respondents around Immokalee indicate that downy mildew is present on cucumbers, cantaloupe and squash on a number of farms around Immokalee. Current reports indicate that it does not seem to be as aggressive on cucumbers this season (I can't help but wonder if this is not weather related and the environment is less conducive?)**

**Reports from Homestead indicate low incidence of downy mildew on cucumber/pickles in the area.**

**Growers and scouts should look at the underside of the leaves to help make the right diagnosis. Angular leaf spot will have some water-soaking at the edge of the lesions. The downy mildew lesions look uniformly dry. In addition, downy mildew infections typically start away from leaf margins toward the center of the leaf where as some diseases such as gummy stem blight normally begin from the leaf margin.**

### **Powdery mildew**

**Growers and scouts around Southwest Florida report that powdery mildew is present in squash at moderate to high incidence and severity in some places.**

**Respondents on the East Coast are reporting continuing problems with powdery mildew on cucumbers and squash.**

**Around Homestead, Dr Aaron Palmateer reports moderate to high incidence of powdery mildew on cucumbers. Incidence is high in squash.**

### **Fusarium Crown Rot**

**Growers and scouts in Palm Beach report problems with fusarium crown rot in both pepper and tomato. Growers producing specialty heirloom types have been particularly hard hit.**

**Around Southwest Florida fusarium crown rot continues to wilt down plants in some locations.**

### **Botrytis**

**Strawberry producers in the Hillsborough County area are reporting problems with botrytis. Incidence is moderate in some fields.**

### **Phytophthora**

**Growers and scouts on the East Coast report that phytophthora remains a problem on pepper and cucurbits in a number of scattered locations.**

**Around Immokalee, reports indicate that phytophthora is still causing problems and has been increasing in some eggplant and pepper fields.**

### **Rust**

**Respondents indicate that rust is present on beans around Homestead. Incidence is very low.**

### **Bacterial Blight**

**Reports from Homestead indicate that bacterial blight is present on beans in several locations but mainly in places where copper was not applied in time especially on the younger plants.**

### **Gummy stem blight**

**Gummy stem blight is present on watermelon in a number of locations around SW Florida. Reports indicate that it had flared up in several locations over the past few weeks but that incidence of new infections seems to be declining in recent days.**

### **Angular Leaf Spot**

**Reports from Hillsborough County indicate that angular leaf spot in strawberry is increasing in a number of locations around the area.**

## Anthracnose

Reports from Southwest Florida indicate that anthracnose is beginning to show up on older pepper in scattered locations.

## News You Can Use

### WPS Road Show Comes to Town

It was reported in the last few issues of the hotline that growers across South Florida reported that WPS inspections have increased in number and frequency since the beginning of the year presumably in response to adverse publicity in the press last fall. The U.S. Department of Labor and D.B.P.R. investigators have also been very active... and continue to focus on unregistered housing, transportation, registration, field sanitation, and field time keeping.

In addition to this increased activity, the FDACS Bureau of Compliance Monitoring Chief Dale Dubberly noted at the recent WPS Road Show in Immokalee there will be no more “warnings” for certain critical violations and that the cost of non-compliance will increase.

Dale indicated that this is a ‘top-down’ mandate from Tallahassee that local inspectors have no choice but to enforce. These changes will *primarily* impact nursery/greenhouse producers and vegetable growers. The following summarizes new directives to Florida Department of Agriculture and Consumer Services WPS inspectors.

### **EFFECTIVE February 15, 2006**

**The following violations of the Worker Protection Standard will result in a penalty assessment of \$250 for first time violators in the following areas:**

Pesticide safety training, not including isolated errors or omissions;  
Failure to comply with agricultural worker or handler restricted entry intervals;  
Failure to post treated areas to prevent entry during a restricted entry interval; or  
Failure to provide essential personal protective equipment.

This is a big change, as the Department use to give warning letters on the first time infractions for the above WPS violations. This is the exact language change from the Department:

There is a violation of the Federal Worker Protection Standard, 40 CFR Part 170, involving one or more of the following: failure to consistently provide pesticide safety training, not including isolated errors or omissions; failure to comply with agricultural worker or handler restricted entry intervals; failure to post treated areas to prevent entry during a restricted entry interval; or failure to provide essential personal protective equipment. In no case shall the fine assessed be less than \$250. – note – this is per violation – for example if you have a 50 person crew in the field and it is determined that have not been provided WPS safety training – fines would amount to 50 X \$250 = \$12,500!

At the ROAD SHOW – Mr. Dubberly also reported that some 20 new WPS inspectors have been hired to handle the increased inspection activity and that the Legislature is looking at this issue seriously with indications that new legislation may be proposed.

Dale also indicated that an analysis of violations over the past 10 years indicated that for agricultural operation nearly 2/3 involved either failure to provide central posting information or failure to provide adequate WPS pesticide safety training as required by law.

Growers owe it to themselves and the greater agricultural community to police themselves and comply with existing regulations and to avoid providing activists with ammunition for increased regulation of the industry.

## **Worker Protection Standard for Agricultural Pesticides - How to Comply Manual has been Revised**

A revised manual describing how to comply with EPA requirements to protect agricultural workers from pesticides is available from the Pesticide Information Office. The new resource, *Worker Protection Standard for Agricultural Pesticides - How to Comply Manual* has been updated to reflect amendments to the Worker Protection Standard, a regulation designed to protect agricultural workers and pesticide handlers. The revised manual provides detailed information to agricultural operators on who is covered by the standard and how to meet regulatory requirements. The Worker Protection Standard contains requirements for pesticide safety training, notification of pesticide applications, use of personal protective equipment, restricted entry intervals following pesticide application, decontamination supplies, and emergency medical assistance. The revised 2005 manual supersedes the previous 1993 version. Changes to the standard since 1993 have made the earlier version obsolete, and its continued use may lead an employer to be out of compliance. Paper copies or CD's are available from UF or Gempler's. The new 2005 WPS How to Comply Manual can be found online at <http://www.epa.gov/agriculture/htc.html>

## **Pesticide Registrations and Actions**

### **AGRIMEK 0.15 EC Miticide/Insecticide Label Revised**

Growers should note that Syngenta has revised the AGRIMEK label adding new crops and uses as well as suggestions and requirements for resistance management. Revisions are numerous so growers should take time to familiarize themselves with the new label that can be found at <http://www.syngentacropprotection.com/labels/>

### **All Copper Fungicides Are Not Created Equal**

Copper, an organic fungicide, is the 18th most used pesticide in the United States. Over 13 million pounds of copper were applied to 54 crops in 1997. Copper is a contact fungicide that is a multi-site inhibitor, which inactivates numerous enzyme systems in target pathogens. Because of its multi-site activity it poses low risk of resistance development. Copper inhibits spore germination but has no effect on sporulation.

Products containing fixed copper as the active ingredient are a staple for many vegetable crops and are used primarily for control of certain bacterial and fungal diseases. The pesticidal properties of copper have been known for hundreds of years. The first product formulated specifically for control of plant diseases was Bordeaux mixture, a preparation of copper sulfate and hydrated lime developed by P.M.A. Millardet around 1885. Around this time, grape growers in Bordeaux, France, were treating their crops with a crude mixture of copper and lime to discourage pilferage by locals. Millardet observed that where this mixture had been applied, less downy mildew (a disease that was ravaging grapes at that time) was present. By combining the right proportions of copper sulfate and hydrated lime, Millardet was able to maximize disease control and minimize phytotoxicity. Bordeaux mixture remains an important fungicide/bactericide to this day, along with a number of other copper-based materials.

Soluble coppers, such as copper sulfate pentahydrate and copper TEA, are extremely toxic to most plants and are used as herbicides and algaecides. This is why we use "fixed" coppers as fungicides/bactericides. It is necessary to add a safening ingredient such as hydrated lime to enable the use of copper as a pesticide without risking serious phytotoxicity. All commercially available copper fungicides are essentially formulations that allow for gradual release of biologically active copper ion (Cu<sup>++</sup>) on treated surfaces to provide sufficient active ingredient to suppress bacteria and fungi while limiting plant damage.

Copper fungicides offer a number of advantages to vegetable growers: low expense, good residual activity, and broad-spectrum activity against a number of plant-pathogenic bacteria and fungi. In fact, until recently our only practical chemical option against bacterial diseases were copper products. While not as effective as broad-spectrum materials such as EBDC fungicides or chlorothalonil, coppers make a good tank-mix or rotation partner for products such as azoxystrobin to help slow the development of resistance in pathogen populations. It is common to see "use a fixed copper" in our recommendations to growers, and it is often assumed that one copper material is as good as another. Thus, most growers purchase the cheapest product.

Copper fungicides are not equal however. Each varies in the efficiency in which Cu<sup>++</sup> is released, and this relates to the chemical form of copper used in the product along with its formulation, which affects its ultimate efficacy. There are a number of copper products materials on the market today, most based upon five copper compounds:

**Basic copper sulfate** - Basicop, Bordeaux mixture (PBI Gordon, Cuprofix Disperss)

**Copper oxychloride** - COC

**Copper tallate** - TennCop

**Copper ammonium complex** - Copper Count N

**Copper hydroxide** - NuCop, Champ, Kocide

The decision on which product to use should be based upon the amount of biologically active copper that is released by a product, the formulation, and (ultimately) the price.

The latter point is critical as the amount of "metallic copper" in a product is often used as a selling point. However, what matters is how much of the product is converted in the form of Cu<sup>++</sup>. In terms of the efficiency of release of biologically active Cu<sup>++</sup>, the following offers a comparison between copper compounds:  
*basic copper sulfate < copper oxychloride / copper ammonium complex / copper tallate < copper hydroxide*

This means that, in general, products containing copper hydroxide as the active ingredient release more Cu<sup>++</sup> than products containing copper oxychloride or basic copper sulfate.

Formulation is an important factor to consider as well - many copper products are hard to keep in suspension and can be hard on pumps and nozzles. In general, Bordeaux mixture and certain dry-flowables are the easiest to mix, allowing for good, uniform coverage of plant surfaces. These can be more expensive up front, but can actually save a grower money over time because of better efficacy (meaning less product used) and reduced wear and tear on equipment and nozzles compared to some of the less-expensive copper fungicides.

It is interesting to note that copper was applied to U.S. crops at an average rate of 4.08 lbs. per acre in 1997, or over 2.5 times higher than the average synthetic fungicide use rate.

If growers were to universally adopt organic production techniques and copper was the organic replacement for synthetic fungicides, U.S. farmers would replace 40 million pounds of synthetic fungicides with 102.8 million pounds of copper, increasing total fungicide use by 63 million pounds. This would be a 47 percent increase in overall fungicide use. At this level, copper would total 116.5 million pounds; making it the single most used pesticide in the United States.





## Other Meetings

**March 13-16, 2006**

### **2006 Florida Postharvest Horticulture Industry Tour**

Starting at the University of Florida  
Fifield Hall, Gainesville, Florida.

Early registration deadline is Feb. 20.

To register, contact Adrian Berry at (352) 392-1928 ext. 235, or  
[adberry@ifas.ufl.edu](mailto:adberry@ifas.ufl.edu).

**May 21-23, 2006**

### **18<sup>th</sup> International Pepper Conference** Palm Springs, California

Go to <http://www.internationalpepper.com/> for details

**September 17- 21 2006**

### **Cucurbitaceae 2006** Asheville, North Carolina

For more information visit <http://www.ncsu.edu/cucurbit2006>

## Websites

The **UF/IFAS The Vegetable Production Handbook** is now up and available online at [http://edis.ifas.ufl.edu/TOPIC\\_GUIDE\\_Vegetable\\_Production\\_Guide\\_for\\_Florida](http://edis.ifas.ufl.edu/TOPIC_GUIDE_Vegetable_Production_Guide_for_Florida) The handbook provides up-to-date information on a wide variety of topics in vegetable production and will be of use to those in the vegetable industry or anyone growing vegetables in Florida.

The **Cucurbit Downy Mildew Forecast Homepage** provides timely information on the occurrence of Cucurbit Downy Mildew and the future movement of inoculum (fungus spores) across the North American continent. This site also provides diagnostic tips and photos of the disease. Go to <http://www.ces.ncsu.edu/depts/pp/cucurbit/>

## Quotable Quotes

A slip of the foot you may soon recover, but a slip of the tongue you may never get over. - Ben Franklin

Be civil to all; sociable to many; familiar with few; friend to one; enemy to none. – Ben Franklin

A hero is no braver than an ordinary man, but he is braver five minutes longer. – Ralph Waldo Emerson

Do not be too moral. You may cheat yourself out of much life. Aim above morality. Be not simply good; be good for something. – Henry David Thoreau

## On the Lighter Side

### **In the spirit of St Patrick's Day – a few Irish Jokes**

Paddy was driving down the street in a sweat because he had an important meeting and couldn't find a parking place.

Looking up to heaven he said, "Lord take pity on me. If you find me a parking place I will go to Mass every Sunday for the rest of me life and give up me Irish Whiskey".

Miraculously, a parking place appeared. Paddy looked up again and said, "Never mind, I found one."

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O'Toole worked in the lumber yard for twenty years and all that time he'd been stealing the wood and selling it. At last his conscience began to bother him and he went to confession to repent.

"Father, it's 15 years since my last confession, and I've been stealing wood from the lumber yard all those years," he told the priest.

"I understand my son," says the priest. "Can you make a Novena?"

O'Toole said, "Father, if you have the plans, I've got the lumber."

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Paddy was in New York He was patiently waiting, and watching the traffic cop on a busy street crossing. The cop stopped the flow of traffic and shouted, "Okay pedestrians". Then he'd allow the traffic to pass.

He'd done this several times, and Paddy still stood on the sidewalk.

After the cop had shouted "Pedestrians" for the tenth time,

Paddy went over to him and said, "Is it not about time ye let the Catholics across?"

## Happy St Patrick's Day

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