



Dade Pesticide Newsletter



Vol. 13, No. 1

Spring 2008

Upcoming Classes & CEU Workshops

Training Classes

- * Wednesday, April 23rd— Private Applicator Training Class & Exam. *Location:* John D. Campbell Ag Center, Homestead. *Time:* 8:30—3:00. *CEUs:* 4.0 Private Ag Row/Tree, Forestry, O & T
- * **Wednesday**, May 21st—General Standards Training Class & Exam. *Location:* John D. Campbell Ag Center, Homestead. *Time:* 8:30—3:00. *CEUs:* 4.0 Core
- * Wednesday, June 18th—Ornamental

& Turf Training Class & Exam. *Location:* John D. Campbell Ag Center, Homestead. *Time:* 8:30—5:00. *CEUs:* 6.0 Ornamental & Turf, Private, Commercial / Limited L & O, Limited Commercial Landscape Maintenance.

Registration & pre-payment are required for these workshops. Please call Lize (305) 248-3311 X242 for a registration form or visit <http://miami-dade.ifas.ufl.edu/programs/pesticidetraining.htm>

Carbon Credit Plans

Green consumers paying to offset their carbon rich activities could see their credits being offered as incentives to rice farmers for growing genetically modified rice. The biotechnology company Arcadia Biosciences is working with the Chinese government to reward farmers in China that grow the firm's genetically modified rice, with carbon credits that they can sell for cash. The Chinese project is in Ningxia, a tiny mountainous province in the north of the country, where fertilizer use is among the highest in the country. Arcadia's rice has not yet been planted there – the company must first get regulatory approval, as well as convince the government to allow farmers to sell the GM rice for food.

Carbon conscious consumers may not like the idea, or the irony, of funding an activity that is surrounded by controversy about the potential risk to

environment and people. But on the other hand is the argument that it would reduce emissions while producing high yield crops. Arcadia's profitable technology maintains high yields, while requiring 50 to 60 per cent less nitrogen fertilizer, significantly reducing emissions of nitrous oxide - a greenhouse gas some 300 times more potent than carbon dioxide.

Rice is an attractive crop, being a staple that covers a lot of ground and is responsible for approximately 20 percent of global nitrogen fertilizer use, making it a good example in the nitrogen oxide reduction argument.

Arcadia says swapping global rice supply to the GM version would save the equivalent of 50 million tons of carbon dioxide each year, and generate over one billion dollars in carbon credits for farmers. (*newconsumer.com*, 1/9/08; *Chem Speak* 2/08).

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It is the policy of Miami-Dade County to comply with all of the requirements of the Americans with Disabilities Act (ADA). For sign language interpreter services, call 305-670-9099 5 days in advance. For material in accessible format call the Consumer Services Department (CSD). For ADA complaints call CSD at 305-375-3843 or the Office of ADA Coordination at 305-375-3566. The use of trade named products is with the understanding that no endorsement is made to the exclusion of other equally effective products.

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Year End Report on Plant Diseases

The International Society for Infectious Diseases runs the ProMED program, which sends out notifications of global plant diseases throughout the year. For the year 2007, there were 208 posts. Eight of these were for new pathogens, such as tomato marchitez virus or tomato torrado virus. Ten posts were for new strains of known pathogens, such as downy mildew in cucurbits and potato scab.

There were 33 posts for first country reports of known pathogens. For example, black pod of cocoa was found in Puerto Rico and orange rust has been found in Florida sugarcane. Other highlights of the year include:

- Asian soybean rust found in Ghana, Congo, and Canada
- Sugarcane smut in all sugarcane producing areas of Australia within 18 months of introduction
- Banana bunchy-top virus re-emerging in Hawaii
- Multiple new strains of potato late blight in many countries
- A breakdown of resistance to lethal yellowing in Malayan Dwarf coconut hybrids
- Citrus canker and greening spread in Florida

(Chem. Speak. 1/08)

- A more virulent strain of wheat stem rust in Kenya

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Cost to Register a Pesticide

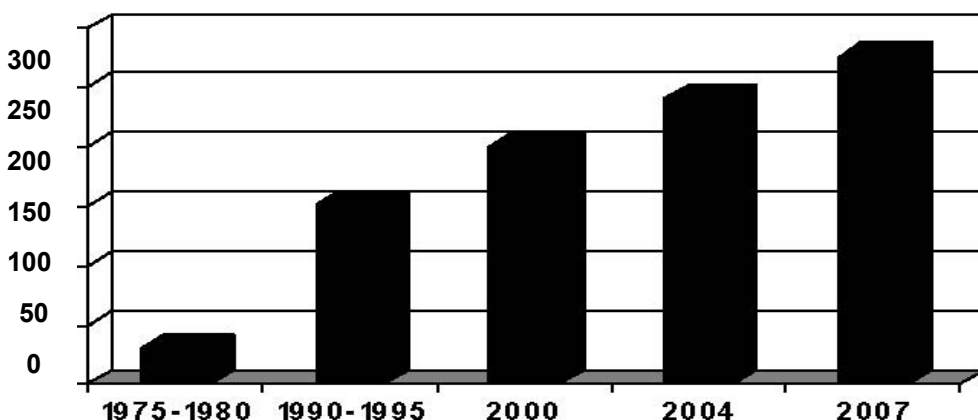
The graph below was from the *Pest Management Professional* magazine and shows the cost of registering a pesticide. The study was conducted by Phillips McDougall for Crop Life

and European Crop Protection.

It is interesting to us the two huge jumps, first from 1980 to 1990 and then 1995 to 2007. (Pest. Rpt, OkStU PSEP, 1/08)



Late blight



California Pesticide Use Decreases

California Department of Pesticide Regulation has released its 2006 usage report. There was a decline of nearly six million pounds from 2005 to 2006. The use of fumigants

decreased by 1.7 million pounds; use of oil pesticides increased by 6.4 million pounds; and organophosphate and carbamate use decreased 635,000 pounds.



The increase in oils was due to their replacing high-toxicity pesticides.

Wine grapes continue to receive the most pounds of pesticides applied. This is primarily due to the applications of sulfur and petroleum oils.

The top five pesticides used in poundage were sulfur, petroleum oil, metam-sodium, mineral oil and 1,3dichloropropene.

The entire report can be obtained from: http://www.cdpr.ca.gov/docs/pur/pur06rep/06_pur.htm. (*Food Ind. Env. Network, 11/29/07 Pest. Rpt, OkStU, 1/08*)



Three Year Anniversary

November 11, 2007 was the three year anniversary of soybean rust being found in the United States. There were predictions of great devastation to the nation's soybean production once this foliar disease arrived in the lower 48. The disease was to spread so rapidly that management would be extremely difficult. Well it took three years for the rust to reach the corn belt.

So what has happened? Well one of the amazing things is that USDA, EPA, state regulatory agencies and land grant universities all worked together as a real team to get fungicides labeled for

use on this disease. The process has worked very well. Probably the second item learned is that, yes the disease can be devastating. However, soybean rust cannot over winter in most soybean production areas. This means the disease must be blown into production areas each year. Infection is dependent on when the disease appears and the weather conditions when the disease appears. This means that infection is uncertain and unpredictable at this time.

The disease that was to be like the corn blight of the 1980s has not occurred - yet. (*OkStU PSEP, Pest. Rpt, 1/08*)

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extension.missouri.edu

EPA Strategic Targets

Some of EPA's strategic targets include "...to improve the health of those who work in or around pesticides by reaching a 50% targeted reduction in moderate to severe incidents for six highly acutely toxic agricultural pesticide with the highest incident rate: chlorpyrifos, diazinon, malathion, pyrethrins, 2,4D, and carbofuran."

One way they are measuring this is by the acres treated with these pesticides. This is based on information provided, under contract, by Doane Marketing

Research, Inc. Another way EPA is measuring this is by counting the number of reduced-risk pesticides registered. EPA estimates that 18% of the agricultural acres in 2006 were treated with reduced-risk pesticides.

"Another strategic target is by 2011, annually avoid \$900 million in termite structural damage by ensuring that safe and effective pesticides are registered/ reregistered and available for termite treatment." (*U.S. EPA Perf. & Accountability Rpt, FY 2007 Okla. St. Univ. Pestic. Reports, 1/08*)



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Washington Launches Voluntary Pesticide Notification

The Washington State Department of Agriculture has launched a two-year voluntary program to determine if

advance notification of certain types of pesticide spraying near schools, hospitals, nursing homes and daycare



centers reduces the number of complaints regarding pesticide drift and possible exposure.

The program applies to aerial and air blast spraying of pesticides with the signal words "danger/poison" on the label and is currently limited to three counties.

Under the pilot program, applicators will have access to an online database of facilities that have requested advance notification of pesticide applications. Contact information for facilities participating in the program will also be available by telephone.

Applicators are not required to provide such notifications, even to facilities that



The Florida Department of Agriculture & Consumer Services has developed a report responding to reported pesticide levels around schools.



The Florida Department of Agriculture & Consumer Services has developed a report responding to reported pesticide levels around schools.

FDACS reviewed the work by the Pesticide Action Network of North America (PANNA) and the consulting firm hired by the South Woods Elementary School in Hastings, FL.

The results concluded that "...the levels of pesticides found in the air near South Woods Elementary did not pose an imminent or long-term health threat to students or faculty at the school." This was based on intensive literature review and the data provided by

have signed up for the program, and there are no specific rules on how or when to provide notice. In addition, the department will not collect specific information on the pesticides being applied or the applicators.

According to the department, data will be collected on the number and type of facilities participating, the number of notifications received, any actions taken by a facility as a result of the notification, any increase or decrease in the number of drift complaints reported to WSDA due to increased awareness of applications, and acceptance and satisfaction with the process. (*Pest. & Toxic Chem. News*, 36(4) 11/19/07 *Okla. St. Univ. Pestic. Reports*, 1/08)

Florida Air Testing

PANNA & the consulting firm.

PANNA had reported there were health hazards resulting from air exposure as the result of pesticide applications to agricultural land. The levels PANNA reported were 626 ng/m³ for endosulfan and 897 ng/m³ for diazinon. The EPA level for endosulfan is 21,000 ng/m³ and the ATSDR level for diazinon is 10,000 ng/m³.

This began with a student science project that PANNA supported and advised.

The report is available at <http://www.flaes.org/pesticide/scientificevaluation.htm>. (*OkStU PSEP, Okla. St. Univ. Pestic. Reports*, 2/08)

Pesticide Registrations, Tolerances, Etc.

Tropical Fruit

* The EPA has approved a specific exemption under section 18 for the post-harvest control of *Dothiorella* fruit rot on *carambola* with *fludioxonil* (Scholar®). The EPA Reg. No. for the Syngenta product is 100-1242 and the exemption will expire 11/30/08. (*FDACS letter 12/14/07*).

* The Matrix® (*rimisulfuron*) label has been expanded to include *permanent crops such as citrus*. (*Citrus & Vegetable Magazine*, Jan 2008).

Fruit & Vegetables

* Based on a request by Bayer CropScience, the EPA has approved tolerances for the fungicide trifloxystrobin (Flint®/Gem®).





Tolerances of importance in Florida include: canistel, citrus fruit/pulp/oil, mango, papaya, radish tops, sapodilla, sapote (black/mamey), star apple, strawberry, and root vegetable (subgroup 1B - radish, beet, chicory). (*Fed. Reg.*, 1/2/08).

- * Based on requests by Nippon Soda and IR-4, the EPA has approved tolerances for the insecticide acetamiprid (Assail®). Tolerances of importance in Florida include blueberry and onion. (*Fed. Reg.*, 1/16/08).
- * Based on a request by IR-4, the EPA has approved a number of tolerances for the insecticide zeta-cypermethrin (Fury®). Tolerances of importance in Florida may include: *borage, castor, Chinese tallowtree, citrus, crambe, cuphea, echium, euphorbia, evening primrose, flax, gold of pleasure, hare's-ear mustard, jojoba, lesquerella, lunaria, meadowfoam, milkweed, okra, rose hip, sesame, stokes aster, sweet rocket, tallowwood, tea oil plant, and vernonia*. (*Fed. Reg.*, 1/9/08).

Vegetables

- * Based on a request by IR-4, the EPA has approved tolerances for the herbicide *ethalfluralin* (Curbit®/Sonalan®). Tolerances of importance in Florida include *dill*. (*Fed. Reg.*, 12/5/07).
- * Based on a request by IR-4, the EPA has approved tolerances for the miticide *etoxazole* (Zeal®). Tolerances of importance in Florida include the *cucurbit vegetable subgroup 9A* (melons such as muskmelon and watermelon). (*Fed. Reg.*, 12/26/07).
- * Based on a request by IR-4, the EPA has approved tolerances for the herbicide *dimethenamid* (Outlook®). Tolerances of importance in Florida include *winter squash*. (*Fed. Reg.*, 12/28/07).

- * The Florida Department of Agriculture and Consumer Services (FDACS) has approved the special local needs (SLN) registration of *hexythiazox* (Savey® 50 DF) ovicide/miticide with a *reduced plantback interval* (30 days for *snap beans* or *cucurbit vegetables* and 60 days for *fruiting vegetables*) *after application to strawberry on plastic mulch*. The registration is FL-080001. (*PREC Agenda*, 2/7/08).



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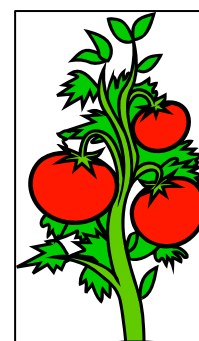
- * Based on a request by Valent U.S.A., the EPA has approved tolerances for the fungicide *fluopicolide* (proposed name Infinito®). This is a member of the acylpicolides, a new chemistry and mode of action with systemic properties. It is active against water molds and downy mildew. Tolerances of importance in Florida include: *fruiting vegetables (group 8), cucurbit vegetables (group 9), leafy vegetables except brassica (group 4), and tuberous & corm vegetables (subgroup 1D)*. (*Fed. Reg.*, 1/30/08).



- * Based on a request by Syngenta, the EPA has approved tolerances for the fungicide *mandipropamid* (proposed name Revus®). This is a carboxamide - which binds with the wax layer in plant tissue and is stable for a longer period of time. It is active against water molds (except *Pythium*). Tolerances of importance in Florida include: *fruiting vegetables (group 8), cucurbit vegetables (group 9), leafy vegetables except brassica (group 4), head and stem brassicas (subgroup 5A), leafy green brassicas (subgroup 5B), tuberous & corm vegetables (subgroup 1C), okra, onion, and potato*. (*Fed. Reg.*, 1/16/08).



- * Based on a request by Syngenta, the EPA has approved tolerances for the





fungicide *difenoconazole* (Dividend®). Tolerances of importance in Florida include: *sweet corn, fruiting vegetables (group 8), and tuberous & corm vegetables (subgroup 1C)*. (*Fed. Reg.*, 1/9/08).

- * Based on a request by Syngenta Crop Protection, the EPA has approved tolerances for the herbicide *mesotrione* (Callisto®). Tolerances of importance in Florida include sugarcane and okra. (*Fed. Reg.*, 2/20/08).

Non food

- * The FDACS has approved a SLN registration for the use of temephos (Abate®) insecticide for targeted downdraft application by mosquito districts for control of mosquito and midge larvae. The registration is FL-070008. (*PREC Agenda*, 1/10/08).



- * The FDACS has approved the registration of Multiguard® Protect (*furfural*) for use on media and other *non-food commodities/tools* for control of nematodes and diseases. The EPA Reg. No. for the Agriguard Company LLC product is 75753-1. (*PREC Agenda*, 1/10/08).

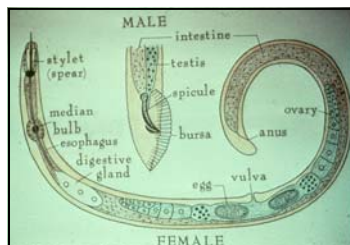
Other Actions

- * Valent U.S.A. and AMVAC have reached a final agreement on AMVAC's acquisition of Valent's *Orthene®* insecticide product line. Under the agreement, AMVAC will take ownership of the assets, including all registrations, formulations and existing inventories including: 75S, 75S WSP, 90S, 97, PCO pellets, Tree, Turf, & Ornamental (TT&O), and TT&O 97. (*So. Fla. Veg. Pest & Dis. Hotline*, 1/14/08).

The News in Brief

The following items are from *Chemically Speaking* Jan-Mar 2008:

- * Monsanto Co. announced it is expanding its hunt for a technology to fight nematodes, which cost U.S. soybean farmers alone more than \$1 billion a year. The company is paying an undisclosed amount for exclusive rights to evaluate a seed-coating technology developed by Plant Health Care Inc., a company established in Pittsburgh and registered in London. If the technology known as Harpin succeeds, a product could be available to farmers by 2010. (*St. Louis Today*, 12/13/07).



- * Gene flow from genetically modified crop plants to their wild relatives will have little overall impact on human health or the environment, predicts a team of researchers in a report released in mid-December by the Council for Agricultural Science and Technology (CAST). Gene flow has always occurred naturally but has drawn particular attention during the past ten years, as genetically

modified crop plants have moved into commercial production. "Regulatory requirements and market standards that are specific to crops developed using biotechnology have resulted in much closer monitoring of gene flow than has been done in the past," said plant scientist Kent Bradford, director of UC Davis' Seed Biotechnology Center. "After analyzing a wide range of crop-trait-location combinations, it was determined that relatively few of these combinations present the potential for gene flow to adversely affect the environment or human health," Bradford said. "Gene flow within a given crop can result in economic impacts for specific markets but these can be managed through proven strategies that make it possible for genetically modified crops and nonbiotech crops to co-exist." ... The report summarizes existing regulatory and risk-assessment mechanisms for biotech crops and discusses the potential economic implications of



biotech crops in the marketplace. ... The full text of the paper is available online at <http://www.cast-science.org>. (*UC Davis, 12/13/07*).

- * DuPont's first research and development center in India, due to open in early 2008, ... will deal in developing biotech traits and technologies that will be incorporated into multiple crops for the global market. In addition, it will focus on renewable energy, which includes bio-fuel and solar cells with photo-voltaic technology. The company's chief science and technology officer and senior VP Uma Chowdhury said the new center was part of a \$1.4 billion investment in a diverse range of technologies, from agriculture to electronics. (*The Times of India, 12/17/07*).
- * Researchers from Bayer CropScience are claiming that a genetically modified plant is not genetically modified when its genes are being suppressed rather than spliced. The German firm has developed a way of engineering plants to withstand tougher conditions that could theoretically ameliorate the ethical concerns posed by activists. In stressful circumstances, plants protect themselves by switching on a gene called PARP. This produces a protein ... that repairs the plant's DNA and shields its cells from damage. Unfortunately, the protein needs a lot of energy to do its job, and because plants can't predict how long tough conditions will last, they end up over-producing it. If the hard times persist, the plant eventually runs out of energy. (*Telegraph Media Group, 12/18/07*).
- * In North Carolina, a new state task force will study the potential hazards of pesticide exposure to people who work in the farming, fishing and forestry industries. The Governor's Task Force on Preventing Agricultural Pesticide Exposure was announced in mid-January to improve standards to protect the health of at-risk workers. A spokesperson for the governor was cited as saying ... that the need for a panel caught Easley's attention partly because of the AgMart case. AgMart, a Florida-based company, grows about 1,000 acres of tomatoes in North Carolina. In 2005, the company was fined \$184,500 for exposing North Carolina workers to pesticides. There were 369 violations brought against AgMart by the state. The case is still in litigation, and a judge recently recommended lowering the fine to \$6,000. The task force will have its first meeting in February and is expected to make recommendations to Gov. Easley in May. (*The Fayetteville Observer, 1/24/08*).
- * A team of USDA researchers has found that switchgrass-derived ethanol produced 540 percent more energy than was required to manufacture the fuel. One acre of the grassland could, on average, deliver 320 gallons of bioethanol. The five-year study, involving 10 farms ranging in size from 6 to 20 acres, was described as the largest study of its kind by co-author Ken Vogel of the Agriculture Research Service. Previous energy analyses had been based on data from research plots and estimated inputs. (*BBC News, 1/8/08*).
- * Growers in California may have to forgo planting thousands of acres of strawberries and other crops this spring to comply with a state rule on pesticide VOCs. The new regulation is projected to be the most costly pesticide rule in California history. State officials estimating that it could cost growers \$10 million to \$40 million annually. The biggest burden will fall on Ventura County, where growers will face strict caps on fumigants because their crop

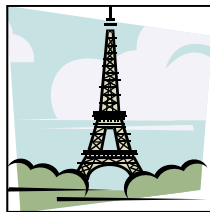


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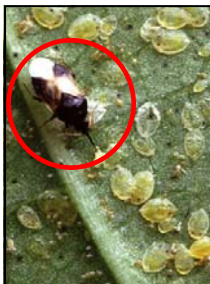


www.eeob.iastate.edu





Labels are constantly changing, and it is wise for the end user to read the entire document even if they are familiar with the product.



rice-evolution.cornell.edu

acreage and pesticide use has surged over the last two decades. (*LA Times*, 1/25/08).

- * Chemical companies are accusing France of flouting European Union standards by banning over 1,500 pesticides, saying fruit and vegetable crops could suffer. France's farm ministry issued the ban on January 29 to end the sale of 30 substances found in the pesticides, which it suspects of being bad for farmers' health. France wants to cut the use of phytosanitary products, designed to combat plant pests, by 50 % over the next decade. The registrants point out 10 of the substances France wants to ban are still authorized for use in the EU and that France, the 27-nation EU's biggest farm state, should not act unilaterally. Charles Bocquet, head of a group of plant protection firms and pesticide makers operating in France, was quoted as saying, "The government is just doing this to be politically correct." (*Reuters*, 2/2/08).
- * Feeding by the western flower thrips, *Frankliniella occidentalis*, causes damage to the fruits of pepper, and the species is the key vector of tomato spotted wilt virus. Effective management integrates conservation of populations of the natural predator, *Orius insidiosus*, with the use of reduced-risk insecticides, namely spinosad. Experiments were conducted in northern Florida in 2005 and 2006 and in central Florida in 2006 to evaluate the new reduced-risk insecticide spinetoram for control of thrips and to determine the impact on natural populations of *O. insidiosus*. Spinetoram at 61 g ai/ha was as effective as spinosad at 140 g ai/ha against the western flower thrips and the other common thrips in Florida, *Frankliniella tritici* and *Frankliniella bispinosa*. The mean numbers of the predator were very high in all treatments in each experiment, and their numbers

relative to the numbers of thrips indicated that predation was sufficient to suppress thrips populations in all treatments. (*Plant Health Research*, 1/18/08).

- * Labels are constantly changing, and it is wise for the end user to read the entire document even if they are familiar with the product. One interesting label we at the Pesticide Information Office (PIO) observed is that for Allectus®, which is combination of bifenthrin and imidacloprid that pest control operators would likely purchase for use. Under the "General Information" section of the label, it states "Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes." This is the first label known to the PIO that contains language that expressly forbids use in research. If you are aware of others, please contact the PIO.
- * In mid-February, the International Service for the Acquisition of Agri-biotech Applications, and industry-supported nonprofit that promotes the use of biotechnology around the world released a report that found widespread adoption among developing countries. Specifically, farmers in 12 developing countries planted biotech crops in 2007, exceeding for the first time the number of developed countries. Of the 12 million farmers worldwide who sowed genetically-engineered seeds, 11 million were described as "resource poor." (*Gainesville Sun*, 2/14/08).