

FLORIDA PESTICIDE REVIEW COUNCIL 2008 – 2009 ANNUAL REPORT



September 30, 2009

**FLORIDA
PESTICIDE REVIEW COUNCIL**

2008-2009 ANNUAL REPORT
(For the period October 1, 2008 to September 30, 2009)

**Prepared by: Mel Kyle, Chair
Pesticide Review Council
October 30, 2009**

TABLE OF CONTENTS

Topic	Page Number
I. Executive Summary	2
II. Introduction	2
III. Administrative Activities	3
IV. PRC Members and Status	3
V. Invited Presentations	3
VI. Agency Briefings	4
VII. PRC Actions	8
VIII. Conclusions	8

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I. Executive Summary

The Pesticide Review Council (PRC) convened two meetings during the operating year October 1, 2008 through September 30, 2009. The PRC continued to coordinate pesticide-related efforts among state agencies including the Florida Departments of Agriculture and Consumer Services (FDACS), Environmental Protection (FDEP), Health (FDoH), the Institute of Food and Agricultural Sciences of the University of Florida (IFAS/UF), and the South Florida Water Management District (SFWMD). Key issues discussed included the following: legislative and budgetary impacts on FDACS and IFAS programs; recent developments in arsenic toxicity; water quality and evaluation of pesticides in lakes in the ridge citrus region; ground water advisory label statements; the pesticide stewardship award; updates on federal soil fumigant mitigation measures; capabilities of FDACS pesticide laboratories; supplemental pesticide registration fees; copper-impaired surface water bodies; National Pollution Discharge Elimination System (NPDES) permits for pesticide applications on, in or near water, and; pesticides and managing forest pests.

During the reporting period, the Council voted to request that the statutory limitation on PRC officer terms be increased from one year to two years. This change should be proposed to the Legislature when Chapter 487 is next open for revision.

II. Introduction

This document summarizes the activities of the PRC from October 1, 2008 through September 30, 2009 as reported in the minutes of two PRC meetings held on:

- July 10, 2009 (Gainesville, Florida)
- September 24, 2009 (Quincy, Florida)

A meeting scheduled for January 28, 2009, in Homestead, Florida was canceled due to budgetary constraints.

Copies of agendas, minutes and presentations for each meeting may be obtained by contacting the FDACS Bureau of Pesticides as indicated below:

Mail: 3125 Conner Boulevard, Building #6, Tallahassee, Florida 32399-1650

Telephone: (850) 617-7917

Website: <http://www.flaes.org/pesticide/pesticidereviewcouncil.html>

III. Administrative Activities

Officers for 2008-2009 were:

Dr. Mel Kyle, Chair
Dr. Keith Tolson, Vice-Chair
Dr. Brian Katz, Secretary

Officers for 2009-2010 will be:

Dr. Keith Tolson, Chair
Dr. Brian Katz, Vice-Chair
Mr. Rick Hicks, Secretary

IV. PRC Members and Status

Member	Affiliation	Term Expiration*
David Eggeman	Fish & Wildlife Conservation Commission	Indefinite
Richard Hicks	Department of Environmental Protection	Indefinite
Dennis Howard	Department of Agriculture & Consumer Services	Indefinite
Brian Hughes	Department of Health	Indefinite
Brian Katz	Hydrologist	09/30/2011
Mel Kyle	Agricultural Chemical Industry	09/30/2012
Mark McLellan	Institute of Food and Agricultural Science	Indefinite
Richard Pfeuffer	South Florida Water Management District	06/30/2010
Gary Reeder	Grower/Producer Representative	12/31/2010
Keith Tolson	Toxicologist	09/30/2011
Joe Gaudino	Environmental Groups	09/30/2010

* Members whose terms have expired may continue to serve pending consideration of their re-appointment or appointment of a replacement member by the Governor.

V. Invited Presentations

The following invited presentations were given during the year to provide the Council with information on current pesticide-related subjects:

Recent developments in arsenic toxicity. (9/24/09)

Dr. Keith Tolson, Geosyntec Consultants

Dr. Tolson provided background information on the proposed revision of arsenic carcinogenicity by the Integrated Risk Information System (IRIS) of the U.S. Environmental Protection Agency (USEPA). The USEPA is interpreting epidemiological data to propose that the cancer potency of arsenic should be increased 16-fold. The Agency proposal has been countered by scientists who argue that the additional mitigating evidence has not been thoroughly considered. Dr. Tolson noted that a new cancer potency profile could be expected to affect consideration of registration of arsenical herbicides (e.g. MSMA), allowable arsenic residues in fertilizers, worker protection, surface water protection and development of lands where arsenical pesticides have been applied. FDACS followed the presentation with a brief update on the federal reregistration review of organic arsenical herbicides, highlighting the cancellation schedule for all uses in Florida except weed control in cotton in specified counties.

Water quality and evaluation of pesticides in lakes in the ridge citrus region

Ms. Anne Choquette, U.S. Geological Survey (9/24/09)

Ms. Anne Choquette was invited to report on the results of a reconnaissance study of pesticides in lakes and parallel, ongoing work on pesticides in groundwater in the same geographic area. The lake study focused on occurrences of parent pesticides and degradates, potential trends, comparisons with toxicological benchmark levels for aquatic life and with detections in other areas of the country, and predictions based on chemical properties and usage patterns. The report also contrasted surface water quality in one of the lakes with the quality nearby groundwater. Statistical analyses are pending. The concentrations of detected pesticides in the lake study were found to be generally high compared to other sampled sites across the nation, but were typically below USEPA benchmark levels. Mixtures of pesticides were commonly found. Evidence suggests persistence of some chemicals in surface water and groundwater. Concentrations of pesticides and degradates in groundwater typically exceeded those for lakes; there is evidence of continuing pesticide degradation in lakes. In lakes, the concentration of degradates often exceeded titers of parent compounds. Seasonal trends were more obvious in groundwater than in surface water. Results of efforts to predict occurrences in water samples were not consistent, perhaps because local usage patterns are not well characterized.

VI. Agency Briefings

Agency briefings are the principal method of information gathering used by the Council. Since the PRC lacks staff support, agency action is the mechanism for implementing recommendations by the Council. During the reporting period, staff from FDACS, IFAS, FDEP and the FFWCC provided pesticide-related briefings to the PRC.

A. FDACS

Legislative and budgetary updates. Mr. Anderson Rackley, Director of the Division of Agricultural Environmental Services, discussed the following issues with the Council:

- pesticide program cuts and reorganizations in response to state budgetary shortfalls;
- implementation of a supplementary pesticide registration fee to replace General Revenue cuts sustained by the Chemical Residue Laboratory (Division of Food Safety).

Ground water advisory label statements. Dr. Davis Daiker updated the Council on state efforts to revise the USEPA Office of Pesticide Programs policy on ground water advisory statements on pesticide labels. A summary paper was submitted to the USEPA Office of Pesticide Programs in December 2008. The proposal asked that the USEPA revise language to be reflective of actual ground water risks, provide specific and enforceable mitigation measures, and develop Agency SOPs to ensure consistency and clearer language. EPA responded that the statements are not meant to be risk-based but rather exposure-based and are not meant to be enforceable but informative. The Agency is revising the advisory by replacing “contaminate ground water” with “leach to ground water.” The USEPA Office of General Counsel determined that ground water advisories would not increase grower liability (provided the label was followed). The Agency is working to develop an internal SOP to ensure consistency in implementing this policy. FDACS has raised the issue of ground water advisory statements with other state lead agencies at national meetings to see if other states share Florida’s concerns. States are mixed on the issues and have not made a joint decision on whether further action is needed.

Pesticide stewardship award. Mr. Andy Rackley provided an update on the Pesticide Stewardship Award Program. This FDACS program awards registrants for outstanding efforts to provide oversight and training in the proper use of their pesticide products in Florida. The Department plans to send an evaluation form to Council members to review and vote on the applicants for this year’s award.

Soil fumigants update. Mr. Charlie Clark briefed the Council on the recent history of the USEPA reregistration eligibility decision for soil fumigants. The USEPA has developed eleven groups of risk mitigation measures to reduce potential risks for bystanders and workers. These measures include: buffer zones, posting requirements, agricultural worker protection, applicator and handler training programs, good agricultural practices, application methods, practice and rate restrictions, restricted use pesticide classification, site-specific fumigant management plans, emergency preparedness and response requirements, compliance assistance and assurance. Some of the measures have been revised as a result of submission of public comments and data from new field emission studies (FDACS provided substantial comments). In the fall 2009, registrants are to submit revised labels to the USEPA, and implementation of those labels will begin in 2010. Implementation of some measures such as buffer zones will be phased in later in 2011. In 2013, the Agency will begin reevaluating all soil fumigants under the

Registration Review program. Collectively, the new regulatory requirements will pose huge challenges to applicators, pesticide educators, and regulators alike.

FDACS pesticide laboratories. Ms. Patty Lucas described the pesticide analytical resources and services of the Bureau of Agricultural Environmental Laboratories (Division of Agricultural Environmental Services). Ms. Jo Marie Cook provided a similar presentation on the Chemical Residue Laboratory (Division of Food Safety). Following the meeting, a tour of the laboratories was provided to Council members and interested members of the public. Council members suggested that the FDACS laboratories seek collaborative opportunities with IFAS laboratories and questioned whether more risk-based factors could be considered for selecting domestic versus import samples.

Supplemental registration fee implementation. Mr. Charlie Clark (FDACS) briefed the Council on implementation of a new supplemental registration fee which offsets General Revenue funding cuts sustained by the Chemical Residue Laboratory (Division of Food Safety). The fee is \$315 per pesticide brand per year (\$630 biennially) for any brand containing an active ingredient for which a federal food tolerance has been established. The fee is retroactive to January 2009. Since no new positions were approved by the Legislature to process the fees, the Pesticide Registration Section is setting aside other priorities to expedite fee collection.

B. FDEP

Copper-impaired surface water bodies. Mr. Rick Hicks prepared a background presentation on the occurrence of elevated copper residues in Florida surface water. In Florida, 20 marine water segments and 6 freshwater segments have been listed for copper impairment. Most of these areas are in or near coastal waters in south Florida. For example, elevated copper levels have been found in Naples Bay, leading local efforts to ban the use of copper herbicides/algaeicides. Some potential sources of copper are fungicides, aquatic herbicides/algaeicides, anti-fouling boat bottom paint, dumps and landfills, vehicular brake pads, and industrial wastewater discharges. Also, laboratory artifacts may result in false positives for copper in saline water, if proper testing procedures are not followed. Differing copper standards apply to marine water versus freshwater and the freshwater standard is affected by water hardness. Possible federal/state acceptance of a new biological ligand model may result in more refined standards for copper in surface water. Florida has not yet proposed a Total Maximum Daily Load (TMDL) for a copper-impaired water body. FDACS plans to participate in the process when TMDLs are developed for copper-impaired water bodies.

B. Joint FDACS, FDEP, FFWCC Briefing

NPDES permits for pesticide applications on, in or near water. Mr. Steve Dwinell (FDACS), Ms. Elsa Potts from Florida Department of Environmental Protection (FDEP)

and Mr. Jeffrey Schardt from the Florida Fish and Wildlife Conservation Commission (FFWCC) spoke to the Council on the implications of a recent court case which requires that National Pollution Discharge Elimination System (NPDES) permits be issued for applications of pesticides on, in or near water. Mr. Dwinell explained that the court found that NPDES permits should be obtained for pesticide uses such as mosquito control, aquatic weed control, area-wide insect suppression programs, some forestry applications, etc. A two-year stay is in place to allow the USEPA time to develop a general permitting program for four states that have not received federal authority to implement permitting programs. The remaining states must develop their own permitting programs under the authority of the USEPA regional office. New permitting requirements are scheduled to take effect in April, 2011.

Ms. Elsa Potts from FDEP provided background information on current NPDES permit programs in Florida, further detail on the working relationship between the USEPA and Florida in permitting operations and oversight, public comment opportunities during rule development, and state statutory issues.

Mr. Jeffrey Schardt from the FFWCC described the scope and importance of Florida's Aquatic Plant Management Program and highlighted the need to avoid unnecessary delays and additional work when NPDES permits are created.

USEPA has formed federal workgroups to assist in the development of permitting requirements and is seeking input from representative state lead agencies for water quality and pesticides. FDACS, FDEP and the FFWCC are participating jointly in national workgroups and are working closely on the development of Florida-specific permits.

B. IFAS

Budgetary issues. Dr. Mark McLellan noted that IFAS faced a \$7.7M cut this year. While many layoffs were unavoidable, the school attempted to maintain core functionality in critical program areas. Budget cuts have prompted IFAS researchers to adopt more entrepreneurial approaches. This year, the faculty succeeded in attaining an extraordinary 25% increase over last year's level of external funding. Dr. McLellan presented a new research "roadmap" for IFAS, which describe the strengths of the various IFAS centers and a vision of how these centers can be positioned to pursue important trends in science. Dr. McLellan invited FDACS to visit with IFAS to explore strategies to secure Federal funds that could benefit both organizations.

Pesticides and Managing Forest Pests. Dr. George Blakeslee of UF/IFAS described the attributes of the Austin Carey Memorial Forest and introduced colleagues Alan Long, Jason Smith and Pat Minogue whose combined presentations covered topics under the heading: Pesticides and Managing Forest Pests. Dr. Alan Long spoke on the role of herbicides in woody biomass production and wildfire hazard mitigation. Dr. Jason Smith addressed the potential for insecticides and fungicides to meet the challenge of laurel

wilt, a new disease vectored by an exotic beetle threatening native plants and the avocado industry in Florida. Dr. Pat Minogue spoke about the critical role of herbicides in keeping Cogon grass at bay. Cogon grass is one of Florida's worst weeds, displacing nearly all native vegetation and therefore altering the natural ecosystem.

North Florida Research and Education Center (NFREC). Dr. Nicholas Comerfield provided an overview of activities at the NFREC, the most diverse IFAS research center of its kind. The center is the only location with three distinct campuses, each offering an array of research and outreach programs.

VII. PRC Actions

At the July 10, 2009 meeting, the Council unanimously voted to request that the statutory limitation on PRC officer terms be increased from one year to two years. This change should be proposed to the Legislature when Chapter 487 is next open for revision.

VIII. Conclusions

In the year 2008-2009, the Pesticide Review Council continued to provide a public forum to identify and scientifically address pesticide issues in Florida. In particular, the Council provided an opportunity for detailed discussion and public commentary on challenging emerging federal requirements pertaining to NPDES permits and implementation of complex new risk mitigation measures for soil fumigation operations. This discussion will help to frame and inform further dialogue on these issues. The Council also continued to serve as an effective mechanism to minimize duplication and promote efficiency among state agencies that address pesticide issues in Florida. The Council's work continues to grow in value as budgets to address pesticide-related activities across the state decline, yet regulatory issues become more complex.