

State Chemist & Seed Commissioner

Dave Scott

Dr. Robert D. Waltz

Dave Scott

Pesticide Administrator

www.isco.purdue.edu

Office of
Indiana State Chemist & Seed Commissioner

MISSION: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana Pesticide Registration Law (I.C. 15-16-4), the Indiana Pesticide Use and Application Law (I.C.15-16-5), and also represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and devices and to protect citizens and the environment from excessive and unacceptable pesticide exposure by unqualified users.

**STAFF:** Twenty three full time employees and ten shared staff carry out the referenced pesticide section mission. The full-time staff includes 7 field investigators to perform complaint investigations and field compliance activities, 7 laboratory chemists and technicians to analyze environmental and product samples collected by the field staff, 5 program managers and 4 clerical staff.

PRODUCT REGISTRATION: In 2010, 14,984 pesticide products were registered by manufacturers or formulators for sale and distribution in Indiana. This total well exceeds the 2010 average of 12,582 pesticide products registered by our neighboring Midwestern states. This is a direct indication of the OISC commitment to insure a level regulatory playing field for all pesticide registrants and distributors doing business in Indiana. In cooperation with Purdue's National Pesticide Information Pesticide Retrieval System (NPIRS), OISC maintains a publicly accessible pesticide database linked to its website. This database allows pesticide applicators and the general public to access valuable information about Indiana registered pesticide products. In 2010, OISC continued its participation in Accepted Labels State Tracking and Repository (ALSTAR) a project to link text-searchable pesticide label images to Indiana's publicly accessible database. To date approximately 3,300 labels have been added to the database <a href="http://state.ceris.purdue.edu">http://state.ceris.purdue.edu</a>. In addition, OISC staff continued to serve as part of a select group of state leaders working with US EPA to improve federal pesticide labels. Notable efforts included making presentations to US EPA's product registration division and serving on a federal committee to overhaul label language addressing off-target pesticide drift.

**CERTIFICATION & CREDENTIALING:** OISC issued 28,578 total pesticide credentials. This included 2,838 licensed pesticide application businesses, 6,202 for-hire applicators working at those businesses, 1,018 applicators working for not-for-hire businesses, 1189 government applicators, 2,722 registered technician applicators, 564 restricted use pesticide dealers, 348 consultant retailer businesses, and 13,697 certified farmer applicators. The agency also worked cooperatively with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop subject matter valid certification exams for both wood destroying pest inspectors and a new group of applicators who handle and apply both commercial agricultural fertilizers and manure. The fertilizer applicator certification exam is one of the first of its kind in the nation. This will give Indiana a reasonable mechanism to address fertilizer and water quality issues currently being pressed by the US EPA and the general public.

COMPLIANCE & ENFORCEMENT: Pesticide staff investigated 170 complaint cases and conducted 1824 routine compliance inspections. Over 226 of those routine inspections involved visits to golf courses to implement a new golf course applicator certification rule that became effective in 2009. The complaint investigations and routine inspections involved the laboratory analysis of 272 environmental residue samples and 195 product integrity samples. The 195 product integrity samples included an initiative to examine the active ingredient glyphosate, since the market for generic agricultural herbicides has increased dramatically in the last several years. Eight percent of the product integrity samples were adulterated, and two products were incorrectly labeled. The 272 environmental samples significantly exceeded the annual average of 143. This inflated workload is due largely to a record number (24) of aerial drift complaints and an increasingly complex assortment of potentially litigious complaint cases being investigated by OISC. In all, there were 138 formal violation cases, including 135 written warnings/citations, 61 administrative fines, and 6 credential suspensions. During 2010 less than 1% of the enforcement actions involved repeat violators. Follow-up or compliance assurance inspections were performed in 92% of the violation cases to ensure that the non-compliant behavior had been corrected.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** OISC joined with US EPA to conduct a Pesticide Clean Sweep Project, collecting a record 30,246 pounds of hazardous waste pesticides from commercial applicators and farmers at little or no cost to the participants. In 2010 OISC and the Purdue Ag School, by means of an EPA grant, expanded the scope of an interactive web site registry <a href="https://www.driftwatch.org">www.driftwatch.org</a> to include the States IL, MI, MN, and WI. "Driftwatch" was designed to allow for effective communication between growers of pesticide sensitive crops and pesticide applicators that operate nearby.

INDIANA PESTICIDE REVIEW BOARD: Created in IC 15-16-4-42, this is a twenty-member board appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, conservationists, industry representatives and a public representative. In 2010 the Board finalized a rule requiring certification of applicators using pesticides in schools and a rule requiring applicators to notify OISC prior to preconstruction termite control applications.

Information accurate as of 12-27-10



Office of Indiana State Chemist

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MISSION: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana Pesticide Registration Law (I.C. 15-16-4), the Indiana Pesticide Use and Application Law (I.C.15-16-5), and also represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and devices and to protect citizens and the environment from excessive and unacceptable pesticide exposure by unqualified users.

**STAFF:** Twenty one full-time employees and ten shared staff carry out the pesticide section mission. The full-time staff includes 7 field investigators to perform complaint investigations and field compliance activities, 5 laboratory chemists, 1 technician to analyze environmental and product samples collected by the field staff, 5 program managers, and 4 clerical staff.

**PRODUCT REGISTRATION:** In 2011, 14,929 pesticide products were registered by manufacturers or formulators for sale and distribution in Indiana. This number exceeds the ten year annual average for Indiana of 14,131. It also exceeds the ten year average of 12,582 pesticide products registered by our Midwestern state neighbors. This is a direct indication of the OISC commitment to insure a level regulatory playing field for all pesticide registrants and distributors doing business in Indiana.

In 2011, OISC continued its participation in Accepted Labels State Tracking and Repository (ALSTAR) a project to link text-searchable pesticide label images to Indiana's publicly accessible database. To date, approximately 3,300 labels have been added to the database <a href="http://state.ceris.purdue.edu">http://state.ceris.purdue.edu</a>.

In addition, OISC staff continued to serve as part of a select group of state leaders working with US EPA and product registrants to improve federal pesticide labels.

**CERTIFICATION & CREDENTIALING:** OISC issued 29,032 total pesticide credentials. This included 2,776 licensed pesticide application businesses, 6,500 for-hire applicators working at those businesses, 1,157 applicators working for not-for-hire businesses, 1,888 government applicators, 2,737 registered technician applicators, 574 restricted use pesticide dealers, 349 consultant retailer businesses, and 13,051 certified farmer applicators. The 29,032 total credentials for 2011 exceed the ten year annual average of 27,437.

OISC staff also worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop subject-matter-valid certification exams for Indiana termite control applicators.

**COMPLIANCE & ENFORCEMENT:** Pesticide staff investigated 565 complaint cases and conducted 1732 routine compliance inspections. These figures significantly exceeded the ten year annual averages of 157 complaint cases and 1059 compliance inspections.

The complaint investigations and routine inspections involved the laboratory analysis of 711 environmental residue samples and 60 product integrity samples. Five percent of the product integrity samples were adulterated, and five products were incorrectly labeled. The 711 environmental samples significantly exceeded the ten year annual average of 166 samples.

This inflated workload is due largely to an unprecedented number (397) of damage complaints to non-target ornamental landscape plantings resulting from the application of a brand new nationally approved and distributed herbicide on adjacent turf. The rapid and tireless efforts of OISC staff in investigating these complaints and analyzing associated environmental residue samples lead to the state cancellation of this major

new herbicide and a federal stop sale and distribution order by the US EPA. OISC served as a national leader in this regulatory effort that has since resulted in a national product recall and a multi-million dollar consumer damage claims process.

In 2011 there were 106 formal violation cases, including 103 written warnings/citations, 38 administrative fines, 4 applicator credential suspensions, one product registration suspension, and one product registration cancellation. Less than 1% of the enforcement actions involved repeat violators. Follow-up or compliance assurance inspections were performed in 63% of the violation cases to insure that the non-compliant behavior had been corrected. Enforcement action numbers are comparable to the ten year annual average of 111. This is in spite of the significant commitment of resources devoted to addressing the previously mentioned herbicide damage incidents on behalf of Indiana consumers and turf applicators, reflecting how OISC staff were able to rise to the unusual challenge.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** OISC joined with US EPA and Purdue Pesticide Programs to conduct a Pesticide Clean Sweep Project, collecting over 23,000 pounds of hazardous waste pesticides from Indiana applicators at little or no cost to the participants. This 23,000 figure exceeded the annual average of 17,190 pounds.

In 2011 OISC and the Purdue College of Agriculture, by means of an EPA grant, expanded the scope of an interactive web site registry <a href="www.driftwatch.org">www.driftwatch.org</a> beyond the borders of Indiana to now include Illinois, Michigan, Minnesota, and Wisconsin. *Driftwatch*, designed to allow for effective communication between growers of pesticide sensitive crops and pesticide applicators that operate nearby, expanded coverage from 18,000 Indiana acres last year to over 35,000 Midwestern acres during 2011. Plans for 2012 include expansion of *Driftwatch* to Colorado, Montana, Nebraska, and North Dakota.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this is a twenty-member board appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, conservationists, industry representatives and a public representative. In 2011, the Board finalized a rule requiring certification of applicators using pesticides in schools and a rule requiring applicators to notify OISC prior to preconstruction termite control applications.

Information accurate as of 2-27-12



Office of
INDIANA STATE CHEMIST & SEED COMMISSIONER

Protecting Indiana's Agriculture and Environment – Feed, Fertilizer, Pesticide, and Seed

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The Indiana pesticide program administers the Indiana Pesticide Review Board; Product Registration & Distribution Law (IC 15-16-4) and the Indiana Applicator & Dealer Certification & Licensing; Use & Application Requirements Law (IC 15-16-5).

#### • OUR MISSION:

The mission of the Office of Indiana State Chemist Pesticide Section is to protect the public and the environment by ensuring that pesticide products distributed within the state are properly formulated and labeled and that individuals who apply pesticides have met minimum competency standards, when required, and apply those pesticides without causing harm to people or property.

#### • PRODUCT REGISTRATION:

In 2012, pesticide manufacturers registered 15,011 products for sale and distribution in Indiana. This number exceeds the ten year annual average for Indiana of 14,210. It also exceeds the ten year average of 12,623 pesticide products registered by neighboring states.

OISC continued to work with US EPA and manufacturers to improve or correct misleading or violative product labeling on Indiana registered products, taking action on over 41 problem labels. Requiring corrected labels with improved safety and use directions protects Indiana's environment and citizens as well as those in other states where these products are distributed and used.

OISC also coordinated with the Indiana Pesticide Review Board to promulgate a rule to restrict the distribution of methomyl containing fly baits. OISC had determined through undercover investigations, internet searches, and communications with other state regulatory agencies that these widely available fly baits were being intentionally misused to illegally poison wildlife and domestic animals. Efforts urging US EPA to restrict distribution of these products nationally have been unsuccessful to date, thus prompting state action.

#### • CERTIFICATION & CREDENTIALING:

OISC issued 27,410 pesticide credentials. This included licenses for 3,078 pesticide application businesses, 6,950 pesticide applicators, 2,313 in-house and government applicators, 2,805 pesticide technicians, 567 pesticide dealers, and 11,358 farmers using pesticides. The 27,410 total credentials for 2012 is consistent with the ten year annual average of 27,434.

During 2012 OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop or upgrade subject-matter-valid certification exams for the core (general standards), aquatic, and termite pesticide applicators as well as an exam for fertilizer applicators.

OISC also reviewed and approved over 678 continuing certification training programs for pesticide applicators.

#### • COMPLIANCE & ENFORCEMENT:

Pesticide staff investigated 309 complaint cases and conducted 1,824 routine compliance inspections, exceeding the ten year annual averages of 198 complaint cases and 1,127 compliance inspections. These investigations and inspections required OISC laboratory analysis of 626 environmental residue samples and 56 product integrity samples. The 656 environmental samples exceeded the ten year annual average of 221 samples.

For investigations finalized to date there have been 121 formal violations, including 121 written warnings/citations, 52 administrative fines, one applicator credential suspension, and two stop use/sale orders. Less than 1% of the enforcement actions involved repeat violators. Follow-up or compliance assurance inspections were performed in 76% of the violation cases to insure that the non-compliant behavior had been corrected. Enforcement action numbers have been relatively consistent with the ten year annual average of 109.

Numbers of off-target pesticide drift complaints (57) and resulting violations (31 to date) were relatively consistent with the ten year averages of 55 and 25 respectively. However, as a subset of those cases, OISC did receive an extraordinary number of bee kill complaints (8). OISC investigations determined that the insecticide clothianidin was involved in the bee deaths, but the exposure appears to be from handling of insecticide treated seed rather than direct exposure from misuse of the insecticide during application. OISC has committed to work with US EPA in the coming year to seek a solution to address this unanticipated route of pesticide exposure to honey bees.

#### • TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:

With funding from US EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 26,590 pounds of hazardous waste pesticides from Indiana applicators at little or no cost to the participants. This 26,590 figure exceeded the annual average over the last five years of 18,800 pounds. Both agricultural and structural pesticide users have continued to praise the benefits of this waste collection program.

OISC also utilized a grant from US EPA to develop a week long training course for over 40 state and tribal pesticide inspectors and investigators. The focus of this training was the investigation of pesticide drift incidents. OISC has developed a reputation as being proactive in off-target drift regulation and was asked to share some of this expertise with colleagues from across the country.

OISC continued to participate in professional and regulatory association affairs with at least 9 staff members serving as officers or committee members on no fewer than 24 regional and national committees and work groups.

The Indiana Department of Environmental Management (IDEM) and OISC worked cooperatively to develop and implement a National Pollutant Discharge Elimination System (NPDES) general permit for pesticides. The need for a general permit for discharging pesticides into water was created as a result of a recent federal court decision and was passed down from US EPA to the states. OISC and IDEM were successful in crafting a permit that has been implemented almost seamlessly and with a minimum of new requirements for already heavily regulated licensed Indiana pesticide applicators. This serves as a shining example of state agencies working together to avoid onerous government duplication of regulatory requirements.

Special US EPA funding also enabled a 2012 project in which OISC teamed with Purdue's Agronomy Department to examine residual environmental impacts resulting from the 2011 use of a new lawn and turf product *Imprelis Herbicide*. Widespread non-target ornamental tree damage had resulted in this product's first year of commercial use. This study focused on a small sub-sampling of the almost 400 tree damage complaints investigated by OISC in 2011. The results demonstrated that *Imprelis* residues are still analytically detectable in target soils and damaged trees in 2012, up to a year after exposure, and that mulch made from those damaged trees still contains residues that negatively impact sentinel tomatoes planted adjacent to the mulch. This study provided objective technical information to decision makers at US EPA who are, like OISC, still dealing with the aftermath of the 2011 *Imprelis* damage incidents.

#### • INDIANA PESTICIDE REVIEW BOARD:

Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, conservationists, industry representatives and a public representative. In 2012, the Board and OISC amended a rule outlining liability insurance requirements for pesticide businesses, finalized a rule restricting the distribution and use of a widely misused pesticide, and worked with the Indiana legislature to amend the state pesticide law. Specific legislative changes include eliminating license fees for not-for-profit organizations, eliminating a retail pesticide consultant registration requirement, and creating the ability to perform federal pesticide production inspections and enforcement under state authority.



Office of Indiana State Chemist

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**PRODUCT REGISTRATION:** In 2013, pesticide manufacturers registered 15,047 pesticide products for sale and distribution in Indiana. This number exceeds the ten year annual average for Indiana of 14,210. It also exceeds the ten year average of 12,623 products registered by neighboring states.

OISC continued to work with US EPA and manufacturers to improve or correct misleading or violative product labeling on Indiana registered products, taking action on over 41 problem labels. Requiring corrected labels with improved safety and use directions protects Indiana's environment and citizens as well as those in other states where these products are distributed and used.

To assist Indiana beekeepers and blueberry growers with specific pest problems that arose in 2013, OISC was able secure from U.S. EPA some special state registrations for products that would have otherwise been unavailable for use in combating those economically devastating pests.

**CERTIFICATION & CREDENTIALING:** OISC issued 27,410 pesticide credentials. This included licenses for 3,078 pesticide application businesses, 6,950 pesticide applicators, 2,313 in-house and government applicators, 2,805 pesticide technicians, 567 pesticide dealers, and 11,358 farmers using pesticides. The 27,410 total credentials for 2013 are consistent with the ten year annual average of 27,434.

During 2013 OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop or upgrade subject-matter-valid certification exams for forestry, turf, and aerial categories of commercial pesticide applicators. OISC also reviewed and approved over 678 continuing certification training programs for pesticide applicators.

**COMPLIANCE & ENFORCEMENT:** Pesticide staff investigated 363 complaint cases and conducted 1776 routine compliance inspections, exceeding the ten year annual averages of 198 complaint cases and 1127 compliance inspections. These investigations and inspections required OISC laboratory analysis of 1004 environmental residue samples and 49 product integrity samples. The 1004 environmental samples significantly exceeded the ten year annual average of 247 samples. This increase was attributed to the record number of off-target drift complaints investigated and the record number of structural pest control misuse investigations conducted, both requiring laboratory support for evidence development.

For investigations finalized to date there have been 104 formal violations, including 104 written warnings/citations, 45 administrative fines, two applicator credential suspensions, and two stop use/sale orders. Less than 1% of the enforcement actions involved repeat violators. Follow-up or compliance assurance inspections were performed in 88% of the violation cases to insure that the non-compliant behavior had been corrected. Enforcement action numbers have been relatively consistent with the ten year annual average of 109.

For the first time in 2013, OISC administered state penalties against a product manufacturer that failed to comply with federal pesticide product registration requirements. In addition, with OISC's assistance, the manufacturer was brought into compliance within mere months of the original inspection. Previously, referring such cases to U.S. EPA for federal enforcement follow-up rarely resulted in such expedient compliance by the offending party. The number of off-target pesticide drift complaints (108) responded to by OISC significantly exceeded the ten year average of 55. To date 14 enforcement actions have been taken as a result of those investigations. Many of the remaining investigations have not yet been finalized due to processing backlog, based on caseload.

In addition, OISC finalized the first phase of a multi-year investigation of the misuse of fipronyl insecticide by a regional structural pest control firm at no fewer than 53 different locations, resulting in one license suspension and one license revocation.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** During 2013, as a result of the federal sequestration, OISC experienced a reduction in anticipated federal funding to support pesticide programs. To allow some existing programs to continue uninterrupted, both the Purdue Pesticide Programs Office (Cooperative Extension Service) and OISC stepped forward with funding to conduct a Pesticide Clean Sweep Project, collecting 26,590 pounds of hazardous waste pesticides from Indiana applicators at little or no cost to the participants. This 26,590 figure exceeded the annual average over the last five years of 18,800 pounds. In addition, OISC was able to coordinate with private industry to arrange for a no-cost minibulk pesticide container recycling effort in conjunction with the clean sweep project.

OISC was able to secure a grant from US EPA to develop a week long training course for over 20 pesticide laboratory analysts from other state regulatory programs. OISC has developed a reputation as being extremely proficient in pesticide sample analysis and was asked to share some of this expertise with colleagues from neighboring states.

OISC continued to participate in professional and regulatory association affairs with at least 9 staff members serving as officers or committee members on no fewer than 24 regional and national committees and work groups.

Again in 2013 OISC teamed with Purdue's Agronomy Department to examine residual environmental impacts resulting from the 2011 use of a new lawn and turf product *Imprelis Herbicide*. Widespread non-target ornamental tree damage had resulted in this product's first year of commercial use. This study focused on a small sub-sampling of the almost 400 tree damage complaints investigated by OISC in 2011. The results demonstrated that *Imprelis* residues are still analytically detectable in target soils and damaged trees in 2012, up to a year after exposure, and that mulch made from those damaged trees still contains residues that negatively impact sentinel tomatoes planted adjacent to the mulch. This study provided objective technical information to decision makers at US EPA who are, like OISC, still dealing with the aftermath of the 2011 *Imprelis* damage incidents.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, conservationists, industry representatives and a public representative. In 2013, the Board and OISC finalized the much needed revision of the rule addressing liability insurance requirements for pesticide businesses. In addition, the Board reviewed and studied: 1) the potential environmental impacts of 2,4-D and dicamba herbicide tolerant crops; 2) recent pollinator protection efforts by U.S. EPA and industry; 3) misuse of bed bug control pesticides in rental properties; and 4) pesticide exposure to those who use recreational trails immediately adjacent to agricultural areas.

Information accurate as of 2-1-14



#### 2014

# INDIANA PESTICIDE CONTROL SUMMARY REPORT of ACTIVITIES

Office of Indiana State Chemist

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Pesticide Administrator

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**PRODUCT REGISTRATION:** In 2014, pesticide manufacturers registered 15,813 products for sale and distribution in Indiana. This number exceeds the ten year annual average for Indiana of 14,646. It also exceeds the last ten year average of 13,458 pesticide products registered by neighboring states.

During the last year OISC worked directly with US EPA headquarters to improve the quality of federal product registration data and to improve the coordination and consistency of comparable federal and state data.

**CERTIFICATION & CREDENTIALING:** OISC issued 28,521 pesticide credentials. This included licenses for 3125 pesticide application businesses, 12,279 pesticide applicators, 11,449 in-house and government applicators, 2867 pesticide technicians, 545 pesticide dealers, and 11,449 farmers using pesticides. The 28,521 total credentials for 2014 are consistent with the ten year annual average of 27,434.

During 2014 OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop or upgrade the subject-matter-valid certification exam and corresponding training manual for area-wide mosquito control commercial pesticide applicators. OISC also reviewed and approved approximately 750 continuing certification training programs for pesticide applicators.

**COMPLIANCE & ENFORCEMENT:** Pesticide staff investigated 390 complaint cases and conducted 1561 routine compliance inspections, exceeding the ten year annual averages of 268 complaint cases and 1462 compliance inspections. These investigations and inspections required OISC laboratory analysis of 732 environmental residue samples and 66 product integrity samples. The 732 environmental samples exceeded the ten year annual average of 247 samples.

For investigations finalized to date there have been 212 formal violations, including 212 written warnings/citations, 104 administrative fines, four applicator credential suspensions, and twelve stop use/sale orders. Enforcement action numbers have been relatively consistent with the ten year annual average of 169.

Numbers of off-target pesticide drift complaints (102) and resulting violations (37 to date) exceeded the ten year averages of 70 and 25 respectively.

During 2014 OISC initiated two investigations being conducted in conjunction with U.S. EPA's Criminal Investigation Division. Those pending cases involved the illegal importation and application of a non-registered agricultural insecticide to motel rooms for the control of bedbugs and the illegal importation and application of a Chinese labeled non-registered insecticide in restaurants.

In an effort to ensure that neonicotinoid insecticide products were being used by professional seed treatment applicators in a manner that was responsible and protective of pollinators, OISC conducted over 150 routine compliance inspections at seed treatment businesses.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** During 2014, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 64,003 pounds of hazardous waste pesticides from Indiana applicators at little or no cost to the participants. This collection figure exceeded the annual average over the last five years of 22,556 pounds. The significant increase was attributed to a large agriculture dealer cooperative cleaning out accumulated waste from all of their multiple branch locations this year rather than carrying some waste forward to next year's collection.

OISC continued to participate in professional and regulatory association affairs with at least 9 staff members serving as officers or committee members on no fewer than 24 regional and national committees and work groups.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2014, the Board and OISC: 1) examined the need to make adjustments to the pesticide business license liability insurance regulation; 2) continued to examine potential implications of the introduction of 2,4-d and dicamba tolerant crops; 3) examined the need for a state rule to address the shortcomings of current pesticide runoff restrictions on federal product labels; 4) evaluated comments prepared by OISC and submitted to U.S. EPA in response to proposed amendments to federal Worker Protection Standard regulations; and 5) formulated a work group to develop a state plan in response to the President's directive to provide protection of pollinators from negative exposures to pesticides.

Information accurate as of 4-22-15



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**PRODUCT REGISTRATION:** In 2015, pesticide manufacturers registered 16,101 products for sale and distribution in Indiana. This number exceeds the ten-year annual average for Indiana of 14,792. It also exceeds the last ten-year average of 13,500 pesticide products registered by neighboring states.

During the last year OISC worked cooperatively with US EPA Region 5 in Chicago and with Purdue University's Center for Environmental and Regulatory Information Systems (CERIS) to develop a field inspection tool allowing pesticide regulators nationwide to gain remote web access to both federal and state product registration data. This tool will make routine product compliance inspections much more efficient.

**CERTIFICATION & CREDENTIALING:** OISC issued 35,299 pesticide credentials. This included licenses for 3382 pesticide application businesses, 13,992 pesticide applicators, 3,653 pesticide technicians, 554 pesticide dealers, and 13,718 farmers using pesticides. The 35,299 total credentials for 2015 are up approximately 25% from the ten-year annual average of 28,149. This rise in credentials was attributed primarily to an increase in the number of commercial lawn and landscape applicator business and licensed farmers.

During 2015 OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop or upgrade the subject-matter-valid certification exam and corresponding training manual for general pest control (category 7a) commercial pesticide applicators. OISC also reviewed and approved 681 continuing certification training programs for pesticide applicators.

**COMPLIANCE & ENFORCEMENT:** Pesticide staff investigated 370 complaint cases and conducted 1697 routine compliance inspections, exceeding the ten year annual averages of 286 complaint cases and 1066 compliance inspections. These investigations and inspections required OISC laboratory analysis of 1393 environmental residue samples and 84 product integrity samples. The 1393 environmental samples far exceeded the ten-year annual average of 296 samples. The increased sample load was primarily the result of extensive investigations of incidents involving interior misuse of insecticides, referenced below.

For investigations finalized to date there have been 296 formal violations, including 283 written warnings/citations, 143 administrative fines, and three applicator credential suspensions. Enforcement action numbers have been relatively consistent with the ten-year annual average of 189.

Numbers of off-target pesticide drift complaints (81) and resulting violations (47 to date) exceeded the ten year averages of 76 and 41, respectively.

During 2015 OISC concluded two investigations into the illegal importation and application of a non-registered agricultural insecticide to motel rooms for the control of bedbugs. OISC worked jointly with local health departments and the U.S. EPA Criminal Investigation Division (CID) to prosecute the violators and get

the motel rooms decontaminated. Throughout 2015 OISC has also been working with CID in Atlanta, GA to collect evidence for prosecution of a repeat violator that has been importing and distributing illegal insecticides to local restaurants.

In an effort to ensure that neonicotinoid insecticide products were being used by professional seed treatment applicators in a manner that was responsible and protective of pollinators, OISC conducted over 90 routine compliance inspections at seed treatment businesses.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** During 2015, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 33,271 pounds of hazardous waste pesticides from 125 Indiana applicators at little or no cost to the participants. This collection figure exceeded the annual average over the last five years of 29,463 pounds.

OISC continued to participate in professional and regulatory association affairs with at least 10 staff members serving as officers or committee members on no fewer than 30 regional and national committees and work groups.

INDIANA PESTICIDE REVIEW BOARD: Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2015, the Board and OISC 1) examined the need to make adjustments to the pesticide business license liability insurance regulation; 2) continued to examine potential implications of the introduction of 2,4-D and dicamba tolerant crops; 3) initiated the review of the current state rule regulating the storage and containment of bulk disinfectant pesticides; 4) evaluated comments prepared by OISC and submitted to U.S. EPA in response to proposed amendments to federal applicator certification and training regulations; and 5) initiated the development of a state plan to protect pollinators from negative exposures to pesticides.

Information accurate as of 11-01-16

#### INDIANA STATE CHEMIST AND SEED COMMISSIONER



Protecting Indiana's Agriculture and Environment - Feed, Fertilizer, Pesticide and Seed

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#### 2016 INDIANA PESTICIDE REGULATORY SUMMARY REPORT of ACTIVITES

MISSION & STAFF: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana pesticide laws I.C. 15-16-4 and I.C.15-16-5, and also represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and from unacceptable pesticide exposure. Twenty full-time professional staff and six support staff are responsible for carrying out this mission.

**PRODUCT REGISTRATION:** In 2016, pesticide manufacturers registered 16,396 products for sale and distribution in Indiana. This number exceeds the ten-year annual average for Indiana of 14,952. It also exceeds the average of 13,700 pesticide products registered by neighboring states.

During the last year OISC has worked cooperatively with US EPA and private government contractors to develop a mobile phone and device app that will provide access to federal pesticide product registration data. This tool will place up-to-date federal product data at the fingertips of the public, industry, and regulators.

**CERTIFICATION & CREDENTIALING:** OISC issued 34,717 pesticide credentials. This included licenses for 3479 pesticide application businesses, 14,264 pesticide applicators, 3749 pesticide technicians, 561 pesticide dealers, and 13,225 farmers using pesticides. The 34,717 total credentials for 2016 are up approximately 20% from the ten-year annual average of 28,864.

During 2016 OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to develop or upgrade the subject-matter-valid certification exam and corresponding training manual for agricultural pest management (category 1) commercial pesticide applicators. OISC also reviewed over 650 continuing certification training programs for pesticide applicators.

The OISC credentialing section hired a fourth full-time clerical position in 2016 to improve credential processing time and customer service.

**COMPLIANCE & ENFORCEMENT:** Pesticide staff investigated 355 complaint cases and conducted 1701 routine compliance inspections, exceeding the ten year annual averages of 304 complaint cases and 1602 compliance inspections. These investigations and inspections required OISC laboratory analysis of 1028 environmental residue samples and 102 product integrity samples. The 1028 environmental samples exceeded the ten-year annual average of 600 samples.

For investigations finalized to date there have been 152 formal violations, including 152 written warnings/citations, 71 administrative fines, and one applicator credential suspensions. Enforcement action numbers have been relatively consistent with the ten-year annual average of 197.

Numbers of off-target pesticide drift complaints (87) and resulting violations (35 to date) are relatively consistent with the ten year averages of 82 and 41, respectively.

During 2016 the OISC Pesticide Laboratory worked collaboratively with U.S. EPA, commercial laboratories, and other state regulatory labs to develop and refine analytical extraction and detection methods for dicamba residues in environmental samples. It is anticipated that such lab support will be critical to regulatory

programs nationwide during 2017 and beyond.

**TRAINING, OUTREACH & COMPLIANCE ASSISTANCE:** During 2016, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 43,466 pounds of hazardous waste pesticides from Indiana applicators at little or no cost to the participants. This collection figure exceeded the annual average over the last six years of 30,097 pounds. This year's project included the collection of approximately 3,000 pounds of old DDT found in an estimated 50 rotting bags in a dilapidated wood shed with a dirt floor.

OISC continued to participate in professional and regulatory association affairs with at least 10 staff members serving as officers or committee members on no fewer than 30 regional and national committees and work groups.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2016, the Board and OISC: 1) drafted a rule to address negative implications of the introduction of 2,4-D and dicamba tolerant crop technologies; 2) drafted a rule change to exempt bulk disinfectant pesticide users from storage and containment regulations; 3) developed regulatory criteria for allowing web-based continuing certification training of certified pesticide applicators; 4) evaluated the need to allow for mitigation of large civil penalties assessed for pesticide violations; and 5) developed a multi-stakeholder state plan to protect pollinators from negative exposures to pesticides.

Information accurate as of 2-27-17

#### INDIANA STATE CHEMIST AND SEED COMMISSIONER



Protecting Indiana's Agriculture and Environment - Feed, Fertilizer, Pesticide and Seed

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#### 2017 INDIANA PESTICIDE REGULATORY SUMMARY REPORT of ACTIVITES

MISSION & STAFF: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana pesticide laws I.C. 15-16-4 and I.C.15-16-5, and also represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and from unacceptable pesticide exposure. Twenty-four full-time professional staff and six support staff are responsible for carrying out this mission.

**PRODUCT REGISTRATION:** In 2017, pesticide manufacturers registered 16,852 products for sale and distribution in Indiana. This number exceeds the ten-year annual average for Indiana of 15,251. OISC continued to work cooperatively with the U.S. EPA to review and improve federal pesticide registration databases and pesticide product labels. Federal product registration and labeling are paramount to a safe, effective, and credible national pesticide regulatory program.

**APPLICATOR CERTIFICATION & CREDENTIALING:** OISC issued 31,133 pesticide credentials. This included licenses for 3570 pesticide application businesses, 10,750 pesticide applicators, 4049 pesticide technicians, 557 pesticide dealers, and 12,207 farmers using pesticides. OISC worked with the Purdue Cooperative Extension Service (CES) and a team of industry representatives to revise and upgrade the subject-matter-valid certification exams and corresponding training manuals for ornamental pest management (category 3A) and fumigation (category 7D) commercial pesticide applicators. OISC also reviewed over 610 continuing certification training programs for pesticide applicators. OISC hired a fourth full-time clerical position in the certification and licensing section during 2016. This hire reduced the credentialing processing time by over a month during 2017.

COMPLIANCE & ENFORCEMENT: Pesticide staff investigated 523 complaint cases and conducted 1779 routine compliance inspections, exceeding the ten year annual averages of 342 complaint cases and 1688 routine compliance inspections. These investigations and inspections required OISC laboratory analysis of 2577 environmental residue samples and 103 product integrity samples. The 2577 environmental samples exceeded the ten-year annual average of 604 samples. For investigations and inspections finalized to date there have been 249 formal violations cited. This is below the ten-year annual average of 215 violations, but many 2017 cases are still being processed. The most notable compliance issue for 2017 was agricultural drift. The annual ten-year average of off-target drift complaints is 89, but in 2017 a record number 263 complaints were filed. An unprecedented 134 of those complaints were alleged to involve the herbicide dicamba. No single pesticide active ingredient has ever been associated with such a large number of complaints. New dicamba-tolerant soybean seed technology introduced this year resulted in more dicamba use, at critical soybean growth stages. This phenomenon was not an Indiana specific issue, as record numbers of dicamba drift complaints were filed in every major soybean producing state in the nation. All of OISC's resources and priorities were impacted and stressed by drift response activities. Both U.S. EPA and the Indiana Pesticide Review Board will be tracking this issue closely in 2018.

**OUTREACH & COMPLIANCE ASSISTANCE:** During 2017, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting a record 104,520 pounds of hazardous waste pesticides from 234 Indiana applicators at minimal to no cost to the participants. This collection figure significantly exceeded the six-year annual average of 30,097 pounds of pesticide waste. Products collected included federally cancelled products such as DDT and calcium cyanide.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2017, the Board and OISC: 1) drafted a rule to address negative implications of the introduction of 2,4-D and dicamba tolerant crop technologies; 2) drafted a rule change to exempt bulk disinfectant pesticide users from storage and containment regulations; 3) developed regulatory criteria for allowing web-based continuing certification training of certified pesticide applicators; 4) evaluated the need to allow for mitigation of large civil penalties assessed for pesticide violations; and 5) developed a multi-stakeholder state plan to protect pollinators from negative exposures to pesticides.

Information accurate as of 4-25-18

#### INDIANA STATE CHEMIST AND SEED COMMISSIONER



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# 2018 INDIANA PESTICIDE REGULATORY SUMMARY REPORT of ACTIVITES

MISSION & STAFF: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana pesticide laws I.C. 15-16-4 and I.C.15-16-5 and represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and from unacceptable pesticide exposure. Twenty-nine full-time professional and support staff, plus an additional twelve shared OISC support staff are responsible for carrying out this mission.

**PRODUCT REGISTRATION:** In 2018, pesticide manufacturers registered 16,980 products for sale and distribution in Indiana. This number exceeds the ten-year annual average for Indiana of 15,523. OISC continued to work cooperatively with the U.S. EPA to review and improve federal pesticide registration databases and pesticide product labels. Federal product registration and labeling are paramount to a safe, effective, and credible national pesticide regulatory program. In addition, OISC continues to co-chair the American Association of Pest Control Officials (AAPCO) FIFRA Sec. 25(b) Workgroup to develop consistent national standards for state registration of 25(b) pesticide products that are exempt from federal registration. In 2018, OISC also formalized and implemented the coordination of the procedures between the product registration and compliance sections to help insure violative, misbranded, and unregistered products are removed from the marketplace in a consistent and effective manner.

**APPLICATOR CERTIFICATION & CREDENTIALING:** OISC issued 31,619 pesticide credentials. This included licenses for 5,388 pesticide application businesses, 11,172 pesticide applicators, 3,639 pesticide technicians, 602 pesticide dealers, and 10,818 farmers using pesticides. OISC continues to work with the Purdue Cooperative Extension Service (CES) and industry representatives to upgrade the commercial applicator seed treatment (category 4) competency exam. In 2018, OISC reviewed and approved over 670 continuing certification training programs for pesticide applicators. Also in 2018, OISC implemented a new data handling system that, unfortunately, has slowed the licensing process. OISC is working diligently to improve upon the challenges posed by the new licensing software, with on-line license renewals being one of the ultimate improvements.

COMPLIANCE & ENFORCEMENT: Pesticide staff investigated 562 complaint cases and conducted 881 routine compliance inspections, exceeding the ten-year annual averages of 379 complaint cases and 1639 routine compliance inspections. These investigations and inspections required OISC laboratory analysis of 1906 environmental residue samples and 101 product integrity samples. Investigation sample numbers have increased over the last decade due to the increase in glyphosate tolerant crops, fungicide use on corn, and significant misuse cases involving aminocyclopyrachlor, fipronil, dichlorvos, and now dicamba. In 2019, 900 of the investigation samples were directly attributable to dicamba complaint investigations. Prior to the 2017 and 2018, glyphosate, 2,4-D, and fungicides had been the most common analytes requested by OISC inspectors. By comparison, OISC collected only 124 environmental residue samples in 2006. The most notable compliance

issue for 2018 was agricultural drift, with 270 drift complaints (145 dicamba) investigated. The annual ten-year average of off-target drift complaints (all active ingredients) is 110. For investigations and inspections finalized to date there have been 318 formal violations cited. Both U.S. EPA and the Indiana Pesticide Review Board (IPRB) will be tracking dicamba drift closely again in 2019.

**OUTREACH & COMPLIANCE ASSISTANCE:** During 2018, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 43,301 pounds of hazardous waste pesticides from 186 Indiana applicators at minimal to no cost to the participants. This collection figure exceeded the six-year annual average of 30,097 pounds of pesticide waste.

**INDIANA PESTICIDE REVIEW BOARD:** Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2018, the Board and OISC: 1) reviewed civil penalty mitigation appeals for five different OISC enforcement proposals; 2) reviewed potential impacts to state laws and rules resulting from federal EPA applicator certification and training rule revisions; 3) updated the state plan to protect pollinators from negative exposures to pesticides; and 4) continued to study and evaluate the need for state restriction of agricultural use of dicamba in Indiana in 2019 and beyond.

Information accurate as of 5-28-19

### INDIANA STATE CHEMIST AND SEED COMMISSIONER



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# 2019 INDIANA PESTICIDE REGULATORY SUMMARY REPORT of ACTIVITES

MISSION & STAFF: The pesticide section of the Office of Indiana State Chemist (OISC) is charged with administration of the Indiana pesticide laws I.C. 15-16-4 and I.C.15-16-5 and represents the Environmental Protection Agency (US EPA) in Indiana for the purpose of enforcing federal pesticide law. The mission of OISC under these laws is to protect Indiana citizens and the environment from hazardous, ineffective and improperly formulated and labeled pesticide products and from unacceptable pesticide exposure. Twenty-seven full-time professional and support staff, plus an additional twelve shared OISC support staff are responsible for carrying out this mission.

**PRODUCT REGISTRATION:** In 2019, OISC registered 17,064 pesticide products in the state of Indiana, including registrations from 123 new registrants/manufacturers. Product registration numbers included 1,407 new registrations, 15 FIFRA Sec. 24(c) registrations, 531 FIFRA Sec. 25(b) registrations, 637 device registrations, and one FIFRA Sec. 18 registration for a herbicide used in mint production. OISC also collaborated with the Purdue University Cooperative extension Service to provide an overview of the legal use of pesticides to hemp growers during applicator trainings. OISC continued to work cooperatively with the U.S. EPA and other State Lead Agencies to review and maintain and correct product registration databases and product labels. Adequate product registration and labeling are paramount to a safe, effective, and credible national pesticide regulatory program. In addition, OISC continued to chair the American Association of Pest Control Officials (AAPCO) FIFRA Sec. 25(b) Workgroup to develop consistent national standards for state registration of 25(b) pesticide products that are exempt from federal registration.

APPLICATOR CERTIFICATION & CREDENTIALING: OISC issued 30,415 pesticide credentials. This included licenses for 3,838 pesticide application businesses, 11,232 pesticide applicators, 4,216 pesticide technicians, 609 pesticide dealers, and 10,520 farmers using pesticides. Working with an expert committee of commercial applicator seed treatment practitioners, OISC overhauled and implemented the seed treatment (category 4) competency exam. In 2019, OISC reviewed and approved over 700 continuing certification training programs for pesticide applicators. As required by new EPA certification and training rules, OISC worked filed a state plan for revising state certification and training requirements for pesticide applicators to make them comparable with federal requirements.

**COMPLIANCE & ENFORCEMENT:** In 2019 pesticide staff investigated 517 complaint cases and conducted 657 routine compliance inspections. Previous five-year highs were 518 complaint investigations in 2017 and 1773 routine inspections in 2017. In 2019 OISC pesticide laboratories analyzed 1426 environmental residue samples and 107 product integrity samples. The previous five-year high was 2577 environmental residue samples in 2017. The 107 product integrity samples in 2019 is the high mark for the past five years. Complaint investigation sample numbers have increased significantly over the last three years due to the unprecedented increase in the complaints resulting from the adoption of dicamba tolerant crops and a corresponding increase of the use of dicamba herbicides on those crops. Prior to the 2017 and 2018, glyphosate, 2,4-D, and agricultural fungicides had been the most common analytes targeted in OISC investigations. By comparison, OISC collected only 124

environmental residue samples in 2006. As in 2017 and 2018, the most notable compliance issue during 2019 was agricultural drift, with 344 total (197 dicamba) drift complaints investigated. The annual ten-year average of off-target drift complaints (all active ingredients) is 110. Both U.S. EPA and the Indiana Pesticide Review Board (IPRB) continued to track dicamba drift and volatilization incidents closely again in 2019.

**OUTREACH & COMPLIANCE ASSISTANCE:** During 2019, with financial support from U.S. EPA, OISC conducted a Pesticide Clean Sweep Project, collecting 59,211 pounds of hazardous waste pesticides from 189 Indiana applicators at minimal to no cost to the participants. This collection figure was second only to the previous all-time high in 2017 of 104,520 pounds of pesticide waste.

INDIANA PESTICIDE REVIEW BOARD: Created through IC 15-16-4-42 in 1971, this twenty-member board is appointed by the Governor to develop pesticide policy and regulations for the State of Indiana. Board members include scientists, government officials, university researchers, conservationists, industry representatives and a public representative. In 2019, the Board and OISC worked cooperatively and successfully to: 1) lobby FieldWatch/DriftWatch to include IDNR nature preserves on their listing of drift sensitive sites; 2) revise OISC's enforcement response policy for drift violations; 3) draft legislative revisions for successful enactment by the Indiana Legislature to accommodate federal certification and training rule revisions for pesticide applicators; and 4) develop state label restrictions for dicamba herbicide products under FIFRA Sec. 24(c) in an effort to reduce the unacceptable number of dicamba drift and volatilization incidents in the upcoming growing season.

Information as of 1-5-22