

PESTICIDE REPORTS

Division of Agricultural Sciences and Natural Resources • Oklahoma State University

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OSU PSEP LAWN CARE PEST MANAGEMENT PROGRAMS 2013

The OSU Pesticide Safety Education Program will conduct two Lawn care CEU programs in July. They will be held on July 16th at the Tulsa County Extension Office (4116 E. 15th) and July 19th at the Oklahoma County Extension Office (930 N Portland). The program will run from 9 am to 12:30 pm. 3 CEU's for categories 3A and 10 will be available

Topics to be covered: Proper PPE for Lawn Applicators, Turfgrass Herbicide and Weed Update, and Fire Ants and other Invasive Pests in Landscapes.

Registration cost is \$30 for pre-registration by July 11 and \$50 after July 11. You can find registration forms or register online at <http://pested.okstate.edu/practical.htm>. Please contact Charles Luper at 405-744-5808 for any questions. (PSEP)

NASS SURVEYS 15 STATES ON CHEMICAL USE IN WHEAT

The National Agricultural Statistics Service (NASS) conducted the 2012 Agricultural Chemical Use Survey among wheat producers in 15 states: Colorado, Idaho, Illinois, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, and Washington.

The 13 winter wheat program states accounted for 80% of the acreage planted in the U.S. in the 2012 crop year. The data are based on 1,371 individual questionnaires. The four spring wheat (excl. durum) program states accounted for 91% of the U.S. planted acreage in 2012. The data are based on 422 individual questionnaires. The two durum wheat program states accounted for 88% of the planted acreage in 2012, and the data are based on 214 questionnaires.

Nitrogen was the most widely used fertilizer material on wheat planted acres, applied to nearly all durum and spring (excl. durum) wheat acres and 85% of winter wheat acres. Phosphate (P₂O₅) and potash (K₂O) were the next most widely applied fertilizer materials. Nitrogen was applied to spring (excl. durum) wheat at an average rate of 84 pounds per acre for the 2012 crop year. Average nitrogen rates for durum and winter wheat were 70 and 62 pounds per acre, respectively.

The pesticide active ingredients used on wheat are classified in this report as herbicides, insecticides or fungicides. Herbicides were the most extensively used, applied to nearly all durum and spring (excl. durum), and 61% of winter, wheat planted acres. Fungicides were applied to 49% of spring (excl. durum), 39% of durum, and 19% of winter wheat acres. Insecticides were used less extensively across all three wheat types. The specific herbicides applied varied across wheat types.

The survey asked growers to report on the pest management practices they used on wheat. Pests are defined as weeds, insects or diseases.

Wheat growers reported practices in four categories of pest management strategy:

- Prevention practices keep a pest population from infesting a crop or field through various preceding actions.
- Avoidance practices mitigate or eliminate the detrimental effects of pests through cultural measures.
- Monitoring practices involve observing or detecting pests through systematic sampling, counting, or other forms of scouting.
- Suppression involves controlling or reducing existing pest populations to mitigate crop damage.

Scouting for weeds was the most widely reported monitoring practice in 2012, used on 86%, 97% and 99%, respectively, of winter, spring (excl. durum), and durum wheat planted acres. In the wheat chemical use survey conducted in 2009, scouting for weeds was also a commonly reported monitoring practice for all three wheat types.

Among prevention practices, no-tillage or minimum tillage was the top reported practice in both the 2012 and 2009 chemical use surveys. Among avoidance practices, crop rotation was the top reported practice, although percentages varied across wheat types. The most reported suppression practice was maintaining ground covers, mulches or other physical barriers. (Crop Life June 11, 2013) <http://www.croplife.com/article/34650/nass-surveys-15-states-on-chemical-use-in-wheat>

EPA SAYS BAN APPLIES TO RODENTICIDE STOCKS

EPA's determination that existing stocks of Reckitt Benckiser's rodenticide products cannot be sold once they are banned is not an issue subject to review by an administrative law judge, the agency says in a brief filed last week. The brief specifically targets arguments put forth by users and retailers of the company's popular d-Con products, a dozen of which EPA is keen to get off the market.

The agency issued a final Notice of Intent to Cancel (NOIC) for the registrations in question in January, a move it took after Reckitt refused to adhere to new packaging requirements and other restrictions. EPA also rejected two new registrations submitted by Reckitt.

The company is challenging the NOIC in proceedings currently before EPA Chief Administrative Law Judge (ALJ) Susan Biro. Recent filings in the dispute have focused on whether Biro should take on the issue of EPA's determination that existing rodenticide stocks are covered by the ban.

Language in the NOIC details EPA's conclusion that if the products are cancelled, retailers and others may not sell existing stocks. The agency also stated its view that the issue is outside the scope of the administrative hearing.

"The only purposes of this proceeding are to determine whether twelve specific pesticide products should be cancelled, and whether the applications for registration of two other pesticide products should be denied," EPA argues in its May 31 brief.

Reckitt is challenging that view, both in a motion before Biro and in litigation filed in the 10th Circuit Court of Appeals (see *P&CP*, May 24, 2013, Page 5).

In its latest filing with Biro, EPA says legal precedents hold that "FIFRA does not create any right to a hearing on the disposition of existing stocks of cancelled product."

While the administrative law judge has the authority to determine the scope of a cancellation hearing, the judge is bound by interpretation of the NOIC, the petitioners' objections and the applicable laws, EPA contends.

"Given that the NOIC establishes the outer bounds of the scope of this proceeding, the final question is whether the NOIC includes the disposition of existing stocks of cancelled products within the potential scope of this proceeding," the agency

writes in its brief. "The NOIC answers this question in the negative, in plain and unmistakable English."

Users and retailers

The brief also addresses specific arguments put forth in support of Reckitt by rodenticide seller Do It Best Corp and two users of the d-Con products, the Greater Cincinnati Northern Kentucky Apartment Association and the Louisville Apartment Association.

The coalition is urging Biro to take on the issue and consider the financial hardships EPA's plan could impose.

EPA says the coalition's complaint that it failed to conduct the appropriate risk-benefit analysis is unfounded. Regardless of that dispute, the agency contends the concern "has no bearing on the disputed scope of this proceeding."

The retailer and users also argue that the issue a decision on existing stocks of cancelled pesticides outside the setting of a cancellation proceeding would be inconsistent with the intent and purpose of FIFRA.

Not so, says EPA, which suggests the petitioners are in effect arguing that Congress "would not have allowed EPA to decide how to treat existing stocks of a cancelled pesticide without also subjecting that decision process to formal administrative adjudication."

Such a view is "unsupported by the statutory text and contrary to the applicable case law," according to the agency.

EPA also rejected the argument that asserts the agency is treating Reckitt unfairly compared to other rodenticide registrants who have agreed to voluntarily cancel their products or taken steps to reduce risks to children and wildlife.

The agency allowed retailers to sell existing stocks of two cancelled Liphatech rodenticides until those stocks were exhausted.

The agreement between EPA and Liphatech “must be recognized as a compromise,” the agency says.

Although it was “not ideal from the agency’s perspective,” the compromise resulted in less exposure to Liphatech’s products than likely would have resulted if the company had pursued a cancellation hearing, during which time they could have continued to produce and sell the affected products, EPA explains.

“Moreover, there is no disparate treatment because essentially the same compromise was available to Reckitt before the NOIC was issued, but Reckitt instead chose litigation,” the agency concludes.

Rejecting ACC

EPA’s brief also rejects two arguments put forth by the American Chemistry Council’s Biocides Panel (ACCBP) in an amicus brief in favor of Reckitt’s motion.

The industry group says the existing stocks issue is one that requires a “fact-intensive consideration of numerous technical and economic factors” that should be made by an ALJ in a formal cancellation hearing. According to EPA, the ACCBP fails to directly address the agency’s core view that FIFRA provides no such right and that the NOIC “sets the outer bounds of the scope of a proceeding.”

The industry group’s policy arguments are also “not persuasive,” EPA writes.

Case law reflects acceptance of the proposition that the purpose of a cancellation proceeding can “appropriately be limited to the determination of whether a pesticide product is or is not still eligible for registration,” EPA contends. “Factors such as the quantities of existing stocks of a cancelled pesticide, their economic value, and the risks of various methods of disposal do not have a causal effect on the risks or benefits associated with registration of the pesticide, and therefore are not relevant to a finding that the pesticide should or should not be cancelled.”

ACCBP also argues that absent formal review by an ALJ, EPA’s decision regarding existing stocks may

be inadequately informed and/or arbitrary and capricious.

EPA responds that the issue is “simply not relevant” to the current proceeding.

“A cancellation hearing is not a forum for general remedy of grievances, but rather a focused hearing for one specific statutory purpose: To determine whether certain specific pesticide products meet the criteria for registration set forth in FIFRA,” the agency argues.

(Pesticide & Chemical Policy, June 7, 2013
Volume: 41 Issue: 24)

USDA TO PREPARE IMPACT STATEMENTS FOR DICAMBA, 2,4-D TRAITS

The USDA's Animal and Plant Health Inspection Service (APHIS) has announced plans to prepare two separate environmental impact statements (EIS) to better inform decision-making regarding the regulatory status of crops genetically engineered to be resistant to 2,4-D and dicamba.

These are the first plants genetically engineered to be resistant to these specific herbicides. Dicamba and 2,4-D have been safely and widely used across the country since the 1960s to control weeds on crop and non-crop sites. If approved, these plants would provide farmers the flexibility for new applications of these herbicides, while also offering farmers additional crop planting options.

The dicamba technology is part of Monsanto’s Roundup Ready Xtend Crop System, and the 2,4-D technology is part of the Enlist Weed Control System from Dow AgroSciences.

Both technologies are scheduled for introduction in corn and soybeans over the next two years.

APHIS' Notices of Intent to prepare these EIS's will officially be published in the Federal Register, and each notice will be accompanied by a 60-day public comment period.

Comments received to date by APHIS in response to all of the 2,4-D and dicamba documents have been similar in scope, ranging from the importance of making additional herbicide-resistant crops available for producers to focusing on the potential increased volume of herbicides containing 2,4-D and dicamba and their movement onto non-target crops in surrounding areas, as well as the potential for the development of herbicide-resistant weeds.

Under the National Environmental Policy Act, APHIS is required to evaluate the potential environmental impacts that could result from a deregulation of new genetically engineered plants by the Agency. With regard to these new herbicide-resistant plants, through its analysis of information submitted by Monsanto and Dow AgroSciences, as well as public comments, APHIS has determined that these EIS's are needed to further assist the Agency in evaluating any potential environmental impacts before making a final determination regarding the products' regulatory status.

A Monsanto spokesperson noted that the company will work with APHIS to complete this action as soon as possible to ensure that U.S. farmers can gain access to these important new technologies.

“As APHIS completes the EIS, we’ll use this time to continue to advance the development of these next-generation products – including ensuring farmers gain first-hand experience through our Ground Breakers program throughout 2013 and 2014,” said Lisa Safarian, U.S. row crops lead for Monsanto.

“U.S. farmers tell us that they need these critical technologies to help manage tough-to-control weeds on their farms to maximize yield potential and meet the world’s growing demands,” she added. “While unexpected, we’ll use this timing to broaden the development of high-yielding varieties that we’ll ultimately be able to deliver to the farm.”

Likewise, the reaction from Dow AgroSciences was one of cooperation.

In preparing the EIS's, APHIS plans to host upcoming public meetings that will be publicized through the Federal Register and the Agency's

website. (Crop Life May 15, 2003)
<http://www.croplife.com/article/34272/usda-to-prepare-impact-statements-for-dicamba-2-4-d-traits>

NEW PAPERS BRING NEONIC RISK ASSESSMENTS INTO QUESTION

Two new papers question the validity of risk assessment methodologies widely accepted by regulators while registering neonicotinoid pesticides, commonly accepted to be a significant contributor to the widespread die-off of honeybees.

The papers point toward new research to better understand the complexities of determining the role pesticides play in the bees’ mortality, both directly and indirectly. For instance, some experts question anecdotal evidence about why some bees exposed to neonicotinoids apparently do not show the concerning mortality rates that other bees do when exposed to the toxins.

The recently published papers point to the need to better understand the molecular action of the pesticides on the bees and how different routes of exposure affect their health.

A more valid way of measuring the impact of neonicotinoids on honeybees and other pollinators would be to measure the effect of pesticides over time at low doses typically encountered in the field, according to *The Molecular Basis of Simple Relationships Between Exposure Concentration and Toxic Effects With Time*, published by *Toxicology*.

Field studies measuring the mortality rate of hives in an agricultural setting where neonicotinoids are applied and contrasting that with a control group, could be the basis of a more meaningful assessment of the risk to honeybees, according to authors Henk Tennekes and Francisco Sánchez-Bayo.

The authors maintain in their paper that neonicotinoids bind tightly to receptors in the honey bees, which means the toxins accumulate over time as the exposure to toxins is prolonged.

They advocate for prolonged field studies to observe “chemicals showing irreversible or slowly reversible binding to specific receptors will produce cumulative effects with time of exposure, and whenever the effects are also irreversible they are reinforced over time; these chemicals have time-cumulative toxicity.

“The mechanism of toxic action has important implications for risk assessment. Traditional risk approaches cannot predict the impacts of toxicants with time-cumulative toxicity in the environment,” the authors maintain.

“Neonicotinoid insecticides show reinforcement of lethal effects over time of exposure ... The toxicity pattern of imidacloprid and thiacloprid suggests that these and other neonicotinoid compounds have irreversible binding to their nicotinic acetylcholine receptors,” the authors write.

Widely accepted risk assessment methodologies over-emphasize dose, as opposed to chronic exposure, the authors say. Much of the dispute over current research centers on doses used in laboratory studies. The authors’ advocacy for field testing at low doses would address that concern.

A similar recommendation was made to *Pesticide & Chemical Policy* early this year by apiculturist and University of California extension official Eric Mussen. He suggested that Europe’s restrictions on the applications of neonicotinoids offers a good opportunity to set up a study similar to that recommended by Tennekes and Sánchez-Bayo.

However, he and others also say setting up such a study would be difficult because of the challenge of finding an environment free of neonicotinoid exposure needed for a control group.

“The interaction of a toxicant with the specific receptors that lead up to an effect is essential to understand the mechanisms of toxicity. Toxicokinetic and toxicodynamic models must be based on a molecular approach that considers the mechanisms of action of chemicals. Only then they will be able to explain the time-dependent effects observed in toxicity testing, and predict

environmental impacts with reasonable accuracy,” Tennekes and Sánchez-Bayo conclude.

Exposure route challenges

The second paper, *Neonicotinoids, Bee Disorders and the Sustainability of Pollinator Services*, reviews data from previous studies to trace neonicotinoids’ path from application to leaching in the soil, making its way into water, or infiltrating hives exposing honeybees to the toxins throughout the year, as well as through more periodic exposures such as drift, or pollen. Current studies are overly focused on exposure associated with the various pollinating seasons.

The six authors also extrapolate the molecular action of neonicotinoids in concluding that sublethal exposure to neonicotinoids could play a significant role in what many expect are multiple causes of morbidity, including the Varroa mite.

The “wide application [of neonicotinoids], persistence in soil and water and potential for uptake by succeeding crops and wild plants make neonicotinoids bioavailable to pollinators at sublethal concentrations for most of the year,” the authors write.

They also point out that insects’ nervous systems makes them particularly vulnerable to neonicotinoids.

The persistence of the neonicotinoids means they accumulate in the environment. For seed treatments, the authors estimate no more than 20% of the insecticide is absorbed by the plant, the rest going into the environment where persistence from a single soil drench application has been measured in blossoms six years after the fact.

“It is however not the quantity that is relevant but the potency to cause harm, which results from toxicity, persistence and bioavailability,” the authors write.

Honeybees and other pollinators are exposed to the persistent toxins through six paths: ingestion, nesting material, direct contact through drift,

contamination (soil, water, plants), cooling water in the hive, and inhalation of contaminated air.

In addition to the threat posed by commercial agricultural operations, foraging honeybees are exposed to suburban applications of pesticides, which frequently are not applied according to directions.

The authors also link neonicotinoids to honey bee susceptibility to the Varroa mite, commonly blamed by the pesticide industry as the primary cause of bee die-offs.

“Exposure to neonicotinoid residues leads to a delayed development of honeybee larvae, notably in the early stages. This can favor the development of the Varroa destructor parasitic mite within the colony. Likewise, the life span of adult bees emerging from the exposed brood proved to be shorter,” the authors say.

Risk assessments questioned

The two papers signify a strategic shift in research that is bringing into question the way pesticides are reviewed during registration by questioning risk assessment methodologies.

The *Neonicotinoids, Bee Disorders* study is funded by a group of global environmental organizations that includes the Triodos Foundation’s Support Fund for Independent Research on Bee Decline and Systemic Pesticides and donations from environmental groups such as Adessium Foundation (The Netherlands), Act Beyond Trust (Japan), Zukunft Stiftung Landwirtschaft (Germany) and private citizens.

In addition to more research now in the pipeline that environmentalists hope will yield ammunition to their cause, NGOs are attacking EPA’s registration procedures as inadequate and incomplete in determining the risk associated with registering neonicotinoids in two important suits now in U.S. district courts.

In one suit, the Center for Food Safety, Beyond Pesticides, other environmental groups and a handful of beekeepers allege EPA failed to

adequately assess environmental threats when it registered neonicotinoid pesticides.

In the second suit, the Center for Biological Diversity has refiled its suit (see story page X) against the EPA in U.S. District Court of Northern California, at least in part over complaints that the regulator failed to follow procedures to adequately determine the risk posed to listed species under the Endangered Species Act.

Pesticide & Chemical Policy, June 14, 2013 Volume: 41 Issue: 25)

ENVIRONMENTALISTS TAKE SECOND SWING AT PESTICIDE ESA ‘MEGASUIT’

Environmentalists have filed an amended complaint in the pesticide “megasuit” alleging EPA has run afoul of the Endangered Species Act (ESA) by failing to assess how an array of registered pesticides could harm listed species, a move they hope will clear the legal hurdles that doomed their original challenge.

The revised complaint still fits the term “megasuit,” but it is leaner than the original, which alleged EPA had registered some 382 pesticides without assessing the potential impacts to 214 listed species.

U.S. Magistrate Joseph Spero dismissed the first complaint in April on procedural grounds, ruling the complaint was too vague and concluding the plaintiffs failed to present specific allegations for each individual pesticide (see *P&CP* April 26, 2013, Page 1).

The new filing from the Center for Biological Diversity and Pesticide Action Network North America covers roughly 50 pesticide active ingredients. It alleges EPA failed to consult with the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service over the potential impacts to 112 endangered and threatened species, including the Florida panther, California condor and the black-footed ferret.

The new complaint makes the “same arguments we made before but with additional information,” says Justin Augustine, an attorney with the Center for Biological Diversity. “It provides a better picture of how the pesticide regulatory process plays out.”

The scaling back of the number of pesticides and species is a bid to get “some action on these more quickly,” he adds. “We are still concerned about all of the pesticides cited in the original complaint, but we wanted the focus on some of the ones we are most concerned about, like diazinon, atrazine and 2,4-D.”

The pesticides cited in the complaint fall into two categories. One includes pesticides for which EPA has indicated concentrations found in the environment may exceed levels of concern for listed species or may cause indirect effects on endangered species by altering habitat or food sources. The second category includes pesticides that are “highly acutely toxic” or “very highly acutely toxic” to one or more taxa groups.

The complaint notes that the “vast majority of pesticides have undergone no ESA analysis of impacts to listed species,” and there have been only a few completed consultations between EPA and the wildlife agencies in the past 20 years regarding pesticide impacts, other than those imposed by court order.

For the pesticides in question, EPA has either failed to initiate or reinstate consultation regarding its registration and reregistration actions since 1989.

Like the original, the amended complaint seeks a court order compelling EPA to start and complete the consultation process for the pesticides and species identified. It also asks the court to bar EPA from allowing label uses that might lead to pesticides entering designated critical habitat of listed species until the consultation process has been completed.

When asked if the plaintiffs had filed the amended complaint in a bid to get EPA to settle some of the claims and agree to a consultation timetable, Augustine said that was not the direct intent.

“We will have to wait and see if EPA is interested in settlement discussions,” he tells *Pesticide & Chemical Policy*. “It is still early in the game, and it depends on how things go, but we are certainly open to that and wouldn’t rule it out.”

Doubting lawyers

An attorney familiar with the case suggests settlements are the likely aim of the amended complaint, casting doubts that the plaintiffs will be able to satisfy the jurisdictional and procedural challenges that prompted Spero to dismiss the original complaint.

“It is a bit surprising that the complaint is as muddled as it is because district court gave them a pretty clear roadmap,” the attorney tells *P&CP*.

Another attorney tracking the case calls the new complaint “voluminous” and “thinly researched.”

“I don’t expect this to be well received by the judge,” the attorney tells *P&CP*.

Spero’s reaction remains unknown, but he has previously voiced reservations the plaintiffs will be able to meet the legal requirements to succeed with their case.

“Plaintiffs must bring a separate ESA claim in connection with the EPA’s affirmative act with regard to each individual pesticide in order to invoke [the ESA’s] consultation requirement,” Spero wrote in his April 22 ruling.

The judge offered the plaintiffs the opportunity to refile their claims, but noted that such separate claims face significant jurisdictional barriers and would likely have to be filed in an appeals court with 60 days of the underlying EPA action.

A key issue relates to the “ongoing agency action” that triggers consultation the amended complaint repeats statements in the original complaint that EPA’s ongoing jurisdiction and discretionary control over pesticide registration is akin to such action.

That could be a problem for plaintiffs, says Tim Backstrom, a senior attorney with Bergeson & Campbell.

“That theory was decisively and unequivocally rejected by the district court’s opinion,” he explains. “There has to be a specific agency action with respect to which the plaintiffs are seeking relief. It can’t be based on continued regulatory authority or ongoing discretionary control.”

The issue of jurisdiction could also prove difficult for the plaintiffs.

In his April dismissal, Spero also questioned whether the subject matter of the complaint belongs in district court.

He determined the plaintiffs’ “core objections” were not related to the ESA but to pesticide registrations and thereby governed by FIFRA, concluding they fell under the provision of the pesticide law that calls for review in district court.

Such review is afforded to a decision for which there was not a public hearing, though such a review is generally limited to a six-year statute of limitations. Under applicable precedent, actions for which EPA provided notice and comment are deemed to be actions for which there was a public hearing.

The EPA actions cited in the new complaint may not be able to clear that hurdle, Backstrom tells *P&CP*.

“The problem is that many of the cited actions are registration actions that implemented or effectuated a reregistration eligibility decision which was in fact taken after notice and comment,” says Backstrom, a former attorney in EPA’s Office of General Counsel.

The plaintiffs disagree and have not “let go of some of our legal positions,” Augustine says, but still believe the amended complaints may convince Spero of their case.

“We hope he will get past the procedural issues and rule on the substance on and the merits,” he tells

P&CP. (Pesticide & Chemical Policy, June 14, 2013 Volume: 41 Issue: 25)

USDA SAYS GE WHEAT IN OREGON ISOLATED EVENT

USDA says its investigation into traces of an unauthorized Roundup Ready wheat variety (MON71800) thus far shows that it was an isolated event in a single field on a single farm.

Monsanto had permission from USDA to test a RR wheat variety engineered to be tolerant to the herbicide glyphosate in 16 states from 1998 to 2005. In 2004 the biotech seed giant abandoned the project, which required tight control over any seeds it had planted. But traces of the RR wheat were confirmed last month by USDA’s Animal and Plant Health Inspection Service, in Oregon, bolstering concerns about GE crops commingling with conventional crops and jeopardizing their market value.

After news broke of the rogue volunteers, Japan and South Korea suspended some imports of U.S. wheat, and the European Union, which imports more than one million tons of U.S. wheat annually, warned it would enforce its “zero tolerance” policy against unauthorized GE crops.

In a statement issued last Friday (<http://1.usa.gov/19drmpW>), USDA stresses that detection of this wheat variety “does not pose a public health or food safety concern, and completion of the FDA consultation process in 2004 “means this variety is as safe as non-GE wheat currently on the market.”

All information collected thus far shows no indication of the presence of GE wheat in commerce, USDA continues. “Investigators are conducting a thorough review. They have interviewed the person that harvested the wheat from this field as well as the seed supplier who sold the producer wheat seed; obtained samples of the wheat seed sold to the producer and other growers; and obtained samples of the producer’s wheat

harvests, including a sample of the producer's 2012 harvest. All of these samples of seed and grain tested negative for the presence of GE material. Investigators are continuing to conduct interviews with approximately 200 area growers."

Noting that major markets have postponed imports of U.S. white wheat as they continue to study information from U.S. officials, USDA says it will continue to provide information as quickly as possible as the investigation continues -- "with a top priority on giving our trading partners the tools they need to ensure science-based trade decisions.

For its part, Monsanto reports, in a news release issued June 10, that it has now tested 56 wheat varieties for contamination by unauthorized GE wheat genes. The company says the varieties represent more than 80% of all the acres of soft white winter/spring wheat seed varieties grown in Oregon and Washington State for 2011, adding, "These tests show that all samples of these 56 varieties are clean." More information about the testing method and ongoing developments can be found at www.monsanto.com/gmwheat.

"The world awaits further information"

In a statement issued last Friday, the National Association of Wheat Growers (NAWG) and U.S. Wheat Associates say they have "continued to communicate with USDA officials, Hill offices, state wheat organizations and others ... as the wheat industry -- and the world -- awaits further information about a finding of Roundup Ready wheat on one farm field in Oregon."

NAWG says its staff, as well as other representatives from the wheat industry, have continued to participate in meetings with USDA officials to urge "complete but timely conclusions" from the investigation that can help the industry mitigate any customer concerns as the Pacific Northwest harvest quickly approaches."

USDA's Grain Inspection, Packers & Stockyards Administration (GIPSA) is working toward making available appropriate and validated testing techniques to address market needs that may develop, the wheat industry groups report.

Information from NAWG and USW about the investigation is available directly at www.wheatworld.org/aphisinvestigation and www.uswheat.org.

Eastern Washington lawmaker weighs in

Rep. Cathy McMorris Rodgers (R-Wash.) on Monday sent a one-page letter (<http://1.usa.gov/17WdUc9>) to Kevin Shea, acting administrator of the Animal and Plant Health Inspection Service (APHIS), requesting an investigation timeline and a formal meeting to discuss the GE wheat traces.

"Wheat growers play a significant role in Eastern Washington's economy, and I am concerned that Japan, South Korea, and Taiwan, key trading partners, have delayed purchases of white wheat," she writes. "As such, I want to ensure that they do not look for alternative suppliers. We need to assure all of our trading partners that the Northwest will continue to provide a reliable supply of high-quality wheat. Therefore, it is important that APHIS determine how this occurrence happened..."

Noting that Japan, South Korea, and Taiwan are delaying purchases of white wheat, Rodgers says wheat growers in Eastern Washington are already experiencing a decline in wheat prices. "Knowing that the start of harvest is imminent, I am concerned that if harvest begins and APHIS is still unable to determine how this occurrence happened, wheat prices will continue to remain depressed," she adds.

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KANSAS FARMER SUES MONSANTO FOR ROUNDUP READY WHEAT “VOLUNTEERS”

A Kansas wheat farmer has filed a lawsuit against Monsanto charging gross negligence in the recent discovery of Roundup Ready “volunteers” in an Oregon field.

Ernest Barnes, who lives and farms in Morton County, Kansas, charges Monsanto with a negligent undertaking and public and private nuisance in his 25-page complaint (available via PACER at <http://1.usa.gov/14dVtMV>) filed Monday in the U.S. District Court for the District of Kansas, in Wichita. He seeks unstated punitive damages and a jury trial.

Barnes is seeking compensation for damages caused by the discovery, in April, of “volunteers” of GMO wheat in an Oregon field, which sent wheat export futures prices spiraling downward (see *P&CP* May 31, 2013, Page 5).

Monsanto had permission from USDA to test a Roundup Ready wheat variety engineered to be tolerant to the herbicide glyphosate in 16 states from 1998 to 2005. In 2004 the biotech seed giant abandoned the project, which required tight control over seeds. But traces of the RR wheat were confirmed by USDA’s Animal and Plant Health Inspection Service, in Oregon, bolstering concerns about GE crops commingling with conventional crops and jeopardizing their market value.

After news broke of the rogue volunteers, Japan and South Korea suspended some imports of U.S. wheat, and the European Union, which imports more than one million tons of U.S. wheat annually, warned it would enforce its “zero tolerance” policy against unauthorized GE crops. Kansas exports about 90% of its wheat crop. Korea reported during the week that no offending wheat has been discovered in U.S. imports.

Barnes is to be represented by a squad of attorneys from three different firms in different cities: from the firm of Susman Godfrey, in New York City,

founder Stephen Susman, Warren Burns, Terry Oxford, and Daniel Charest; from the Murray Law Firm, in New Orleans, Stephen Murray and Arthur Murray; and from the firm of Goldman Phipps, in San Antonio, attorney Martin Phipps.

The case may be the first of many Monsanto faces over alleged wheat contamination, suggests a press release jointly issued by the law firms Monday. A class action suit was filed as *P&CP* went to press (see story Page 11).

“Monsanto has failed our nation’s wheat farmers,” says Stephen Susman, the firm’s lead attorney on the case, in the news release. “We believe Monsanto knew of the risks its genetically altered wheat posed and failed to protect farmers and their crops from those risks.”

Martin Phipps, an attorney who litigated similar contamination claims involving the U.S. rice crop over the past several years, says the reaction in Asian and European markets doesn’t come as a surprise. “Our agricultural trading partners have little tolerance when it comes to genetically modified foods. Contamination of non-GMO crops presents a huge risk to our agricultural economy,” he says in the news release.

Given the size of the wheat crop, farmers may face significant damages, adds New Orleans trial lawyer Stephen Murray in the news release: “The full extent of the damage Monsanto has caused is not yet known, but we are committed to helping farmers as the extent of the wheat contamination becomes clear.”

Monsanto officer suggests sabotage is possible

It is not yet known how the seed giant will defend itself in court, but it gave some indications in a conference call with reporters on Wednesday. Monsanto officials said the emergence of RR wheat volunteers was an isolated occurrence and most likely resulted from an accident or deliberate mixing of seeds. The company said it has tested the parent wheat stock and found it clean, the *Associated Press* reports.

However, Robb Fraley, Monsanto's chief technology officer, also suggested sabotage is a possibility that's being investigated.

"We're considering all options, and that's certainly one of the options," he is quoted as saying, adding that it's unlikely that other parent stocks were corrupted or "probably we would have seen it for many, many years over the last decade."

In an email on Tuesday, David Snively, Monsanto executive vice president and general counsel, employs a couple choice words for the law firms filing suits against Monsanto.

"Tractor chasing lawyers have prematurely filed suit without any evidence of fault and in advance of the crop's harvest," Snively says.

"Plaintiffs are taking a wild swing that is unlikely to connect," the statement from Monsanto continues. "USDA announced finding glyphosate-tolerant wheat in a few 'volunteer' plants in one field on one farm in Oregon. This unexplained report and no more is the ostensible basis for a lawsuit arising from the first report of glyphosate-tolerant wheat in the nine years since cessation of Monsanto's commercial wheat development program.

"USDA has said the wheat crop is safe, FDA confirmed food and feed safety in 2004, and USDA has stated repeatedly that there is no indication that glyphosate-tolerant wheat has entered commerce," Monsanto says, adding that its process for closing out its original wheat development program "was government directed, rigorous, well-documented and audited. Neither seed left in the soil or wheat pollen flow serve as a reasonable explanation of the USDA's reported detection.

"Moreover, researchers both in the public and private sectors acknowledge that the viability of wheat seed on average lasts one to two years in the soil. There is considerable reason to believe that the presence of glyphosate tolerance in wheat, if determined to be valid, is very limited. Given the care undertaken no legal liability exists and the company will present a vigorous defense."

Monsanto provides EU with testing method

In a separate but related development, Monsanto has provided European authorities with an analytical method for detecting traces of RR wheat, but it will be at least two weeks before imports into the EU can be tested, *Agra Europe* reports.

"On Saturday, Monsanto sent a testing method to the EU's Joint Research Center, which is currently being evaluated," European Commission health spokesperson Frederic Vincent reportedly told *Reuters*. "It is likely to take at least two weeks to develop a validated method for testing imports."

The European Commission last week advised member-states to test imports of U.S. soft white wheat and ensure that no product with unauthorized GE traces makes it to market.

South Korea, which suspended imports of U.S. wheat on May 31, said authorities hadn't found any GE traces in the initial tests carried out over the weekend. "Although our preliminary test result shows no genetically modified wheat was found, we are aiming to test all samples of wheat and flour imported from the U.S.," said a food ministry official.

Japanese authorities also said they won't be releasing any of the U.S. wheat stocks they have in their stores as a precautionary measure, although processors with stocks already in their possession, believed to be about 200,000 metric tons, have been given permission to use them.

Meanwhile, Monsanto has said it won't be pushing to expand the market for biotech seeds in the EU due to strong opposition in many countries.

A Monsanto spokesperson says the company will cease lobbying in the bloc and no longer seek approvals for its GE products. "We've come to the conclusion that this has no broad acceptance at the moment," Ursula Lüttmer-Ouazane reportedly told German newspaper *Taz*.

Monsanto corporate spokesman Thomas Helscher said late last week that the company is making it clear that it will only pursue market penetration of biotech crops in areas that provide broad support.

“We’re going to sell the GM seeds only where they enjoy broad farmer support, broad political support and a functioning regulatory system,” Helscher reportedly told *Reuters*. “As far as we’re convinced, this only applies to a few countries in Europe today, primarily Spain and Portugal.”

As Monsanto focuses on conventionally bred corn, Vice President Jesus Madrazo, who oversees international corporate affairs, says Eastern Europe and South America are key growth areas for the company now. (Pesticide & Chemical Policy, June 7, 2013 Volume: 41 Issue: 24)

In-State CEU Meetings

Date: July 16, 2013

Title: OSU Lawncare Workshop

Location: Tulsa County Extension Center

Contact: Charles Luper (405)-744-5808

Course #: OK-13-053

<http://pested.okstate.edu/html/practical.htm>

CEU's:	Category(s):
3	3A
3	10

Date: July 19, 2013

Title: OSU Lawncare Workshop

Location: Oklahoma County Extension Center

Contact: Charles Luper (405)-744-5808

Course #: OK-13-053

<http://pested.okstate.edu/html/practical.htm>

CEU's:	Category(s):
3	3A
3	10

Date: July 25, 2013

Title: BWI Tulsa Summer Seminar

Location: Linnaeus Gardens Tulsa OK

Contact: Kelly Keech (918)-693-6461

Course #: OK-13-052

MUST PREREGISTER TO ATTEND!

<http://bwicompanies.com>

CEU's:	Category(s):
4	3A
4	3C

Date: August 14, 2013

Title: CTN Educational Workshop

Location: Courtyard Marriott 4301 Highline Park Blvd, Oklahoma City OK

Contact: Tommy Kezar (512)-829-5114

Course #: OK-13-019

www.ctnedu.com

CEU's:	Category(s):
1	1A
3	3A
1	6
1	7A
2	7B

ODAFF Approved Online CEU Course Links

Technical Learning College
<http://www.abctlc.com/>

Green Applicator Training
<http://www.greenapplicator.com/training.asp>

All Star Pro Training
www.allstarce.com

Wood Destroying Organism Inspection Course
www.nachi.org/wdocourse.htm

CTN Educational Services Inc
http://www.ctnedu.com/oklahoma_applicator.html

Pest Network
<http://www.pestnetwork.com/>

Univar USA
<http://www.pestweb.com/>

Southwest Farm Press Spray Drift Mgmt
<http://www.pentonag.com/nationalsdm>

SW Farm Press Weed Resistance Mgmt in Cotton
<http://www.pentonag.com/CottonWRM>

Western Farm Press ABC's of MRLs
<http://www.pentonag.com/mrl>

Western Farm Press Biopesticides Effective Use in Pest Management Programs
<http://www.pentonag.com/biopesticides>

Western Farm Press Principles & Efficient Chemigation
<http://www.pentonag.com/Valmont>

For more information and an updated list of CEU meetings, click on this link:
<http://www.state.ok.us/~okag/cps-ceuhome.htm>

ODAFF Test Information

Pesticide applicator test sessions dates and locations for July/August 2013 are as follows:

July		August	
8	OKC	5	OKC
11	Tulsa	8	Tulsa
22	OKC	15	Enid
25	Tulsa	19	OKC
		22	Tulsa

Altus: Western OK State College
 2801 N Main, Room A23

Enid: Garfield County Extension Office,
 316 E. Oxford.

Goodwell: Okla. Panhandle Research &
 Extension Center, Rt. 1 Box 86M

Hobart: Kiowa County Extension Center
 Courthouse Annex, 302 N. Lincoln

Lawton: Great Plains Coliseum, Annex Rm.
 920 S. Sheridan Road.

OKC: Oklahoma County Extension Office,
 930 N. Portland.

Tulsa: NE Campus of Tulsa Community
 College, (Apache & Harvard)
 Large Auditorium

McAlester: Kiamichi Tech Center on
 Highway 270 W of HWY 69

Pesticide Safety Education Program