ANNUAL REPORT 2012



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Dear CropLife America (CLA) Members and Allies:

The world is changing faster than ever – between changes in population, available technology, and investment in new research, the planet looks and operates differently than just 50 years ago. Similarly, agriculture has been advancing to meet these changes. From conservation tillage to seed treatments, modern products and techniques have helped to transform agriculture, and our farmers and ranchers have done so while reducing their environmental impact. By pairing smart planning, the best technology and the responsible application of crop protection products, growers are improving agriculture every day.

And 2012 is the 50 year anniversary of the publication of Rachel Carson's book *Silent Spring*, so throughout this year, we have been in active dialogue reflecting on this past half-century.

In these 50 years, modern agriculture has helped farmers double food production while freezing and often shrinking agriculture's environmental footprint. Research shows that crop protection plays an important role in optimizing natural resources:

- The use of herbicides and conservation tillage has drastically reduced the amount of energy used to grow the nation's food; agriculture accounted for 5 percent of energy used in 1970 and today only accounts for 1 percent of national energy use;
- Soil erosion has dropped by up to 90 percent;
- The responsible use of herbicides reduced the need for tractor fuel by 558 million gallons per year, equaling 22.2 billion pounds of carbon dioxide emissions.

To continue producing high crop yields while preserving the integrity of our environment, it is more important than ever for the country's farmers and ranchers to have access to an array of products and techniques to effectively and safely combat pests, disease and weeds. Modern agricultural methods, ranging from Integrated Pest Management (IPM) to precision agriculture, lead the charge in providing a wide assortment of options to sustainably grow the world's food. IPM combines the strategic use of crop protection with other practices to keep pest populations low and minimize effects on natural resources. Precision agriculture is another technique that involves cutting-edge technology and emphasizes crop science, improving yields and protecting the environment. Whether they use conventional synthetic herbicides or certified organic insecticides, farmers deserve access to all available tools. 2012 is also a significant landmark in our industry's stewardship history. This year we have been implementing a renewed focus on stewardship for CLA and our members. The Board approved a resource increase for stewardship activity, including the creation of a staff position that is exclusively focused on those functions and a new strategic direction for CLA and our Foundation. We have also made significant progress on the four key goals in CLA's long-range strategic plan:

- We continue to grow CLA's recognition as the association leader on crop protection issue management – see our progress in this report on everything from the Pesticide Registration Improvement Act (PRIA) to the Farm Bill to pollinator health, and beyond;
- We have enhanced the reputation of the crop protection industry with the many facets of our modern agriculture messaging;
- We continue to expand efforts to retain and recruit CLA members. Thanks to the work of Membership Committee Chair Bob Trogele (FMC Corporation), our CLA membership is at an all-time high;
- Our association operations are effective and efficient. Our resources are more focused on programs vs. overhead than at any time in recent years.

We are proud of the many advancements the industry has made over the past 50 years: more precise, effective products have steadily increased crop production and have reduced farmers' impact on the environment; better communication and regulatory processes have led to safer products that protect consumers and the environment; and the ability to adapt to a changing climate and a rising population has created an open-minded industry with many different growing methods. With the exemplary leadership of our Board, the guidance of our members and the work of our staff, CLA and our allies will continue to anticipate challenges, create solutions and cultivate progress.

Every day we will continue to support better farming and a better world.

Sincerely,



John Chrosniak Chairman of the Board of Directors, CropLife America Regional Business Director for North America, DuPont Crop Protection



Jay Vroom President and CEO, CropLife America



Better Farming, Better World

Every person on the planet has a stake in protecting the Earth's natural resources, including our country's farmers and ranchers. In addition to providing the world with food, fiber and renewable fuel, they must conserve and protect natural resources for future generations. Modern agricultural practices, including the use of crop protection products, enable farmers to optimize natural resources, meet the food and fuel demands of a growing population and be financially viable.

Over the last 50 years, the crop protection industry has evolved to help farmers and ranchers conserve resources for future generations of growers. Working collaboratively with the U.S. Environmental Protection Agency (EPA), the industry works to provide the safest and most effective products to grow the world's food. With the use of crop protection products, farmers have more than doubled outputs over the last 60 years, decreased the amount of land devoted to farming and conserved water and fuel.

• Precision agriculture also helps farmers reduce environmental risks and their environmental footprint, including reducing the risk of spray drift. In fact, studies have shown that precision spraying systems frequently reduce spray application rates by 66 to 80 percent;

- With the help of crop protection, farmers dramatically reduce their national energy use, are able to provide 18 percent of the world's food supply on only 10 percent of the world's farmland, and increase agricultural productivity by up to 50 percent;
- With the use of agricultural herbicides, crop yields are increased by 20 percent or more, and growers are able to manage weeds without added tillage, reducing erosion from tillage by up to 90 percent.

CropLife America, the voice of the crop protection industry, has been leading efforts to communicate these environmental and productivity gains, cultivate new solutions for a growing world and advance modern agriculture.





CropLife America and its Members: A Year in Review

CropLife America (CLA) member companies create the products that are essential to thriving agricultural production. Crop protection products encourage crop growth, increase yields and decrease consumer costs. CLA communicates the benefits of these tools and works to reach legislators that shape agricultural policy to ensure regulations are based on sound, current science. CLA's daily activities help to provide farmers and ranchers with the solutions they need to continuously improve agriculture and provide nutritious and healthy food.

Government Relations



"The Government Relations department began 2012 with a full plate as Congress returned for the second session of the 112th Congress. The 'must-pass' Pesticide Registration Improvement Act (PRIA) reauthorization joined unresolved industry priority issues, including Clean Water Act (CWA)

National Pollutant Discharge Elimination System (NPDES) permits, and Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) Endangered Species Act (ESA) challenges.

These issues provide just a glimpse of the work done by the CLA Government Relations team, as well as the Federal and State Affairs Committees. In addition to the industry specific priorities, 2012 was also a Farm Bill year which brought a specific set of challenges and opportunities. Lastly, 2012 being a presidential election year, only added to the political challenges of trying to advance industry policy in one of the most polarized political environments observed in recent history. Nevertheless, the CLA Government Relations team was able to drive industry policy forward on a variety of fronts."

- Beau Greenwood, executive vice president, government relations and public affairs

Achievements include:

- ✓ PRIA is a piece of legislation which helps ensure a predictable and timely registration process for new crop protection products, as well as resources for EPA review of existing registrations. The PRIA coalition, co-chaired by CLA, has led the effort to renegotiate the reauthorization package with CLA's coalition partners, the environmental community and the EPA. The authority to collect PRIA fees expires at the end of fiscal year 2012, and without this authority, the registration process improvements that have been enjoyed over the past decade would be slowly phased-out, including product registration timelines. Reauthorization legislation has been delivered to Capitol Hill and lobbying efforts to gain Congressional support have been encouraging. All stakeholders involved, including the legislative and executive branches of the federal government, understand the importance of reauthorizing PRIA prior to the end of the current fiscal year.
- ✓ Despite multiple efforts in 2012 to advance legislation (H.R. 872) to clarify that CWA NPDES permits are not required for certain aquatic pesticide applications, the implementation of the Sixth Circuit Court's ruling in the National Cotton Council v. U.S. Environmental Protection Agency lawsuit advanced, and now states are working through the various and multiple challenges associated with the court's erroneous ruling and duplicative and unnecessary regulation by the EPA. CLA's Government Relations team continued to drive the efforts of the NPDES coalition who are determined to

see H.R. 872 enacted. Although a bipartisan effort to attach H.R. 872 to the Senate's version of the Farm Bill was not passed, CLA is confident that H.R. 872 will be part of the House version of the Farm Bill given the overwhelming bipartisan majority that passed H.R. 872 in April 2011. The House and Senate will still have to reconcile differences among their bills and the CLA Government Relations team and NPDES coalition are determined to put an end to this unnecessary regulation.

✓ The CLA Government Relations department made great progress with the Endangered Species Act (ESA) in the past year by advancing appropriations amendments that would address the immediate threats posed by biological opinions (BiOps) issued by the Services as required by the Washington Toxics case. Those amendments would have prevented the EPA from adopting label changes directed by the BiOps until such a time that the National Research Council of the National Academy of Sciences initiated a second study to consider the science underpinning the biological opinions and returned recommendations for process improvements. While these amendments were opposed by the Obama Administration and therefore not enacted, the CLA Government Relations team, while working closely with the U.S. House of Representatives, continue to advance this "time out" approach until such time that broken ESA section 7 consultation process can be fixed.

✓ 2012 marked another Farm Bill expiration and debate around all aspects of farm and rural policy. Like Farm Bill debates past, budget implications were a primary driver around policy decisions and this fact was ever more present in the 2012 negotiations. With the growing federal budget pressure, special attention was given to farm commodity, conservation and feeding/nutrition programs when the Congress began its task of rewriting broad farm policy. When Agriculture Secretary Tom Vilsack addressed the CLA Board of Directors in February, he reminded CLA that behind the computer/IT industry, the agriculture sector was the second largest driver of the national economy. While our industry isn't generally impacted directly by the Farm Bill, the CLA Government Relations team remained aggressive advocates for industry priorities around the Farm Bill debate.

✓ CLA's Government Relations department continues to represent the crop protection industry on a state and coalition level. In addition to budget pressures in most states (which lead to pesticide fee increase efforts), activists continue to advocate for pesticide restrictions/bans, federal preemption repeals and human exposure concerns. Through a network of CLA member company representatives and state/regional partners, the crop protection industry has once again met these challenges with sciencebased, factual responses that have headed-off bad public policy designed to appeal to emotion and not based in fact or sound science. CLA Government Relations staff and State Affairs Committee, along with the Federal Affairs Committee, routinely put into practice the notion of leveraging relationships and resources to create the federal-state synergy necessary to advance good public policy. Federal and state coalitions and associated stakeholder groups are required to reach policymakers at the grassroots and on Capitol Hill. CLA's dedicated government relations professionals lead, or share leadership, on numerous coalitions and continue to serve as one of the principle strengths of CLA's respected leadership voice.

Legal



"Croplife America's Legal department, guided by the association's Law Committee, seeks to protect our industry's ability to conduct business by intervening in lawsuits brought by opponents of the crop protection

industry, filing *amicus* (or friend of the court) briefs in other suits to express our industry's voice, submitting petitions with federal agencies and providing legal guidance to our regulatory and lobbying representatives. These actions help to ensure that our members can provide the tools and resources needed for American farmers and ranchers to safely and affordably grow our nation's food supply."

- **Doug Nelson**, executive vice president, general counsel, and secretary

Achievements include:

- ✓ Opponents of modern agriculture have orchestrated a successful litigation strategy for the past 12 years by suing the Environmental Protection Agency (EPA) under the citizen action suit provisions of the Endangered Species Act (ESA) for alleged failure by the EPA, when registering a pesticide, to formally consult with the U.S. Fish & Wildlife Service or the National Marine Fisheries Service. CLA's legal team has led the association's efforts to intervene in every one of these lawsuits to ensure that the U.S. government does not ignore the interests of the crop protection industry in defending itself or in settling.
- ✓ This past year, CLA has been an active intervenor in all settlement negotiations of the latest ESA lawsuit, Center for Biological Diversity and Pesticide Action Network North America v. EPA ("Mega Suit"), affecting more than 300 active ingredients and 214 animal species. CLA recruited three other intervenor groups, led by the American Farm Bureau Federation, American Chemistry Council and Reckitt Benckiser, to join us in these negotiations and in a combined Motion to Dismiss. Building on three successful Supreme Court cases in which CLA filed amici briefs and two successful federal cases, in which CLA convinced the court that the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), not ESA, controls changes to pesticide labels, CLA is arguing that the plaintiffs filed their complaint in the wrong court, beyond the statute of limitations and without the specificity required by the U.S. Supreme Court to trigger consultation. CLA is also using this time to communicate to legislators the agricultural "train wreck" that could occur if there is a nationwide settlement with product use restrictions.
- ✓ CLA's Law department and Law Committee have successfully argued that label language proposed by EPA prohibiting actions that "could harm" the environment was contrary to the FIFRA standard and needed to be revised. CLA will remain engaged as revised language is considered by EPA. In addition, the Legal department worked with the DriftWatch™ program to address potential liability and standard of care issues raised by its approach to managing sensitive crops.
- ✔ As an affiliate of CropLife International and other regional CropLife trade associations around the globe, CLA is actively involved in ensuring that international treaties and agreements do not impede the operations of CLA's U.S. members. CLA's legal department interacts with the official U.S. Delegations at meetings of the Codex Alimentarius; the Prior Informed Consent Convention; the Persistent Organic Pollutants Convention; World Trade Organization ministerials; the United Nation's Commission on Sustainable Development and the OECD. This year, CLA's legal team, together with the Science and Regulatory department, successfully argued that U.S. government should reject the UN Food and Agriculture Organization's (FAO) proposed amendment of the FAO's 1992 Code of Conduct for the Distribution and Use of Pesticides. The proposed Code revisions will now be re-examined with active involvement of CropLife experts.

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Science and Regulatory Affairs



"CropLife America's Science and Regulatory Affairs department consistently meets or exceeds CLA's goal of promoting sound science as the engine of innovation, product stewardship and the impartial and unbiased core principle of regulatory decision-

making. CLA provides a voice to the crop protection industry, allowing for open dialogue and valuable collaboration with key regulators and the scientific community. CLA and its members are committed to providing access to the full array of modern farming tools to the country's farmers and ranchers to provide healthy and sustainable food, fiber and renewable fuel."

- Dr. Barbara Glenn, senior vice president, science & regulatory affairs

Achievements include:

✓ CLA developed the EcoRoadmap[™] with the goal of helping regulatory agencies implement a fair and credible risk assessment process that utilizes sound science and reliable data to affirm pesticide products can be used safely in the environment and comply with applicable environmental laws. By comprehensively



addressing environmental issues including the Endangered Species Act (ESA), water quality and spray drift, the EcoRoadmap[™] made significant advances in 2012. More than 20 scientific research papers have been published in peer-

reviewed journals, presented to the Environmental Protection Agency (EPA) or the National Research Council, presented at scientific or Agency meetings, and in other venues.

Due to the tireless efforts of a coalition led by CLA staff and allied trade associations and registrants, the Pesticide Registration Improvement Act (PRIA) should be re-authorized by the U.S. Congress by September 30, 2012. This essential legislation has involved the energy and input of member volunteers and CLA's Science and Regulatory staff to develop details of new and revised registration categories, develop approaches to improve registration performance and prepare for implementation.

- ✓ The Endocrine Policy Forum, a coalition of over 20 partner organizations and registrants that CLA administrates, advanced the implementation of the Endocrine Disruptor Screening Program (EDSP). All List 1, Tier 1 data from 62 test orders is on schedule for submission to EPA. With few exceptions, the majority of the data will be provided to EPA at the end of 2012.
- ✓ The 2012 CLA Science Forum successfully engaged 16 scientific experts and over 50 gallery participants in a discussion of weight-of-evidence approaches for chemical evaluation. The 2011 policy paper on pesticide data accessibility from last year's Science Forum was co-authored by nine scientists and submitted as final to a leading scientific journal.
- ✓ CLA's Science and Regulatory Affairs department staff dedicated countless hours and provided valuable oversight to several work groups, forums and coalitions in which the agricultural and chemical sector speaks with one voice. These activities include:
 - Providing solutions regarding public health;
 - Registration issues such as confidential statements of formula, immunotoxicity, adjuvants, and pesticide residues;
 - Support for public funding of food and agricultural research.



Communications and Administration



"From social media to the latest technology, the way we receive our news and how we interact is rapidly changing. CropLife America's Communications team has continued

to provide key communications messages to association members, Capitol Hill and consumers in creative ways. This year, we developed a blog for our *Tell Me More* program to encourage those working in the crop protection field to speak out on behalf of their industry. We have also seen piqued interest in platforms such as Twitter and Facebook and continue to develop our messaging to reach more people. No matter what communications channel we choose, CLA continues to provide a message that deserves recognition: modern agricultural products and



techniques are helping to feed more people and continue to optimize resources for future generations."

- **Bill Kuckuck**, executive vice president & chief operating officer

Achievements include:

✓ CLA's digital communications are a key part of what CLA's Communications department does and this year there were many changes in the way CLA communicates with members, regulators and consumers. With a revised website, content is easier to find, more intuitive and concise. CLA's total webpage views for this year have surpassed last year's by 15,274; the catalog of over 60 videos continues to grow and provide interesting content for use at meetings and presentations; since it was launched in July 2011, CLA's new Tell Me More website has seen over 7,000 webpage views thanks to informative materials such as posters, fact sheets and PowerPoint presentations; the *Tell Me More* blog continues to grow in readership and receive posts from members on a weekly basis; and CLA's Twitter presence has increased by adding approximately 200 followers and CLA's presence on Facebook continues to develop.

- ✓ CLA's third annual National Policy Conference exceeded high expectations with record attendance and interesting discussions one is not likely to find anywhere else. This conference brings varying opinions from around the country to one room to discuss relevant and "hot-button" topics. Each year, CLA highlights the importance of listening to all sides of a debate in order to understand the industry's most important issues and this year did not disappoint. The incorporation of a streaming Twitter feed and live webcast ensured that those who were not able to attend in person were not left out of the conversation.
- ✓ The development of CLA's socio-economic report, "The Contribution of Crop Protection Products to the United States Economy," put a new spin on the

positive effects crop protection products have outside of food production. Information in the report breaks down the various ways crop protection boosts other industries, creates jobs and saves consumers money at the grocery store. With the ability to communicate this information, CLA provides key data on the importance of an industry beyond high yields and a year-round supply of fresh produce. New materials and communications programs continue to be recognized. CLA's 2011 Annual Report received a Golden ARC Merit Award in the category of "Tactics Division -Annual Reports: Non-Financial,"

and CLA's Tell Me More program received Agrow's "highly commendable" recognition in the "Best Public Outreach Program."



✓ CLA's Administration team is an invaluable asset to the organization and supports each department in order to reach the organization's overarching objectives. By consistently finding new and innovative solutions that enhance CLA's daily operations, the Administration department ensures continual progress. The Administration team works closely with each department and remains engaged in each issue CLA and its members are involved in to provide significant support. This leads to the success of the organization's day-to-day tasks and helps CLA reach its strategic goals.



Water is More Than Just a Resource....

It's a Requirement.

Every March 22nd, World Water Day recognizes the importance of freshwater and the sustainable management of freshwater resources. Farmers depend on water to irrigate and grow crops the world relies on. They understand that when water is used responsibly and wisely, it ensures it is maintained as a resource for more than just agriculture. Conservation tillage, aided by the use of crop protection products, is one way in which formers preserve water quality. Through the use of judiciously applied herbicides, soil that might otherwise have to be tilled to manage weeds remains undisturbed. This preserves water quality by reducing soil erosion from fields that could settle in ditches, streams and other surface waters, conserving both farmland and water without sacrificing productivity.* Want to Know More? Check out how innovative crop protection products benefit the foods and products we use every day at CropLifeAmerica.org or contact us for brochures and other tools available through our Tell Me More campaign to better understand and communicate the benefits of modern agriculture BIGOT HUMAN IMPACTS ON ECOSYSTEMS, Dr. Renicia Mair, Professor, Department of Botony and Plane Parhologe Oregon State University, 2010 1156 15th Street, NW, Suite 400, Washington, DC 20005 | P: 202.296.1585 | F: 202.463.0474 | www.croplifeamerica.org

Discovering the Benefits WATER

"Conservation tillage, aided by the use of crop protection products, is one way in which farmers preserve water quality. Through the use of judiciously applied herbicides, soil that might otherwise have to be tilled to manage weeds remains undisturbed. This preserves water quality by reducing soil erosion from fields that could settle in ditches, streams and other surface waters, conserving both farmland and water without sacrificing productivity." - Tell Me More poster

What do farmers need to successfully grow food? In short, farmers need water, air, sunlight and soil; the basic elements needed to sustain most forms of life. A healthy ecosystem is essential for a healthy agricultural system, and without the commitment from our country's farmers to support and maintain healthy resources, yields would plummet and healthy ecosystems that support diverse life forms would be in jeopardy.

Today's farmers and ranchers perform a daily balancing act: grow sufficient food, fiber and renewable fuel for an increasing population, protect natural resources for future generations and maintain a sustainable business. To accomplish all three goals, growers use an array of products and tools that help them to enhance water, soil and air use. From precision agriculture equipment to crop protection products, CropLife America's (CLA) members provide innovative advancements that work within each fragile ecosystem and recognize that from the insects that pollinate the crops to the soil that encourages seed growth, all living things are interdependent and interrelated.

WATE

Agricultural techniques have advanced over the past 50 years to account for fixed resources such as water. Drip irrigation can increase water use efficiency as much as 40 percent by improving the uniform distribution of water while reducing evaporation. Research has shown that drip irrigation on alfalfa crops results in an applied water reduction of 2 to 3 percent with yields increasing from 19 to 35 percent; this is an increase in productivity of 30 percent with the same amount of applied water as traditional irrigation systems.

Cultivating the Solutions

Precision agriculture represents a bright future for today's farmers and optimizes field management on three fronts: emphasizing crop science, improving yields and protecting the environment. Precision agriculture uses a management concept that observes and responds to in-field variability and relies on new technologies like satellite imagery and information technology. By making decisions on a siteby-site basis through new technologies, farmers can better measure the performance of crops by area and variety, address specific crop needs and identify and implement solutions only for affected problem areas. Precision agriculture also helps farmers reduce environmental risks and their environmental footprint, including reducing the risk of spray drift. The latest tools, such as sensing and control systems, can significantly reduce the applied rate of crop protection products while maintaining accurate target application that is necessary for effective pest control. In fact, studies have shown that precision spraying systems reduce spray application rates by 66 to 80 percent.

The annual **CLA/RISE (Responsible Industry for a Sound Environment) Spring Conference** brings together the best minds from all parts of the industry – from the scientists who are working to ensure that products are safe, to the regulators and EPA personnel who help guide the regulatory policy and insight. The event also extends beyond the crop protection component and includes specialty pesticides, which play a crucial role in public and environmental health and landscape maintenance. The 2012 theme of the Spring Conference, "Precision. Policy. Progress," focused on the evolution and constant improvements that drive the crop protection industry. Speakers discussed precision applications and how precision agriculture is helping to safely and sustainably grow more food with fewer inputs. The 2012 Spring Conference also marked the first year exhibitors had space to provide demonstrations of new products and tools and offer a "hands-on" approach to learning about precision applications.

Keynote speaker Julie Borlaug, assistant director of partnerships at the Borlaug Institute for International Agriculture at Texas A&M University and granddaughter of Norman Borlaug, focused her opening address on the advancements agriculture has made over the past few decades, placing emphasis on precision technology and the need for more precise application tools. Phil Needham of Needham Ag Technologies delivered separate remarks which focused on precision agriculture's role in improving the efficacy of modern agriculture, a trend that is likely to continue with added investment in research and development.



CropLifeAmerica & RISE

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For farmers, when the land is your livelihood and legacy, every day is Earth Day.

Modern agricultural practices, including the use of crop protection products, enable farmers to meet the three goals of sustainability: conserve and protect natural resources; meet the food and fuel needs of a growing population; and be financially viable for both growers and consumers. Innovative products and other modern agricultural practices, like the use of herbicides, have given rise to trends like conservation tillage, a farming process which helps prevent land loss erosion of nearly 360 billion pounds of soil a year.* These sustainable practices mean future generations of growers can expand their production and continue to supply the world with sufficient food while also serving as environmental stewards.

Want to Know More? Check out how innovative crop protection products benefit the foods and products we use every day at www.CropLifeAmerica.org or contact us for brochures and other tools available through our Tell Me More campaign to better understand and communicate the benefits of modern agriculture.

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Discovering the Benefits LAND

"Innovative products and other modern agricultural practices, like the use of herbicides, have given rise to trends like conservation tillage, a farming process which helps prevent land loss erosion of nearly 360 billion pounds of soil a year. These sustainable practices mean future generations of growers can expand their production and continue to supply the world with sufficient food while also serving as environmental stewards." - Tell Me More poster

Farmers and ranchers learned the power and necessity of sustainable practices before "sustainability" became a catchphrase. Practices that were popular 50 years ago have been revised to create the most benefit for the environment, consumers and farmers. Till operations have been replaced with conservation tillage and responsible herbicide applications to control weeds while retaining soil health. Emerging technologies continue to provide protection to seeds and plants to improve the health of crops and protect vulnerable plants against disease and pests. Technological innovation is driving agriculture forward to create more opportunities for future generations of farmers and more food for a growing population.

Seed treatments allow for a plant to be as pest- and disease-free as possible, and provide protection against pests and diseases during all stages of the plant's growth. Modern seed treatments must meet efficacy standards as well as safety and environmental standards, and the seed industry uses an assortment of quality management systems that govern each aspect of stewardship, from worker protection to the disposal of treated seeds. Seed treatments are playing an important role in agriculture and further research will continue the development of this important component of biotechnology.

N Z Z Z

Prior to the adoption of conservation tillage, most fields were tilled nine to 10 times which led to the "Dust Bowl," the worst man-made ecological disaster in American history. Topsoil loosened by excessive tillage was swept into destructive windstorms that displaced hundreds of thousands of people and disrupted farming for a period of roughly 20 years. Conservation tillage helped farmers regain control of their land and reduced dust emissions by 67 percent. Combined with the responsible use of herbicides, the agriculture industry reduced national energy usage from 5 percent to only 1 percent over the last 30 years.

Cultivating the Solutions

CLA's **National Policy Conference** (NPC) brings together leading agricultural experts for debate and discussion on relevant issues facing modern agriculture. As a forum for open discussion, the NPC focuses on innovative agricultural tools, distribution channels and new policies that influence the writing of the 2012 Farm Bill. During the 2012 NPC, "The Politics of Food and the 2012 Farm Bill: Are YOU Being Served?," Dayton Duncan, writer and co-producer of "The Dust Bowl," a Ken Burns film, spoke to attendees about his experience making the new documentary. Dayton discussed the interviews he



held for the film with the remaining survivors of the "Dust Bowl" and offered conference attendees a look at how far the industry has come in terms of environmental sustainability.

Several food bloggers joined CLA to discuss "Food Culture in the Digital Age," explored what motivates them, and questioned how they filter their information and their end goal. Three other NPC panels addressed the potential short and long term consequences of cutting out programs like crop insurance, conservation and food safety during "Costs and Consequence: Your Farm Program Has Been Cut...Now What?"; explored Silent Spring's influence on regulatory policy over the last 50 years; and specifically discussed the state of the 2012 Farm Bill and how it will be different from the 2008 Farm Bill with Senator Ben Nelson (D-NE).

"My Name is Matt O'Neall, And I am Modern Agriculture",*

I grew up on a farm; my father, grandfather and his father were all farmers before me. I take pride in a job that allows me quite literally to witness the fruits - or corn, soybeans and when of my labor; labor that in the past 50 years has grown exact through the use of precision adjupment. What was once a guess - seed placement, depth, and spacing or use of inputs and when, how much or where - is now so accurate, it's practically a science. Sophisticated equipment and the latest advancements in seeds, fertilizer and crop protection are what make modern agriculture a prime example of the progressive and highly competitive industry that provides what we all need...food. Matthew O'Neeall, O'Neeall Brothers and Scholl Farm in Cooksville, Ju

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Discovering the Benefits WILDLIFE & HABITATS

"What was once a guess - seed placement, depth, and spacing or use of inputs and when, how much or where - is now so accurate, it's practically a science. Sophisticated equipment and the latest advancements in seeds, fertilizer and crop protection are what make modern agriculture a prime example of the progressive and highly competitive industry that provides what we all need...food."

- Matt O'Neall, farmer, Tell Me More poster

The consistent innovation of crop protection products has helped farmers do more than just grow sufficient food. Sophisticated products and techniques help protect more than just crops. Farmers and ranchers understand that an ecosystem contains many habitats and all living things are affected by and interact with their environment. In order to successfully and sustainably grow food, fiber and renewable fuel, growers must protect the species that help their crops flourish. One step in this process is protecting native animals and plants from invasive species. Invasive species (non-native plants, animals, or pathogens that compete for food and space with other species, and interfere with their growth, reproduction and development) are not a new issue for our country's farmers; existing reports note that invasive species were introduced in the 1800s for ornamental purposes. However, non-native species of weeds and pests present one of the biggest threats to agriculture with estimates of \$137 billion in damage each year in the U.S. It doesn't stop there: of all 1,880 imperiled animal species in the U.S, 49 percent are endangered because of new introduced species, or because of their impact combined with other forces.

Modern agricultural products, such as herbicides and insecticides, help to control the damage caused to food crops by non-native weeds and pests, as well as protect threatened wildlife. Each native plant and animal has to compete with invasive species for food, space, and sunlight, which interferes with growth, reproduction and development. With the help of crop protection products, farmers and ranchers combat invasive pests to prevent devastating crop loss and protect threatened wildlife. CLA's latest

brochure, "**Modern Agriculture**, **Sustainable Solutions**," specifically discusses modern agriculture's role in protecting vulnerable species.



Integrated Pest Management (IPM) is an environmentally sensitive approach to pest management and uses a combination of agricultural methods that rely on the life cycles of pests and their interaction with the environment. Essentially, IPM helps farmers prevent infestation, observe patterns of infestation when they occur, and intervene when it is necessary by the most economical means and with the least possible hazard to the environment, animals and people. With IPM practices in place, threatened wildlife is protected, soil-loss efficiency trends improved by approximately 30 to 70 percent, irrigated water use per unit of output decreased by 30 percent and energy use per unit of output decreased by approximately 40 to 60 percent.

Cultivating the Solutions

Farmers and the crop protection industry are also working to find a solution to bee decline, and working to ensure growers are practicing responsible stewardship. To continue bringing the safest

and most effective products to market, registrant companies comply with the U.S. Environmental Protection Agency's (EPA) testing requirements, including laboratory and field tests for new crop protection products to determine any potential impact on pollinators. Studies are underway to determine the causes in the decline of pollinator health to determine a path forward in protecting the country's pollinators.

Sound science and regulatory safety were topics of discussion at the 2012 CLA Science Forum. The second annual event, titled "Judging Weight of Evidence Approaches: Focus on Chemical Evaluation," focused on Weight of Evidence (WoE) approaches in regulatory decision-making. An expert group of 16 leading academics, agency officials, industry and NGO representatives deliberated on using the WoE approach as a means of evaluating chemicals in order to optimize the use of best available data and reach a science-based decision by policymakers and regulators. The group largely supported a hypothesis-based approach to WoE; the expert group is currently writing a policy paper providing the results of the discussion. CLA's Science Forum encourages the continued evaluation of pest management and crop protection technologies as a way to drive the industry forward to forge effective solutions.

Modern Agriculture, Sustainable Solutions

How Today's Farmers Conserve and Protect Natural Resources While Meeting the World's Agricultural Needs



Tomatoes...Lettuce... - Corn... Onions...

TOTAL: \$ 250.78

...A Side of Sticker Shock?

Without Modern Agriculture, Summer Cookouts Could Be a Real Budget-Buster. Memorial Day, the Fourth of July, or any given Saturday in June – backyard cookouts are a summer institution. And modern agriculture ensures that the most American of traditions remains affordable.

Enjoy toppings on your burger? Without the use of modern agriculture innovations, like insecticides,

64% of all fresh market tomatoes in the U.S. would be lost¹¹¹ while onions could see crop losses exceeding 70% ²¹. Can't picture a cookout without coleslaw? Insecticide sprays reduce the percent of insect-damaged cabbage heads from 40% to 1%. That translates to a lot more cabbage available for coleslaw.⁽³⁾ Corn on the cob a summer favorite? More than 90% of sweet corn ears would be too damaged by insects without modern preventative farming methods¹⁴. If fewer of these items were available for sale, it's not hard to imagine the resulting high prices putting a dent

Want to Know More? Check out how innovative crop protection products benefit the foods and products we use every day at www.CropLifeAmerica.org or contact us for brochures and other in the summer fun. tools available through our Tell Me More campaign to better understand and communicate the

benefits of modern agriculture.

 According to USDA estimates
Diamed al Economic Ensemblogs, Vol. 79, No. 3, June 1986,
Al Coop Production Research Institut. The Value of Insecticides in U.S. Clop Production," March. 2009. 1156 15th Street, NW, Suite 400, Washington, DC 20005 | P: 202.296.1585 | F: 202.463.0474 | www.croplifeamerica.org

Discovering the Benefits CONSUMERS

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- Tell Me More poster

Crop protection products provide many benefits: increasing agricultural productivity, optimizing the use of water, air, land and energy resources and increasing the quality of crops. However, while the agricultural benefits of crop protection products are well-documented, the indirect benefits are not widely known. The increased crop yields and crop varieties afforded by the use of modern agricultural tools have "spin-off" effects that trickle down through the U.S. economy, from the field to the dinner table.

Crop protection products add value to farmers' crops by increasing yield and guality, and this increased value impacts a wide group of industries beyond agriculture, from the health care industry to construction. The total increase in additional economic output on other industries from the crop value derived from crop protection products is \$166.5 billion. Across the U.S., the increased crop production and resultant economic spin-offs that stem from

the use of crop protection products generates \$33 billion in wages for more than 1.05 million American workers. These jobs span beyond the farming industry to additional sectors including manufacturing, food services, construction, transportation and more. The states that benefit the most from increased crop value, increased jobs and wages are California, Minnesota, Washington, Florida, Illinois, Texas, North Carolina and Iowa.

Cultivating the Solutions

The use of modern agriculture tools also helps families significantly save on groceries. CLA's 2011 socio-economic report, "The Contribution of Crop Protection Products to the United States Economy," estimates that the average savings for key grains, vegetables and fruits is approximately 47.9 percent for an American family of four over four years. Other figures suggest savings of 35 percent on fresh fruit, 45.5 percent on fresh vegetables and 40.7 percent on fruits and vegetables overall. Crops grown using modern agriculture tools and practices also provide for less price fluctuation than crops grown through other farming methods.



A significant portion of the country's export revenue stems from agricultural exports. During the past five years, American growers

have produced enough grains, oilseeds, fruits and vegetables to export an average of \$98 billion of food and related, valueadded farm products annually (largely, though not exclusively, as grains and field crops). The often-cited "net U.S. food trade balance" has been positive over the past five years at an annual average of \$24 billion. While that net positive number actually understates the true impact of our agricultural exports, it also illustrates the U.S. commitment to fair trade.

The Contribution of Crop Protection Products to the United States Economy

MARK GOODWIN CONSULTING LTD

Appendix

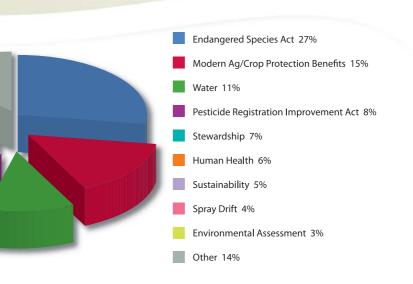
Issues Allocation

CropLife America's strategic plan of issue age priorities allows the association to plan and premonitor where CLA index resources are allocated and determine priority issues on a monthly basis. Tracking these topics and the time spent on each helps identify emerging issues as well as prevent "mission creep." The following chart demonstrates the major issues CLA staff dedicated time to managing as part of its business plan during the first half of 2012.

Crop Protection Market Overview

During 2011, the global market for crop protection products (excluding sales of herbicide tolerant and insect resistant seed) is estimated to have increased by 14.9 percent to reach \$44,015 million, according to the results of a market survey of the crop protection sector conducted by market research firm Phillips McDougall. Sales of herbicide tolerant (HT) and insect resistant (IR) seed into the crop sector increased significantly in 2011, and overall the value of the agricultural biotechnology market, which is currently based on HT and IR seed, is estimated to have grown by 21.9 percent in 2011 to reach \$15,685 million. As a result of the increase in both the value of the conventional crop protection market and input trait sector, the value of the overall crop sciences sector in 2011 is estimated to have increased by 16.6 percent to \$59,700 million.

In 2011, the value of the herbicides sector rose by approximately 12.8 percent primarily due to increased planted areas, while sales of both insecticides and fungicides recorded improved sales, by 16.5 percent and 17.3 percent respectively, driven by growth in both developed and developing markets. Sales of agrochemicals used in noncrop situations rose by 7 percent to \$6,290 million aided by stable glyphosate prices in non-crop situations and improved economies in developed markets. The value of genetically



modified herbicide tolerant and insect resistant crop seed sales rose by 21.9 percent to \$15,685 million, driven by value enhancement due to the increased adoption of stacked trait varieties as well as increased uptake in Latin America and Asia.

During the next five years, it is expected that fungicides will continue to lead market growth. These products are key to delivering the crop yield and quality improvement that the market is demanding. In the herbicide sector, the market is expected to result in a steady improvement overall, with volume growth led by increasing usage in developing markets. The slowest growth is anticipated in the insecticide sector.

Affiliate Organizations

CropLife Foundation

The CropLife Foundation (CLF or the Foundation) is a not-for-profit organization, which actively conducts educational outreach programs advancing sustainable agriculture and the environmentally sound use of crop protection products, promoting product stewardship through certification and training programs and funding scientific research into modern agricultural practices. By working with industry, farmers, private and public researchers and educators, the Foundation aims to identify both the problems as well as the appropriate solutions toward establishing a sustainable, environmentally sound and economical global agriculture. CLF's non-advocacy research organization, the Crop Protection Research Institute (CPRI), informs the public discussion surrounding pest management policy through a focus on the economic analysis of agricultural pests, pest management and pesticide use and regulation in the U.S.

RISE

RISE (Responsible Industry for a Sound Environment®) is the national trade association representing manufacturers, formulators, distributors and other industry leaders involved with specialty pesticide and fertilizer products. Learn more at **www.debugthemyths.com** and **www.pestfacts.org**. RISE and CropLife America share a strong partnership and common objective to advocate for our members on behalf of the equitable and science-based regulation of pesticides, and provide a strong, unified voice for our members and the pesticide industry.

CropLife International

CLA is a leading association member of our global federation, CropLife International (CLI). CLI represents the plant science industry via regional and national associations in 91 countries. This vital network allows us to reach out to stakeholders, develop dialogue and form partnerships across borders, creating physical and virtual synergies that allow for international advocacy on policies essential to U.S. agriculture and farm exports and benefiting our industry, customers, and consumers alike.

Ag Container Recycling Council

The Ag Container Recycling Council (ACRC) is a nonprofit organization that safely collects and recycles plastic crop protection product containers. The ACRC is fully funded by member companies and affiliates that formulate, produce, package and distribute crop protection and other pesticide products.

AgGateway

Based in Washington, D.C., AgGateway is a nonprofit consortium of businesses serving the agriculture industry. The consortium helps member companies improve their profitability and productivity by educating, promoting and expanding participation in eBusiness in agriculture and agriculture related businesses.

CropLife America State and Regional Partners

CropLife America also includes a number of state and regional partners in its network, counting more than 40 state and regional associations and organizations among its allies in promoting and advancing modern agriculture.

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(September 23, 2012)

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