



## **ABOUT CROP PROTECTION**

***America's crop protection industry is helping to feed a hungry world, decrease food costs, drive our economy and protect our environment.***

### **Helping to Feed a Hungry World**

Crop protection technologies – which include all pesticides, herbicides, insecticides, fungicides, as well as biotechnology products – help control the thousands of weed species, harmful insects, and numerous plant diseases that afflict crops and threaten both the abundance and the safety of our food supply.

Through the use of safe, environmentally sound and innovative crop protection technologies, U.S. producers are able to increase crop yields and efficiency of food production processes, while also fulfilling the critical mission of guaranteeing a reliable and secure food supply.

Up to 40 percent of the world's potential crop production is already lost annually because of the effects of weeds, pests and diseases. Food crops must compete with 30,000 species of weeds, 10,000 species of plant-eating insects and 3,000 species of nematodes, or roundworms, and despite the use of modern crop protection products, a large portion of potential food production is still lost every year to pests. Before the introduction of crop protection technologies, pests and diseases often had a devastating effect on crop production and safety. For example, the Irish potato famine was caused by a fungus that still exists today, and before an insecticide was introduced to control it the Colorado potato beetle consistently destroyed one-third of the U.S. potato crop. Each of these pests still exists today, and the losses would continue and be much greater, if we did not have products to control them.

### **Decreasing Food Costs and Driving Our Economy**

American farmers, because of crop protection technologies, can significantly improve agricultural productivity and strengthen our nation's food security, a critical reality that is particularly important in the current international economy.

The strong crop yields made possible by crop protection help keep food costs down for American families who may be struggling to prepare nutritious meals for their families. Without crop protection, food production would decline, many fruits and vegetables would be in short supply, and prices would rise. Instead, crop protection products make it possible for consumers to choose from an abundant supply of fresh, high-quality foods that are affordable and accessible year-round.

Crop protection products also help American producers generate robust crop yields that drive local economies and create jobs all the way from the farm, to the distribution system, to the grocery stores and restaurants who sell these plentiful foods.

### **Protecting Our Environment**

As the nation and the world debate and confront the many environmental and conservation issues that the future will bring, the crop protection industry stands at the forefront of new technologies that support sustainable agriculture and sound environmental stewardship. Modern agriculture practices help farmers produce more product with less inputs, while also protecting the soil and natural habitats of the land they farm.

Crop protection technologies also enable American farmers to manage weeds without plowing or tilling the soil. No-till conservation practices contribute greatly to reducing erosion while also



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reducing fuel consumption. Nationwide, this practice saves 337 million gallons of tractor fuel annually, and prevents 356 billion pounds of disturbed soil from eroding into rivers and streams.

### **Ensuring the Safety of Our Products**

The crop protection industry is one of the most highly-regulated in the U.S. This helps to ensure the safety of users and consumers, and reduces environmental impacts.

The regulatory framework of crop protection products encompasses national, regional and international legislation. As part of that detailed framework, product development and testing by the crop protection industry, and completing the EPA registration process, can take an average of nine years and requires \$152 million to \$184 million of private sector investment for each crop protection product introduced to market – all to guarantee a safe and responsible product.

Before farmers and other applicators can use them, crop protection products undergo extensive research, development, testing, governmental review and approval to protect human health and the environment. Crop protection is one of the most research-intensive industries in existence, with companies investing about 12 percent of their turnover in research and development (R&D). The top 10 plant science companies invest an estimated \$3.75 billion in R&D per year to discover new science, conduct tests to ensure product safety, and to launch new products.

Once that R&D is completed, products that protect America's food crops must undergo some 120 health, safety and environmental tests to ensure their safety and effectiveness before being granted a registration by EPA.

The many benefits that crop protection products provide American consumers and farmers are critically important. Without these important crop protection and pest control technologies, U.S. food production would decline, many fruits and vegetables would be in short supply, the price of food would rise, our environment would decline, and our national economy would suffer.

### **ABOUT CROPLIFE AMERICA**

Established in 1933, CropLife America (CLA) represents the developers, manufacturers, formulators and distributors of plant science solutions for agriculture and pest management in the United States. Our member companies produce, sell and distribute virtually all the crop protection and biotechnology products used by American farmers.

CLA is dedicated to supporting responsible stewardship of our products to promote the health and well-being of people and the environment, and to promote increasingly responsible, science-driven legislation and regulation of pesticides.

We are the voice of the industry, ensuring the safe and responsible use of crop protection products to secure our nation's food supply and feed a hungry world.

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