

# CHLORPYRIFOS IN AGRICULTURE

**EPA is considering taking  
this tool from growers.  
YOUR SUPPORT IS CRITICAL.**

Chlorpyrifos is a critical tool for growers of over 50 different types of crops in the United States. Farmers rely on chlorpyrifos because of its efficacy, low cost, tank mix compatibility, ease of implementation into existing Integrated Pest Management and Integrated Resistance Management programs, and minimal impact on beneficial insects. For many important pests, growers face limited or no viable alternatives to chlorpyrifos. When an outbreak of a new pest occurs, growers look to chlorpyrifos as a proven first-line of defense.

## Background on Chlorpyrifos

Chlorpyrifos is one of the most widely used active ingredients in insecticides in the world. Since it was first registered in the United States in 1965, chlorpyrifos has played a key role in pest management efforts in the United States and around the world. Today, chlorpyrifos is registered in almost 100 countries worldwide for use on more than 50 different crops against damage caused by a wide range of insect pests. In 2007, the Natural Resources Defense Council (NRDC) and Pesticide Action Network North America (PANNA) petitioned the EPA to revoke all tolerances and cancel all registrations for chlorpyrifos. Because the EPA was ordered to respond to the Ninth Circuit Court of Appeals

**“Chlorpyrifos is an extremely valuable tool for farmers due to its efficacy, broad-spectrum activity against multiple pests and its fit with conservation biological control in crops. Revocation of all food tolerances for chlorpyrifos will have a significantly negative impact on the production capabilities and economic stability of producers of many human and animal food crops.”**  
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*U.S. Department of Agriculture*

on the petition before their evaluations of chlorpyrifos were completed, the EPA had not yet fully evaluated several factors in its analysis of chlorpyrifos and risks withdrawing an important insecticide when issuing the proposal to revoke tolerances. EPA just announced that it is seeking public comment on a Notice of Data Availability (NODA) that contains the proposed risk assessments that the Agency may use in support of a decision to revoke all tolerances. The NODA is not EPA's final decision, but the agency must make a final decision by March 31, 2017. The public comment period for this NODA will likely be the last opportunity for stakeholders to weigh in on the cost-benefit analysis by expressing the critical need for chlorpyrifos, and to call for the EPA to rely on sound and transparent sciences and a reliable regulatory process.

**To voice your support for chlorpyrifos to EPA, go to:  
[www.chlorpyrifos.com/petition/agriculture](http://www.chlorpyrifos.com/petition/agriculture) by  
January 17, 2017.**

## Economic Importance of Agriculture

The agricultural industry's impact on today's economy is substantial. According to the United States Department of Agriculture's Economic Research Service, in 2014 the agriculture industry contributed \$985 billion to U.S. Gross Domestic Product (GDP), which accounted for almost 6% of the country's GDP. Agricultural products are responsible for about 10% of the country's total exports, and today, about 20% of all agricultural goods produced are exported to foreign markets at a value of over \$140 billion. The agriculture industry also plays an important role in employment across the United States. In fact, over 9% of total U.S. employment is related to agriculture.

## Importance of Chlorpyrifos in Agriculture

Chlorpyrifos contributes significantly to the control of insect pests in a wide range of crops including cereal, oil, forage, fruit, nut, and vegetable crops. It is often the first product used to attempt control of a new or unknown insect pests because of its broad spectrum control, fast knock down, and strong support database on health and ecological safety, efficacy, and management and use information.

Chlorpyrifos is an insecticide active on foliar-feeding and soil-dwelling insect pests primarily by contact. It has demonstrated short residual activity on plant foliage making it safe on crops, while also providing growers more application and timing flexibility.

Chlorpyrifos has been an integral component of insect pest management programs for decades due to its efficacy, cost, tank mix compatibility, and ease of implementation into existing Integrated Pest Management and Integrated Resistance Management programs which are the critical components of sustainable insect management programs. The availability of chlorpyrifos allows growers to rotate between different insecticide modes of action, which helps delay resistance development in all insecticides. Resistance development to other insecticides would proceed at an accelerated rate in the absence of chlorpyrifos.

In some instances, the loss of chlorpyrifos would result in increased insecticide use where it was replaced by an insecticide with a narrower spectrum of control. Additional insecticide applications may be required to control multiple pests if the alternative insecticide did not control all insect pests present, or damaged the natural beneficial population resulting in flaring of certain insect pest populations.

Few insecticide alternatives are available for the control of certain insect pests, especially for minor or new pests, or for use in small acreage crops. Chlorpyrifos is significantly less disruptive to beneficial populations than alternative chemistries and, when used as part of an Integrated Pest Management program, it has a short-term impact on natural enemy populations.



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