ABSTRACT:

Adoption and Impacts of Integrated Pest Management in Agriculture in the Western United States

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Executive Summary

Integrated Pest Management, or IPM, is a scientific approach to pest management that integrates biological, cultural, mechanical and chemical options to control pest problems. The goals of IPM are to reduce risks to people and the environment by using pest biology, environmental information and all available technology to reduce pest damage to acceptable levels by the most economical means.

In 1993, the United States Department of Agriculture and Environmental Protection Agency set a goal that integrated pest management would be practiced on 75% of U.S. crop acreage by the year 2000. A 2001 review that found while some level of IPM had been adopted on about 70% of U.S. crop acreage, chemical pesticide use had increased between 1992 and 2000, and there was only a slight decrease in the amount of the riskiest pesticides used in the same period.

To document IPM adoption and impacts since that 2001 review, this report examined peer-reviewed scientific literature and studies conducted by or on behalf of commodity groups or other agriculture interests, published since the year 2000. The data show that many IPM techniques have become so broadly adopted in the West they are now essentially conventional pest management, and that these high levels of IPM adoption are contributing to a reduction in pest-management risks to people and the environment. Because Western crops and agricultural practices are unique, the findings documented here may not be applicable nationally.

Key Findings

- IPM adoption is widespread in Western agriculture, with many prevention, avoidance, monitoring and selective-suppression practices employed by a large percentage of growers and on a majority of agricultural acreage.
- Pesticide use is declining overall, and in California has declined sharply per dollar of food produced.
- In California, use of many of the most toxic classes of pesticides has declined, although use of carcinogenic pesticides and toxic air contaminant pesticides has increased.
- Pesticide residues are found on food at low concentrations, which are below the legal tolerance limit set by the U.S. Environmental Protection Agency.

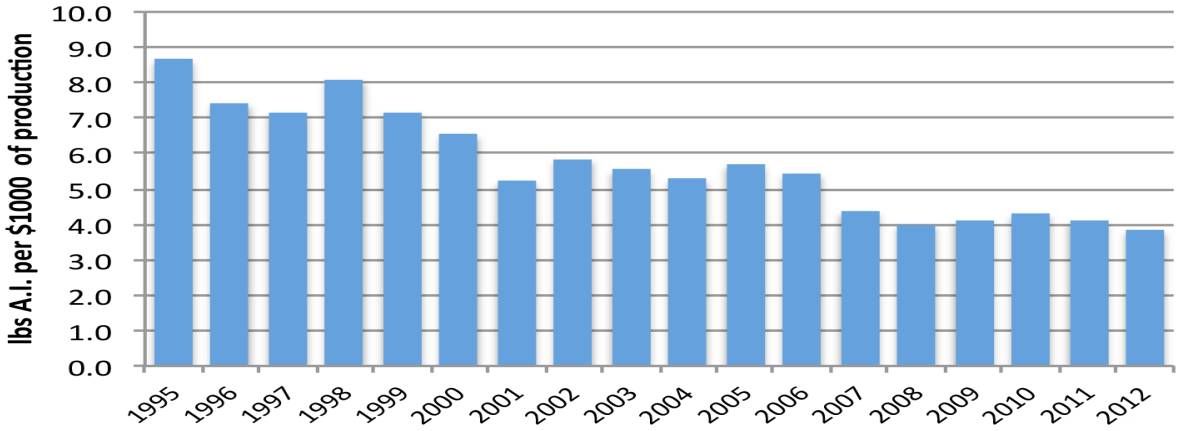
Download the full report at www.westernipm.org or scan the code.

"Adoption and Impacts of Integrated Pest Management in Agriculture in the Western United States" is a 66-page report prepared by the Western IPM Center to document the rates of IPM adoption in Western agriculture and the impacts those adoption rates are having. This abstract includes the executive summary and key findings, and two tables from the report.

The full document can be downloaded from the Western IPM Center website: http://westernipm.org/index.cfm/about-the-center/publications/special-reports/adoption-and-impact-of-ipm-in-western-agriculture/

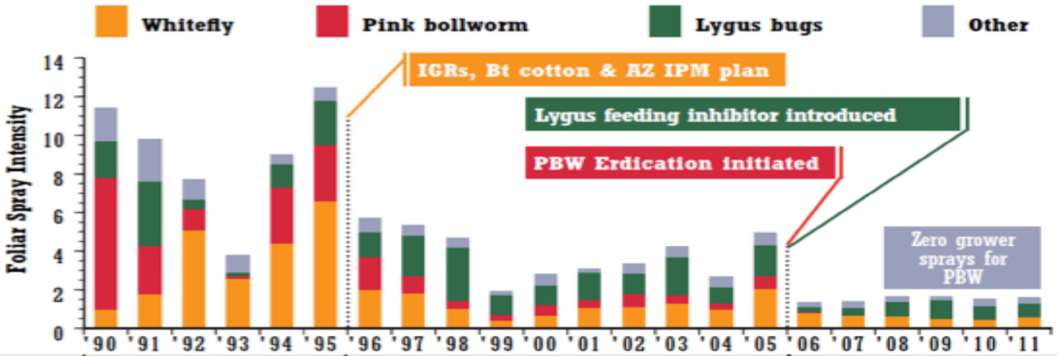
Sample Figures

Pounds of Active Ingredient Applied per $1,000 Produced in California, 1995-2012



Average pounds of active ingredient applied per $1,000 value of agricultural production from 1995 to 2012. Data obtained from Pesticide Use Annual Summaries (California Department of Pesticide Regulation) and California Agricultural Statistics Review (California Department of Food and Agriculture).

Insectide Use in Arizona Cotton Production, 1990 to 2011



All Insect Sprays	9.0	3.9	1.53
PBW Sprays	2.7	0.64	0.01
Lygus Sprays	1.6	1.5	0.62
Whitefly Sprays	3.6	1.3	0.61

Arizona average cotton insecticide use from 1990 to 2011 by key pest targeted by the application (Ellsworth et al. 2012).

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