



GROWER RESOURCE GUIDE: PROPER SPRAY TECHNIQUE

The San Joaquin Sustainable Farming Project has created a grower resource guide to help growers navigate useful topics and ideas and sustainable practices from on-line resources. Each topic contains general information and where to find current and pertinent materials and web links to that information. We hope you will find these documents worthwhile and convenient to use.

Spraying pesticides on your fields is one of those jobs where the margin for error is pretty narrow, both in terms of accomplishing the desired crop results as well protecting water, air quality and human health. The most important goal in the application of agricultural pesticides is to get uniform distribution of the chemicals throughout the crop foliage. Underdosing may not give the desired coverage and control needed. Overdosing is expensive as it wastes pesticide and increases the potential for groundwater contamination.

For more details on general applications for all crops [click here](#) for a step by step easy-to-view Powerpoint document which does a good job covering selection of equipment and formulations, applications rates and calibration and drift reduction practices.

[Top 10 tips for Pesticide Spraying](#) is a helpful article from Western Farm Press by Erdal Ozkan, an agricultural engineer and spraying technology expert with Ohio State University Extension and the Ohio Agricultural Research and Development Center (OARDC). These tips can help farmers improve sprayer performance.

For almond growers, check out an article entitled [“‘Smart’ sprayer technology provides environmental and economic benefits in California orchards”](#) in CALIFORNIA AGRICULTURE • VOLUME 65, NUMBER 2 by UC experts. A summary of the article is below.

“Spray applications of pesticides to orchards are a common cultural practice; however, they present environmental concerns due to emissions of volatile organic compounds (VOCs), runoff that can allow pesticides to enter waterways, and spray drift onto nontarget areas. Advanced sprayer technology can address these concerns and improve application efficiency by reducing the amount of spray that does not reach the target. Target-sensing sprayers were evaluated in multiseason experiments. They reduced pesticide application rates by 15% to 40% and nontarget orchard-floor deposition by 5% to 72%, providing significant environmental and economic benefits.”