HEALTHY FOOD SYSTEMS • HEALTHY ENVIRONMENTS • HEALTHY COMMUNITIES • HEALTHY CALIFORNIANS

University of California
Agriculture and Natural Resources
Making a Difference for California

UC CE

Tulare County
4437-B S. Laspina St.
Tulare, CA 93274

April 2019

Growing Season = Spraying Season

Late-season grape cultivars have passed bud break and are actively growing throughout the San Joaquin Valley. This is due in part to warmer temperatures and longer days. However, these beneficial conditions also favor the growth and reproduction of pests and diseases, therefore the spray season is also starting.

Organic and conventional growers rely on sprayable products to protect vines and clusters. The success of a selected product doesn't depend strictly on its active ingredient or mode of action, but its efficacy is also affected by when and how it is applied. Each application is an opportunity to control a problem, that is why any potential pitfalls during spray needs to be addressed.

Water is a common carrier used to deliver pesticides to a target. However, not all water sources are the same, and quality needs to be considered. Pesticides are formulated and manufactured to be applied between pH 5 -7, and some of them require different pH values to be effective. Using a non-recommended pH can result in the chemical modification of the product and failure to control the targeted pest or disease. For this reason, it is extremely important to follow the pesticide label, and perform corrections that are necessary to guarantee effectiveness of the spray. Colorimetric pH indicator strips or portable handheld pH meters are alternatives that growers can use to test the water pH.

Another aspect that needs to be considered is the calibration of the equipment that will be used for spraying. Calibration starts with a visual inspection of the equipment. Remember that most of the time, high pressure is used to force liquids (water+pesticide) to pass through a nozzle to form the spray that we want to apply to the targeted tissue. If leaking is observed, replacing the defective hoses is required. Manipulating high pressure systems without knowledge and protective equipment could result in severe or life-threatening injuries. If the operator is not trained and authorized to repair the equipment, he/she must notify his/her supervisor immediately. Any manipulation of a sprayer must be done by an authorized person using personal protective equipment to reduce the exposure of unwanted pesticide residues that can remain in the equipment.

The sprayer's pressure gauge also requires frequent verification. If malfunctioning is suspected or observed, immediate replacement is advised. An incorrect pressure reading can result in a lower or higher spray dosage. Over-spray or under-spray can be also caused by faulty nozzles and may affect the effectiveness of the application or result in phytotoxicity or exceed of the legal limits for a specific product. Over-spray will also apply more product than what is required, resulting in a more expensive and needless operation.

UCCE 4437B S Laspina St, Tulare, CA 93274 • Phone (559) 684-3300 • Fax (559) 685-3319 • Web Site cetulare.ucanr.edu

Remember to only operate the nozzles that will target the area of interest (canopy, cluster, trunk), and that provide a drop size required for your application (medium to coarse droplet size is desired in the SJV during summer). To select the nozzles to be used, one can attach 1-2 ft of flagging tape to a specific nozzle, run the fan at the specific desired speed and move the tractor in to the field. If the tape points into the target area, the nozzle can be used, otherwise it can be turned off. Spraying an unnecessary area results in wasted spray product.

If you have questions, please contact your local farm advisor or your PCA. It is in everyone's best interest that you have a safe and productive growing season.

Area Cooperative Extension Advisor – Viticulture

Job Description: https://ucanr.edu/About/Jobs/?jobnum=1527

The University of California's Division of Agriculture and Natural Resources (UC ANR) seeks an advisor for viticulture to conduct a locally-based extension, education and applied research program to address vine growth and development, table grape production, irrigation/water management, vine nutrition, rootstock evaluation, vineyard management systems, automation and mechanization, crop/fruit development, integrated pest and disease management in table grape vineyards including soil pests, post-harvest handling, cultural practices and their impact on fruit quality and yield, and best practices to minimize the environmental effects of production and cultural practices.

Location: Bakersfield, Kern County, California

Upcoming Events:

May 8-9, 2019
Grapevine Short Course
https://ucanr.edu/sites/PSU/files/301434.pdf
South Coast Winery
34843 Rancho California Road
Temecula, CA

May 22-23, 2019
UC Davis Wine Grape Irrigation Short Course
https://ucanr.edu/sites/Water_Program_2019/

Springhill Suites, Napa Airport
101 Gateway Rd E,
Napa, CA 94558

UC Davis Oakville Research Station
1136 Robert Mondavi Institute North
595 Hilgard Lane
Davis, CA 95616-5270

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Permit No. 240

Grape Notes

April 2019

Gabriel Torres

Viticulture Farm Advisor