



NAPA GREEN



CALIFORNIA ASSOCIATION OF RESOURCE CONSERVATION DISTRICTS

Best Management Practices (BMPs) for Vineyards Adjacent to Monarch Habitat

A product of the Napa County Monarch Working Group

Breeding and migrating monarchs can be present when vineyards are actively managed, from mid-March through late-October. Butterflies and native pollinators can be exposed to harmful pesticides during spraying and indirectly through contact with or ingestion of sprayed plants. Monarch butterflies are most vulnerable during the egg-chrysalis phase when they aren't mobile.

BMPs for Vineyards

Use Integrated Pest Management practices such as prevention and monitoring. If pesticides must be used, choose the least toxic pesticide and treat only the necessary areas.

Avoid neonicotinoids or other systemic insecticides, including coated seeds. These chemicals are absorbed by the plant which makes the plant itself toxic. Neonicotinoids include: acetamiprid, clothianidin, dinotefuran, imidacloprid, nitenpyram, thiacloprid, and thiamethoxam.

If neonicotinoids must be used on your property or might be used on an adjacent property, maintain a buffer of at least 125 ft between areas of neonicotinoid use and habitat areas.

Maintain a buffer of at least 40 ft between areas of ground-based pesticide (including sulphur) application and habitat areas, and 60 ft between air blast spray areas and habitat areas.

Use drift fences (vegetative buffers) when space is limited, and the spatial buffer cannot be achieved. These are small-needled evergreens planted at a density of 60% which grow above spray release height.

Always follow chemical label instructions. Avoid drift by monitoring wind speed with a handheld anemometer or weather station when spraying. Some chemicals also specify monitoring temperature to avoid application during an inversion.

Ensure sprayer and nozzle is calibrated and designed to minimize drift and avoid over application. Check system for leaks as small leaks under pressure can create fine droplets more likely to drift.

Screen all fungicides, herbicides, and insecticides (including biological and organic) for pollinator risk to avoid harmful applications. Keep in mind that mixes of chemicals can be more harmful than each individually. Use [Bee Precaution](#) to determine risk.

Don't use herbicides on blooming flowers. Time application during young plant phases or use non-chemical alternatives.

Incorporate these practices into employee trainings. Education of landowners, managers, and crews is essential. Normalize conservation culture.



Questions? Contact Ruby Stahel:
Ruby@NapaRCD.org or 707-690-3128