



OREGON
WINEGROWERS
ASSOCIATION

Please Use Caution When Applying Herbicides Near Wine Grapes

Phenoxy herbicides are very damaging to grapevines

- Grapevines are extremely sensitive to the application of certain herbicides commonly used by farmers and homeowners, especially phenoxy herbicides.
- Phenoxy herbicides include 2,4-D, MCPA, Crossbow, Banvel, Garlon, Weed-B-Gone, and Brush Killer, among others. The active ingredient of phenoxy-type herbicides may be listed on the label in “weed and feed” and brush control products for use in home landscaping as 2,4-dichlorophenoxyacetic acid (2,4-D), 2-methyl-4-chlorophenoxyacetic acid, triclopyr, or dicamba.
- Sensitivity to phenoxy herbicides exists throughout the grapevine's growing season (mid-March through October). Grapevines are most vulnerable from the early growing season through the bloom and fruit set period (mid-March through June).
- Phenoxy herbicides do not require a pesticide license for purchase in Oregon and are readily available from home improvement stores, garden centers, retail nurseries, etc. This family of herbicides is very effective and economical for controlling broadleaf weeds. These herbicides are commonly used on a variety of sites such as lawns, golf courses, rights-of-way and agricultural fields and by homeowners.

Two forms of spray drift can damage grapevines

- Drift of **spray droplets**: Small particles can move with the wind, land on grapes, and be absorbed into the grapevines through the cuticle on the leaf. The smaller the droplet, the further it will travel.
- **Vapor drift**: Volatile herbicides may produce vapors that are carried several miles from the target area. Herbicide particles or vapors may be moved from the application site by wind, shifting air currents, climatic inversions or using high pressures when spraying. Even minute amounts of phenoxy herbicides that move from the application site can create symptoms in grapevines.
- Grapevines in close proximity to the application site are at most risk, but grapevines at greater distances may be vulnerable. Effects have been documented miles away.
- Damage can range from leaf malformation to total crop loss. It can take up to three years for recovery.



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Suggestions to reduce spray drift risk

The risk of phenoxy herbicide exposure to grapevines can be reduced by taking a number of precautions when applying herbicides:

- If possible, **avoid making herbicide applications during sensitive periods of grape growth and development.** Grapevines are vulnerable from the early growing period in mid-March through leaf drop in October and are most susceptible from mid- March through June.
- **Consider using an herbicide that does not contain a phenoxy-type active ingredient.** If a phenoxy-type herbicide is preferred, please consider using an amine (dimethylamine salt) formulation instead of an ester formulation. Ensure there is **good communication** between growers and hired commercial applicators so they have information regarding nearby sensitive crops.
- Ensure applicators **follow the instructions on the product label** when using herbicides.
- **Minimize drift** by reducing spray pressure, lowering boom height, using drift-reduction nozzles or certain spray adjuvants or selecting low or nonvolatile pesticides.
- **Learn about the factors that influence drift**, including: temperature, relative humidity, air flow patterns, temperature inversions and topography. Please consult these handouts from the Oregon State University Agriculture Extension Service:

http://ipmnet.org/Pesticide_Drift_Artwork/Spray%20Drift%20hi%20res%20print.pdf (English)

http://ipmnet.org/Pesticide_Drift_Artwork_Spanish/Spanish_2_page_hi_res.pdf (Spanish)

Spray drift is illegal. Oregon protects every farmer's right to farm. However, this does not include actions that damage other crops.

Working with neighbors. Communication is critical. The Oregon Winegrowers Association urges vineyard managers to talk to neighbors and surrounding farmers to share information about the location of vineyards and sensitivity to certain herbicides.

More information. For more information consult the following OSU Extension publications

Preventing Herbicide Drift and Injury to Grapevines

<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/45880/em8860.pdf>

Are Your Weed-control Products Damaging Nearby Vineyards?

<https://catalog.extension.oregonstate.edu/em9132>

Questions? Contact the OWA at 503-228-8336 or owa@oregonwine.org.