


Pesticide drift

Risk and Response



November 2015
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Eagle Creek Grapes



What are Pesticides?

They are chemicals used to

- ∅ destroy,
- ∅ prevent, or
- ∅ control pests.

They also include chemicals used to

- ∅ attract or repel pests,
- ∅ regulate plant growth, or
- ∅ remove or coat leaves.

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Source: Private Pesticide Applicator Manual, Cooperative Extension Service, Manhattan, KS

- ∅ Insecticide
- ∅ Miticide
- ∅ Acaricide
- ∅ Nematicide
- ∅ Fungicide
- ∅ Bactericide
- ∅ **Herbicide** – used to control, suppress, or kill plants
- ∅ Rodenticide
- ∅ Avicide
- ∅ Piscicide
- ∅ Molluscicide
- ∅ Predacide
- ∅ Repellant
- ∅ Attractant
- ∅ Plant growth regulator
- ∅ Defoliant
- ∅ Desiccant
- ∅ antitranspirant

Herbicides – Group 4, synthetic auxins

phenoxy acetic acids:

Common Name	Trade Names	Common Use Sites
2,4-D	2,4-D, LV-4, LV6, Salvo, Savage, Weedone and other names	Corn, sorghum, cereals, fallow, noncropland, pasture, rangeland, lawn and turf
2,4-DB	Butyrol, Butoxone, Butyrac	Soybean and alfalfa
MCPA	MCPA Amine, MCPA Ester, Rhomene and other names	Cereals, lawn and turf
MCPB	Thistrol	Controls Canada thistle
Mecoprop	MCPP	Lawn and turf

....Herbicides – Group 4, synthetic auxins

Common Name	Trade Names	Common Use Sites
dicamba	Banvel, Clarity, Distinct and Vanquish	Lawn and turf
clopyralid	Stinger, Reclaim and Transline	Corn, pasture, rangeland and noncropland
fluroxypyr	Starane and Vista	Cereals and noncropland
picloram	Tordon	Pasture, rangeland and noncropland
triclopyr	Garlon and Remedy	Pasture, rangeland and noncropland
quinclorac	Paramount	Sorghum and fallow
amino pyralide	Milestone, Milestone VM	range, pasture, industrial

And there are other harmful herbicides that can drift!

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Table 1. Herbicides that have potential to injure grapes.

Growth regulators			ALS inhibitors			
2,4-D	Dicamba	Others	Glyphosate	Sulfonylurea	Imidazolinone	Others
Amine 4	Banvel	Bronate*	Roundup	Ally	Arsenal	Gramoxone
Barrage	Clarity	Crossbow*	Rodeo	Ally Extra	Assert	Aim
Esteron 99	Rave*	Curtail*	Roundup Ultra	Amber	Beyond	Boa
Formula 40		Landmaster*	Roundup	Canvas	Pursuit	
Hi Dep		MCPA	UltraMax	Cimarron	Raptor	
LV-4		RT Master	Roundup	Express	Plateau	
LV-6	Pyradine	Starane	WeatherMax	Finesse		
Saber	+ 2,4 D	Tordon	Landmaster*	Glean		
Salvo		Turfion	Glyphos	Harmony Extra		
Savage	Pyradines	Trimec	Glypro	Harmony GT		
Tricep		Garlon	RT Master	Oust		
Weedar 64			Touchdown	Peak		
Weed-B-Gon				Rave*		
Weedmaster						
Weedone						

This list is not all-inclusive; other herbicides also may injure grapes.

**A prepackage mixture containing a growth-regulator herbicide as at least one active ingredient.*





Sensitive Crops

as identified by DriftWatch

Alfalfa
Beehives
Berries
Cotton
Fish farm
Grapes
Greenhouse, high tunnel
Legumes
Mint or herbs

Non-specialty certified organic
Non-specialty transition to cert. organic
Nursery crops
Orchard
Pasture
Pumpkins
Specialty farms
Specialty grain crop
Tomatoes
Vegetables

OTHERS

What is spray drift?



Defined by EPA:
“as the physical movement of pesticide droplets or particles through the air at the time of application or soon thereafter from the target site to any non- or off-target site”





Phenoxy Herbicide Injury can:

1. reduce yield
2. reduce fruit quality
3. affect ripening
4. reduce winter hardiness (perennial only)
5. reduce overall growth
6. affect next year's growth (perennial only)
7. kill the plant



The dose and timing
determines the poison

Rate Leaf Symptoms

Individual leaves can be rated using the Severity Rating. The rating ranges from 0 to 5 with 0="no observable phenoxy-type symptoms" and 5="severe phenoxy-type symptoms." Use the photos and documented field descriptions to aid in rating symptoms.



0



2



4



1



3



5

Pesticide Drift can be a VERY Emotional Issue!!





Can Drift be avoided?

Maybe -- Be as pro-active as possible.

- Be knowledgeable about spray drift.
- Register on Drift Watch.
- Talk positively to your neighbors, local elevator, noxious weed department, road and bridge, etc.
- Post signage around your property.
- Send (annual?) letters to neighbors, area commercial applicators.
- Protect yourself – set a good example.
- Get your private applicator's license.

1. What to do right after a drift incident:

- Identify the area(s) affected.
- Document the date, time, and growth stage of plants
If possible, identify the source of the drift and make a determination if you want to settle this problem between friends or foes.
- Contact the Dept of Ag if you cannot determine source of the drift and/or you want to formalize the complaint ASAP (30-45 day deadline in many states)
- Flag a selection of affected and unaffected plants, take high resolution pictures weekly until symptoms subside and measure final yields per plant.
- Severe injury settlements should be held off until after next season's harvest. Photo and yield documentation should be continued.

Note: insurance companies want to settle ASAP!

Contact Dept of Ag; Complete on-line Pesticide Complaint Form

Home > Divisions & Programs > Pesticide and Fertilizer

Pesticide and Fertilizer Program

Welcome! Our goal is compliance with Kansas statutes and regulations governing products that are used to control pests or to enhance plant growth. We strive to achieve our goal through compliance assistance and outreach education; complaint investigation; and monitoring inspections. Our program covers the following laws:

- [Kansas Agricultural Chemical Act](#)
- [Kansas Chemigation Safety Law](#)
- [Kansas Fertilizer Law](#)
- [Kansas Pesticide Law](#)
- [Kansas Soil amendment Act](#)

NOTE: If you have questions regarding the status of your initial or renewal application for product registration, applicator certification, business license, or dealer registration, please contact:

Accounts Receivable and Licensing
(785) 564-6736

If you suspect that a pesticide has been misused (including herbicide drift), please visit our online [Pesticide Complaint Form](#).

If there is direct human contact from a spray please contact the Pesticide and Fertilizer Program (785) 564-6688.

For pesticide drift information or the sensitive crop registry, visit our [Sensitive Crop](#) page.

Next steps:

- ✓ 1st – are you sure it's pesticide drift – not frost, disease, insects, etc.
- ✓ Where did it come from – follow the yellow brick road.
- ✓ Take photos from time of spray until settled
 - ✓ Tip: use tape measure, ruler, in background when taking pictures. Note date and time of each photo. Take photos of unaffected photos.
- ✓ Continue your best management practices during the entire ordeal. You do not want to have the perpetrator and their entourage accusing you of not taking care of your vineyard during this entire process.
 - ✓ Cutting off affected foliage does more harm than good.
 - ✓ The plants need to grow and metabolize the pesticide contaminants to recover.
- ✓ Leave a normal crop load if insurance settlement and/or litigation is expected.
- ✓ Find a drift consultant/expert.
- ✓ Get a copy of the state investigation file. (Dept of Ag, Document Services, ORR)
- ✓ Document everything, including each time you meet with the applicator, insurance claims agents, and government officials. **Continue documentation until completely settled.**
- ✓ **Be prepared for backlash from the applicator!**

Questions?

