

Weeds – Event Table Reference

4/9/2019

- 1) Weed Management in the Landscape, Yavapai County Bulletin #23 – may also be used as a handout
- 2) The question on the use of Glyphosate (e.g. Roundup) is common. See “Glyphosate Questions & Answers” from Oregon State. It contains good information about Extension’s position.
- 3) Herbicide Chart – see below
- 4) References to identify weeds:
 - a. “Weeds of the West”
 - b. “Plants of Arizona”
 - c. Yavapai County Native & Naturalized Plant Database <http://cals.arizona.edu/yavapaiplants>
 - d. Northern Arizona Invasive Plants <https://www.nazinvasiveplants.org/>

Additional information on weed management:

- Corn gluten meal? Can work as a pre-emergent on seeds, but it is nitrogen, so timing is critical
- Household vinegar is 5% acetic acid & not an approved herbicide; 10% is better for killing weeds.
- Herbicides can be selective or non-selective (affecting broadleaf and not grasses or vice-versa).
- Herbicides can kill plants through direct contact or be translocated within the plant to kill them systemically.
- Herbicides may have pre-emergent (before seed germination) or post-emergent activity.
- Some herbicides are soil sterilants that prevent plant growth altogether, and these are not recommended for residential use.

Pesticide Toxicity

LD₅₀ (Lethal Dose₅₀) is the amount of a substance that, when administered by a defined route of entry (e.g. oral or dermal) over a specified period of time, is expected to cause the death of 50% of a defined animal population. The units of LD₅₀ are parts per million (ppm) or milligrams/kilogram. A quicker and less technical way to indicate pesticide toxicity is through the *signal word*. The words CAUTION, WARNING, and DANGER, POISON are used to quickly define a pesticide’s relative toxicity.

Toxicity Category	Signal Words	Oral LD ₅₀	Probable Lethal Adult Human Dose
Highly Toxic	DANGER, POISON may also have skull and crossbones displayed	0 to 50	a few drops to 1 teaspoon
Moderately Toxic	WARNING	50 to 500	1 to 2 teaspoons
Slightly Toxic	CAUTION	500 to 5,000	1 ounce to 1 pint (or pound)
Almost Non - Toxic	CAUTION	more than 5,000	1 ounce to 1 pint (or pound)

Herbicides

Products Available October, 2015

Active Ingredient(s)	Some Common Names	Signal Word												Notes
			Broadleaf	Grass	Stump	Pre-emergent	Post-emergent	Contact	Systemic	Selective	Non-selective	Warm weather	Cool weather	
2,4-D	<ul style="list-style-type: none"> Gordon's LV400 2,4-D Weed Killer Solvent Free 	Caution	X				X		X	X		X		Lawns, pastures, rangeland, corn, small grains & non-crop
2,4-D w/ Dicamba & mecoprop-p	<ul style="list-style-type: none"> Bayer Lawn Weed and Crabgrass Killer Fertilome Weed Free Zone Green Thumb Lawn Weed Killer Ortho Weed B Gon Spectracide Weed Stop for Lawns Weed Free Zone 	Caution	X				X		X	X		X	X	Above 45° & below 90°
2,4-D w/ quinclorac & dicamba	<ul style="list-style-type: none"> Gordon's Trimec Crabgrass Plus Lawn Weed Killer Ortho Weed B-Gon Plus Crabgrass Control 	Caution	X	X			X		X	X		X	X	Above 45° & below 90°
ammoniated soap of fatty acids	<ul style="list-style-type: none"> Garden Safe Weed & Grass Killer 	Caution	X	X			X	X		X		X		
bacillus subtilis	<ul style="list-style-type: none"> Natria Disease Control 	Caution				X								
citric acid, oils, clove	<ul style="list-style-type: none"> Bonide Burnout 	Caution	X				X		X		X	X	X	

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dicamba		Warning															Normally combined with other ingredients; broadleaf growth regulator (causes plants to grow in abnormal and uncontrollable ways, and often, the plants die).
diquat w/ fluazifop & dicamba	<ul style="list-style-type: none"> Spectracide Weed and Grass Killer 	Warning	X	X			X		X			X	X	X			
d-Limonene	<ul style="list-style-type: none"> Avenger Weed Killer 	Caution	X	X			X	X				X	X	X			
fluazifop	<ul style="list-style-type: none"> Grass B Gon Garden Grass Killer Ortho Weed B Gon Garden Grass Killer 	Caution		X			X		X	X			X	X			Slower in cool weather
glufosinate	Finale (Bayer)	Warning	X	X			X	X	X			X	X				Not found locally? Both contact & systemic
glyphosate	<ul style="list-style-type: none"> Ace Weed and Grass Killer Concentrate Gordon's Liquid Edger Green Thumb Weed & Grass Killer Groundwork Weed & Grass Killer HDX (Home Depot) Killzall Roundup 	Caution	X	X			X		X			X	X				
glyphosate & Imazapyr	<ul style="list-style-type: none"> Ortho Ground Clear Complete Vegetation Killer 	Warning	X	X			X		X			X	X				Soil sterilant - read label directions
glyphosate w/ triclopyr	<ul style="list-style-type: none"> Round-up Poison Ivy Plus Tough Brush Killer 	Caution	X	X			X		X			X	X				

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glyphosate w/ diquat dibromide & indaziflam	<ul style="list-style-type: none"> Bayer Advanced Durazone Weed and Grass Killer 	Caution	X	X			X	X	X		X	X		
iron HEDTA	<ul style="list-style-type: none"> Whitney Farms Lawn Weed Killer 	Caution				X								
isoxaben	<ul style="list-style-type: none"> Gallery Fertilome Broadleaf Weed Killer w/ Gallery 	Caution	X			X					X			Primarily used in vineyards and fruit orchards
MSMA	<ul style="list-style-type: none"> Crabgrass, Nutgrass, and Dallisgrass Killer 	Caution		X			X		X	X				Used on golf courses, sod farms, highway rights-of-way
oryzalin	<ul style="list-style-type: none"> Monterey Weed Impede Green Light - Amaze Grass and Weed Preventer 	Caution	X	X		X					X			Pre-emergent herbicide, used in gravel landscapes to prevent weeds
potassium of fatty acids	<ul style="list-style-type: none"> Safer Fast Acting Grass & Weed Killer 	Caution	X	X			X	X			X	X		
2-phenylethyl propionate	EcoSMART Weed & Grass Killer	Caution	X	X			X	X			X	X		
sethoxydim	Hi-Yield Grass Killer	Caution		X			X		X	X		X		
sodium metabisulfite	Bonide Stump-out	Caution			X									
sulfentrazone	Ortho Nugsedge Killer for Lawns	Caution	X				X		X	X		X	X	



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triclopyr	<ul style="list-style-type: none"> Bonide Stump-out Stump and Vine Killer Bayer Advanced Brush Killer Fertilome Brush Killer Stump Killer Ortho Poison Ivy and Tough Brush Killer 	Caution			X												
trifluralin	<ul style="list-style-type: none"> Preen Monterey Weed & Grass Preventer 	Caution	X	X		X						X					