

Alternative Pesticide List

Organic insecticides, herbicides and fungicides can harm pollinators too. Do not apply any pesticide directly to pollinators.

PESTICIDE OR BEST PRACTICE	USE
Phydura – organic (Soil Tech Corp) citric acid, malic acid, clove oil	HERBICIDE: non-selective herbicide for herbaceous broadleaf and grass weeds including garlic mustard and leafy spurge.
Scythe – organic (DOW AgroSciences) Perlargononic acid	HERBICIDE: removes or burns waxy cuticle of green vegetation. Will not translocate. Non-selective, post-emergence for grasses and broadleaf weeds, perennial herbaceous plants. Alternative to glyphosate.
White Vinegar or acetic acid (Final Stop by Dr. Earth)	HERBICIDE: Broad spectrum for weeds and grasses including poison ivy. Apply during hot sunny months.
AllDown – organic (Summerset)	HERBICIDE: Non-selective annual broadleaf, perennial weeds and grass herbicide including Canada thistle. acetic acid, citric acid. Will not translocate. Alternative to glyphosate.
BurnOut organic (Bonide) clove oils, citric acid	HERBICIDE: Post defoliant on annual, perennial and grassy weeds. Non-selective. Will kill most roots, will not translocate. Alternative to glyphosate.
Corn gluten – organic	HERBICIDE: Pre-emergent herbicide for germinating weed seeds for broadleaf and grassy weeds. Often used for landscapes and gardens.
Integrated Pest Management Practices	BEST PRACTICE: Monitoring, forecasting, identification, thresholds and long term planning for insects and plants. Biological, cultural and chemical controls. Hedgerows, wind blocks, beneficial insects and cover crops. Emphasis on soil health. Carefully planned mowing, controlled burns, plant choices and management.
Fire: Flameweeding, blow torch, controlled burns	BEST PRACTICE: Weed control in crevices, on roadsides, trails. Controlled burns to encourage diversity and soil health.
Plant Identification charts and education: for example: Thistle (Natives: Hills, Tall, Field, Flodmans, Swamp) (Non-native: Canada, Bull, Plumeless, Musk)	BEST PRACTICE: Field staff may mistake native thistle for non-native. Visual field charts plus education can cut down on maintenance. (Thistle guide: www.xerces.org/native-thistle-guide)
Shade cloth smother	WEED CONTROL: Leave shade cloth in place for 1-2 years, remove and reseed in nutrient rich soil (State of Oregon uses for knapweed control)
Goats or sheep	WEED CONTROL: For large areas that are hard to manage, wooded areas with bushes and invasives like buckthorn. Fencing can be a challenge for goats.
Soil testing/augmentation	WEED CONTROL: Make soil inhospitable for undesirable plants by augmenting soil with nutrients contrary to what non native plant requires (such as magnesium)

<p>Surround WP (Novasource) Kaolin clay</p>	<p>INSECTICIDE: for fruit trees, bushes and plants. Sprayed on plants, leaves a protective powdery film on surface of leaves, stems and fruit. Controls long list of insect pests on fruit trees and ornamentals. Avoid spraying on blooming flowers and pollinators. (Used extensively in South America and Africa)</p>
<p>Thuricide (Bonide) Bacillus Thuringiensis (BT)</p>	<p>INSECTICIDE: Naturally occurring soil bacterium kills specific insect larvae like cabbage worm larvae. Can be used to target mosquito and black fly larvae.</p>
<p>Natural Guard, Neem- organic Neem Oil (from neem tree)</p>	<p>INSECTICIDE/FUNGICIDE: Oil from the neem tree for organic control of fungal diseases; powdery mildew, leaf spot, scab and insects/mites; aphids, spider mites, scale, whiteflies, beetles.</p>
<p>Insecticidal Soaps – (Garden Safe) potassium salts of fatty acids</p>	<p>INSECTICIDE: organic control of aphids, mealybugs, mites, thrips, whiteflies..</p>
<p>Earth.Tone (Espoma) pyrethins, canola oil</p>	<p>INSECTICIDE: organic control of aphids, beetles, caterpillars, mealybugs, mites, thrips...</p>
<p>Home Yard & Garden Pest Control Products</p>	<p>PESTICIDES, Organic: Dr. Earth, Arbico Organics, Planet Natural, Bonide</p>
<p>Beneficial Insects and nematodes (like hover flies, braconid wasps, tachinid flies, lacewings, lady beetles)</p>	<p>INSECT CONTROL: When scouting plants, check for both pests and beneficial insects such as lady beetles and bees. If beneficial insects are present, wait to treat. The beneficial insects may control the pest problem.</p>
<p>Roadside mowing practices</p>	<p>BEST PRACTICE: Reduce mowing beyond clear zone to benefit pollinators and wildlife. Reduce frequency of mowing (one side per year), or mow some and not others areas. Restore remnant habitat and existing native vegetation.</p>
<p>Protect pollinators. Use pesticides only when absolutely necessary. Least toxic insecticides such as boric acid, diatomaceous earth, neem oil, insecticidal soaps, and kaolin clay.</p>	<p>BEST PRACTICE: If pesticides are necessary, use spot treatments. Do not use systemic insecticides which are toxic to pollinators and stay in the plant, soil or tree. Never spray flowers or buds. Do not apply while plants are in full bloom. Apply in the evening when bees are not foraging.</p>
<p>Swarm Catchers: 651-436-7915</p>	<p>PROTECT POLLINATORS: Statewide swarm rescue. Identify the insect species first if possible. Catchers will rescue and relocate honeybees, bumblebees and some native bees.</p>
<p><i>Resources:</i> <i>Compiled by Pollinatorfriendly.org</i> <i>1/2017</i></p> 	<p>www.omri.org (Organic Materials Review Institute) www.beyondpesticides.org (Pesticide Gateway found under Resources) www.pesticideinfo.org (PAN Pesticide Database) www.cdms.net/label-database (Data Logic Database)</p>

