





School Garden Weed and Pest Control

Mulching Options

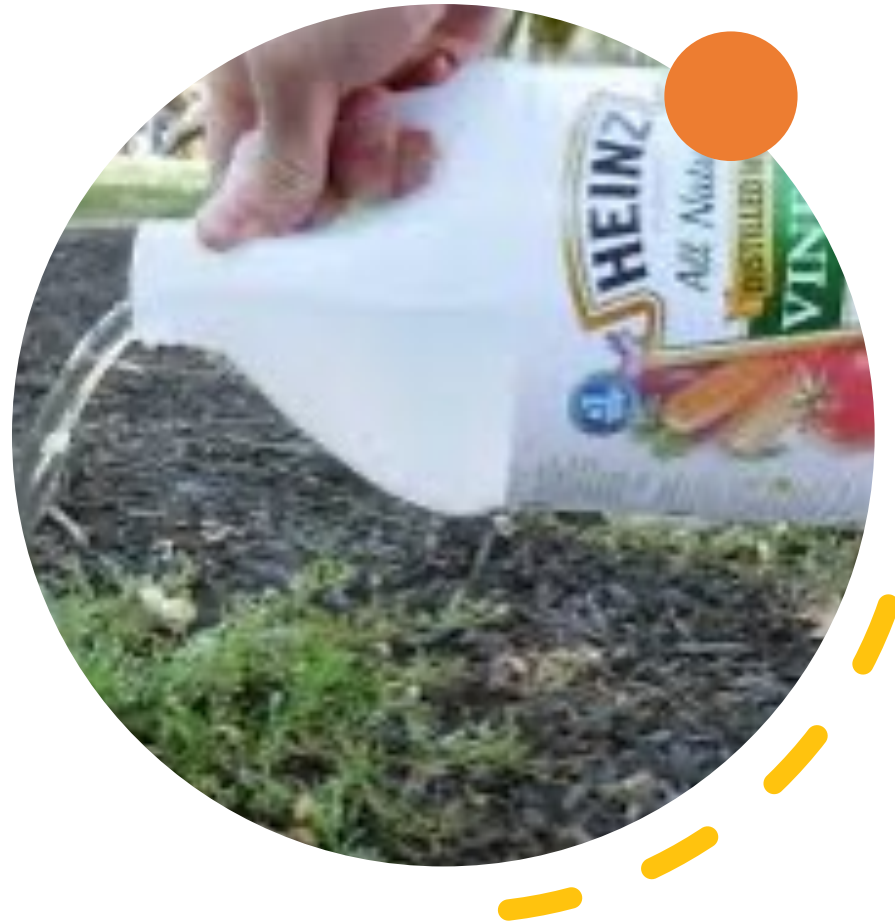
- Pine straw
- Bark
- Landscape Cloth
- Weed Fabrics
- Leaves
- Newspaper



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- Mulches work to stop this by blocking light from reaching the soil surface.
 - Natural mulches need to be at least 2 inches thick.
 - Many natural mulches can be turned into the soil.
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Vinegar Herbicide

- Can be effective in school gardens
- Non-selective- kills whatever it touches
- Takes longer than chemical pesticides
- Add Salt, dish soap, and vinegar for better results.
- More concentrated vinegars are available to order.



Ortho Elementals

- Non-selective
- Iron based and soybean oil
- Works well on small annual broadleaves and grasses
- Poor on perennials



Perfectly Natural - Organic

- 90% vinegar and 8% clove oil
- RTU – no mixing
- Smells good
- Tried it – works ok on very small annuals

Scythe – fatty acid

- Non-selective – pelargonic acid
- Works well on tender annuals – 5% solution
- Poor on perennials
- Overall, a pretty good performer







Plants That Help With Insects

- Basil
- Chives
- Chrysanthemums- Mums
- Dill
- Lemongrass
- Marigolds*
- Thyme
- Mint
- Rosemary
- Pyrethrum Daisy (Tanacetum coccineum)

- Trap Crops
 - Nasturtiums
 - Petunias
 - Milkweed
 - Sunflowers

Plant Spacing

- Proper spacing between plants reduces shadows and improves air flow.
- Tight plantings are ideal for pests to hide and live in. Planting at the proper spacing will discourage pests and improve plant health.
- Remove rotting or fallen fruit and vegetables from the ground.
- Read the seed label for proper spacing and add 10%.





Insect
Cloth/Netting



Sticky Traps



Hand Removal

Remove and
kill insects with
a gloved hand

Can/Bucket of
soapy water.

Insecticidal Soaps

- safe, effective and low toxicity alternative.
- Small, soft-bodied insects such as aphids, mealybugs, thrips, scale crawlers, and spider mites are most susceptible, and low toxicity alternative to more toxic pesticides
- Insecticidal soaps kill by suffocation, they appear to disrupt the cellular membranes of the insect, and they remove protective waxes that cover the insect, resulting in dehydration



BT. : *Bacillus thuringiensis*

bacterium that is found naturally in soils

Bt damage the gut of insect larvae after the larvae eat them.

insect gut must have a pH of 9.0 to 10.5 (high pH) in order to activate the toxin



Pyrethrin Products

Pyrethrins are pesticides found naturally in some chrysanthemum flowers.

Pyrethrins excite the nervous system of insects that touch or eat it. This quickly leads to paralysis and ultimately their death.



Spinosad Products

Spinosad is a natural substance made by a soil bacterium that can be toxic to insects.

Spinosad affects the nervous system of insects that eat or touch it. It causes their muscles to flex uncontrollably. This leads to paralysis and ultimately their death, typically within 1-2 days.

Used during heavy infestation.









Assassin Bug

- They feed on a diverse variety of insects including flies, mosquitos, roaches, beetles, aphids and caterpillars. While these insects will not attack humans or pets, their bright colors should serve as a warning.
- Nymphs emerge from eggs and can often be seen in groups