



## “Weeds, Bugs and Watering”

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**Weeds = plants that grow where they are not wanted:** (see powerpoint for pictures)

- One year’s weed seed is 7 year’s weeding – grab them before they seed
- Many weeds are actually **good for pollinators** – dandelions flower early and are thus good for early bees
- Many weeds are **indicators of soil fertility or soil conditions**. Dock and sorrel are indicators of hard pan (soil compaction) which is also normally a sign of acid soils.
- Some weeds such as clovers and dandelions actually **bring nutrients back up to the soil surface**.
- Some weeds are leguminous ( pea and bean family) and serve the same purpose as beans in that they produce in their roots the **ability for nitrogen fixing bacteria to function** .
- Some weeds are classed as **invasive** – normally they are “from away” and have found that the New World is so to their liking that they have taken over completely – angelica, purple loosestrife, Japanese knot weed, black eyed Susans....
- Quite a few weeds are either **edible or have medicinal uses**.

**References:** “Good Weed, Bad Weed” by Nancy Gift - St. Lynn’s Press, Pittsburgh- [goodweedbadweed.weebly.com](http://goodweedbadweed.weebly.com)

### Weedkillers

- preferable not to use except perhaps **horticultural vinegar** which is double the strength of normal vinegar. However remember if it kills the weeds it may kill the good plant next to it if it runs onto it or is sprayed onto it.
- **DO NOT use any product with glyphosate in it** eg. Roundup – it is a derivative of DDT which has been found to be highly carcinogenic. Also plants are becoming immune to it .....
- **DIG weeds out roots and all and remove them** – put them in the garbage (not in the compost pile).

**Bugs good and bad** (see the PowerPoint for the top few of each type)

**References:** “Good Bug, Bad Bug” by Jessica Walliser. St Lynn’s press, Pittsburgh - [whatbugisthat.com](http://whatbugisthat.com)

### Anti bug and beast sprays

All sprays are likely to be dangerous to some creature that you do not want to kill. This is especially true with regard to beneficial beetles and bees, so be very wary of exactly where you spray. **DO NOT in general spray flowers as this will affect all pollinators**, and target spray around specific root systems rather than spraying the ground in general as you may well harm beneficial earthworms and nematodes.

#### Bug spray 1

Garlic and pepper – a general spray for bad bugs – e.g. striped cucumber beetles

(Not beneficial to bees, ladybugs, lacewings)

1 cup boiling water poured over 3 crushed garlic cloves

Add 2 Tablespoons red pepper flakes

Allow to steep overnight

Add to 2 quarts water + 2 Tablespoons dishwasher liquid

Drain through sieve and put in spray bottle. Use immediately or keep in fridge for up to 7 days. Reuse after heavy rain.

(Note: I use 2 teaspoons each of red pepper flakes and dishwashing liquid not 2 Table spoons).

**Neem oil spray:** Neem is a difficult product to pinpoint in its use. Some say it kills bugs, other say it deters bugs, yet others say it is a product that energizes the plant you are trying to save so that it then can be more resilient to the bug concerned. It has been found to be toxic to insects and fish, but in small doses not toxic to humans. (In fact in India and the Far East it is used medicinally for humans) **Recommended mix:** 2 Tablespoons Neem oil in 2 gallons water with 2 drops liquid soap as a surfactant.

**For powdery mildew :** Mix 2 Table spoons baking soda in 2 quarts water – spray both sides of infected leaves – mostly cucumbers, squashes and melons.

**Slug spray:**

1) **Ammonia** – 1 part to 10 parts water – use in a spray bottle 2) Beware of using **salt** to kill slugs – it will kill plants too.

**Mixes for slug baits for traps:**

a) **Beer:** place in reasonably deep dishes sunk into the ground till top lip of dish is level with ground. Slugs will dive in, and drown merrily drinking beer! If not a deep dish they will drink and get away!

b) **Yeast:** 1 Tablespoon yeast, 3 Tablespoons sugar in 1 litre warm water. Wait for yeast to froth up before decanting into yoghurt tubs or similar, with lip at ground level as above. I feed the resultant mix to my chickens as extra protein!

c) **Cornmeal:** 3 Tablespoons corn meal, 1 Tablespoon molasses, ½ teaspoon yeast, ½ cup water, ½ cup flour. Mix well and put out. Beware other bugs (some good ones included) may find this tasty.

**NOTE: Commercial pesticides - avoid the following:** *Sevin* is highly toxic to bees , *Rotenone* – not a good idea at all *Pyrethrin* based products can also be dangerous – they were after all developed to kill mosquitoes and other insects and are toxic to humans –best not used on vegetables .

**The real answer to bugs is to grow healthy plants in healthy soils  
that can withstand the bugs and their attention!!**

**Watering :**

- Rule of thumb – 1inch (25 mm) depth of water per week for most plants in a dry summer .
- Too much and they flop over and die
- Too little and they frizzle up and die
- Plants can survive drought, they cannot survive drowning.
- **Water early mornings if possible** –plant has time to take in the moisture without getting really damp leaves which might lead to fungus and diseases. Late evenings are OK but high humidity at night runs risk of fungus and diseases such as powdery mildew.
- **Don't water in the direct sun** – don't water leaves in the sun – the drops will create a glass effect and cause sun scorch.
- Try to **water around the plant at the base** of the plant – even make a shallow basin round each plant to stop the waste of water.
- **Use soaker hoses** – they drip feed the plants. Overhead sprayers lose water by evaporation and wind, and can damage plants by dumping too much water on the leaves. If that proves too expensive – take a pop bottle or vinegar bottle or even apple cider bottle. Make holes all round with a sharp pointed instrument ( compasses work well) and bury the bottle in the middle of your veg patch with the neck sticking out of the ground – fill this regularly and let the water seep out of it a root level;- this way there will be no evaporation and no leaf damage. These are particularly good for tomatoes and peppers- group the tomatoes or peppers around a bottle waterer.
- **Fertilizer can be added to water** – especially such types as seaweed or kelp, or even fish based liquid fertilizers.
- Try to **use organic fertilizers** – they help the soil to remain healthy. Inorganic (chemical) fertilizers may grow you good plants once, but the petro chemical residues can cause great harm to the soil and its inhabitants.
- **Compost and manure are the best all round fertilizers** – if added to the soil they can also reduce the need for watering.
- **Mulch your plants** with straw, newspaper or bark to keep the moisture in!

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