Weed Control

Many weeds are nearly impossible to eradicate without digging and sifting through the soil to remove every speck of root, stem, and runner. Bermuda grass, Johnson grass, and nut grass (or nut sedge) are examples of such invasive weeds. To have a successful garden, however, these weeds must be removed and kept out of a garden.

NO method of weed control is permanent or perfect. Weeds can blow in with the wind or be deposited by birds. Some weeds can lie dormant for up to 20 years *or more* before finding the perfect conditions that cause them to germinate. Some weeds can root underground and travel great distances (and surprising depths!) under barriers, sidewalks, and driveways before popping up in the garden

Weeds are often an indication of a poor, disturbed, or bare soil. Following good organic maintenance practices will create a healthy turf and landscape. Avoid compaction or unnecessary tilling or digging of the soil. This can ruin the soil structure and bring up dormant weed seeds, giving them the opportunity to sprout. In addition, never leave any soil bare. Always cover soil with at least two or three inches of mulch to prevent weeds and protect soil from erosion, heat, and drought. See our handouts *Organic Lawn Care Guide* and *7-Step Guide to Organic Gardening* for more information on how to nourish your lawn and landscape.

We list some methods that can provide long term control of weeds. **Diligence and perseverance** are two of the best practices to keep weeds at bay. We also have a broad selection of **weed removal tools**. Please speak to one of the staff if you would like some help picking out the one that will work best for you.

Sheet mulching is an easy way to get rid of weeds in any area where a gardener wants to start from scratch. It is an efficient method of eliminating weeds and improving soil at the same time. **Sheet mulching is most effective when done during the active growing season**, but can still be practical during the winter, though it may take longer. Here are the steps:

1. Mow or "weed-eat" the grass and/or weeds down to the ground. You can leave the clippings.
2. Spread ½" – 1" of good compost over the bare ground. Water in this layer.
3. Lay newspapers (about a quarter inch thickness, about 10 – 15 sheets), **OR** plain brown corrugated cardboard (remove any plastic tape and any metal staples), **OR** brown paper paint masking paper, on top of the compost. (You may use any single one or combination of the three). Be sure to overlap the edges (at least 4 inches of overlap) and make sure there are no gaps. Weeds WILL find any gap in the cover. Water this layer until thoroughly wet.
4. There are two options at this point.
    a. If you would like to create a raised bed, first construct a border for the garden out of untreated cedar, cinder blocks, stones, or other nontoxic material. Then fill the bed with a prepared soil.
    b. If you do not want to make a raised bed, or you're not ready to plant, cover the cardboard layer with two or more inches of any mulch.
5. Leave the compost-newspaper-cardboard layers undisturbed for at least two or three months. Water the area regularly – once every week or two if you can.
6. These layers can be built *around* plants in an existing bed, too. Bring the compost-newspaper-cardboard layers up to 2" – 3" away from the stem of the plant to prevent rotting the stem. However, weeds will need to be diligently pulled from this area around the stem.

Sheet mulching is effective because it blocks the light from the weeds and the microorganisms in the compost help to break down the weakened weeds before they have a chance to grow through the barrier. A bonus feature of this method is that the layers of newspaper or cardboard decompose and become part of the soil.

Corn Gluten is a **natural pre-emergent herbicide** to help control *annual* lawn and garden weeds. (Annual weeds do not have persistent roots. They grow from a seed, complete their life cycle, and die within one year). Those who use corn gluten properly as part of an organic maintenance program find their lawn and landscape healthier and more weed-free year after year. Under the right conditions, each application of corn gluten prevents a majority of the weed seeds from sprouting. Compared to the long-term harmful effects of synthetic herbicides and chemical "weed and feed" products, the cost benefits of using corn gluten are significant and long-lasting. The **dry corn gluten is also a fertilizer containing 9% nitrogen,** adding fertility and life to the soil. The liquid form is very convenient, employing a hose end attachment on the bottle for easy application, but does not provide the fertilizing component.

Timing is the most important factor in the effectiveness of corn gluten, as with any pre-emergent herbicide. The corn gluten must be present on the soil **before the weed seeds sprout** (germinate) in order to be effective. There are two different times of year when we can control *most* weeds in our area: late winter and late summer/early fall. Since weed seeds can germinate anytime of the year, in some serious weed situations it would be beneficial to reapply corn gluten every 6 weeks during the growing season (and is particularly beneficial in the vegetable garden when using transplants, but cannot be used if direct seeding into the garden).

- **Mid-January** – This application of corn gluten helps control spring and summer weeds, such as crabgrass and sandbur. As the soil begins to warm in late winter is the correct time to apply corn gluten. Especially with sandburs, multiple applications may be necessary. Corn gluten may be applied every 6 weeks through September.
- **Mid-September** – This application helps control fall and winter weeds, such as annual bluegrass, rescuegrass, henbit, chickweed, bur clover, mustards, and annual thistles. This is the proper time to fertilize lawns, so corn gluten will suffice as the fall fertilizer, too. The best time to apply is when we feel the first break in the hot weather of summer – at the *first hint* of cooler weather.

The recommended application rate is 20 pounds per 1000 square feet or 2 pounds per 100 square feet. Do not apply compost, compost tea, or soil activator for 6 – 8 weeks after applying corn gluten, as it may interfere with the effectiveness of the corn gluten. In garden beds, hand pull existing weeds, and then apply corn gluten. Reapply whenever the soil is turned. On a lawn, a drop spreader is ideal for spreading corn gluten. After application, **water the area and then allow it to dry for several days**. Corn gluten is most effective under these conditions, so avoid applying prior to a rainy period. **Do not distribute seeds into the area. Corn gluten will prevent their germination for the next 6-8 weeks!**

Horticultural Vinegar/Avenger Weed Killer is designed to desiccate the top growth of weeds. This is most effective on annual weeds, though repeated applications can work on perennial plants. These high acidity liquids remove a protective coating from the surface of the leaf, causing the leaf to desiccate. It effectively chemically "burns" the leaf. The products works best when applied early on a sunny day. The principle behinds it is simple: A plant without leaves cannot make food, and no plant can survive without food. These products are **non-selective:** they will work equally well on weed or tomato, so only apply to plants you wish to remove. Once dry, they are safe for kids or pets, and they do not leave a residue in the soil.