

GRANBY COMMUNITY GARDEN





Introduction

Welcome to the Granby Community Garden! The Granby Community Garden has been established for Granby residents in order that they may have a place to garden. It is an all-volunteer effort with all participants expected to volunteer in the success of the garden. The garden is intended to be used for the following purposes:

1. As a place to raise annual vegetables, fruits and flowers;
2. As a safe space to share gardening techniques, ideas, and friendship; and,
3. To provide flowers for pollinators.

To have a successful community garden, it is required that individual plots be well maintained. **Gardeners should expect to attend to their plots several times a week at minimum.** It is also expected that individual gardeners will contribute to the overall maintenance of the garden as a whole. The community tasks include: staking out plots; putting out, maintaining, and putting away hoses; shutting off water; keeping pathways free from rocks and weeds and end-of-year clean-up.

Garden Committee

The Granby Community Garden Committee is composed of the managers (Deb and Mark Roe) and the assistant manager (Jim Glenney) along with several two year member positions. These member positions may be extended.

Committee Members for 2019-2020

- | | |
|------------------|----------------|
| • Debbie Crosset | • Mike Cunha |
| • Barry Avery | • Jane Furca |
| • John Warn | • Chris Gorton |



Expectations

Each gardener in regards to their individual plot(s) is expected to:

- Begin working their plot by May 15th. After this time, plots will be offered to those on the waiting list. Unassigned plots may be planted with a cover crop or covered with mulch.
- Plant the majority of the garden with annuals. A few containers may be kept on the plot but should not make up the majority of the site.
- Keep weeds down by using a living mulch (such as clover), compostable materials, or if necessary a thick plastic weed block. **Do not use cheap weed block that disintegrates throughout the season as it gets in the soil and large pieces can jam up the plow.**
- Use organic methods to reduce insect pests and disease (see Appendix). **The use of chemical pesticides in the garden is strongly discouraged.** Pesticides hurt pollinators as well as the intended insect pests and may leave toxic residues behind.
- Water judiciously
- Harvest your vegetables in a timely manner (rotting vegetables attract pests)
- It is recommended to plant a cover crop at the end of season or heavily mulch your plot with leaves or other materials in order to: reduce soil erosion; increase soil nutrient content; improve soil structure and increase the organic matter in the soil.
- If you will be on vacation for extended time, please find someone to water and harvest your garden.
- If for some reason you are no longer able to care for your garden, please notify the committee immediately.
- At the end of the season, take home everything that you brought (stakes, netting, poles, plant labels, weed block, etc.). Large stalks should be cut down and removed from the site. The garden must be completely free of these things so that it may be properly plowed. Garden clean up is usually at the end of October. You may continue to maintain plants in your plot (kale, cabbages, etc.) past clean up time. You may wish to put a sign up to the effect that your plot is still being gardened so that no passersby take your produce.



Garden Rules

- Be respectful to other gardeners (no harassment of other gardeners and no playing loud music)
- No taking items from other people's gardens without permission
- Use pathways (do not cut through plots)
- No smoking, alcohol or drug use
- Maintain your garden properly

**Abuse of rules may result in a gardener
not being invited to return.**

If you have questions, contact us at GranbyGarden@gmail.com

Application for a Plot in the Granby Community Garden

(PLEASE PRINT NEATLY AND FILL OUT COMPLETELY INCLUDING PHONE AND EMAIL)

Primary Gardener Info:

First Name: _____ Last Name: _____

Granby Address: _____

Phone Number: _____ Does Phone Allow Texts? _____

Email: _____

Please note emails may be shared with other gardeners for purposes related to the garden only. If this is a problem, please contact the garden manager.

Type of plot desired (check one): ____ all organic ____ pesticide-free

Secondary Gardener Info:

(complete this section only if there will be a second gardener working the same plot)

First Name: _____ Last Name: _____

Address: _____

Phone Number: _____ Does Phone Allow Texts? _____

Email: _____

Note: By applying for a plot in the Granby Community Garden you agree to follow the aforementioned Granby Community Garden Rules and to be a responsible member of the Community.

Return this form with your payment of \$10 per 20x20 plot to:

Granby Community Garden, % D. Roe, 16 Woodland Dr, Granby, CT 06035

****New gardeners will be placed on a waiting list. Plots will be assigned on a first come, first serve basis. In the event that an applicant is not assigned a plot, their payment will be returned.**

Appendix A

Granby Community Garden Pest Prevention and Solutions

Keeping up with pests and diseases in your plot not only encourages a better harvest for you but for your fellow gardeners as well. **Use of toxic chemicals (i.e. traditional pesticides) is strongly discouraged.** Such chemicals can harm pollinators and insect pest predators and in some cases be harmful to humans. Here are some effective solutions.

Consider Prevention First: Healthy plants are better able to resist pests and disease.

- 1) Is your plant getting the nutrients that it needs?
- 2) Is the soil pH appropriate?

Providing Nutrients by Making Weed Tea (without buying lots of expensive amendments)

From: https://www.emmitsburg.net/gardens/articles/frederick/2011/weed_tea.htm

So-called weeds, especially those with very deep roots such as dandelions, have mined valuable minerals and other vital nutrients from the soil and store the nutrients in their roots and leaves. When you pull up these weeds and simply throw them out, you toss out the minerals and nutrients as well. Turning the weeds into liquid fertilizer returns the nutrients to the soil. [Use the weeds (e.g. lamb's quarter, purslane, etc.), that grow up quickly in the garden]

Weed Tea Recipe

1. Get a large bucket or other container with a lid.
2. Add pesticide-free weeds (including both roots and leaves) to the bucket.
3. Add water. Put about 8 cups of water in the bucket for every pound of weeds.
4. Cover the bucket with a tight-fitting lid.
5. Leave the bucket for 2 to 4 weeks.
6. Stir it every week or so. But be forewarned — it isn't going to smell very good—the fermentation process can be smelly, for sure. And try not to get any of this concentrated concoction on your hands or clothes. It will stain.
7. Strain it using cheesecloth (or pantyhose!). The liquid is what you will want to use on your garden; the solid mass of fermented weeds may still contain some viable weed seeds, so you will want to discard it. After you have strained the liquid, it is done.
8. Dilute it before using, at the rate of 1 part weed tea to 10 parts water. Then pour it on the soil at the base of your plants (but not on the veggies ready to harvest). To use it as a fertilizing foliar spray, dilute it until the color is like a weak tea.

Common Insect Pests and Diseases in the Granby Community Garden

Insects

Cabbage Worm

From: The Living Farm <https://thelivingfarm.org/project/eliminate-the-cabbage-worm/>

- **Repellant drench:** In a blender puree spearmint, green onion, garlic, horseradish, hot peppers, peppercorns and water. Add one tablespoon of liquid soap per quart of puree, spray onto plants.
- **Flour Powder:** Mix 1/2 cup of table salt and 1 cup of flour. Sprinkle onto plants while still moist from the morning dew. This mix will bloat and kill the worms.
- **Netting:** Netting is available for covering the plants in the cabbage family. If you can keep the moths from laying eggs you will get no damaging worms. The plant can grow the entire season under the netting without any loss of crops.
- **Diatomaceous earth:** Diatomaceous earth is ground up fossilized sea shells. Diatomaceous earth will puncture soft bodied insects and they will dehydrate and die. Local nurseries should carry diatomaceous earth.
- **Garlic oil spray:** Mince one bulb of garlic and soak in two teaspoons of mineral oil for 24 hours. Next, mix 2 cups of water with one tablespoon liquid soap then add garlic mix to water and soap, mix thoroughly. Strain out garlic and place into a jar for storage, this will be your concentrate. Use one to two tablespoons of garlic oil concentrate to two cups water, then spray plants covering all leaf surfaces. Use for control over aphids, cabbage loopers, earwigs, June bugs, leaf hoppers, squash bugs, and whiteflies.
- **Caterpillar deterrent citrus spray:** Caterpillars don't like the taste of citrus; its bitter chemicals run the caterpillars off. To make a citrus spray, grind up the rinds and seeds of any citrus fruit (oranges, lemons, limes or grapefruit). Soak overnight in two cups of water. Strain out the pulp; add two teaspoons liquid soap to mix.



Spray on plants. If you are observant and watch the skies for the moths and then check your plants for the worms, it is easy to see the cycle of the moths taking place. Then you can disrupt the cycle with a spray or manually removing the worms by hand. Observation, identification and a little knowledge will make your organic garden a success.

Colorado Potato Beetle

From: The Spruce <https://www.thespruce.com/controlling-colorado-potato-beetle-organic-methods-2539840>

- Apply neem oil as needed. This is the organic gardener's go-to insecticide, and it works wonders, even better than most conventional options.
- Hand-pick beetles, larvae, and eggs and throw them in a bucket of soapy water to kill them.



Protecting Plants from Colorado Potato Beetle

Another good approach—whether it's before you ever see a beetle or after you've removed them—is to protect your potato crop from this hungry pest. For the best results, try a few different methods together. This is especially true if you've had a problem with potato beetles in the past.

- **Crop rotation:** Don't grow potatoes in the same spot year after year. The adults overwinter in the soil of the previous years' potato patch. If you plant in the same spot as last year, you're simply giving the adults convenient access to your plants.
- **Floating row covers:** Place floating row covers over the top of your potato plants, and leave them in place. This special fabric allows air and light through but will foil hungry potato beetles.
- **Companion planting:** There are several plants that deter potato beetles. Try planting at least one or two of them alongside (or even interplanted with) your potatoes. A few good options include catnip, tansy, and sage. Be aware that catnip and tansy can spread easily. You can keep them in check by not letting them go to seed and pulling any unwanted young plants right away.
- **Mulch with straw:** Mulching heavily with straw not only helps keep the tubers out of the sunlight but also creates a habitat for predators of Colorado potato beetle. If you can attract ground beetles, ladybugs, and green lacewings, they'll do a lot of the hard work for you.
- **Plant resistant or early varieties:** Certain varieties of potatoes, such as Russet Burbank, have proven to be resistant to potato beetles. Another good practice is to plant early varieties since potato beetle damage only gets worse as the season goes on and all the eggs hatch. Consider planting Caribe, Norland, or Yukon Gold potatoes; these are all great early-season options.

Buckwheat can be used as a companion plant for potatoes to deter potato beetles. Buckwheat should be cut down when potatoes are harvested.

Cucumber Beetle (Striped and Spotted)

From: Mother Earth <https://www.motherearthnews.com/organic-gardening/pest-control/organic-cucumber-beetle-control-zw0z1304zkin>

- 1) Plant insect repellent plants (radish, nasturtium and tansy) nearby, or you can use the cut foliage from radish, tansy or carrot as a pest-repellent mulch.

- 2) At the same time, companion plantings of buckwheat, catnip or borage grown within a few yards will attract beneficial insects to the area.



- 3) Use of floating row covers, which are installed over plants the day they are set out. In addition, several field trials on organic farms have shown that delaying spring planting by two weeks helps to avoid natural spikes in cucumber beetle populations. Row covers must be removed to admit pollinators when the plants reach the flowering stage, and again a delay of seven to 10 days can enhance season-long cucumber beetle control without reducing yields. A little extra time under row covers works out well with cucumber-family crops, which tend to set their best fruits from their second sets of flowers.

- 4) In the absence of row covers, young plants can be defended surprisingly well by spraying them with kaolin clay, and by placing a flat piece of aluminum foil beneath seedlings, with a slit made to accommodate the main stem. Cucumber beetles do not like to feed in this highly reflective environment.



Cutworm

From: Toxic Free NC <http://www.toxicfreenc.org/wp-content/uploads/2016/07/Cutworms.pdf>

Prevention:

- 1) Protect seedlings with collars. At transplant time you can put a “collar” of paper, cardboard, plastic, or metal around the stems of your plants to keep cutworms out. These should fully circle the stem of the plant, and be large enough for the stem of the plant to grow. Collars should extend at least an inch above and below the soil. Many gardeners use toilet paper rolls, plastic soda bottles, tuna cans or other household “trash” to make these collars.



- 2) Plant more than you need.
- 3) Keep the garden area weed-free. Cutworms eat and lay eggs on many varieties of plants, not just crops. Weedy and grassy areas in and around the garden can be important egg laying sites and food sources for them.

Getting Rid of Cutworms:

- Scout and hand pick. Scout the garden every morning early in the season, or any time you have new seedlings or transplants. When you see cutworm damage, dig shallowly around the base of the affected plant with a stick or trowel until you find the cutworm, usually within 2-3 inches from the stem. Look closely – the brown-gray worms will be very well camouflaged in the soil. When you find them, kill them by snipping in half with scissors or dropping into soapy water.

Helpful Hints:

- Dried blood meal may be sprinkled around the garden as a deterrent to wildlife.
- Self-rising flour may be sprinkled on plant leaves to deter foliage-eating insects.

Flea Beetle

From: Get Busy Gardening <https://getbusygardening.com/controlling-flea-beetles/>

1) Use Neem Oil For Flea Beetles

Neem oil is a naturally occurring insecticide that kills bugs, and it works great for treating flea beetles organically. Spray a neem oil solution directly on the leaves of the plants (be sure to test a small area before spraying the whole plant).

Neem oil also has a residual effect, so you don't have to spray it directly on the bugs. Learn more about how to use neem oil insecticide [here](#).



2) Make Organic Homemade Flea Beetle Spray

Soapy water will kill flea beetles on contact. It's easy to make your own organic spray for flea beetles by mixing 1 tsp mild organic liquid soap with 1 liter of water.

This homemade insecticidal soap spray will kill the adults on contact. But, it has no residual effect, and only works if you spray it directly on the beetles.

3) Apply Diatomaceous Earth For Flea Beetles

Diatomaceous earth (DE) is another great and inexpensive option for controlling flea beetles organically. It's made out of tiny pieces of ground up fossilized organisms.

DE powder gets under the shells of beetles, and works like tiny bits of glass to kill them. Sprinkle it around the base of the infested plants, or directly on the flea beetles.

4) Use Repellent Plants Or Trap Crops

Mint, basil, and catnip are said to repel flea beetles. You could also try using trap crops to lure them away from your main crops, and then spray them with soapy water or neem oil. Flea beetles love radishes the best.

Mexican Bean Beetle

From: Organic Gardening News and Info <https://organicgardeningnewsandinfo.wordpress.com/2013/08/21/organic-control-of-mexican-bean-beetles/>

- **Handpicking:** For small plantations, handpicking adults and larvae is a viable option. Also seek and destroy eggs and pupae. If done regularly, damage can be considerably controlled.
- **Use Crop Covers:** Floating row covers with edges buried in the soil is one of the easiest ways to prevent Mexican bean beetles from infesting your plants. Use the covers when you plant the seedlings after weeding and check weekly to ensure no lucky individuals are prospering beneath.
- **Cultural Control:** Cultural control includes planting early-season bean varieties that can help avoid main beetle generations, tilling, removing debris, digging up and getting rid of crop residues of previous seasons to remove overwintering sites.
- **Biological Control:** The commercially-reared parasitic wasps *Pediobius foveolatus* are a proven biological control method of Mexican bean beetles and is highly recommended.
- **Companion Planting:** Intersperse bean plants with companion plants. Marigold, Nasturtium, Petunias and Rosemary help deter Mexican bean beetles. You can attract native predators and parasites by allowing a few nectar-rich flowering plants such as daisies, sweet alyssum or yarrow to grow nearby. Another common approach is planting a row of beans in between a row of potatoes.
- **Organic Insecticides:** Neem oil has been reported to deter adult bean beetles and offset the feeding of larvae but may also harm some beneficial insects too. Organic insecticidal soaps also help control beetle populations and must be applied thoroughly, especially on the undersides. *Beauveria bassiana* is a fungus that acts as a parasite on various bugs including the Mexican bean beetle. Use a product based on this fungus as soon as you see an infestation.
- **Other Methods:** Spreading diatomaceous earth on the surface next to the plant and on the plant is not too pleasing to beetles and may deter them from infesting your plants. Aluminum foil mulch works by reflecting sun rays which discourages flying pests from landing on host plants. Ask your local nursery for varieties of beans that are naturally resistant to the Mexican bean beetles in your area.



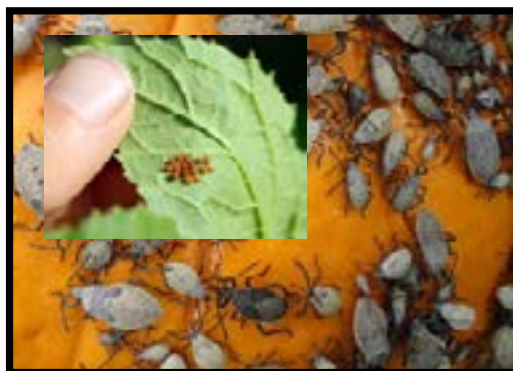
Squash Bug

Use tape to remove eggs from leaves. Alternatively, you can cover eggs in petroleum jelly. To remove adults, spray water at base of plant. As bugs run out, remove them by hand.

From: Home Guides <https://homeguides.sfgate.com/homemade-methods-getting-rid-squash-bugs-75209.html>

Early Prevention

Squash bug eggs are shiny, oval, and copper colored, and are usually laid in late spring or early summer. Inspect your plants weekly for squash bugs during this time. Look for them on the undersides of the leaves on your squash plants. If you notice an infestation of squash bug eggs, wipe them off with a cloth and dispose of them. This is the best way to prevent later damage.



Natural Spray and Treatment

It's easy to make natural sprays and treatments that will control a squash bug infestation. For a soil treatment, mix water, onion and garlic in a large bowl and allow the mixture to sit for a few hours until the scent becomes strong. Pour this solution at the base of infested squash plants.

For a homemade squash bug spray, pour a small amount of liquid Castile soap into a spray bottle and fill the bottle with water. Spray the affected plants in the morning, directing the spray at the base of the plant and the undersides of the leaves.

From: The Gardening Cook <https://thegardeningcook.com/how-to-control-squash-bugs/>

Squash bugs may be dispensed by putting a mixture of molasses, soap and water in jars and sinking them into the ground around the squash area.

Plants that Repel Squash Bugs

- Mint (in containers is best. Mint can be quite invasive.)
- Chives
- Garlic
- Onion
- Tansy
- Radishes
- Nasturtiums
- Marigolds (calendula)
- Bee balm
- Dill

Squash Vine Borer

From: Savvy Gardening <https://savvygardening.com/how-to-prevent-squash-vine-borers-organically/>

Step 1: Immediately upon planting your squash seeds or transplants, cover the area with floating row cover or a layer of insect netting to keep the adult vine borers (see photo) from accessing the plants until they're large enough for Step 2.



Step 2: When the plants have two to three sets of true leaves, remove the row cover and wrap a four-inch long strip of aluminum foil around the base of each plant. The strips should be between one and two inches wide. Wrap them snugly around the stems, making sure the foil extends below the soil's surface by a quarter of an inch. The foil barrier will protect the weakest point of the plant and prevent female vine borers from laying their eggs in this vulnerable area. (You can also wrap the stem with florist's tape, if you'd prefer to have something a little more natural-looking than foil.)

Step 3: Every two weeks, head out to the garden to make adjustments. As the squash stems expand, the foil will have to be rewrapped so the plant doesn't become girdled. This step only takes a moment and is well worth your time. If you find the plant outgrows the foil, get a new strip that's a little larger than the one before and rewrap the stem.



From: Almanac.com <https://www.almanac.com/pest/squash-vine-borer>

- If you catch them VERY early, you can manually remove the squash vine borer. Slit the lower stem lengthwise with a fine, sharp knife to remove the larva by hand. One plant can house several larvae. After removal, cover the slit stem section with moist soil above the point of injury to promote formation of secondary roots. Also, extra rich soil near the vines helps rerooting.
- Or, if you spot entrance holes and "sawdust," try inserting a wire and thread through the stem for some distance to kill the inside larvae.
- Sprinkle diatomaceous earth around the stalks when the squash vines are small. Reapply after rain. Also, build up the soil around the vines. Or, sprinkle black pepper around the plants as a defense.

Fungi & Bacteria

Anthracnose (fungus of genus *Colletotrichum*)



Choose resistant plants. Do not save seeds from infected plants. Do not compost infected plants. Disinfect all garden tools. Spray neem oil early and reapply every 7 to 14 days.

Black Rot (*Xanthomonas campestris*) on cruciferous plant

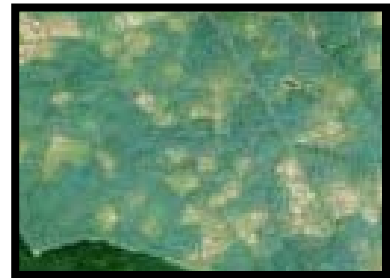


- Use disease free seed/plants
- Reduce water splash on the leaves
- Use a 3 year rotation

Downy Mildew (usu. *Peronospora* or *Plasmopara* genus – most closely related to algae)

From: Karen's Garden Tips <http://www.karensgardentips.com/growing-garden-plants/garden-pests-diseases/differences-between-powdery-mildew-and-downy-mildew/>

- Selection of resistant varieties when possible
- Improvement of air circulation by proper spacing of plants and selective pruning and thinning.
- Destruction and removal of infected plant parts
- Water at base of plant rather than overhead watering
- Cleaning of tools that are exposed to infected plant
- Removal of plant debris that might harbor pathogenic spores



Early Blight (*Alternaria* spp)

- Use blight resistant varieties
- Add a layer of mulch
- Keep plants off the ground
- Water early in the day and from below
- Collect seed only from disease free plants
- Rotate crops in 2 to 3 year rotation
- Prune bottom leaves and suckers of tomato plants



Powdery Mildew

From: Karen's Garden Tips <http://www.karensgardentips.com/growing-garden-plants/garden-pests-diseases/differences-between-powdery-mildew-and-downy-mildew/>

- Selection of resistant varieties when possible
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- Water at base of plant rather than overhead watering
- Cleaning of tools that are exposed to infected plant
- Removal of plant debris that might harbor pathogenic spores



For More Info, See:

<https://savvygardening.com/guide-to-vegetable-garden-pests/>

<http://ipm.uconn.edu/documents/view.php?id=1148>

Beneficial Insects

Pink-Spotted Lady Beetle - feeds on Colorado potato beetle eggs

Lady Bugs - general predators

Ground Beetle (nocturnal) - feeds on eggs, larvae, and pupa

Appendix B

Caring For and Improving the Soil

It is often said that a good garden begins with the soil. Healthy soil is rich in organic matter, well-aerated, free of toxins (pesticide residue, etc.), has a diverse microbial population and holds moisture. The soil at the Granby Community Garden has a lot of potential for improvement.

STEP 1

Get your soil tested annually.

OPTION 1 for Soil Testing - FREE

Valley Laboratory
The Connecticut Agricultural Experiment Station
153 Cook Hill Road
Box 248
Windsor, CT 06095-0248
Phone: (860) 683-4977 Monday-Friday, 8:30a.m.-4:30p.m.
<https://portal.ct.gov/CAES/Soil-Office/Windsor>

Example of Test Results:

LABORATORY NUMBER: 5269

CROP TO BE GROWN Vegetables

SOIL TEXTURE: Sandy Loam
ORGANIC MATTER: Medium High
pH: 5.5
NITRATE NITROGEN: Very Low (1 ppm)
AMMONIUM NITROGEN: Very Low (6 ppm)
PHOSPHORUS: Medium High (50 ppm)
POTASSIUM: High (250 ppm)
CALCIUM: High (1600 ppm)
MAGNESIUM: Medium High (50 ppm)

SUGGESTED TREATMENTS IN POUNDS PER 1000 SQUARE FEET

Limestone
pH ADJUSTMENT 100 lbs.
10-10-10, Preplant
FERTILIZER GRADE 10-10-10, July
FERTILIZER AMOUNT 25 lbs, Preplant
10 lbs, July

Remarks:

ppm (parts per million) values are approximate.
Yearly additions of 1-3 inches of compost or other organic materials improve gardens.

OPTION 2 for Soil Testing - FEE

Another option for soil testing is mailing the soil sample to Logan Labs. The test fee is \$25.00. Here's the link for Logan Labs sample report:

<https://www.loganlabs.com/doc/Soil-Report-Sample.pdf>

Bionutrient Food Association members receive a discount

<https://bionutrient.org/site/soil-test>

STEP 2

Incorporate soil amendments adding organic matter and nutrients based on soil testing.

Some Animal-based Amendments (from <https://www.tenthacrefarm.com>)

- livestock manure (cow, pig, chicken, horse, rabbit, etc.)
- worm compost
 - Make your own
 - Buy worm castings
- dried and powdered egg shells

Some Plant-based Amendments

- dried and powdered comfrey leaves (See: [7 Ways to Fertilize with Comfrey](#))
- homemade compost (made from yard and kitchen waste)
- leaf mold (shredded leaves aged for 3 or more years)
- wood chips (composted for 3 or more years)
- grass clippings

STEP 3

Mulch around plants and in rows with organic materials or a living mulch.

STEP 4

At the end of the season, plant a cover crop. Alternatively, cover your entire plot with a deep mulch.

Appendix C

Granby Community Garden History

1975 - Town gave land in Salmon Brook Park

Garden managers: Frank Pierson, Teresa Shea, Ken Galbraith (91)

1999 – Moved out of the Park/ No garden that year

2000 – Moved to Holcomb

Garden Manager: Jim Glenney - 2002

- 2000 – 18 gardeners
- 2001 – 12 gardeners
- 2002 – 6 gardeners

2003 – no gardening

Marge Goslee played vital role in getting Ahrens park community garden set up in 2004

2004 – 2019 - Community Garden on Hungary Road

Garden Manager: Jim Glenney

2019 – Granby Community Garden Committee formed