

Making a garden in your backyard

Just do it! Don't worry about optimal practices.
You will get food and return for your work.

If anything, dig a pit in your yard and plant a pumpkin or squash!
It will take over part of your lawn, no mowing, few pests, deer do not eat it and you will get a real pumpkin pie for Thanksgiving.

1. Setting the stage

Tilling the soil

Tilling by hand is feasible. Renting a rototiller is an option.

Raised beds



Advantages:

- Soil warms up earlier in the spring
- Soil does not get compacted
- Does not require tilling
- Easier for the gardener's back
- Particularly good for small spaces or rocky lands

Disadvantages:

- Soil gets cold faster in the fall
- Can be more costly and less permanent

How do you build raised beds at a decent cost?

- Pine is the cheapest but will last only a 3-4 years, you can get started there and expand later.
- Cedar is best but expensive.
- Logs, the old way, work well.
- Old bricks, cinder blocks are fine

- **Pressure treated wood should not be used.**

2. Preparing the soil

Soil is the most important aspect of your garden. It is critical for both growth but importantly for the nutrient content that your produce will contain.

Do I need to test my soil and if so, for what and how?

Testing is a great idea but not absolutely necessary.

Supplements such as manure, limestone, bone meal, or kelp help

Is lead a serious problem in Lincoln?

- It is a good idea to test especially if your garden is near an old structure. Leafy greens can have some lead absorbed, fruits don't.
- Refer to the university of Massachusetts Amherst for recommendations on soil testing

<https://ag.umass.edu/home-lawn-garden/fact-sheets/soil-lead-testing-interpretation-recommendations>

- If lead is present use raised beds.

Do I need to add lime?

The soil in New England tends to be acidic and plants grown in gardens like more alkaline soil with a pH between 6 and 8. Lime or wood ashes are required for optimal growth. Testing can be done but not necessary.

Where can I buy soil and compost?

Soil and compost can be obtained from garden stores.

Best is to make your own compost in your back yard. This way, nutrients will stay in your soil.

How do I improve my soil?

If you have chickens, send them to the garden a few weeks in the fall and spring, they will eat the pests and fertilize the soil.

Compost, keep your leaves and make a pile, they will decompose into great soil.

3. What to plant

Do you buy the plants or grow directly from seeds?

Many plants grow well when planted from seeds, and will eventually catch up.

How do you choose the variety to plant?

Consider the time of harvest and use:

- Eating fresh, canning or drying
- Pest and disease resistance,
- Above all FLAVOR.

- Commercial varieties tend to produce all at once; older varieties tend to produce more lasting harvests.
- Successional plantings are important, plant in 3-4 weeks intervals to always have some food.
- In a small garden, growing different plants together often save space and helps and controls pest.



Fava beans provide a cooler environment for lettuce.

Traditional method of growing pumpkin in the middle of a corn patch.

Seeds

We recommend catalogs from Northern seed companies since they will have the right varieties for our climate. Here are some suggestions but there are more. Garden stores also offer seeds.

- Johnny's Seeds (some commercial varieties)
- Heirloom seeds (emphasis on old variety which are perfect for gardens),
- Fedco Seeds
- Cooks garden Seeds

For tomatoes and beans, do you grow determinate or indeterminate plants?

Indeterminate growth is growth that is not terminated in contrast to **determinate growth** that stops once a genetically pre-determined structure has completely formed. Determinate plants grow as bushes; indeterminate plants grow tall and require support structures such as poles and fences.

For the novice, determinate plants are easier to plant. However, indeterminate plants produce fruit vertically, requiring less space and tend to be heirlooms. The tastiest tomatoes tend to be heirloom and indeterminate



Structures can be provided with tripods (Made of branches, Bamboo or metal rods) or by attaching lines or mesh to poles.

Tomato plants can be attached to support using degradable bail twine. Velcro or plastic strips can also be used but need to be collected at the end of the season. They can be used for many years but need to be decontaminated with a 7-10% bleach solution.



4. Protecting your crop

Insect pests

Beetles: Pick them

Slugs: Wood ash and lime

If you must use pesticides, use organic chemicals

- Use *Bacillus thuringiensis* (BT) for caterpillars, it is more selective.
- Diatomaceous earth for slugs (organic but not specific, avoid if you can)
- Orthiculture oil: prevents insects from breathing. Particularly effective against aphids, spider mites, caterpillar eggs, adelgids, and powdery mildew, however, use sparingly since it will kill other insects as well.
- Pyrethrin and spinosad for beetles: kill pollinators so only apply at night and do not use while plants are in bloom).
 - These products have **very short lives in the environment.**

- Pyrethrin and is derived from chrysanthemums, it acts as a nerve poison. All six Pyrethrin derivatives are degraded rapidly and is oxidized by light, they last about 1 day.
- Spinosad is made by a bacteria and was discovered from the soil in a Caribbean distillery. It is also inactivated by sunlight with a half life of one day in water. However it is stable for 2-16 days when dried (depending on sun exposure).

<https://www.ag.ndsu.edu/yardandgardenreport/documents/safe-and-natural-insecticides>

Cute furry animals

Mice: Traps may be required. If you use them, make sure to use the ones that cannot catch anything else. Do not use the common ones that can catch fingers or the paws of bigger animals.

Fencing: Net electrified fencing from Premier Fencing works well to keep most animals out but not effective for mice and squirrels.

<https://www.premier1supplies.com/c/fencing>

Squirrels: Particular problems with fruit trees and corn, a dog is the only way to deter them

Birds: Usually not a big problem with a vegetable garden.

5. Watering

- Soaker hoses are useful in small areas.
- Reduce water loss through mulching
- Straw or salt marsh hay is best since they do not have seeds, leaves are fine and available, and hay is ok but has seeds.
- Water around the plants by hand if you can.
- Only water at dawn or dusk.

