



**GROWING  
an  
URBAN  
FOOD  
GARDEN**

[www.edibleflint.org](http://www.edibleflint.org)

# PURPOSE OF THIS GUIDE



*edible flint* is a collaborative of residents, public and private organizations, and institutions formed in 2009 to support Flint residents in growing and accessing healthy food in order to reconnect with the land and each other.

*edible flint* created this guide as a resource for those interested in beginning or improving a food garden. The recommendations include a few of the many strategies that growers can use to create productive food gardens.

## URBAN FOOD GARDENS ...

- provide fresh, nutritious food at low cost
- are good for physical and mental health
- provide learning opportunities for all ages
- beautify the neighborhood
- provide bird & butterfly habitat
- attract economic activity



## A GOOD PLACE FOR YOUR GARDEN



- Receives at least 6-8 hours of full sun for vegetables
- Has easy access to the site and parking for volunteers
- Has a water supply or access to water
- Ask yourself:
  - ◇ Do any trees, homes or structures shade the site?
  - ◇ Is there possible water access from a neighbor?
  - ◇ Who owns the property?

# SITE PREPARATION

- Find out who owns the property ([www.cityofflint.com/propertytaxes/search](http://www.cityofflint.com/propertytaxes/search))
- Research history of the site
  - ◇ Was it ever a gas station, laundromat, or a dry cleaners?
  - ◇ Was there ever a house that may have had been painted with lead based paint?
  - ◇ Has the soil ever been compacted by cars or equipment on the site?



## Property Ownership Look-up

[www.cityofflint.com/propertytaxes/search](http://www.cityofflint.com/propertytaxes/search).

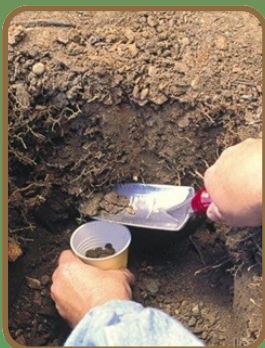
# HEALTHY SOIL = HEALTHY FOOD

## SOIL TESTING

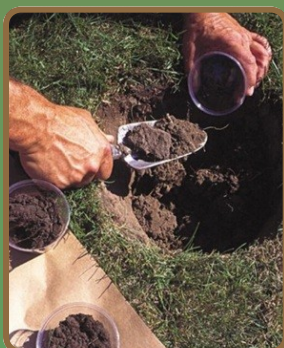
- Test the soil for chemicals like lead.
- Testing the soil will also tell you what your soil is like to start with, including what nutrients it needs and what kind of soil you have.
- If the test results indicate:
  - ◇ safe soil, start soil prep.
  - ◇ unsafe levels of contaminants, consider another site or above-ground options rather than in-ground gardening.



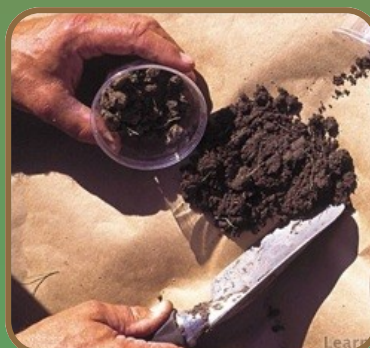
*1. Dig 6 inches down*



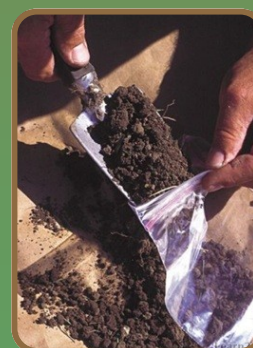
*2. Collect sample*



*3. Repeat in multiple locations*



*4. Combine and mix*



*5. Place 1 cup of mix in plastic bag*

## SOIL TESTING RESOURCES

### MSU Extension – Soil Testing, Plant & Pest Hotline

810-244-8500; [www.msue.msu.edu/genesee](http://www.msue.msu.edu/genesee)

### University of Massachusetts – Soil and Plant Tissue Testing Laboratory

413-545-2311; [www.umass.edu/soiltest](http://www.umass.edu/soiltest)



# ALTERNATIVE WAYS TO PLANT

If you have soil concerns or limited room here are some options. All you need is 6 – 8 hours of sun and some imagination.



*Shoe organizer herb garden*

- Raised beds can be as high or as low as you want. The borders of a raised bed can be constructed from lumber, straw bales, bricks, or concrete blocks. They are especially useful if your available garden soil is difficult to work, infertile or contaminated.
- Save space by training sprawling vegetables to grow upward on existing fences, walls and trellises. Try include cucumbers, pole beans, and peas.
- A patio, deck, balcony or doorstep can provide a space for growing herbs and veggies in containers. Containers include flower pots, barrels, window boxes, coffee cans with drainage holes punched in the bottom, and even topsoil bags. The size of the plant's root system will determine how big of a container you will need. The soil in containers dries out faster than ground soil and should be checked daily. One advantage of growing in containers is they can be moved to "follow" the sun.

- Use a bag of topsoil or compost to grow veggies. Punch out drainage holes on one side of the bag, turn it over and cut away the top keeping the sides intact. Mix in a little organic fertilizer and place seeds or transplants directly into the soil in the bag. Mulch around the plants as the soil in the bag will dry out fast. The bags can be pulled away in the fall and composted.
- Another way to grow edibles is to mix them among flowers and shrubs. Many vegetables and herbs are beautiful and will enhance an existing landscape.



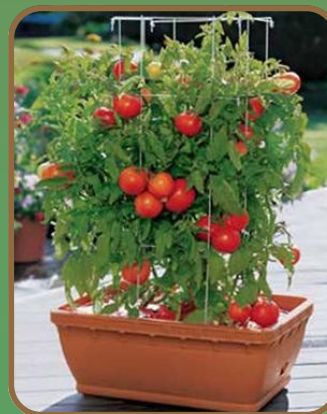
*Soil bag planter*



*Raised bed garden from cinder blocks*



*Lettuce in a rain gutter*



*Tomatoes in a container*



*Strawberries in a barrel*

# IMPROVE YOUR SOIL

- Good soil is the key to healthy plants. If you have limited money or time, put your resources into improving your soil.
- When breaking ground in the spring hold off on soil preparations when the ground is wet. If worked when too moist, heavy soils become hard, compacted, and will limit growth for the entire season. If a handful of the soil can be pressed into a sticky ball, delay until it is drier.
- Add organic matter in the form of compost – either made from your own grass clippings, leaves & kitchen scraps; or purchase in bag or bulk. Compost boosts organic matter and provides nutrients.
- If additional nutrients are needed based on soil test results – organic vegetable fertilizer options are available, and will ‘feed the soil to feed the plants’. Add soil correctives, like lime or sulfur based on the soil test results, too.
- Work the above amendments in by turning over or tilling your soil to a depth of 8 to 12 inches to loosen the soil and prepare it for growing plants.



# WHAT TO GROW

- Grow vegetables that you and your family enjoy.
- Talk to neighbors or other gardeners to find out what grows well for them.
- Ask area nurseries for the types of vegetables that have few pest problems and grow well in your climate.
- The size of your garden will guide how much and what you choose to grow.
- If you don't have a large space, grow crops that are small but highly productive such as snap beans, tomatoes, lettuce, greens, carrots and peppers.
- Look for dwarf, bush or compact varieties.
- Plants that grow on vines, such as pumpkins, some winter squashes and melons require lots of room and are not good choices for small gardens.
- Salad green and culinary herbs are some of the easiest crops to grow.

## 12 EASY CROPS

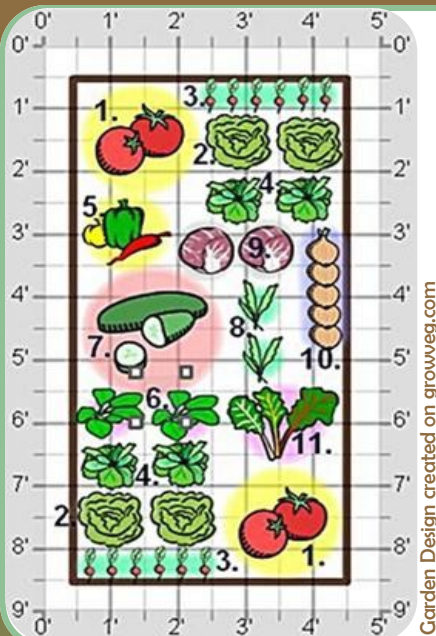
Green Beans  
Peas  
Radishes  
Lettuce  
Greens  
Summer Squash  
Tomatoes  
Peppers  
Beets  
Cilantro  
Basil  
Chives

## SUCCESSION PLANNING

It's overwhelming to have your whole garden ready to harvest at the same time. Some vegetables only produce for a few weeks at a time. It's a good idea to save space in your garden to seed things like lettuce, peas, radishes and beans every few weeks to prolong the harvest period. Rotating crops is important to control pests of related plants. It's a good idea to rotate the location of vegetables in the garden each year to avoid this.

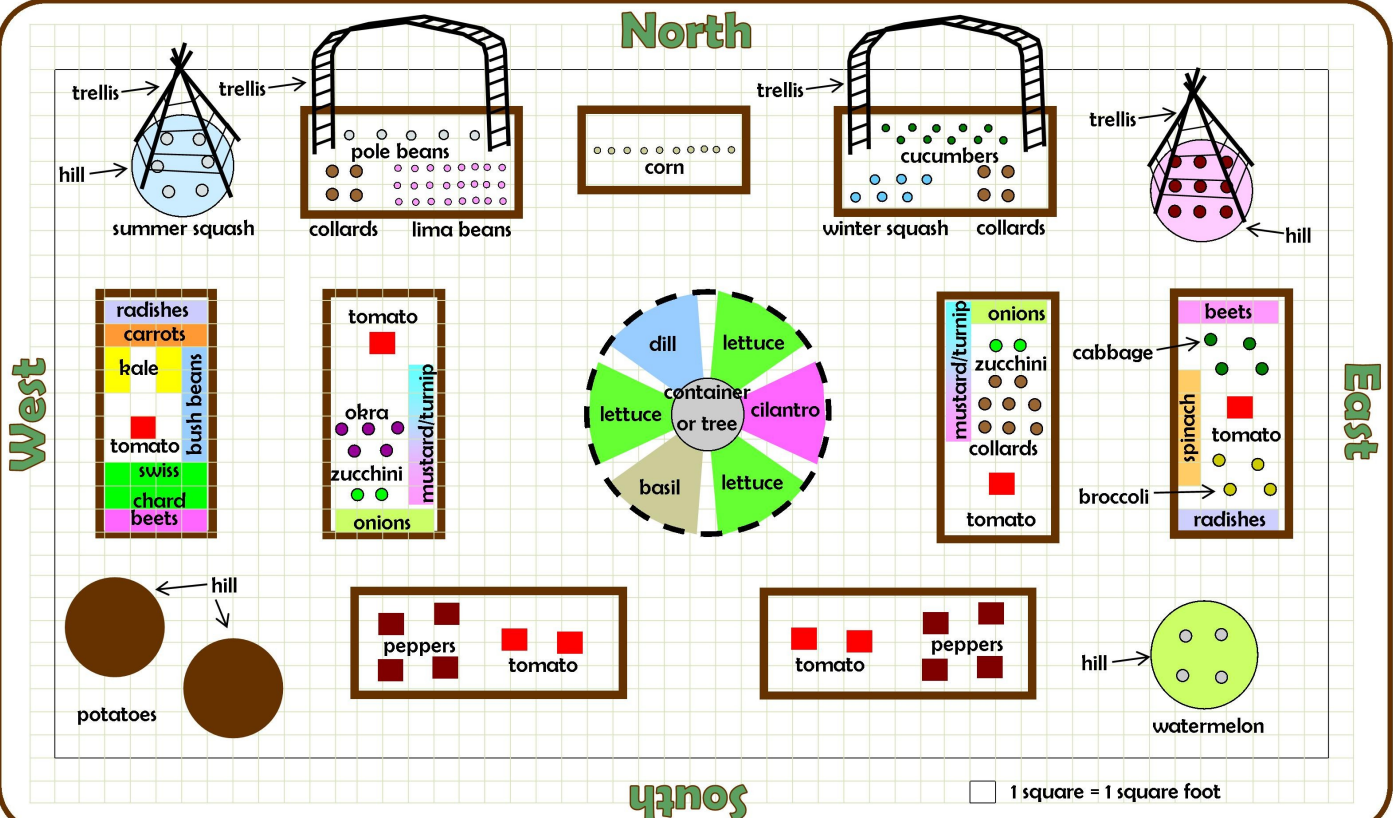


# PLANNING YOUR GARDEN



- If you are a beginner, start small and keep it simple. Remember, you can always make it bigger next year.
- Draw a plan of your garden. Graph paper works well.
- You will need to know where, when and how to plant each kind of vegetable. Look up and consider how big each vegetable will be by the end of the season.
- This will determine how much garden space you will need between the plants and between rows. On some seed packages this information is listed.
- Also consider how you and others will walk through the garden to water and weed.
- Taller crops such as corn should be planted in the north section of the garden so as not to shade smaller plants.

## SAMPLE GARDEN DESIGN



# HOW TO PLANT

## DIRECT SOWING

Planting seeds directly in the soil is called direct sowing. Planting directions are printed on the back of the seed package. Included is how far apart to sow the seeds, how deeply they should be planted and how much distance each seedling needs. Snipping the unwanted seedlings at soil level instead of pulling them out insures that you don't disturb the root systems of the plants on either side.

## TRANSPLANTING

Transplants purchased from a nursery, or those you have raised yourself have been grown in a protected environment and need to be exposed to the outdoors little by little. This is called **hardening off**. Set the transplants in a shady area of your yard or garden that is protected from the wind and sun for a couple of hours during the day. Over the next week, gradually bring them into full sun.

- Plant the transplants in the evening or on a cloudy day.
- Dig a hole for each transplant a little larger than the container.
- Carefully remove each transplant from their containers one at a time and place them into the ground at the same depth that they were in the containers.
- Gently firm the soil around the plant with your hands.
- Gently water them thoroughly again one at a time.
- To prevent weeds, mulch may be applied around the plants, being careful to keep the mulch away from the plant's stems.

## THINNING

Pulling out extra seedlings to make space for full grown plants.

Thinning is best done when the seedling has two sets of 'true' leaves. True leaves look like the leaves on the mature plant.

# SEEDS AND TRANSPLANTS

## COOL WEATHER CROPS

Peas, Lettuce, Spinach, Kale, Swiss Chard, Broccoli, Cauliflower

## WARM WEATHER CROPS

Tomatoes, Peppers, Melons, Cucumbers, Eggplant

## DECORATIVE VEGETABLES

Lavender, Basil (Purple Ruffles, Cinnamon Basil, Globe), Lettuces and greens, Swiss Chard, Scarlett Runner Bean on a trellis

- When to plant seeds and transplants is dependent on temperatures.
- Cool season vegetables such as spinach and peas prefer cool temperatures and their seeds need cool soil in which to germinate.
- Seeds of warm season vegetables such as tomatoes, peppers and melons germinate poorly in cool soil and need a longer, warmer growing season. Cool weather will slow the growth of these tender vegetables and a frost will kill them. Purchasing warm season varieties as transplants from a local nursery insures that you will harvest before the cooler weather halts ripening.
- Starting your plants from seeds will lower your costs and will offer the widest selection of varieties; however, consider if you have the space, equipment or time to start them indoors.

# WATERING YOUR GARDEN

- Usually plants need an inch or more of water weekly. In hot weather check your plants every day, if soil is dry to the touch several inches down or if plants show wilting, water thoroughly. Seedlings or young plants are more likely to need more water, especially on sunny days.
- Water slowly and gently directly on plant roots, 20 minutes or more is a good start. A watering can, wand on end of a hose or a soaker hose will help protect plants from too heavy of a flow. Plants in containers dry out more quickly than garden soil. Water in the morning to prevent disease or plant stress.
- There are a variety of watering options for your urban garden. Some options include:
  - ◇ Connecting to an existing water source such as a home around/near your garden and paying for the water used.
  - ◇ Connecting to a fire hydrant with a water meter in proximity to your garden and paying for the water used. City of Flint Fire Department, 810-766-7202
  - ◇ Obtaining your own lawn meter and paying for the water used. Water Service Center 810-755-7202; City Hall Customer Service, 810-766-7015
  - ◇ Buying or renting a watering tank – contact equipment rental places for availability.
  - ◇ Buying or building a rain water catchment system (ex. rain barrel).



## MUNICIPAL WATER RESOURCES

**City of Flint Water Fire Department – Fire Hydrant Meter, 810-766-7202**

**City of Flint Water Service Center – Lawn Meter, 810-762-7336**

**Flint City Hall Customer Service Center – Lawn Meter, 810-766-7015**

# MULCHING & WEEDING

Weeds compete with your food plants for water, nutrients, space and light. Prevention might just be the best strategy.

- Two inches of mulch is ideal.
- Weeding can be easier if you mark your transplants so you can pick weeds when they are small.
- Pulling weeds is easier after rainfall or watering.
- One trick to keep weeds in check is to set aside 10-15 minutes every day (It's also great exercise).
- Try to pull weeds before they produce seed.

## MULCH

Any material that you spread on the soil surface to help control weeds, conserve water and help feed the soil. Possible mulches include: grass clippings (as long as you don't use fertilizer or weed prevention), leaves, newspaper, straw, compost .



# HARVESTING

- Learn when to harvest different vegetables. Think about what to plant and when it will be ready so you aren't overwhelmed at harvest time.
- Try freezing, canning or storing some vegetables in a root cellar. If you have extras, share with a friend, neighbor, local shelter, or food bank.

MSU Extension – Nutrition Education 810-244-8536

## HARVEST CALENDAR

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
<b>Green Beans</b>												
<b>Peas</b>												
<b>Radishes</b>												
<b>Lettuce</b>												
<b>Greens</b>												
<b>Summer</b>												
<b>Tomatoes</b>												
<b>Peppers</b>												
<b>Beets</b>												
<b>Cilantro</b>												
<b>Basil</b>												
<b>Chives</b>												

## GETTING READY FOR WINTER

**COVER CROPS** - Many growers plant a cover crop, such as legumes or clover, in the fall after harvest is complete to prevent erosion due to wind and water. This protects the soil and provides nutrients when you turn them into the soil in the spring. Cover any soil areas not used for season extension or cover crops. Collect fall leaves, spread them 2-3 inches deep to cover soil, and wet them down to keep them in place.

**SEASON EXTENTIONS** - To extend the growing season for a few weeks, cover the crops with fabric on a night when temperatures drop below freezing. Bent electrical conduit covered in clear plastic will allow plants to grow an extra 4-6 weeks. For more information on season extension visit, [www.hoophouse.org](http://www.hoophouse.org).

# RESOURCES FOR FOOD GARDENERS

**edible flint Garden Starters** - seeds, transplants compost, soil testing & tilling for gardens within the City of Flint while supplies last; 810-244-8547; [gardenstarters@edibleflint.org](mailto:gardenstarters@edibleflint.org)

**Keep Genesee County Beautiful** - garbage bags, gloves (as available) 810-767-7184; [www.keepgeneseecountybeautiful.org](http://www.keepgeneseecountybeautiful.org)

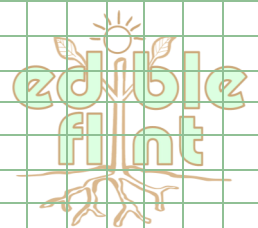
**MSU Extension - Soil Testing, Plant & Pest Hotline** - 810-244-8500; [www.msue.msu.edu/genesee](http://www.msue.msu.edu/genesee);

**Salem Housing Community Development Corporation** - tool shed, including tillers, mowers & garden tools; 810-785-5340 x23; [www.salemhousing.org](http://www.salemhousing.org)

**University of Massachusetts - Amherst** - Inexpensive soil lead testing [www.umass.edu/soiltest](http://www.umass.edu/soiltest)

**American Community Gardening Association** - [www.communitygarden.org](http://www.communitygarden.org)

## DESIGN YOUR GARDEN HERE



Join edible flint in supporting Flint residents in growing and accessing healthy food in order to reconnect with the land and each other. Go to [www.edibleflint.org](http://www.edibleflint.org) to learn more!