

# Native Farm to School

A Project of First Nations Development Institute



## HOW TO PLANT A THREE SISTERS GARDEN

---

## BEFORE YOU PLANT

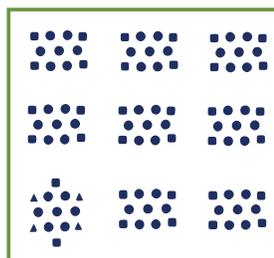
Conduct a soil test, and prepare the garden site. Add compost or other materials such as peat moss or manure to the soil. This will improve the soil structure and add nutrients. If you have grown a green manure cover crop such as winter rye, turn it under two to three weeks before planting.

The Passamaquoddy people traditionally planted the three sisters and have feed the community. One added Wabanaski step is harvest alewives when running in the streams to bury in your compost to supply the new plants with much-needed nutrients. Due to the glacial till, which makes up most of the soil in the far Northeast, the added compost is essential to the plants' well-being.

## PLANTING

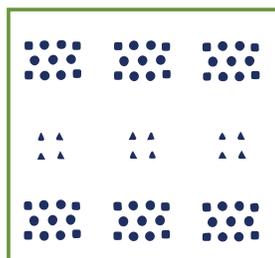
**In late May, plant corn. It is best if the ground has warmed and is no longer cold and wet. Haudenosaunee tradition holds that planting begins when a dogwood's leaves are the size of a squirrel's ear.**

- ◆ Soak corn seeds for several hours, but not more than eight hours, before planting. Soaked seed may dry out quickly, so keep the seeds well watered for the first week or two if the soil is not kept moist by rain showers.
- ◆ Prepare low hills that are 3 to 4 feet apart within and between the rows.
- ◆ Place five to seven corn seeds, evenly spaced to a depth of 1 to 1 1/2 inches.
- ◆ Cover with soil. Corn varieties such as dent, flint, and flour corns are especially suited to this system, while popcorn often does not get tall enough and may be overwhelmed by the beans and pumpkins. Following Haudenosaunee custom, plant the seeds with kind thoughts three days before the full moon.



### Traditional planting method:

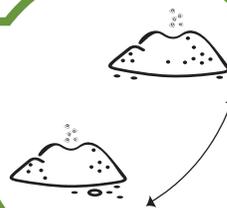
Corn and beans are planted together. Pumpkin is planted in every seventh hill. The pumpkin seeds can be planted alone, or with the corn and beans in the seventh hill.



### Alternative planting method:

Try planting the pumpkins in a row of hills between the corn and beans. This method is used more frequently among other native peoples such as the Hidatsa. Do not feel limited to these designs. Feel free to try your own planting methods!

● corn seed   ■ bean seed   ▲ pumpkin seed



3-4 Feet Apart

## POLLINATION

- ◆ If you hope to keep a variety pure—for example, an heirloom—need to isolate the corn from other varieties. If isolating, hand pollinate. This is a challenge, but it is fun to experiment you can get.
- ◆ To hand pollinate, place waxed paper lunch bags over the silks to keep unwanted pollen. When the plants are tasseled, cut the silks briefly and shake the desired pollen on the silks, then remove the bag. The pollen may be that of the same variety.
- ◆ If you are experimenting with crosses, however, the pollen from one variety. You can use brown paper lunch bags to collect the desired variety. Be sure to keep track of which plants you are comparing them with those that have cross-pollinated.



# HARVEST & STORAGE

- ◆ Harvest and store your corn, beans, and pumpkins with care. When the corn husks are dry, pick the ears and spread them out in a dry place. To prevent mold, do not store the ears when they are first harvested.
- ◆ If you plan to grind the corn, let it dry for several weeks. If you plan to save seed, choose seed from your most vigorous, uniform plants from the center of the ear.
- ◆ After you have shelled the kernels, keep them in a cool, dry place in covered containers or plastic bag. Following the Haudenosaunee tradition, do not let a single kernel go to waste!
- ◆ You can harvest your beans when they are green or after the pods have withered and dried. Pick pumpkins when their color changes.



# MAINTAINING

- ◆ After young corn plants come up, begin removing weeds. As you are weeding, gently mound or hill the soil around the young plants.
- ◆ When the corn plants are about 6 inches high, pole beans and pumpkins can be planted around the corn plants. Plant non-hybrid varieties that are readily available yet "authentic" crops. After thoroughly weeding, plant four or five bean seeds in each hill. Plant four or five pumpkin seeds in every seventh hill, placing them around the young corn plants. (Planting pumpkins in every hill would quickly overwhelm your site with viney growth)
- ◆ Your plants will need water each week. If it does not rain at least an inch per week, the planting will need to be irrigated. If you are using presoaked seed, remember to water more frequently at first.
- ◆ Most of the nitrogen converted by the beans will not be available to the corn and pumpkins the first year; the bean roots have to break down to release nitrogen. Corn is a heavy nitrogen feeder, so side-dressing with fertilizer is necessary to achieve satisfactory yields. You can use manure, compost, or commercial fertilizer.



airloom variety of corn you will  
on is not possible, you need to  
periment to see what results you

r the newly forming silks to  
2 inches out, remove the bags  
replace the bags. Your desired

ollen must come from another  
t pollen from the tassels of the  
you have hand pollinated to



◆ **NATIONAL HEADQUARTERS**

First Nations Development Institute  
2432 Main Street, 2nd Floor  
Longmont, CO 80501

303.774.7836  
303.774.7841

info@firstnations.org

◆ **NEW MEXICO FIELD OFFICE**

First Nations Development Institute  
4263 Montgomery Boulevard NE, Suite I-230  
Albuquerque, NM 87109

505.312.8641  
303.774.7841

info@firstnations.org

**www.firstnations.org**



Motahkomiqewi Skulhawossol  
Indian Township School  
13 School Drive  
Princeton, ME 04668

With the permission of Cornell University College of Agriculture and Life Science.