

THREE SISTERS PLANTING PROJECT



Volunteer for this project and Loving Garland Green will make sure that you have a 10 x 10 foot plot at the Garland Community Garden to carry out this experiment.

According to Iroquois, Mohawk and other American Indian legends, corn, beans, and squash are three inseparable sisters who only grow and thrive together. This tradition of inter-planting corn, beans and squash in the same mounds, widespread among Native American farming societies, is a sophisticated, sustainable system that has provided long-term soil fertility and a healthy diet to generations.

This garden creates a self-sustaining ecosystem that balances the needs of plants and animals. This system of companion or inter-planting does not require the use of pesticides. It also proves an efficient way to grow crops on less land.

Illustration from Hovey Lake Research sponsored by U.S. Department of Transportation

Corn requires plenty of space to grow. Beans need a support system for their vines to climb. Both corn and squash thrive on nitrogen. Thus, the corn offers string beans the sturdy stalk to grow up. String beans absorb nitrogen from the surrounding air and replenish nitrogen deficient soil. Sprawling squash creates mulch that cools and moistens the soil. Squash also have prickly stems that discourage raccoons and other predators from approaching the corn and beans.

Corns, beans and squash complement each other nutritionally. Corn provides carbohydrates. Beans are rich in protein and thus balance the lack of necessary amino acids found in corn. Squash yields both vitamins from the fruit and healthful, delicious oil from the seeds

General Instructions Before Planting

Plant seeds when nighttime temperatures are consistently above 50 degrees F. Plant in a space with a minimum of 6 hours of sun daily. Amend the soil with plenty of nitrogen since corn is a heavy feeder. Nitrogen from your beans will not be available to the corn the first year.

Most gardeners recommend no smaller than a 10 x 10 garden plot size. This breaks one of our rules to have our beds at the community garden no wider than four feet with access on all sides so that we can easily reach to the middle of the bed so as to not have to walk on top of the soil and thus pack it down. In this case we will do it and try to stay off the soil as much as possible.

Look at the diagram below. The yellow circles indicate where the squash is planted. The green indicate the mounds where a combination of the corn and beans are planted.

1. **In each row make your corn and bean mounds.** Make the mounds about six inches high and 18 inches across. The mounds should have flattened tops. The center of each corn/bean mound should be five feet from the center of the next corn/bean mound.

Diagram of 10' x10' Square Of Corn, Beans, and Squash Showing Spacing Of Mounds

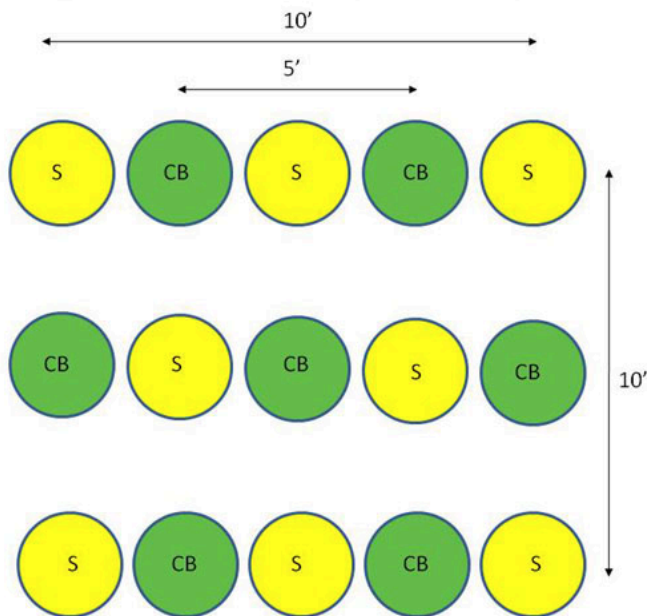
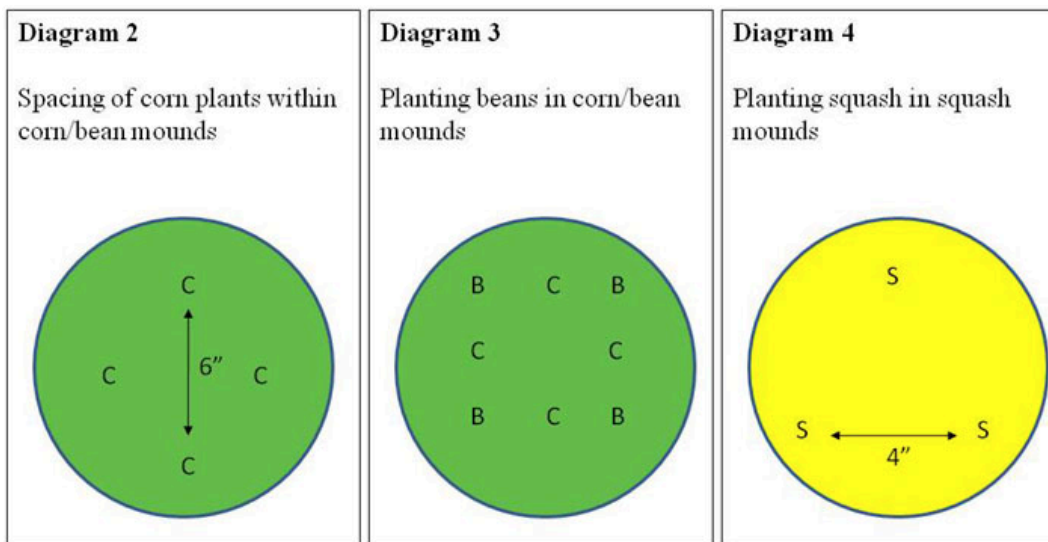


Diagram from *Renee's Garden*

2. **Plant four corn seeds in each mound in a six-inch square.** (See diagram 2 below)

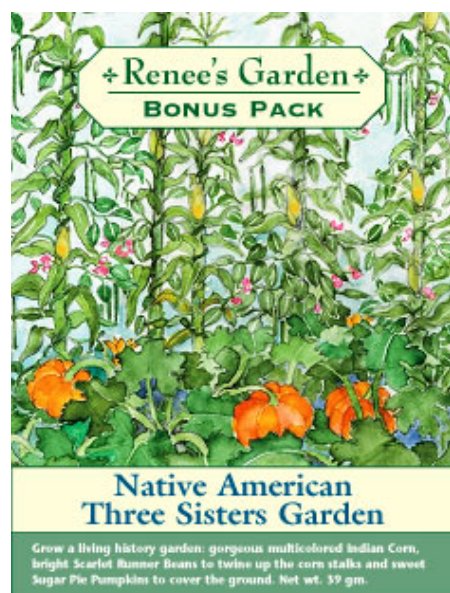


3. **When the corn is 4 inches tall, plant the beans and squash.** (See diagram 3 for beans)

4. **Build squash mounds between the corn and beans mounds.** (See Diagram 1 and Diagram 4 for detail.) The squash mounds are the same size (6 inches high and 18 inches across) as the corn and bean mounds.
5. **Plant three squash seeds, four inches apart, in a triangle as shown in Diagram 4.**
6. **When squash seedling emerge, thin them to two per mound.**

Go to the link below to purchase seeds from Renee's Garden. I purchased two packs: One I'll donate to the person who volunteers for this project, and the other one I'll give to Nancy Lovett who educated me about this garden format.

<http://www.reneesgarden.com/seeds/bonuspacks.html#sis>



Links to Legends about the Three Sisters:

1. [Bird Clan of E. Central Alabama: The Three Sisters](http://www.birdclan.org/threesisters.htm)
<http://www.birdclan.org/threesisters.htm>
2. [Cornell University Garden Based Learning: Three Sisters Garden- A Legend](http://blogs.cornell.edu/garden/get-activities/signature-projects/the-three-sisters-exploring-an-iroquois-garden/a-legend/)
<http://blogs.cornell.edu/garden/get-activities/signature-projects/the-three-sisters-exploring-an-iroquois-garden/a-legend/>
3. [MN State U: Native American Vegetable Contributions: Three Sisters Garden](#)

The following is a Mohawk Legend Regarding the three sisters from Cornell University, the second link shown on the previous page.

Once upon a time very long ago, there were three sisters who lived together in a field. These sisters were quite different from one another in their size and also in their way of dressing. One of the three was a little sister, so young that she could only crawl at first, and she was dressed in green.

The second of the three wore a frock of bright yellow, and she had a way of running off by herself when the sun shone and the soft wind blew in her face.

The third was the eldest sister, standing always very straight and tall above the other sisters and trying to guard them. She wore a pale green shawl, and she had long, yellow hair that tossed about her head in the breezes.

There was only one way in which the three sisters were alike. They loved one another very dearly, and they were never separated. They were sure that they would not be able to live apart.

After awhile a stranger came to the field of the three sisters, a little Indian boy. He was as straight as an arrow and as fearless as the eagle that circled the sky above his head. He knew the way of talking to the birds and the small brothers of the earth, the shrew, the chipmunk, and the young foxes. And the three sisters, the one who was just able to crawl, the one in the yellow frock, and the one with the flowing hair, were very much interested in the little Indian boy. They watched him fit his arrow in his bow, saw him carve a bowl with his stone knife, and wondered where he went at night.

Late in the summer of the first coming of the Indian boy to their field, one of the three sisters disappeared. This was the youngest sister in green, the sister who could only creep. She was scarcely able to stand alone in the field unless she had a stick to which she clung. Her sisters mourned for her until the fall, but she did not return.

Once more the Indian boy came to the field of the three sisters. He came to gather reeds at the edge of a stream nearby to make arrow shafts. The two sisters who were left watched him and gazed with wonder at the prints of his moccasins in the earth that marked his trail.

That night the second of the sisters left, the one who was dressed in yellow and who always wanted to run away. She left no mark of her going, but it may have been that she set her feet in the moccasin tracks of the little Indian boy.

Now there was but one of the sisters left. Tall and straight she stood in the field not once bowing her head with sorrow, but it seemed to her that she could not live there alone. The days grew shorter and the nights were colder. Her green shawl faded and grew thin and old. Her hair, once long and golden, was tangled by the wind. Day and

night she sighed for her sisters to return to her, but they did not hear her. Her voice when she tried to call to them was low and plaintive like the wind.

But one day when it was the season of the harvest, the little Indian boy heard the crying of the third sister who had been left to mourn there in the field. He felt sorry for her, and he took her in his arms and carried her to the lodge of his father and mother. Oh what a surprise awaited here there! Her two lost sisters were there in the lodge of the little Indian boy, safe and very glad to see her. They had been curious about the Indian boy, and they had gone home with him to see how and where he lived. They had liked his warm cave so well that they had decided now that winter was coming on to stay with him. And they were doing all they could to be useful. The little sister in green, now quite grown up, was helping to keep the dinner pot full. The sister in yellow sat on the shelf drying herself, for she planned to fill the dinner pot later. The third sister joined them, ready to grind meal for the Indian boy. And the three were never separated again.

AND HERE IS THE IROQUOIS LEGEND OF THE THREE SISTERS from Diana Erney, 1996, "Long Live the Three Sisters. Organiz Gardening November p.37-40

The term "Three Sisters" emerged from the Iroquois creation myth. It was said that the earth began when "Sky Woman" who lived in the upper world peered through a hole in the sky and fell through to an endless sea. The animals saw her coming, so they took the soil from the bottom of the sea and spread it onto the back of a giant turtle to provide a safe place for her to land. This "Turtle Island" is now what we call North America.

Sky woman had become pregnant before she fell. When she landed, she gave birth to a daughter. When the daughter grew into a young woman, she also became pregnant (by the West wind). She died while giving birth to twin boys. Sky Woman buried her daughter in the "new earth." From her grave grew three sacred plants—corn, beans, and squash. These plants provided food for her sons, and later, for all of humanity. These special gifts ensured the survival of the Iroquois people.