

UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources

UC Master Gardener Program





The Three Sisters

Scientific Name: Zea mays, Phaseolus vulgaris, Cucurbita

Recommended Varieties:

- Any variety of sweet corn
- Scarlet Runners or any pole or dry bean variety
- Summer squash or a small variety of pumpkin.

Common Pest(s):

The three sisters have few pests, it is a perfect sample of companion planting or intercropping. Corn provides a pole for the beans to grow, squash provides a mulch.

Renee's Garden

Mastergardenersd.org

Photo: The Old Farmer's Almanac

Growing Information

Warm Season Plant

First, break up and rake the soil. Next, build a mound about 12 inches high and between 18 inches and 3 feet in diameter. If you're in a dry area, flatten the top of the mound and make a shallow depression to keep water from running off. The number of mounds depends on your growing area. Mounds should be 3 to 4 feet apart in all directions.

Ideal Planting Window

Inland Valley – March -July

Desert – February -March

Growing Guidance

Corn should be planted first so that it can grow tall above the other crops. Plant seeds for Bean 2-3 weeks later, when the corn is a few inches tall. When the beans are sending out tendrils to climb the corn will be tall enough to support them. Plant Squash seeds 1 week later after the beans have emerged.

AgFoundation.org

Photo: AgFoundation



Interesting Facts

Native peoples from different parts of North America have used a wide range of agricultural techniques. Perhaps the best known is the interplanting of corn, beans, and squash – a trio often referred to as the "three sisters." Cultivating these companions in your school garden, a small patch near the building, or even a barrel, can inspire studies of Native American customs, nutrition, and folklore.

In a three sisters planting, the three partners benefit one another. Corn provides support for bean vines. Beans, like other legumes, have bacteria living on their roots that help them absorb or "fix" nitrogen from the air and convert it to a form that the bean plants can use. As the roots of bean plants decompose after the crop is harvested (or if bean leaves and stalks are turned back into the soil after harvest), some of this nitrogen becomes available for other crops to use in coming seasons. Corn, which requires a lot of nitrogen to grow, benefits most from this nitrogen boost. The large, prickly squash leaves shade the soil, preventing weed growth, and deter animal pests. The three sisters also complement each other nutritionally, providing people with sources of both starches and proteins along with diverse vitamins and minerals.

Contact Information

Kids Gardening

Nutritional Information

Nutritional Value

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

Three Sisters Enchilada Casserole



Ingredients:

4 cups of enchilada sauce
18 corn tortilla shells
2 cups black beans
2 cups corn
2 cups small diced zucchini
2 cups chopped rotisserie chicken
12 oz. shredded Colby jack cheese
Salt and pepper to taste
Optional garnishes: sliced green onions, avocado, cilantro

Prepare: Preheat the oven to 375°

In a 13x9 casserole dish evenly layer on as followed: 1 cup of enchilada sauce, 6 corn tortillas, 1 cup black beans, 1 cup of corn, 1 cup of zucchini, 1 cup chicken, 2 oz of shredded Colby jack cheese and salt and pepper.

Repeat the process one more time and then end with the remaining 6 corn tortillas, enchilada sauce and shredded cheese.

Bake for 30 minutes or until the cheese is melted. Add garnishes.

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