

GLADSTONE ROAD AGRICULTURAL CENTRE
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CULTIVATION OF SQUASH (*Cucurbita pepo* L.)

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Introduction

Pumpkins, squash and gourds are members of the very diverse Cucurbitaceae family, which contains more than 100 genera and over 700 species. The zucchini and crookneck squash (*Cucurbita pepo* L.) varieties are among the most popular of vegetable crops consumed worldwide. Commercially, the zucchini and crookneck squash can be grown successfully on a large scale by large farmers, or they can be grown on less than one hectare of land by small farmers. These cucurbits are also suited for cultivation in the home garden by individual householders. The squash varieties and pumpkins perform better in well drained, fertile soils with lots of sunshine. The squash family is among the most nutrient rich of food crops and is rich in carotenoids essential for the production of vitamin A. This family of food crops also contains a wide range of amino acids and is low in calories.



Varieties

The squash family is very diverse, with much variation in shape, texture and colour. The crookneck squash is usually of a pale yellow colour, with a distinctive curved neck. The green zucchini varieties are solid and cylindrical, varying in colour from a solid, dark green to a light green. Some varieties are streaked or blotched in various shades of green. The yellow zucchini is a slender, bright yellow attractive fruit. It is a fast growing bush type crop which matures in approximately 40-50 days. Yellow zucchini yields tend to be lower than those for the green varieties. When harvested early this crop generally fetches a better price, with a better quality of fruit. Late harvests may contribute to deterioration in fruit quality.



Squash (*Cucurbita pepo* L.) varieties grown at the Gladstone Road Agricultural Centre. Left to right crookneck squash var. 'Delta', yellow zucchini 'Golden Glory' and green zucchini 'Spineless King'.

Cultivation

In preparing the ground for planting, remove any stones or debris from the soil that might hinder root development. Squash varieties thrive best in soils that have lots of organic matter. If available, incorporate animal manure or organic material, such as rotted leaves, within the soil. Squash varieties are planted directly into the field or garden plot. The bush-type habits of some varieties allow them to be planted in a close spacing without any reduction in yield.

Fertilisers

The family of pumpkins, squash and gourds all require large amounts of nitrogen, phosphorus and potassium along with other micronutrients in smaller amounts. A granular fertiliser, such as

8-18-8, is incorporated into the soil. If only a few plants are being grown about two to three tablespoons of fertiliser per plant is sufficient. The squash is a quick growing plant that gives a harvestable crop within 40-50 days.

Irrigation

Squash plants should be watered regularly to keep them from wilting. If the soil is dried out, the fruits may wither and drop before they are ready for picking. As the fruits mature, they will require lots of water.

Weed Control

To protect the crop from weeds the field must be kept free of weeds. Routine weeding and hoeing should be done as needed to take care of weeds within the plot.

Insect Pests and Diseases

A wide range of pests attack the family of pumpkins, squash and gourds. These include the cucumber beetle, spider mites, vine borers, aphids, cut worms and leaf miners. Commercial insecticides can be applied, but care must be taken not to kill off beneficial insects during pollination of flowers. Homemade pesticide remedies such as a cup vegetable oil in a gallon of water can be used to suffocate small insects, insect larvae and eggs.

There are a number of diseases that affect squash. Among them are bacterial wilt, anthracnose and mosaic virus. To reduce their impact, remove all debris and mulch from the area where the plant was growing. Squash plants become infected with many of these diseases by pests like squash bugs and cucumber beetles. Proper care and upkeep of the squash field or garden plot is the best protection against disease problems. Early spraying with fungicides may prevent disease development.

Harvesting

The yellow zucchini is usually harvested when it is between six and seven inches in length. It can be harvested later at a larger size and chopped up with other vegetables as a mixed salad, stir fried, or as steamed mixed vegetables. Seediness can be a problem if the zucchini fruit is harvested too late.

Uses for Squash



Grated zucchini over mixed vegetable greens (left) and yellow zucchini slices included in a frozen vegetable mix (right).

Squash is used generally as a cooked food item, but is sometimes eaten raw as a fresh salad ingredient. The fruit is usually harvested when it is 20 cm (8 in) or less in length while seeds are still soft and palatable. It can be prepared in many ways, including boiled, baked, steamed, stir fried or grilled. Zucchini squash grated over mixed vegetable green salad. Sliced zucchini can last for a long time, if frozen and stored properly. For added value, yellow zucchini slices can be added to a mixed vegetable package and sold as a frozen food item by local farmers. Very tasty breads can be made using zucchini squash (below).

Recipe for zucchini bread (adapted from various zucchini bread recipes found at www.cooks.com)



Zucchini bread

- 3 eggs
- ½ cup oil
- 2 cup sugar
- 3 cup self-rising flour
- 1 cup nuts
- ½ tsp. vanilla
- ½ tsp. salt
- 2 tsp. cinnamon
- 2 cup grated zucchini
- 1 cup raisins or crushed pineapple or coconut

Beat eggs until fluffy. Add oil, sugar, and vanilla. Add zucchini and dry ingredients. Stir in nuts, raisins and/or pineapple. Pour into greased loaf pans. Bake 1 hour 10 minutes at 350 degrees.

Internet Resources

Growing Fresh Market Pumpkins, Squash and Gourds
(https://datcp.wi.gov/Documents/mk_fc_81web.pdf)

Harvest to Table Growing Squash (https://harvesttotable.com/growing_squash/)
