Squash: Genovese (C. pepo)



Starting & Ending Population Size

Starting population size: 35 (Stable seed stock) 60+ (Poor seed stock)

Harvest population size: Fruits for seed production should be harvested from a minimum of **20 plants**.

Isolation Distance

1.5km (or hand pollinate)

<u>A note on approaches to C. pepo rogueing & selection from Andrew at Adaptive Seeds:</u>

Cucurbita pepo is a (usually) highly-homozygous moderately self-pollinating crop. This means that selection may not have a quick or strong influence on a variety other than by removing off types. Focusing on negative selection (i.e. removing undesirable specimens) is likely to be more effective in the short term than emphasizing positive selection for specific desirable traits.

Before Flowering

Rogue plants: Low vigour (5-10% of population)

Off-type growth habit (should be open bush)

Early fruit stage

Select fruits:
Light green fruits with light
ribbing at stem end
Rogue fruits: Off-type
shape at ovary stage

At Fruit Maturity & Harvest

Select against:
Plants late to produce
Bitterness/toughness
Bulbous blossom ends

Further Rogueing & Selection Information

<u>Before plants begin to flower:</u> Off-type plants should first be rouged at the vegetative stage, paying particular attention to low vigor and off-type growth habit. Genovese has a bush habit, so any vine type plants should be removed before flowering occurs. Genovese has also been selected for an open habit for easy of picking.

<u>Early fruit stage</u>: Pay attention to the shape of the earliest fruits. Off-type fruits may be detected at the ovary stage even before the flower opens. As long as the population size is large enough, the appearance of an off-type plant after flowering is not a cause for concern as long as the off-type is removed promptly. Fruit should be light green with only slight ribbing at the stem end and a minimal bulbing at the blossom end. Rogue out any fruits with distinct bulbing at blossom end.

At fruit maturity and harvest: As with rogueing other crops, remember that occasionally a fruit will be deformed (usually for environmental reasons), in which case the fruit is still usable for seed provided other fruits borne on the same plant are true to type. Taste 1 fruit from each plant at harvest maturity and rogue out any plants displaying bitterness or toughness. As with many summer squashes, Genovese tends to get very bulbous at the blossom end later in the harvest season. Effective selection on this front may require early planting in a greenhouse and a long growing season to select late fruits after a few months of harvest.

<u>In storage:</u> As fruits continue to ripen in storage, and seeds fully mature, rogue out any fruits showing signs of mould, rot, or disease. Allow fruits to mature on plants until skin is hard (but don't allow them to experience frost). After harvest, it is best to let the fruit ripen for at least 1 month before extracting seeds as they continue to draw nutrition from the flesh.



***These are suggested tips and strategies for selecting a true to type Genovese zucchini squash. You are welcome to look for other characteristics that you find appealing or suit your farm, market or growing condition. Please make note of it if you do so. ***

