

**Care of the Earth Community Farm
Field Day: Hand-Pollination Intensive
Sunday, June 24, 2018 9am-12pm
Sponsored by a SARE grant**

Hand-Pollinating Winter Squash

Important information to know before hand-pollinating winter squash:

- Squash is unisexual - there are separate male and female flowers
- Female flowers have what appear to be small squash fruit attached to them - this is the swollen ovary



- Male flowers are just attached to a long stem.



- Male flowers typically form first before female flowers on the same plant. Begin hand-pollination when there are male and female flowers present.

Step-by-step instructions for hand-pollinating:

1. In the afternoon or evening, mark flowers for hand-pollination to be done the following morning. Look for flowers that are beginning to blush orange at the flower tip and look more swollen or full. It may take a few times for you to get it right.
 - Tape male flowers with masking tape.
 - Tie female flowers with flagging tape (or they can also be taped with masking tape but this must be done very carefully).
 - Mark flowers with marking flags. I use one color for males and one color for females. Try to have 3 male flowers for every female flower.
2. The next morning, when it is **dry**, harvest 3 male flowers for the first female flower. The male flowers should have approximately 4" of stem. Remove their petals but be careful to maintain most of their pollen. Remove tape from first female flower, careful not to rip petals, and brush pollen from male flowers onto the stigma of female flowers. The stigma should look very swollen.
3. Tape female flower shut to prevent cross-pollination and label with flagging tape. Label could include: date, variety name, gene pool, etc.
4. Repeat for all female flowers you identified previously.

Seed harvesting:

1. Harvest squash when fully mature (stem is corky not green). Separate squash that are for eating from those that are for seed. Cure in a dry, non-sunny location for 2 weeks. Let seed squash sit about 3 more weeks, then process.
2. To process, cut open squash to reveal seed cavity. Remove seeds from cavity. Wash in a collander until clean. Spread out on a paper towel and allow to dry 72 hours or until completely dry. Store in labeled seed envelope in a cool, dark, dry location.

Additional sources:

kenoshapotato.com/squash_pollination.htm
<https://seedsavers.org/site/pdf/squash-hp.pdf>
Seed to Seed by Suzanne Ashworth