

SQUASH POLLINATION GUIDE

Cucurbita moschata



PETAL

STIGMA

Fruit of *Cucurbita moschata* are highly variable, but most squash have separate male and female flowers on a plant (monoecious). Squash are primarily out-crossing and depend on pollinators for successful fruit set.

Step ONE: Properly label mature female flower

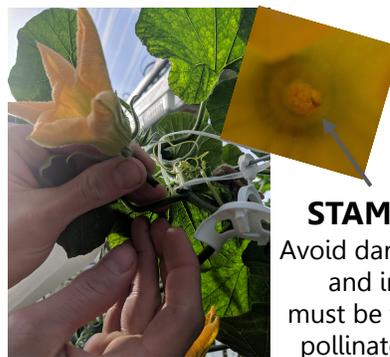


Male flowers will appear first, followed by female flowers. Female flowers are characterized by a slightly swollen pedicel containing the ovary. The female reproductive organ, the stigma, is a stout cluster in the middle of a female flower.

PEDICEL

OVARY

Step TWO: Identify mature male flower



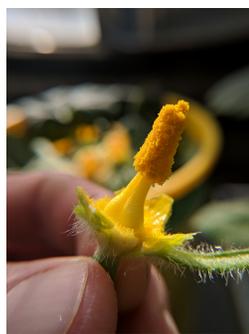
Male flowers have a straight, narrow pedicel. Their stamens contain heavy pollen that is only spread by active pollinators.

STAMEN Avoid dark/shriveled pollen. Male and immature female flowers must be tied and protected from pollinators if crossing outdoors.

Step THREE: Remove petals to expose anther

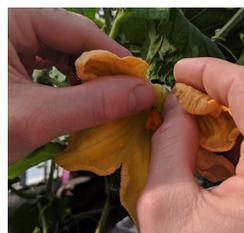


Carefully cut the male flower from the plant and remove petals to expose the anther. Check the pollen quality before proceeding.



Step FOUR: Remove petals to expose stigma

Without damaging the ovary, remove the petals on the female flower to access the reproductive organ (stigma).



Step FIVE: Transfer donor pollen to stigma



Carefully rub/roll pollen onto the stigmatic surface. Pollen grains on the stigma should be visible.



Step SIX: Protect and monitor development



Using a paper bag and clip/stapler, cover the female flower and ovary to avoid cross-pollination. Fruits will grow in size and may need additional support. Follow good seed stewardship practices, using clean harvesting and storage practices to obtain clean, safe seed.



TIPS FROM THE PROS:

- Pollen viability is typically highest in the early morning
- Viable pollen grains are large and require high humidity
- This method also works for *C. pepo* crosses too!

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Photos and design by: H. Swegarden
Demonstration by: J. Teague (Mazourek Lab)