



Increasing Success Rate in Backyard Cilantro

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December 2022

Cilantro or Chinese Parsley is a common backyard herb that is used in many dishes worldwide. Backyard gardeners who attend the University of Hawai'i at Mānoa, Cooperative Extension's educational programs often share that they have difficulty getting cilantro (*Coriandrum sativum*) to grow. Troubleshooting the problem can include evaluating environmental conditions (sun/shade), seed viability, pest, nutrition, and other factors. The possibilities are endless.

Cilantro care

Cilantro prefers loose, well-drained soil. It can tolerate full sun but it will prematurely bolt under high temperatures. Protection of seedlings from birds, slugs, and snails is important too. Cilantro reaches maturity in 50-70 days, depending on the variety. Leaves can be harvested as needed or the whole plant can be harvested all at once. Clay pots are ideal for herbs such as cilantro. Cilantro can also grow in 6-8 inch containers. Plants that are left to flower will attract beneficial insects and may go to seed if pollinated. Cilantro responds well to foliar, granular and slow-release fertilizers. Follow the label rate.

Growing by seed:

Conducting a seed germination or viability test prior to planting can help to understand the viability of the starter seed (Tavares, Uyeda and Silva, 2020). In many instances, the germination rate of cilantro seeds is low which may affect the overall success and confidence of many backyard gardeners (Johnny Select Seeds, 2018). Check the germination percentage on the package or conduct your own test by wrapping seeds in a moist paper towel and waiting a few days.



Figure 1. Scan QR code to learn more about conducting a seed germination test.

Step by step instructions can be found on the QR code on the right (Figure 1).



Left to Right: Photo 1: Seeds placed on a moist paper towel on October 21, 2022. **Photo 2:** Germinated on October 26, 2022 (5 days). **Photo 3.** Ready for transplant on October 28, 2022 (7 days).

What we think of as cilantro seeds are actually dry fruits which have a protective husk or layer around the seeds within. Each 'fruit' has two or more embryos within. You may get more than one plant for every 'fruit' planted. New technology called "monogerm" splits the outer fruit coating which allows for precision planting as it allows the seeds on the inside to germinate easier. In the past gardeners would soak or scarify the hard, exterior husk-like coating to promote germination. If you are having problems growing cilantro by seed, you can purchase monogerm seeds which may help improve your success rate.



Top. Left to Right: Photo 4. Sprouted and ready for transplant on October 28, 2022 (7 days).

Photo 5. The dry fruits of cilantro. **Photo 6.** Monogerm (split) cilantro seeds for easier germination.

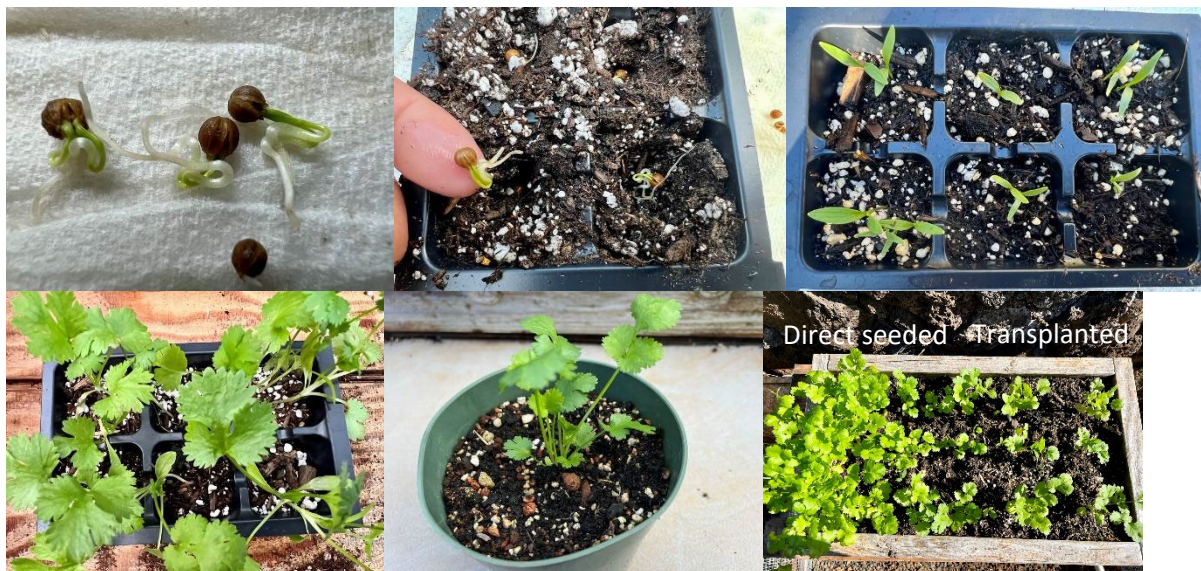
Bottom. Left to Right: Photo 7. Seedling trays planted with monogerm vs non-monogerm seeds.

Photo 8. Monogerm seeds germinated faster than whole fruit. **Photo 9.**

Monogerm seeds had a higher germination rate.

Seedlings

After seeds germinate on a moist paper towel or in a seedling tray, seedlings can delicately be placed into a pot or garden area where it will remain to reach full maturity. Direct seeding is the recommended method because cilantro doesn't transplant well due to its taproot. However, if you decide to transplant cilantro, it may be best to move the seedling to a spot with ideal conditions. It is best to move the entire root ball in an attempt to avoid disrupting the root system. Be patient as the plant may undergo transplant shock, but with time it will start to adapt.



Top Left to Right: Photo 10-11. Seedlings moved from paper towel to media after 7 days. **Photo 12.** Seedlings emerged from the soil after 11 days. **Bottom. Left to Right: Photo 13.** Seedlings acclimated and ready for transplanting after 14 days. **Photo 14.** Seedlings transplanted to a bigger pot to reach full growth. **Photo 15.** Transplants (right) from the directly seeded area (left) undergo a delay due to transplant shock. With time, they recover.

Direct seeding

Similar to carrots and beets, cilantro does not like to be transplanted due to its tap root system. Direct seeding cilantro in a garden area or pot with enough space to grow is the best option. Multiple seeds can be planted and thinned over time. Sow seeds 1/4-1/2" in depth, and space 8-12 inches apart. Wider spacing can be used if you are growing plants for seed. Covering the soil/media surface with a screen netting is needed to avoid birds from feeding on the young seedlings.



Photo 16-18. Seeds can be directly planted in pots, raised gardens or in the soil.

Summary

Growing cilantro in the backyard requires practice and patience. Using viable seeds is the best place to start. Modifications such as changing the environmental conditions around the plant or using new seed technology could improve your success rate. With a little time, you'll be producing enough cilantro for your kitchen and to share with the neighborhood.

References

Johnny Select Seeds. Cilantro and Coriander Production. 2018. Online: [Cilantro \(Coriander\) Production \(johnnyseeds.com\)](http://johnnyseeds.com)

[Tavares, K., J. Uyeda and J. Silva. Conducting a Seed Germination Test: Why and How. University of Hawaii at Mānoa, College of Tropical Agriculture and Human Resources. Sustainable and Organic Agriculture Program. Hanāi 'Ai Newsletter. Volume 39. Autumn 2020.](#)