

How to keep plants from bolting



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Ask a Master Gardener

Question: In spring I planted cilantro and lettuce. Both were doing really well, but now the cilantro is just producing flowers and the lettuce is getting really tall and the leaves have become tough and bitter. Can you tell me why these plants are doing this and what can I do to make them grow tasty leaves again?

Answer: Fresh homegrown vegetables and herbs such as lettuce and cilantro are a wonderful treat. The convenience of being able to pick just what you need is so handy, especially with cilantro, as often the amount you have to buy at the store is much more than your immediate needs.

When plants such as annuals and vegetables begin producing flowers or seeds prematurely, we say the plant has bolted. But why are they doing this now?

As you mentioned, you planted the cilantro and lettuce in the spring, when the temperatures were cooler, which is just what these plants prefer. Bolting occurs when environmental conditions, such as temperature variation or length of day changes, causing a plant to pass rapidly through its growing season.

A growing season refers to the time of going from seed to seed — they germinate, grow, mature, bloom, produce seeds and die. Bolting is the production of a flowering stem or stems that are usually vigorous extensions of existing leaf-bearing stems.

In order to produce flowering stems, the plant diverts resources away from producing the edible parts in order to produce flowers and seeds for reproduction. Some plants are



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more inclined to bolt, such as lettuce, cilantro, spinach and brassicas, including broccoli, cabbage and kale.

Bolting can occur as a result of a few factors, including changes in the length of the day, higher temperatures at a certain time in the plant's growth cycle, or the existence of stress, such as insufficient water. It most frequently occurs when plants that prefer cooler weather, such as lettuce, are set out too late in the year or when unseasonably hot weather rushes the growth cycle.

Once the conditions have been met for a specific plant, it will be triggered to bolt regardless of subsequent changes to temperature or amount of water.

Once lettuce or cilantro has bolted, the process can't be stopped or undone — the plants have transitioned to flower and seed production mode and no longer produce tender tasty leaves.

However, with cilantro, bolting has a couple of benefits. The delicate, lacy white flowers transform into seeds that can be collected and dried to create the spice coriander. If you are not interested in collecting the seeds, while the flowers are blooming they help attract beneficial insects to the garden.

Just because the plants have bolted during the heat of summer doesn't mean you can't continue to grow both of these plants in the garden in the coming months. These plants

prefer cooler temperatures, so the growing season is not over just yet. Here are a few helpful tips to continue growing these edibles in your garden:

- Plant cilantro seeds in the cooler months of spring and late summer/early fall.

- Plant cilantro seeds in successive batches to ensure fresh cilantro throughout its growing season; it can withstand temperatures down to freezing.

- When shopping for lettuce seeds look for those that state "slow to bolt" on the package.

- Plant lettuce in a shadier part of the garden, or tuck behind or under taller plants.

- Provide regular watering to keep the soil cool and leaves succulent.

- Some varieties of leaf lettuce can be planted in the

winter for spring harvest.

Knowing what plants will likely bolt and the conditions that encourage them can help in determining planting schedules, and to anticipate bolting next summer. And through succession plantings, you can compensate for bolting and continue to have these fresh vegetables and herbs into fall and early winter.

Do you have a gardening question? Contact the Douglas County Master Gardeners via email at douglasmg@oregonstate.edu, by phone at 541-236-3052 or visit 1134 SE Douglas Ave., Roseburg. Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.