



Winter's Bounty: Getting More From Your Cool Season Garden

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Key ideas

- *The Mediterranean climate in central coastal California is ideal for growing vegetables year round.*
- *Gardening in the cool season is easy if you:*
 - *renew soil fertility after the summer garden,*
 - *plant your fall vegetables at the right time (late summer),*
 - *give plants enough space to reach their mature size,*
 - *stay alert for pests, and*
 - *respond correctly to the weather.*

Prepare soil to renew fertility

- As summer vegetables finish, clean up plant debris.
- Maintain a loose, granular soil structure. If the soil is heavy, sift in 1-2" of compost.
- Restore soil fertility after the heavy production of summer by adding fertilizer. Plant/animal-based fertilizers release nutrients slowly and do not need to be reapplied as frequently as synthetic fertilizers. Follow directions for the fertilizer you choose.
- Mulch the garden to help moderate soil temperatures and conserve irrigation water.

Plant at the right time

- Cool season plants need to get going during warm days with more hours of light.
- See the Vegetable Planting Chart on the Master Gardener website for detailed information on when to start seeds and when to plant seedlings.
(<http://www.mastergardeners.org/warm-cool-veg-charts>)

Give plants enough space

Plants should just barely touch when full grown.

- Plant seedlings at the recommended spacing so that plants can attain their full size.
- Thin seeded rows or beds to provide the appropriate space for each plant. Root vegetables are particularly sensitive to overcrowding.
- Seeds of lettuce, arugula, or other greens sown in a block for "cut and come again" plantings need not be thinned.

Stay alert for pests

Insect pests are very scarce in the cool season, but a few are active the first few weeks of the fall and again in spring. Learn to recognize these pests and monitor your garden for their presence.

- Bagrada bug: a small (1/4") stink bug that is most commonly found on vegetables in the Brassica (cabbage) family. Plant Brassicas as late as possible, and put out big healthy seedlings. Use insecticidal soap on nymphs.
- Stink bugs: Knock them off plants into soapy water and destroy. Crush egg masses.

- Aphids: grey-green cabbage aphid is most common on cool season vegetables. Be vigilant. Hose them off plants or prune out infestations when necessary. Encourage their natural enemies by growing flowers in your vegetable garden.
- Leaf miner: watch for damage on beets, chard, spinach in early fall, late spring. Brush off eggs from back of leaves. Remove affected leaves, seal in plastic bag, and place in trash.
- Imported cabbageworm: examine plants, handpick worms. Exclude white butterflies (the adult) with row cover or screening.
- Snails: become more active as rain, fog, or dew creates a moist environment. Eliminate hiding places, hand pick, and destroy.
- Squirrels, rats, and birds: vertebrate pests are best managed by methods that exclude them from the garden. Cover seeded areas and young plants with floating row cover or make “cages” out of hardware cloth (will exclude both rats and squirrels). Netting will deter birds. Very attractive plants may need to be protected through the whole season.

Diseases

- Powdery mildew: favored by warm days and cool nights. Maintain good air circulation. Remove summer veggies if heavily infected and clean up well. Plant resistant varieties.
- Other fungal and bacterial diseases: space plants to maintain good air circulation. Plant seedlings and seeds when air and soil temperatures are favorable. Maintain good soil drainage by amending soil and using raised beds. Remove diseased plants.

Weeds

- As weeds pop up in the spring, keep them out of your vegetable beds, so that your vegetables won't have to compete with them for resources.

Respond to the Weather

In late summer

- Protect newly planted cool season seedlings from hot afternoon sun with row cover or objects that will cast some shade.
- Water correctly to help plants get established in hot late summer.
 - Keep seed beds moist with daily sprinkling until seeds have germinated.
 - Young seedlings need shallow irrigation more frequently. Older plants need deeper irrigation less frequently.

Through late fall and winter

- Check soil moisture and be prepared to water if rains are not regular.
- Cool season vegetables, if well watered, can tolerate the light frosts (28-32°F) typical of central Santa Clara County.
- Cover the following vegetables with row cover if a hard frost (<28°F) is expected: chard, beets, carrots, parsnips, Asian greens, peas, lettuce.
- Mulch around root vegetables, alliums, and artichoke crowns to protect them from cold.

Extending the Harvest

Leafy crops (kale, collards, chard, spinach, lettuce, etc.)

- Regularly harvest leafy greens for cooking by picking the older leaves, leaving the growing center to renew the plant.
- Gently tear the leaves off, rather than cutting them, as stubs left on the plant can introduce decay into the main stem of the plant.

- All types of lettuce, even heading varieties, can be harvested leaf by leaf, taking the older leaves and allowing the center of the plant to continue to grow.

Heading crops (broccoli, romanesco, cauliflower, cabbage)

- Harvest the main broccoli head while the flower buds are still tightly closed and the head is compact. Smaller heads will form in the leaf axils all over the plant and can be harvested for many weeks. Romanesco will not resprout in this way but can sometimes be harvested by removing flowerets from the outside edge of the developing head; the center will then continue to grow. Harvest the whole head when it begins to lose compactness.
- Cauliflower and cabbage: after the head is cut, the plant will not resprout.

Root crops (beets, carrots, turnips, radishes), bulbing fennel, kohlrabi

- Most root crops can tolerate some harvesting of their leaves to be used as greens. Do not remove more than 1/3 of the leaves at any time.
- Root crops store well in the ground, to be harvested as needed. Pull only what you want to use immediately.
- Kohlrabi greens are delicious. While waiting for the bulbous stem to form, harvest a few leaves (up to 1/3).
- The fern-like leaves of fennel can be lightly harvested even before the bulb is fully formed.

Be sure to harvest all cool season crops before the plants begin to bolt (enter the seed producing stage).

References

UC Davis Integrated Pest Management website: ipm.ucdavis.edu
 California Master Gardener Handbook, UC ANR Publication 3382
 Pests of the Garden and Small Farm, Mary Louise Flint, UC ANR Publication 3332
 Master Gardener website: mgsantaclara.ucanr.edu

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- Call: 408-282-3105 (9:30 a.m. – 12:30 p.m. Monday through Friday)
- Bring specimens to the Master Gardener Help Desk during Help Desk hours: 1553 Berger Drive, Building 1, 2nd Floor, San Jose, please call before coming.
- Call or bring specimens to the Master Gardeners at the Gamble Garden library in Palo Alto: 650-329-1356 Fridays only, 1-4 p.m. In winter, please call before coming.

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