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## Fall Vegetable Gardening

September/October is a good time to start planting seeds for cool season crops. Cool season crops generally produce edible roots, shoots, and leaves rather than the flowers and fruits produced in summer vegetable gardens. Arugula, broccoli, cabbage, cauliflower, carrots, chard, garlic, kale, lettuce, onions, radishes, spinach, and turnips can all be planted in September and October to produce crops next spring and summer. In your extra space, you may also consider planting a cover crop to add organic matter and plant nutrients to the soil while protecting it from wind and water erosion. Season extension techniques can speed up production and protect seedlings from extreme temperatures.

To have the greatest success in any vegetable garden, the soil should be amended with compost or manure. Small additions of phosphorus fertilizer will often improve crop performance (test your garden soil every few years to assess phosphorus availability). If compost is in short supply, plant cover crops to provide organic matter and nutrients for your spring and summer garden. Alfalfa cubes and pellets are also a viable soil amendment but beware of weed seeds such as bermudagrass. If your raised beds have been filled with a bagged, soilless potting mix, you might consider replacing it with real, mineral soil and amending it each year. Soilless mixes do not perform well over multiple years. However, mineral soil maintains productivity as long as crops are rotated and it is amended with compost or cover crops.

A sampling of cool season crops is listed above. If these are planted in September or October, the plants will likely produce during the winter months. When planted in November, December, or January, they are slower to establish and grow, but will be developing a good root system. These well-rooted plants will grow rapidly as the weather warms in spring.

I recommend direct seedling for cool season leafy and root vegetables rather than using transplants. With crops like lettuce or arugula, the plants that are removed during thinning are perfect for eating. Leafy greens can be spaced more closely than root crops. Beets and turnips should have 8 to 10 inches between plants. Carrots can be spaced 6 inches or so apart. I do grow transplants when planting kale, cabbage, and other cole crops.

Garlic and onions are grown differently from other root vegetables. Garlic should be planted in fall where there is full sun and well-prepared soil (compost and phosphorus). Garlic is sold as "hardneck" or "softneck" types. Hardneck does not last as long in storage as softneck. Plant large, unpeeled cloves about 6 inches apart and 1 to 3 inches deep from mid-September through November. These will grow until the following June or July. Remove any flowers to encourage bulb development. The flowers, or scapes, can be cooked and are delicious in stir fries and omelets. Save the best bulbs for planting the next year.

Onions require the same growing conditions and soil preparation as garlic. Grow short day onions in Arizona. Seeds can be sown in August, but most gardeners plant transplants or sets in late March or early April. Transplants are young plants that have a few roots and some leaves and are often ordered by mail. Sets are small bulbs. Both garlic and onions benefit from a light midseason (late May/early June) nitrogen fertilization (1/2 lb N/100 sq.ft.).

Floating row cover is indispensable to home gardeners and is readily available from garden catalogs. This, spun fabric comes in many weights and is used to protect crops from cold temperatures, insects, and some small mammals and birds. The lightest weight row cover can be placed directly on top of the crop. Heavier row cover is best used with short support hoops that keep the weight off the crop. When the short support hoops are used, it is called a low tunnel. I use the light weight row cover without hoops on my winter lettuce. Clear plastic can also be placed over hoops to create a low tunnel.

If you are not an avid winter gardener, you should really consider trying it. Our winter climate is really pretty mild and can grow lots of cool season crops. If you are taking some gardening time off in the winter, you might also consider growing a cool season cover crop of cereal rye and hairy vetch.



Cool season gardening can be done many different ways. Upper left shows a lettuce crop in April that was planted in January and grew under floating row cover. Upper right shows a cereal rye/hairy vetch cover crop in the spring following a fall planting - garlic is visible in the foreground. Lower right shows a head of hard-neck garlic. Lower left shows a low tunnel with a medium heavy row cover (Jeff Schalau, University of Arizona).

**Additional Resources:**

Backyard Gardener Publications:

[Garlic](#)

[Winter Lettuce](#)

[Cover Crops](#)

[Garden Soil Prep](#)

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