

# Advanced Vegetable Gardening

Experienced vegetable gardeners can grow more each year by using Intensive Gardening practices.

**Intensive Gardening** uses knowledge of your plants and location to improve the growing conditions of your beds, garden longer during the year, increase your total harvest.



## Improve Growing Conditions

To improve your growing conditions, use amendments, mulch, and cover crops to preserve a loose soil structure and avoid soil compaction to help plants thrive. Improve the nutrients available for growth by rotating crops each growing season, composting at home,

and introducing fertilizers as needed. Encourage beneficial wildlife, like pollinators, predatory insects, and birds to visit by adding flowers and installing a water element, like a bird bath.

- Avoid soil compaction
- Incorporate amendments 4-6 inches deep
- Improve the nutrients using compost
- Grow cover crops
- Rotate crops yearly

## Extend the Growing Season

To start gardening earlier in the spring and keep gardening later into the fall, you need to protect plants against Frost (36°-32° F), Freeze (32°-28° F), and Hard Freeze (below 28° F) warnings. You can use plasticulture to increase soil temperature 5-10°F and cloches (hot caps) to protect young plants while air temperatures

are still low in the spring. Cold frames and low tunnels can increase the air around a garden by 10°F, making them great tools to support temperature-sensitive plants during cooler weather in both spring and fall.

- Watch for Frost, Freeze & Hard Freeze warnings
- Cover ground with plasticulture to warm soil
- Use Cloches & Hot Caps to protect young plants
- Protect beds using Cold Frames & Low Tunnels

## Increase Harvest Techniques

Knowing the interrelationships between your vegetable plants can help you increase your harvest by allowing you to get more plants into your garden space. Training vining vegetables to grow vertically along fences or trellises gives you more room at the soil level and continually replacing harvested plants creates an ongoing harvest throughout the season.

- Minimize spacing between individual plants
- Arrange plants in a diamond-shape instead of rows
- Interplant crops (*companion planting*)
- Grow vining plants vertically
- Practice succession & relay planting
- Plant multiple varieties of the same crop for harvests across different seasons
- Try planting Fall Crops

**Interplanting Combinations**

- Quick-growing & slow-growing
- Short & tall
- Shade-tolerant & shade-making
- Heavy-feeding & light-feeding
- Shallow-rooted & deep-rooted

*Examples*

- Spinach and peppers
- Carrots and tomatoes
- Beans and corn
- Broccoli and herbs
- Onions and parsnips

**Fall Crops Characteristics**

- Cool-season crops
- Quick-growing

*Examples*

- Beet Family (beets, spinach)
- Broccoli Family (broccoli, radish)
- Carrots
- Lettuce & Leafy Greens

**Succession Planting Combinations**

- Cool-season & Warm-season/Tender
- Quick-growing & slow-growing
- Nutrient-giving & heavy-feeding

*Examples*

- Spinach and Zucchini
- Beets and Brussels sprouts
- Radish and Parsnips
- Peas and Tomatoes

**Relay Planting Characteristics**

- Quick-growing
- Small-size

*Examples*

- Beet Family (beets, Swiss chard, spinach)
- Broccoli Family (radish)
- Carrots
- Legume Family (beans, peas)
- Lettuce & Leafy Greens

**Vertical Growing Characteristics**

- Vining growth habit

**Support Structures**

- Trellis & arbors
- Strings, poles & stakes
- Fencing & nets
- Cages

*Examples*

- Tomatoes
- Beans (pole)
- Peas
- Melons
- Summer Squash (cucumber, patty-pan, crook-neck, zucchini)
- Winter Squash (acorn, butternut, spaghetti, pumpkin)

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**LEARN MORE WITH THESE EXTENSION RESOURCES**

- ❖ Ramsey County Master Gardeners [www.ramseymastergardeners.org](http://www.ramseymastergardeners.org)
- ❖ University of MN Extension Program [www.extension.umn.edu/garden/yard-garden](http://www.extension.umn.edu/garden/yard-garden)
- ❖ Ramsey County Master Gardener Diagnostic Clinic <http://www.ramseymastergardeners.org/index.php/events/diagnostic-clinic>
- ❖ Ramsey County Yard Waste Sites <https://www.ramseycounty.us/residents/recycling-waste/collection-sites/yard-waste>
- ❖ Extension Soil Testing Laboratory <http://soiltest.cfans.umn.edu/>