

UNIVERSITY OF MINNESOTA EXTENSION
MAKING A DIFFERENCE IN MINNESOTA: ENVIRONMENT • FOOD & AGRICULTURE • COMMUNITIES • FAMILIES • YOUTH

Introduction to Vegetable Gardening

Introduction to Vegetable Gardening is a 3-part series of classes to help beginning and intermediate vegetable gardeners expand their knowledge and improve their vegetable gardening skills. Whether you want to grow veggies in your yard, a raised bed, in containers or in a community garden plot, this workshop is filled with tips to help you reap the harvest and the satisfaction of "homegrown."


Brought to you by the University of Minnesota Extension & Ramsey County Master Gardeners

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PART 2 – ADDING PLANTS

- Choosing plants
- Adding plants to the garden



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Choosing Vegetables

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HOW TO DECIDE

- Garden Limitations
 - Amount of sunlight
 - Space
- Personal Preferences
 - Favorite flavors
 - Availability
 - Goals & intentions




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GROWING IN MN

- Short growing season
 - Mid-May to early-Oct
 - 150 days
- MN vegetables
 - Cool-season Crops
 - Tender Crops
 - Warm-season Crops




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COOL-SEASON CROPS

Vegetables that should be planted outside from seed **once the soil can be worked** (April-May)




See Complete Listing in Appendix

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TENDER CROPS

Vegetables that should be planted outside from seed but the **soil must be warm** before planting (*May-June*)



See Complete Listing in Appendix

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WARM SEASON CROPS

Vegetables that require more time to grow than a MN season allows

- Grow from seed indoors (*Feb-Mar*) **OR**
- Purchase transplants (*May-June*)



See Complete Listing in Appendix


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EASY-TO-GROW

- Beets
- Cucumbers
- Green beans
- Kale
- Radish
- Tomatoes
- Zucchini




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SEEDS VS TRANSPLANTS

- Considerations
 - Which vegetables?
 - How many plants do I need?
 - How much do I want to spend?
 - How much work do I want to do?



The image shows a stack of six vegetable seed packets, likely for zucchini or similar vegetables, and a small basil plant in a pot.

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GROWING FROM SEEDS

- Benefits
 - Unlimited variety
 - Can be saved for multiple years
- Considerations
 - Choose reliable sources
 - Require extra planning
 - Store leftover seed



The image shows several seed packets, including one for 'Organic' seeds, and a sunflower head.


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STARTING WITH TRANSPLANTS

- Benefits
 - Plants right away
 - Vegetables ripen sooner
 - May be required (ex. tomatoes)
- Considerations
 - Stout (not "leggy")
 - No flowers
 - Avoid "root-bound" plants



The image shows two transplants with root-bound root systems, where roots are circling the bottom of the pot.


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PLANT STOCK

- Hybrid (F1)
- Heirloom
- Organic
- GM/GE
- Open-pollinated




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READING A PLANT DESCRIPTION

- Name
- Description
 - Taste
 - History
 - Disease Resistance
 - Growing details
- Harvest time
- Price



2007 New Zealand Spinach
(*Spinacia oleracea*) New Zealand spinach brought to America by Captain Cook in the 1770s. Not a true spinach, it is a member of the beet family. Strong growing plant, bushy, fleshy leaves are great for fresh salsas, soups. Shows in hot weather, leaves become bitter. Harvest in hot weather and fill, keep on lower stems, with green. Good source of vitamin C. 50-75 days. 44¢/seedling.
 1000 (100 seeds) \$1.25 \$1.25 \$1.25
 1000 (100 seeds) \$1.25 \$1.25 \$1.25

2010 Cherry Tomato
Winner of 2010 Taste of New York. Introduced to USA by Marie-Madeleine in Maryland in 1990. Intensely fruity and of 1" long, slightly flattened, thick-walled, very juicy, green flesh. In garden, plants bear well for extended periods. Indeterminate. 70-80 days from transplant. 22,000 seedlings.
 1000 (100 seeds) \$1.25 \$1.25 \$1.25
 1000 (100 seeds) \$1.25 \$1.25 \$1.25

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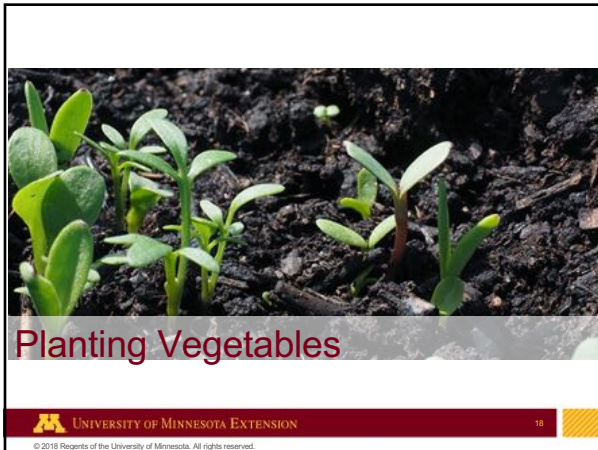
PLANT SOURCES

- Catalogs
- Garden stores
- Plants sales
- Seed library
- Seed swaps
- Retail stores



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CROP ARRANGEMENT

- Group similar plants together
- Put taller crops on the north side
- Grow fast-ripening crops in easy reach
- Plant vining plants on the edges
- Move perennial crops to the sides

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READING A SEED PACKET

- Name
- Vegetable details
- Growing instructions
- Harvest time

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DIRECT SEEDING

Steps

1. Measure spacing & depth*
2. Loosen soil (trench or hole)
3. Plant seeds*
4. Cover with soil
5. Water gently



*Read the seed packet

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GERMINATION

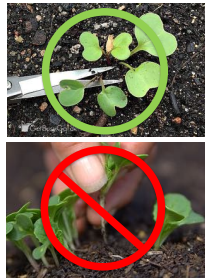
- Development Stages
 - Roots first
 - Seed leaves
 - True leaves
- Keep soil moist but not soaked
- May take 5-20 days



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THINNING SEEDLINGS

- Remove extra sprouts
 - Helps plants grow
 - Improves air circulation
 - Discourages disease
- Use scissors or pruning shears; **never** pull from roots



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HARDENING OFF

- Gradually introduce seedlings to the outdoors
 - Start 2 weeks before transplanting
 - Increase time outdoors & amount of direct sunlight each day
 - Bring plants inside at night
- Once hardened-off, seedlings can remain outside until transplanted



NOTE: Continue bringing Warm season and tender plants inside if there is threat of frost

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TRANSPLANTING

Steps

1. Choose a cloudy day
2. Prepare garden location*
3. Remove the root-ball from the pot**
4. Place root-ball into hole
5. Fill with soil
6. Water gently



*Read the plant label

**Grip the plant by a leaf if needed; NEVER by the stem

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PROPER SPACING

- Vegetables get BIG as they grow
- Leave room between transplants*



Early June

8 weeks later

*Read the plant label

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PLANT LABELS

- Benefits
 - Easy to tell vegetables from weeds
 - Lots of design options
- Recommendations
 - Add after planting seeds or transplants
 - Use materials that are weather-resilient



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SUPPORT STRUCTURES

- Benefits
 - Prevents wind damage
 - Improves air-flow
 - Discourages disease
 - Facilitates harvesting
- Recommendations
 - Add after planting seeds or transplants
 - Use fences, trellises, or stakes



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VEGETABLE GARDEN MULCH


- Benefits
 - Holds moisture in soil
 - Slows weeds
 - Controls soil-borne bacteria/fungus
- Recommendations
 - Add after adding transplants & after seeds sprout
 - Use dried leaves, straw, newspaper, or compost
 - Avoid hard mulch like wood chips or stone



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FLOWERS

- Benefits
 - Improves pollination of fruit
 - Attracts beneficial insects
 - Helps control insect pests
- Recommendations
 - Add annual flowers to garden or plant nearby
 - Allow older vegetables to produce flowers ("bolt")

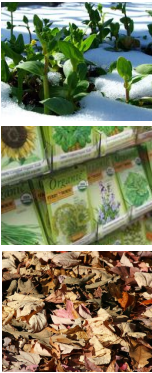


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CLASS RECAP

- Pick vegetables that can grow in the amount of sun you have
- Grow from seeds or transplants
- Give your plants space, support & labels
- Mulch around plants



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GARDEN RESOURCES

- U of MN Extension:
 - <https://extension.umn.edu/yard-and-garden>
- Ramsey County Diagnostic Clinic:
 - <http://www.ramseymastergardeners.org/index.php/events/diagnostic-clinic>
- Ask An Expert Hotline:
 - <http://www.extension.umn.edu/garden/ask/>
- Ramsey County Yard Waste Sites:
 - <https://www.ramseycounty.us/residents/recycling-waste/collection-sites/yard-waste>
- U of MN Soil Test Services:
 - <http://soiltest.cfans.umn.edu/>

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