

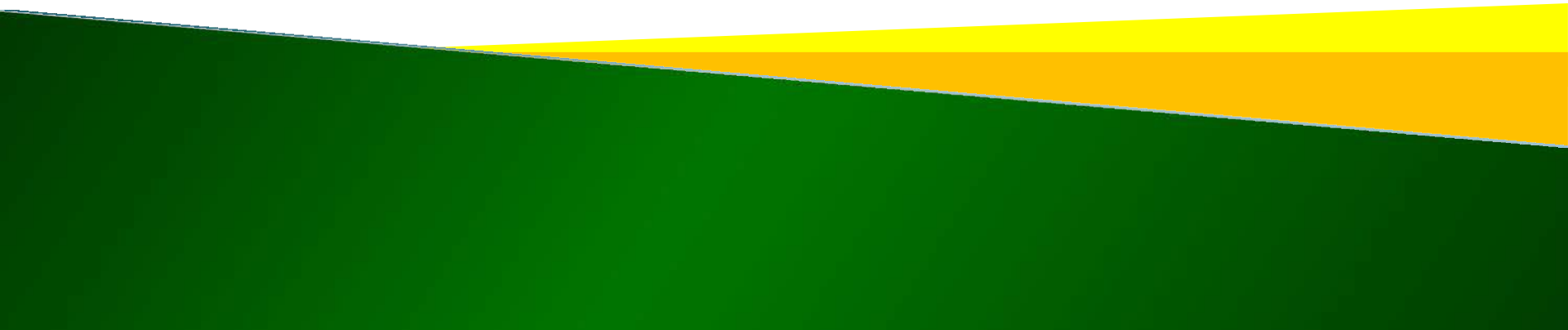
# Vegetable Gardening Class

Colorado State University

Extension

COLORADO MASTER GARDENER<sup>SM</sup>

May 30, 2023



# Welcome!

- What grows well here and how to do it
- Garden maintenance
- Harvesting and Preservation
- Soils, seeds, and season extension.
- Open Forum Questions & Answers

# Types of Vegetable Gardens

## Considerations when planning a vegetable garden:

- **Sunlight** – Vegetables need 6–8 hour direct sunlight.
- **Water availability** – How far is the source?  
– Possibility of irrigation?
- **Soil Quality** and ability amend the soil.  
– Soil testing

# Types of Vegetable Gardens

## In Ground vs Raised Beds:

### In ground beds:

- Uses existing soil
- Costs less to establish
- Can be less startup work
- Lower water usage
  - Doesn't dry out as quickly as a raised bed.
- Less permanent
  - Can be allowed to return to former state.

# Types of Vegetable Gardens

## Raised Beds:

- Ideal for smaller spaces
- Better drainage
- Reduced soil compaction
- Soil warms faster in the spring
- Easier to use season extenders
- Can be expensive to build
- More possibilities for soil amendment

# Types of Vegetable Gardens

## Vegetables that do well in containers :

- Lettuce & salad greens
- Carrots – ball or finger types
- Potatoes
- Herbs
- Radish
- Strawberries
- Tomatoes & Peppers (Protection from frost required)

For more information:  
**CMG GardenNotes #724**

# Factors determining what grows here

**Days to Maturity** = the number of days under optimal conditions that the crop requires to be harvested.

- Direct seeded crops are usually calculated after germination so be sure to include extra days into your planning!
- Vegetables that are normally transplanted are often calculated from the day of transplanting.
- Select crop varieties with short days to maturity (50 or less days!).

# Types of Vegetables that do well here

## Cool season vegetables

- Most seed packets will say if the seed is cool season or warm season. Make sure to get cool season varieties!
- Examples are: green leafy vegetables, root vegetables, some peas.
- Great high country viability: lettuce, spinach, kale, swiss chard, arugula, bok choy, radishes, carrots, beets, parsnips, turnips, onions, snow peas, and sugar snap peas.
- Perennial veggies: rhubarb, horseradish, chives, and asparagus



# Reading a seed package

- Year packaged for
- Seed planting and spacing depth
- Plant and row spacing
- Direct seed or transplant recommendations
- Days to germination
- Days to maturity
- When to plant
- Crop Type – Cool vs Warm Season

# Factors determining what grows here

## Length of growing season

- Based on the last and first average frost dates
  - 64 days for Fraser, Grand Lake, Tabernash and Winter Park (June 25–August 28)
  - 71 days for Granby and Hot Sulphur Springs
  - 82 days for Kremmling

# When is it time to plant?

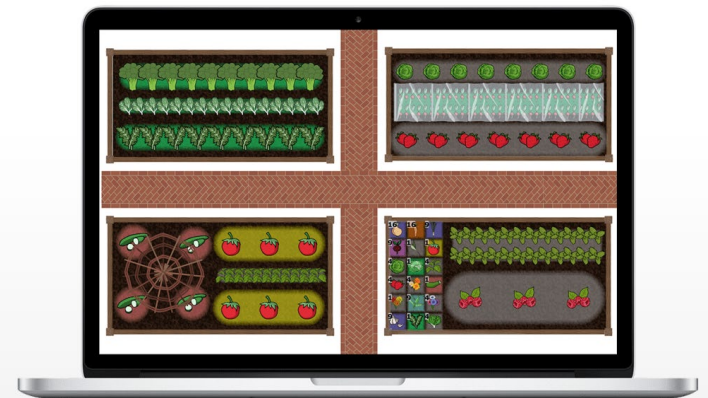
## An educated guess based on three factors:

- The soil is dry enough to be worked
  - Ball Test
- Soil Temperature
  - Measure soil at 8am (before soil warms in morning sun) with a soil thermometer inserted 4" deep.

# Creating a planting plan

- **Make a list of vegetables you like to eat.**  
Prioritize according to preference & value.
- **Choose varieties suitable for our climate:**
  - Short days to maturity
  - Cold / frost tolerance
  - Disease resistance
- **Choose planting style:**
  - Block planting
  - Square Foot
  - Single Row
  - Containers

<https://gardenplanner.territorialseed.com/garden-planner-intro.aspx>



# Creating a planting plan

## Determine plant spacing

- Found on seed packages & in catalogs, hand outs & online resources.
- Don't over crowd plants!  
Leads to:     Shading,  
                  Smaller plant size,  
                  Increased water and nutrient needs,  
                  Increased disease potential
- **Determine if plants are direct seeded, transplanted or can be either**
  - Information also found in seed catalogs or on seed packages, handouts, & online

# When is it time to plant?

- The last average frost date (LAFD)
  - The date on which there is a 50% chance of a light freeze ( $29^{\circ}$ – $32^{\circ}$ )
  - Information found online at National Climatic Data Center or Dave's Garden websites
  - June 25 for most of Grand County
  - July 13 is 10% chance of frost

# Factors determining what grows here

## Length of growing season

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# Companion Planting

The idea that growing certain types of plants together can be mutually beneficial or hinder growth.

## Benefits:

- Shelter – shade for beets, lettuce, spinach, arugula, Swiss chard, pac choi.
- Support – the Three Sisters (Corn, Beans & Squash)
- Encourage beneficial insects that prey on undesirable insects and provide pollination.  
Aster family, Sweet Alyssum, Mint, Nasturtium
- Repel or trap unwanted insects.  
Sage, thyme & oregano repel cabbage moths  
Nasturtium repels aphids and attracts beneficials



# Companion Planting

Some vegetables seem to be more compatible with certain pairings and less with others.

## Examples:

Lettuce grows well with most vegetables but especially carrot, garlic, onion, radish.

Carrots grow well with beans, brussels sprouts, cabbage, lettuce, radish, onion, peas but NOT celery, dill or parsnip.

Peas grow well with beans, carrot, parsley, potato, radish, spinach and strawberry but NOT garlic and onion.

# Season Extension

**Average frost free growing season is 64 days!**

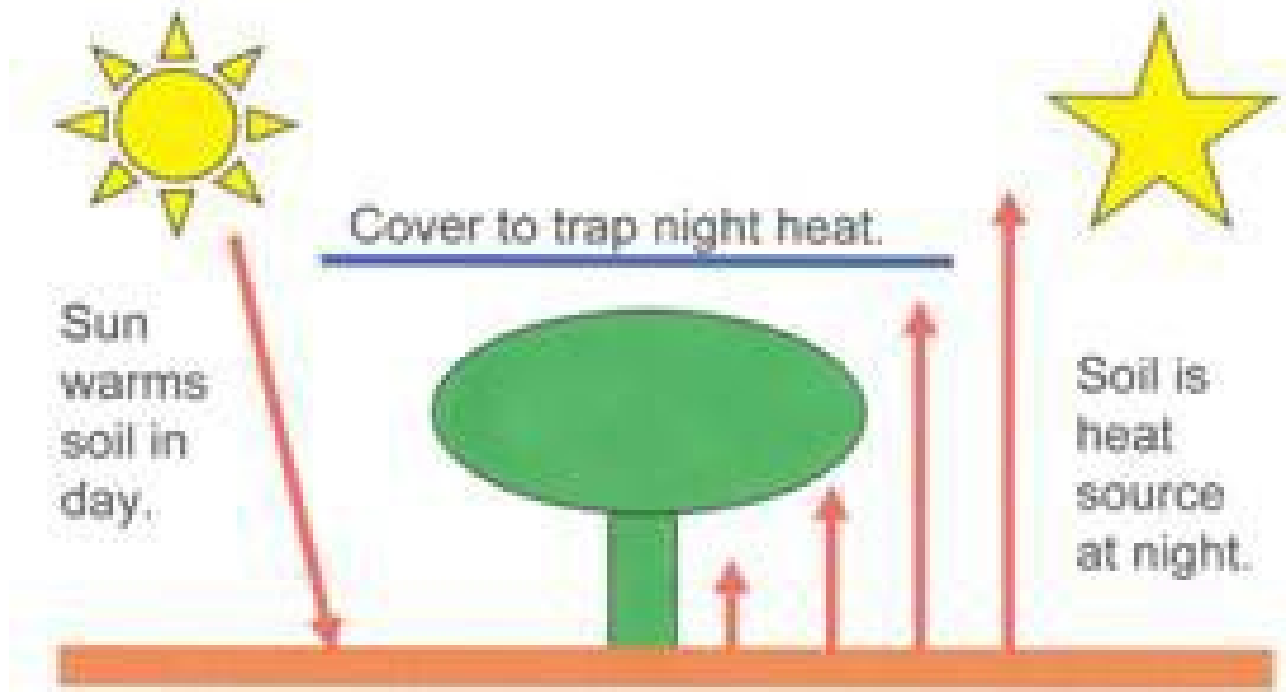
There are practices that can help to extend the growing season.

**To get a head start on the growing season:**

- Warm the soil by placing plastic over the garden bed.
- Start seeds indoors for transplants.
- Use raised beds.

# Season Extension

## Take advantage of radiant heating



From CSU Garden Notes #722

# Season Extension

Take advantage of microclimates.

Areas such as South facing buildings.

**Build a cold frame or greenhouse.**



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# Season Extension

## Cloches



<http://americangardenhistory.blogspot.com/2012/03/beautiful-glass-cloche.htm>



<http://doorgarden.com/03/starting-early-in-the-garden/milk-jug-cloches>

# Season Extension

## Floating row cover

A polyester fabric placed directly on crops.

- Can provide 2–8 degrees of frost protection.
- Allows air and water movement – doesn't have to be removed.
- Can provide insect protection.



# Season Extension

## Low tunnel

- Made from hoops spread over the garden at 3–5 foot intervals and covered with plastic.
- Can provide 2–4 degrees of frost protection.
- Must be opened for ventilation during the day
- Additional layers such as an aluminum space blanket can add extra frost protection.



# Season Extension

## Low tunnel



The addition of C7 incandescent lights can add 6–18 degrees frost protection.  
Christmas lights plus space blanket can add 18–30 degrees!

From CMG Garden Notes #722





# Open Forum Questions

Colorado  
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# Questions?

**For more information:**

**Websites:**

<https://extension.colostate.edu/>

<https://cmg.extension.colostate.edu/>

[www.grandcommunitygardens.org](http://www.grandcommunitygardens.org)

For Further Questions contact the Grand County CSU  
Extension Office

970-724-3436

Questions will be answered or referred to Master  
Gardener in your Community.

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