Spring Gardening

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New Mexico State University

Spring Planning

1. Spring Cleaning
2. Soil Prep
3. Planting
4. Watering
5. Fertilizing
6. Mulching
7. Pest Control

https://cutdriedflowerfarm.com/gardening-tips/spring-garden-clean-start-early/

Spring Cleaning

- **Remove Debris**
  - Leaves, cover crop, weeds, etc.
- **Clean and Sharpen Tools**
  - Sharp tools go a long way in making your gardening life more enjoyable.
- **Address Hardscape Issues**
  - Irrigation, raised bed damage, etc.

https://www.bhg.com/spring-yard-cleanup-8628940

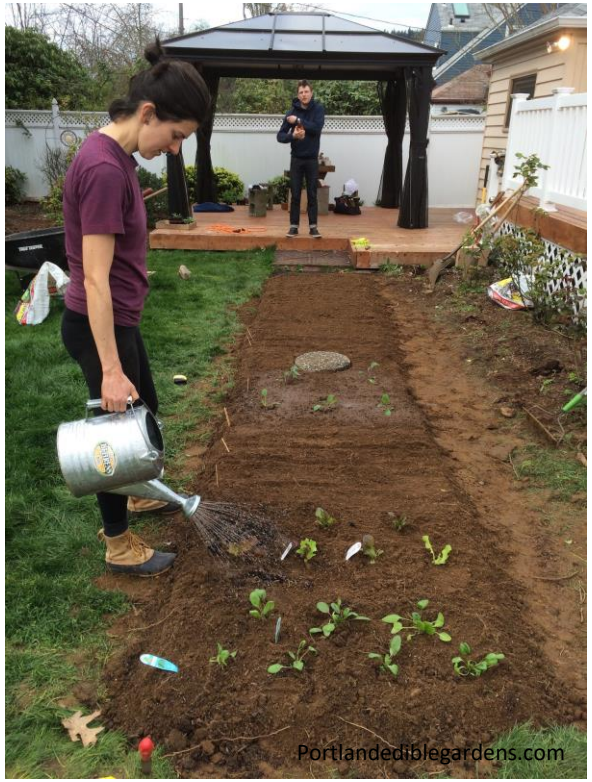
Raised Bed Garden

- Freestanding garden bed, constructed above the natural terrain.
  - Constructed usually out of wood, masonry or other building materials – almost anything.
  - Size variable due to material constructed out of and purpose of garden.
    - Typically, 6-8 inches high but some 3-4 feet high.
    - All personal preference!

Why In-Ground Gardens?

- **Use of Existing Soil**
  - Utilizing the soil already in the yard, just till and add amendments as needed for that soil.

- **Financially Economical**
  - No added structure to house the soil.
  - No soil creation.
  - Less initial material needed to plant.



Why In-Ground Gardens?

- **Less Start-Up Work**
  - For many of the same financial reasons.
  - Less Permanent.
- **Can have lower water requirements.**
  - In ground beds are more insulated by surrounding soil.
- **Easier Irrigation System**.
  - Easier in design and install.

Soil Prep

- **Cultivate Soil**
  - Break up compaction to improve drainage, aeration and allow for the roots to grow more easily.
  - Tillage gets a bad rap, but you build your soil to a healthy enough place to do no or low till.
  - Ideal soil is deep, well-drained and fertile!

https://www.greenbloom.ca/resources/soil-cultivating-and-tilling/

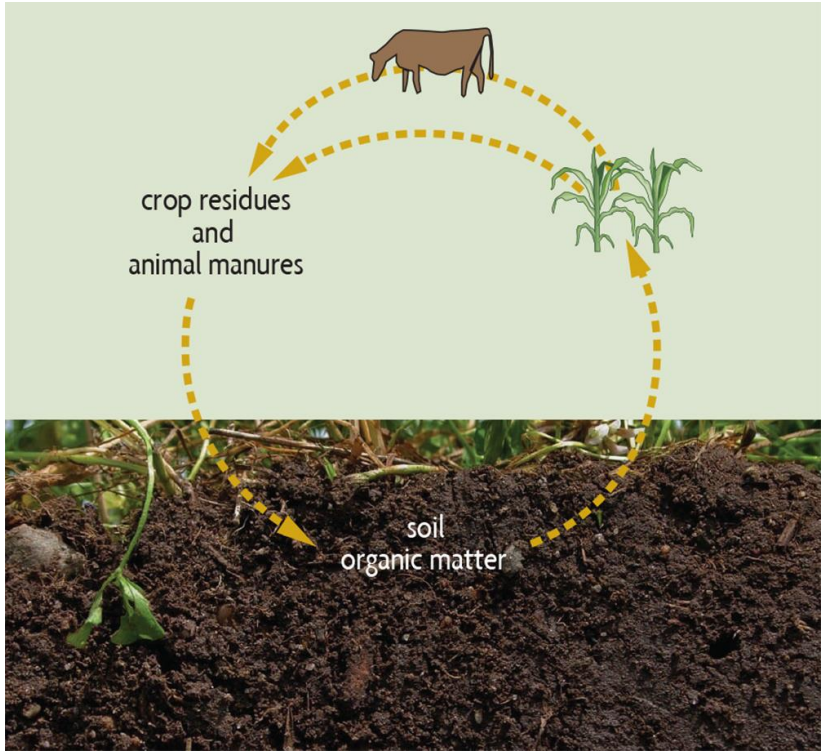
Soil Prep

- **Soil Testing**
  - Testing your soil will give you a baseline for nutrient requirements for your garden.
  - Lots of companies to choose from.
  - Take 8-10 core samples randomly throughout the garden soil to test per sample. Top 6-8 inches.

https://g3soilworks.com/2023/07/24/why-is-soil-testing-important-for-construction-ensuring-stability-and-safety/

Soil Prep

- **Adding Organic Matter**
  - Organic matter provides a host of benefits to your garden soil.
    - Nutrients
    - Soil Aggregation
    - Soil Porosity
    - Water retention



https://www.sare.org/publications/building-soils-for-better-crops/what-is-organic-matter-and-why-is-it-so-important/

Planting

- Knowing the local climate is only the first step, understanding the micro-climate in your garden bed is just as important!
- Choose plant varieties that will thrive in your conditions.
- Plan before you plant!!!

https://www.aces.edu/blog/topics/lawn-garden-urban/get-ready-for-spring-plantings/

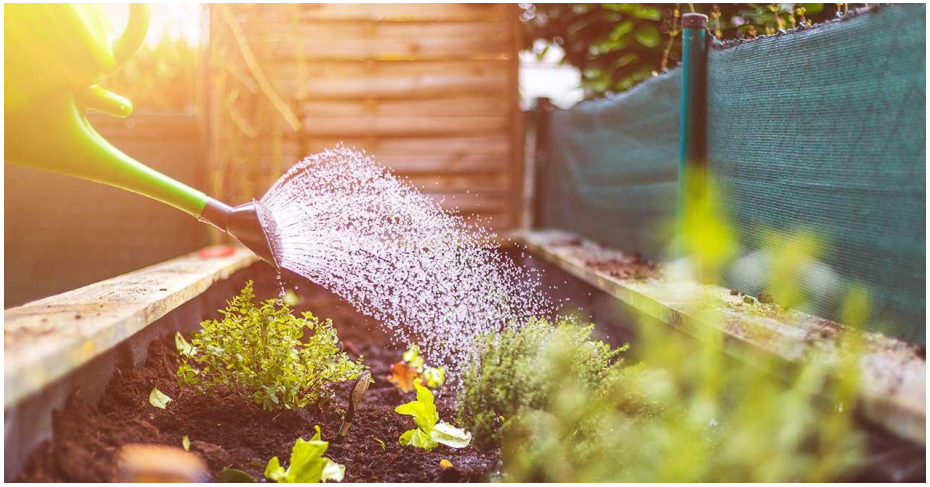
Microclimate Management

- Localized areas within a larger landscape where climatic conditions differ from the surrounding area.
  - Sunlight, temperature, wind, moisture, even soil types.
- Use these differences to your advantage.
  - Plant selection will need to fit that location.

https://gardenbite.com/what-is-a-microclimate/

Watering

- In our dry climate, irrigation is essential!
- Too little water and plants stress reduces quality and yield.
- Over watering can cause root rots or overly vegetative rather than produce fruit.



https://www.apge.com/blog/water-saving-tips-for-spring-gardening

Watering

- After planting seed, maintain moist soil (not soggy), until seeds germinate and are established.
- For established plants you can water less but want a deeper watering.
  - Allow the surface soil to dry out to promote deeper roots.
- Water frequency will depend on your soil type and health.

https://homesteadandchill.com/install-drip-irrigation-raised-beds/

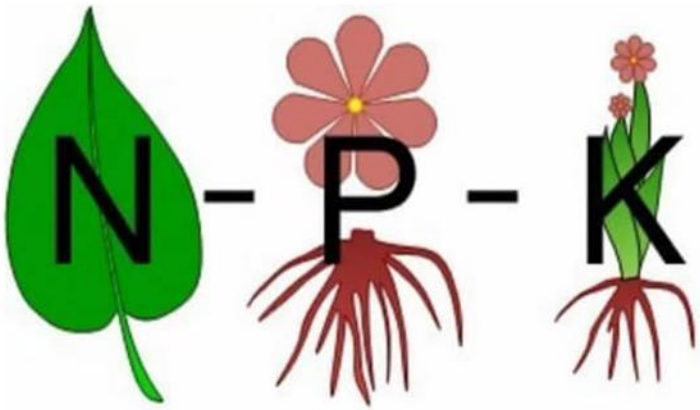
Fertilizing

- Plants need food too, in the form of nutrients.
- The best fertility is achieving a balance of organic matter with commercial fertilizers.
  - (Soil Test!)
- If you do not feed your plants, they will not produce.
  - May will be on Fertilizer.

https://www.lovetoknow.com/home/garden/fall-fertilization-garden

Nutrients

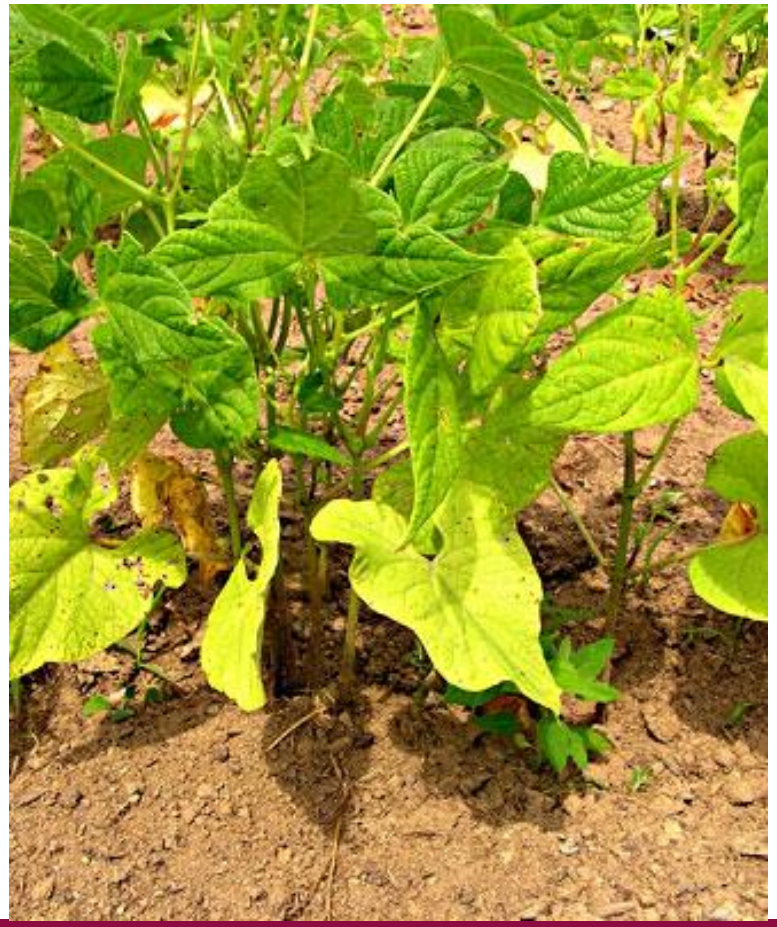
- **Flowering Needs**;
  - **Nitrogen – N;**
    - Used throughout the plant but predominantly vegetative or leafy growth.
  - **Phosphorus – P;**
    - Root development, Flowers, and Fruit production.
  - **Potassium – K;**
    - Plant health and support of almost all aspects of plant growth.
    - Vital for transport of other nutrients.



Renkeer.com

Nitrogen – N - Deficiency

- Slow growth and uniform yellowing of leaf.
  - Symptoms are usually apparent on the older leaves first.
  - This is the most visual symptom of N deficiency.
- Smaller than normal fruit, leave, and shoots.



Phosphorus – P - Deficiency

- Stunted growth
- Often abnormally dark-green color.
  - Can develop reddish-purple coloring usually in the veins.
- Small leaf size
- Reduces shoot growth

Potassium – K - Deficiency

- Stunted plant growth.
  - Mobile nutrient so will move from **older/lower** to newer/upper leaves.

- Margins of the leaflets turn light green to yellow.
  - Appearing on the lower leaves first.
  - Can also be white/yellow spots on the margins

Secondary Nutrients

- **Calcium**
  - Root and leaf development
  - Cell wall = plant structure

- Deficiency
  - Poor Root growth.
  - Severe cases the growing point dies…
  - New growth suffers because it is not mobile.

Micronutrients

- **Iron (Fe)**
  - Maintenance of chlorophyll.
  - Interveinal chlorosis.
  - Can be bound up in our soils.
  - Can be induced by high soil pH (above 7.0).
  - Common in NM due to soil health, usually poor soil more than lack of iron.

Fertilizing

- Water a few days before you fertilize.
- Pick the best spreader/tool for the job.
- Best to fertilize the perimeter then work int from there.
- Most fertilizer is calculated based on square foot of area.

Mulching

- Reduces soil moisture evaporation.
- Reduces or prevents weed growth.
- Insulates soil from temperature swings.
- Reduces soil erosion, compaction, and crusting.
- Protects perennial plants from freezes.
- Aesthetically pleasing!

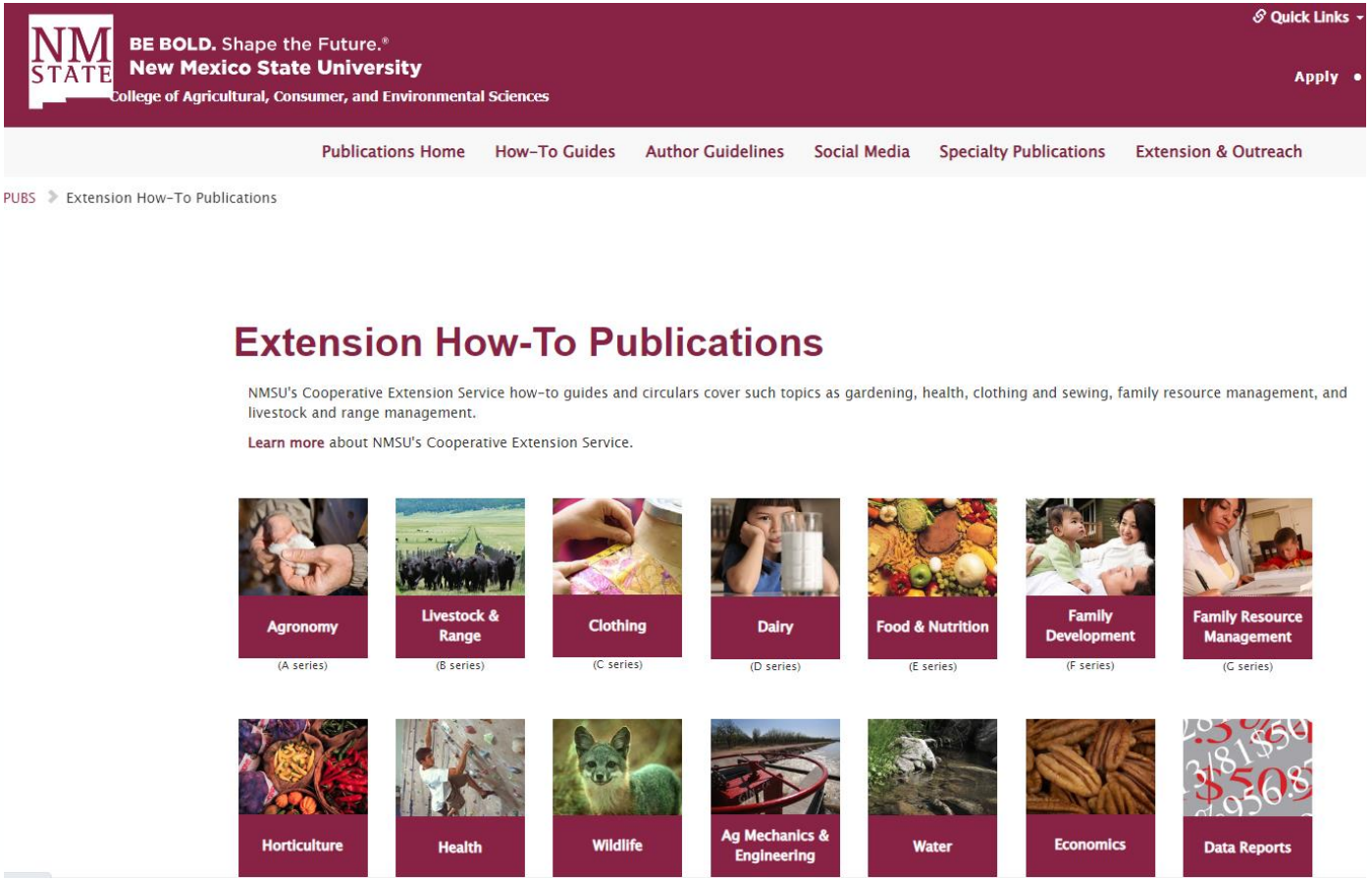
https://www.nytimes.com/2022/05/04/realestate/garden-mulch.html

Pest Control

- Insects, weeds, diseases, birds, rodents, etc.
- Interfere with optimal growing conditions for your desired crop.
- The key to controlling pests in your garden is proper identification.

https://www.aces.edu/blog/topics/lawn-garden/garden-bugs-insect-pest-management-in-home-vegetable-gardens/

NMSU Publications



Gardening By Zones (CR-457B)

COLLEGE OF AGRICULTURAL, CONSUMER AND ENVIRONMENTAL SCIENCES

Growing Zones, Recommended Crop Varieties, and Planting and Harvesting Information for Home Vegetable Gardens in New Mexico

Revised by Stephanie Walker[1]

aces.nmsu.edu/pubs • Cooperative Extension Service • Circular 457-B

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and Extension programs.

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New Mexico can be divided into three growing zones, which are based on the average number of frost-free days and the average date for the last frost in the spring (Figure 1). Growing periods for individual gardens can vary as much as 20 days from the zone's average. This variance may be due to elevation, site exposure, or air drainage. For example, gardens with northern slope exposures are cooler than those with southern slope exposures. Also, cooler air is heavier than warmer air, so gardens in valleys are more prone to frost than gardens overlooking the valley. Therefore, consider your garden's unique needs as you determine planting dates. Table 1 provides recommended planting dates for New Mexico's three growing zones.

Crop variety recommendations in this guide are based on variety trials conducted by the New Mexico State University Cooperative Extension Service (http://aces.nmsu.edu/county/) and experienced Master Gardeners (http://aces.nmsu.edu/ces/mastergardeners/programs.html). Home gardeners can seek advice from these or other experienced gardeners in the area.

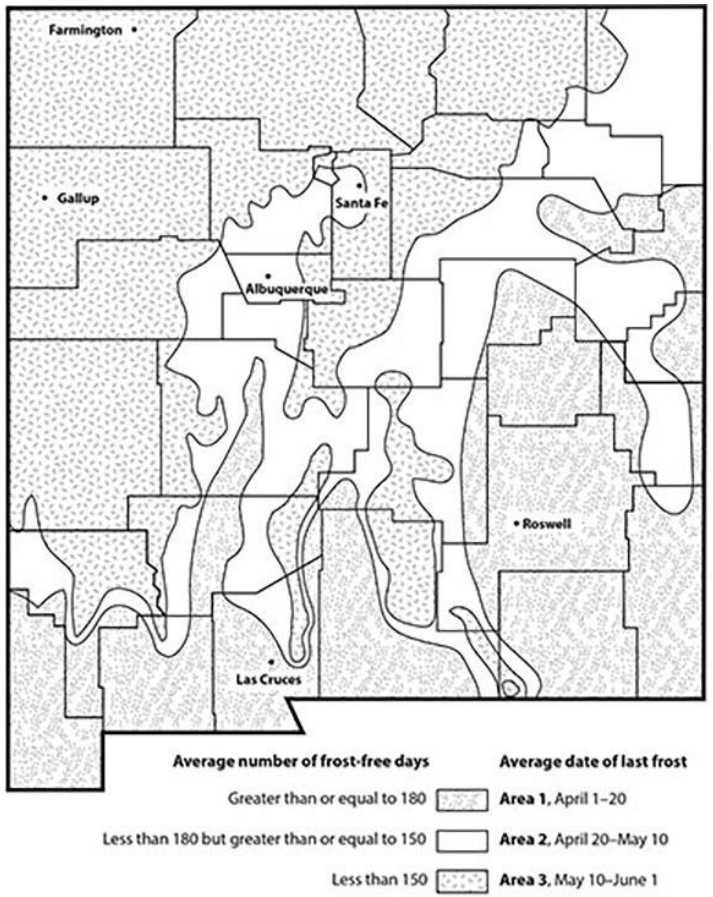
The number of days to harvest are seed catalog estimates and may vary depending on weather conditions. Planting depth will depend on your soil; seed can be planted slightly deeper in sandy soils and slightly shallower in clay soils. The distance between rows depends on your watering technique (furrow, sprinkler, or drip) and the paths you leave between rows for picking. See Table 2 for more information.

Refer to Circular 457, *Home Vegetable Gardening in New Mexico* (http://aces.nmsu.edu/pubs/_circulars/CR457/), for more information on gardening in New Mexico.

[1]Extension Vegetable Specialist/Assistant Professor, Department of Extension Plant Sciences, New Mexico State University.

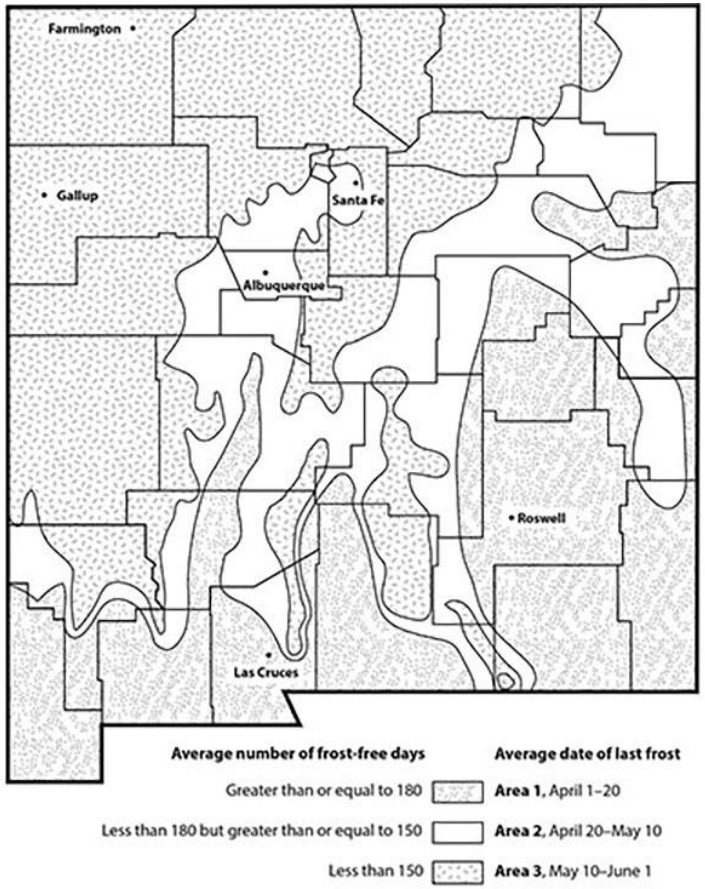
Circular 457-B Recommendations

- **Beans**
  - Bush, wax, pole, pinto, lima.
  - 60 Degree soil temps.
- **Corn**
  - Sweet.
  - Wait until soil temperatures are consistently over 50 degrees.
- **Tomato**
  - 50 degree soil temps.



Circular 457-B Recommendations

- **Cucumber**
  - 60 degree Soil temp.
- **Pumpkins**
  - 60 degree Soil temp.
- **Eggplant**
  - 60 degree soil temps.
- **Asparagus**
  - 50 degree soil temps.



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