

# Gardening for Beginners

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# Home Vegetable Gardening in NM

Dr. Stephanie Walker, NMSU Vegetable  
Production Specialist

C-457

Sister publication:

Growing Zones, Recommended Crop Varieties,  
and Planting and Harvesting Information for  
Home Veg Gardening in NM

C-457 B

# How to use these publications

- Follow the 8 steps
- Make a garden plan
  - Review harvest maturity dates, recommended varieties and planting dates
  - Create a garden calendar
  - Plant when ready
    - Stagger planting to stagger harvest dates and improve yields

# Eight Simple steps for a successful garden

- 1) Know your climate
- 2) Plan before you plant
- 3) Prepare the soil
- 4) Fertilize for optimal crop production
- 5) Plant your garden
- 6) Water properly to improve yields
- 7) Control pests
- 8) Harvest at the correct time

# Area 3 climate

- Average 6,000 foot elevation
  - Average rainfall 8.5”
  - About 272 glorious days of sunshine
  - 49 precipitation days
  - Many micro-climates
  - Average last frost: May 10-15
    - 2014 May 13, low of 29°
  - Average first frost: October 15
    - 2014 November 4-5, low of 25°
- On average, we have a 150 day growing season!

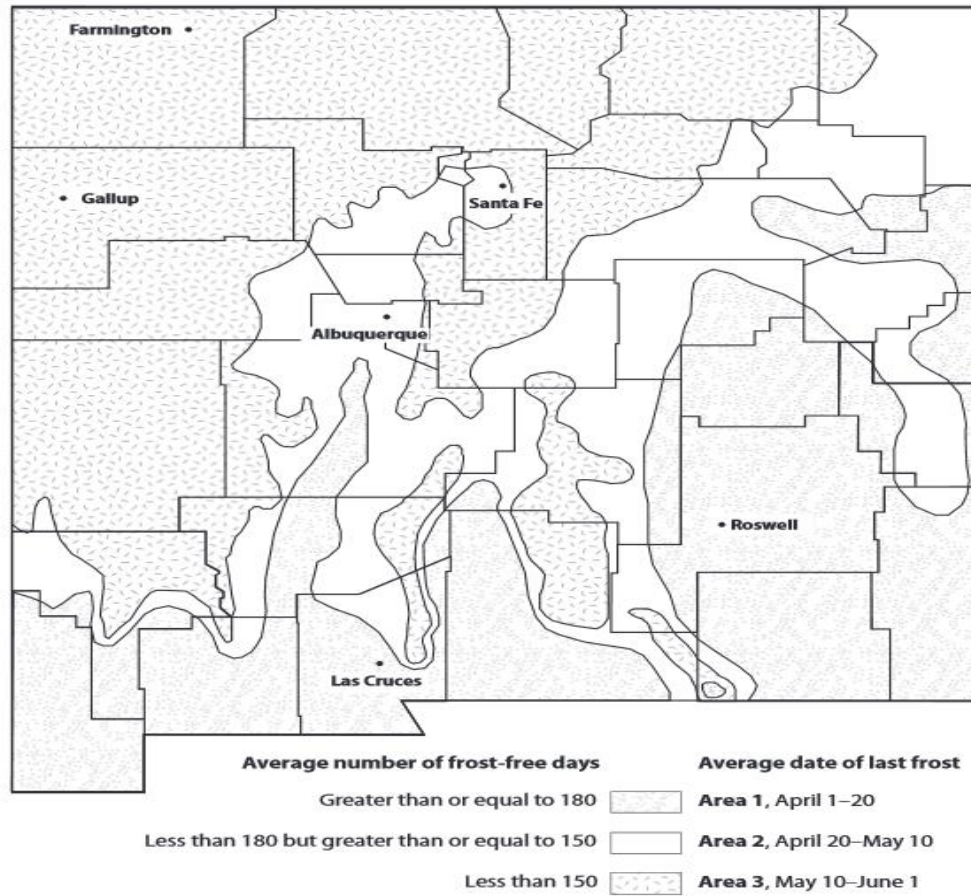


Figure 1. New Mexico growing zones, average number of frost-free days, and average date of last frost. Adapted from *Climatological Data, Annual Summary—New Mexico 1982*, National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

[http://aces.nmsu.edu/pubs/\\_circulars/CR457B.pdf](http://aces.nmsu.edu/pubs/_circulars/CR457B.pdf)

# USDA Hardiness zones

www.planthardiness.ars.usda.gov

**USDA** Agricultural Research Service  
United States Department of Agriculture

Mapping by PRISM Climate Group - Oregon State University

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### Find Your Plant Hardiness Zone

Enter ZIP Code:

### View Your State Map

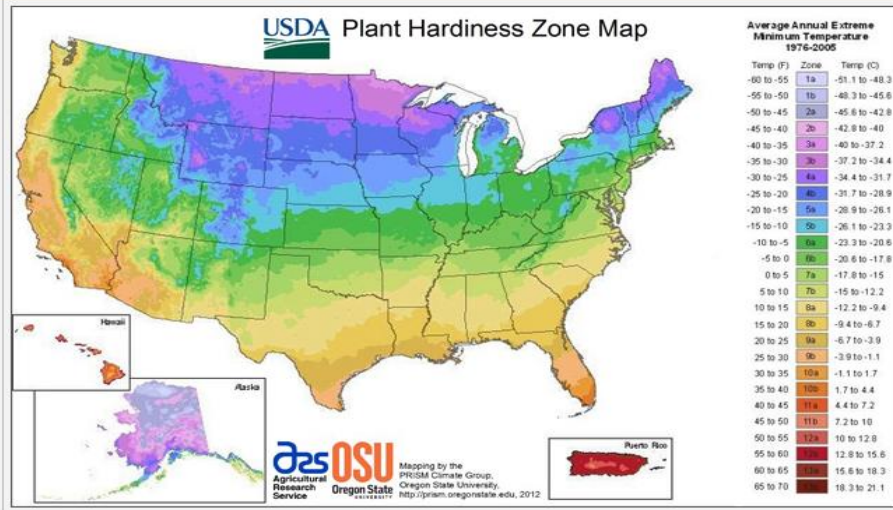
For a static map of your state, click on the map below or

### USDA Plant Hardiness Zone Map

The 2012 USDA Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive at a location. The map is based on the average annual minimum winter temperature, divided into 10-degree F zones.

For the first time, the map is available as an interactive GIS-based map, for which a broadband Internet connection is recommended, and as static images for those with slower Internet access. Users may also simply type in a ZIP Code and find the hardiness zone for that area.

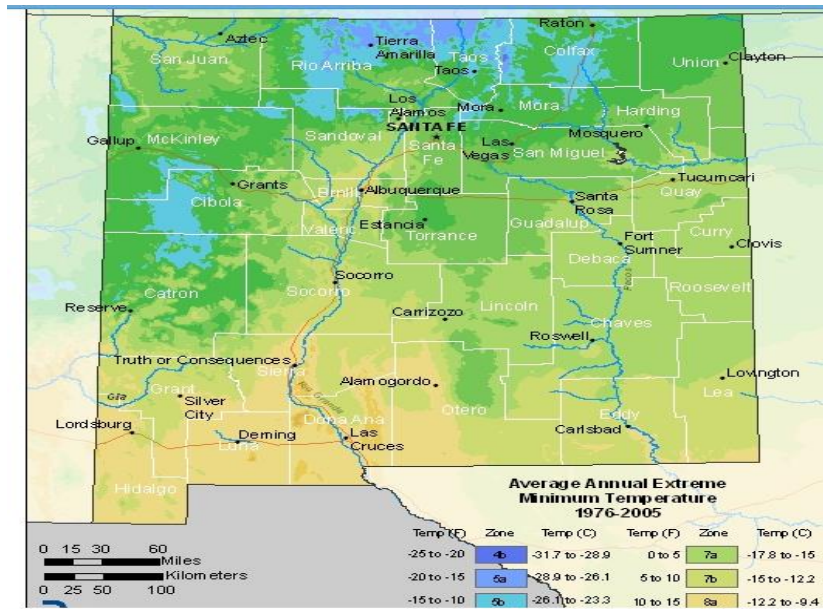
No posters of the USDA Plant Hardiness Zone Map have been printed. But state, regional, and national images of the map can be downloaded and printed in a variety of sizes and resolutions.



# San Juan County: 6b McKinley County: 6a Cibola County: 5b-6b

Average extreme low temperature ratings  
For zone 6: -5

- Helps to determine which plants will thrive in your area
- Identifies plants that are able to withstand low and high temperatures





# Plan before you plant

- Start small, build on your success.
- Make a list of vegetables you want to grow
- Identify area: full sunlight, easy access, adequate space, good soil (or an alternative)
- Make a map of your garden space
- Know your plant nutrient needs

# Preparing your soil:

- Deep, well drained soil
- Mixture of sand, silt, clay and organic matter
- Friable (easy to work)
- High in organic matter
- Neutral pH
- Soil test?

# What is the secret to improving all NM soils?

## Organic Matter!

Organic matter is an important soil material. It consists of raw and partially decayed plant and animal residues. Organic matter binds soil particles, granules and aggregates together. It aids water penetration and aeration of plant roots in clayey soils and increases moisture-holding capacity of sandy soils. It also adds some nutrients for plants and microorganisms. Organic matter in soil can be depleted. Continued soil productivity depends on replenishing and maintaining of organic matter. Homeowners who know about the importance of organic matter in their soil try to replace it whenever possible.

# Sustainable soil building

Large amounts of organic matter may be needed for several years.

Thereafter, 1 inch of compost will help maintain high yields.

Sources of organic matter:

- *Composted* farmyard manure
- Compost
- Shredded leaves and grass clippings
- Organic mulches
- Plant roots
- Cover crops

Diverse sources=diverse nutrients

Consider how to generate fertility from local sources...

# Fertilize for Optimal Crop Production

- Good soil fertility produces good crop yields
- Balance of Organic Matter and Fertilizer
- Replace and replenish key nutrients

# C HOPKIN'S CaFe Mghty good MoB CuMnZn

## Essential Plant Nutrients (SEE PUBLICATION)

- Primary (air and water):
  - Carbon
  - Hydrogen
  - Oxygen
- Primary mineral nutrients
  - N, P, K (Nitrogen, Phosphorus, Potassium)
- Secondary:
  - Ca, Mg, S (Calcium, Magnesium, Sulfur)
- Micro nutrients:
  - Fe, Cl, Mn, B, Cu, Zn, Mo  
(Iron, Chlorine, Manganese, Boron, Copper, Zinc, Molybdenum)

# Plant your garden:

- Direct seed or transplant
- Plant seeds at a depth equal to four times the diameter of the seed using twice as many as necessary
- Keep soil moist while seeds germinate
- Think of your garden in three stages:
  - Spring garden, Summer garden and fall garden

# Cool Season and Warm Season Crops

- Cool season crops can be planted in early spring or late summer
- Warm season crops should be planted after the danger of frost
- Cool season: Leaves, stems, roots
- Warm season: fruit or vegetable products (flowering plants)
- Examples?



# Chose the right Timing



- Planting calendar!
- Direct seed versus transplants
  - Transplants:
    - Plants with a long time to maturity (cabbage, broccoli, tomatoes, peppers)
    - Optional for earlier harvest (melons, squash, lettuce)
  - Direct seed:
    - Root crops
    - Tall skinny crops: beans, peas, corn, okra
    - Plants with a short season (lettuce, spinach, arugula)

# Hardening off

- The process of adjusting seedlings to their future outdoor environment
  - Place in a semi protected area for a few hours each day
  - Gradually increase time for about 1 week

# Water properly to improve yields

- Too little to too much = stress
- All irrigation depends on soil type and amount of organic matter present
- Initial planting: lightly water 2-3 times per week
- Established garden: deep water less frequently
- Allow soil surface to dry out in between
- Mulch to reduce water needs

# Control Pests:

- Includes weeds, insects and rodents
  - Chemical use last
- Proper ID is key
- Monitoring is essential
  - Squash bugs!

# Why harvest selection is important:

- Optimum flavor
- Proper timing
- Increased shelf life
- Management
- Customer Satisfaction



# Cantaloupe (muskmelons)

## When to harvest:

- Cantaloupe are 35-45 maturing from flowering.
- Surface netting should be coarse and rough.
- The background color of the exterior will turn from green to yellow.
- When cantaloupe is ripe, a crack forms around the stem next to the fruit and it just slips easily from the stem. At this stage, it only takes a little pressure to pull it away from the stem, so check for this crack and you will know it is ripe. Harvest the melon before it has “fully slipped” from the vine.

## How to harvest:

- Gently twist the fruit to harvest.
- Can be stored 1-2 weeks in cold storage from 45-50



# Corn

## When to harvest:

- Harvest sweet corn when the silks are dry/brown and the kernels are plump and tender.
- Ears should be completely filled out, round rather than blunt at the end.
- The kernels should exude a milky substance when pricked.
- Harvest as close to consumption as possible.
- Read more:  
<http://www.care2.com/greenliving/summer-harvesting-tips.html#ixzz39kbviAn1>



## How to harvest:

- Harvest corn by firmly grasping each ear and twisting downward off the stalk.
- Refrigerate as soon as possible.
- Stack in single layers.
- Cover with a clean, cool, damp cloth.

# How to transplant seedlings

- Water both transplant soil and seedling
- Prepare bed or container (drainage)
- Gently loosen roots
- Plant with enough room for mature plant
  - Read the label or tag information
- Mulch
- Water as needed, monitor for pests



# Questions?

