



What Are Planting Zones and How Do They Make You A Superstar Gardener

By Lynn Gillespie

When working with nature, knowledge is power. I have been watching, gaining knowledge, and working with the weather in my gardening adventures for the last 27 years. Sometimes I win and sometimes Mother Nature wins. But in the vegetable garden you can be triumphant the majority of the time if you have some knowledge and the tools to protect your plants.

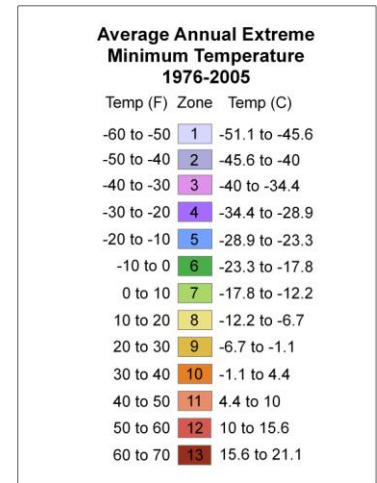
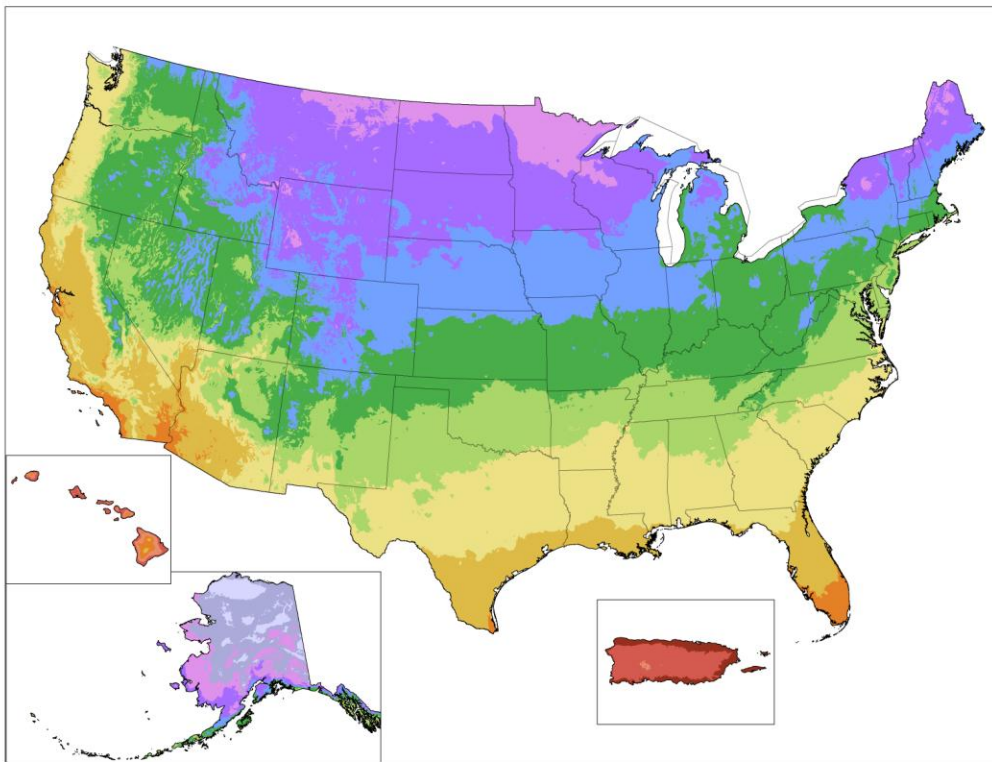


One tool is the knowledge of knowing your planting zone, which is a rough guide to weather's impact on your garden's growth. This is important because, your garden activities will be determined by day length and temperatures. The plant hardiness zone charts will give you a rough idea of what the temperatures are going to do.

What are the Plant Hardiness Zone Charts?

Back in 1960 the US Department of Agriculture published a map of the United States that showed the different winter temperature zones. The United States has winter temperatures that range from the tropics to the arctic, dividing the country into 11 zones. The warmest being zone 13 that has no frost days. The coldest is zone 1 that can go to negative 60 degrees Fahrenheit. In 2012 the US Department of Agriculture updated their maps, showing the now warmer average winter temperatures across the US in the last 20 years. Other countries have followed suit and there are now maps for other countries around the world.

The zone charts are used by gardeners and farmers to determine what plants will grow best in their area and when to start planting. You can look up your area by going to <http://planthardiness.ars.usda.gov/PHZMWeb/Default.aspx>. Type in your zip code and you can get your zone number.



Map and legend courtesy of US Department of Agriculture

Once you find out what your zone number is, you can use it to determine when your average last frost date might be, what trees and shrubs will grow in your area and when your first frost will be in the fall. If you look in the tree, shrub and perennial catalogs you will see the hardiness zones listed after the plants. This will give you an idea of if the plant will survive the winter in your area.

Zones	Average last frost date	Average first frost date
1	Frost any day	Frost any day
2	July 30	August 15
3	July 15	September 1
4	June 15	September 15
5	May 30	October 1
6	May 15	October 15
7	April 15	October 30
8	March 15	November 15
9	February 1	November 30
10	Rare	December 15
11- 13	No frost	No frost

There are a few caveats to the system. The zone charts are great help for determining cold hardiness of a plant but not what type of soil the plant may need or if the plant can take the heat that the summer might bring, so make sure to do your research.

In my vegetable garden, I use my zone number to determine when my average last frost is and when our first frost will occur in the fall. Count the days between the first and last frost to get your number of frost free days and use this information to select your vegetable seeds. For example; we have around 120 frost free days. If I am going to grow corn and the package says it is an 80 day corn then I can grow the crop to maturity in my area that has 120 frost free days. If I pick a corn that takes 150 days, I will most likely not get a harvest because the frost will take out my corn before it is mature.

If you keep track of your actual frost dates for instance, you can build a chart for your house. Plants that are growing up near the house will have more frost protection than the ones in the middle of the yard.

Another resource available is the National Climatic Data Center's free chart that will look up your first and last frost dates by typing in your zip code. Go to the [National Climatic Data Center](#) to find out your average first and last frost dates. This data is created by the weather stations around the US and will be more accurate than the zone charts for your specific area. Remember that these are averages of years of data for an area close to you. You are going to have to out think Mother Nature and can win if you know how to outwit her. Here is how I play the game.

The Game

I first find my zone and average last frost date and average first frost date. I then estimate how many frost free days that I will have, purchasing my seeds according to how long I have of a frost free time. On the back of the seed packages or in the catalogs, it will state when to plant the seeds according to your last frost date. Once you know your last frost date then you can calculate back in weeks as to when to start your plants.

Last Spring Frost

I start my long season warm weather plants, such as tomatoes and peppers, indoors up to 12 weeks before my last frost date. Next, I start my cool weather plants indoors 8 weeks before my last frost date. My cool weather plants are transplanted into 2 inch pots around 3 weeks of age. Then the cool weather plants are planted out into the garden 4 weeks before my average last frost. You can also direct sow your cool weather plants up to 4 weeks before your frost date.

I have found that the last month of frost is usually not that hard of a frost. I watch the weather forecast and if a night is predicted to go below 28 degrees Fahrenheit then I cover the cool weather plants with a blanket and cover the blanket with plastic if it is going to rain or snow. You will need to keep the blankets off the plants with some type of support structure. You will also need some rocks or blocks to put on the edges of the



blanket to keep it from blowing away.

For the warm weather plants, on my average last frost date I check the 10 day forecast for my area. If I see no frost predicted then I plant my warm weather crops. I continue to check the weather forecast and if it is predicted to go below 35 degrees Fahrenheit then I cover my warm weather plants with a blanket. If it is going to rain or snow, I cover the blanket with plastic.

Cool weather plants	Warm weather plants
Beets	Basil
Bok Choy	Beans
Broccoli	Corn
Brussels Sprouts	Cucumbers
Cabbage	Eggplant
Carrots	Melons
Cauliflower	Okra
Celery	Peppers
Cilantro	Pumpkins
Dill	Squash
Garlic	Sweet Potato
Kale	Tomatoes
Leeks	
Lettuce	
Mustards	
Onions	
Peas	
Potatoes	
Radishes	
Spinach	

An old farmer in our area says “if it is above 50 deg. F at sundown it will not freeze. If it is below 50 deg. F then it will probably freeze”. I have gone by his predictions for decades and he is usually right. Also watch for storm fronts that come through the area. Usually the night after a storm has passed, the air is cold, the night sky is clear, and the weather is primed for a frost.

The best and boldest gardeners will lose plants to a spring frost. The reason for that is the more advanced gardeners are willing to take risks. Because they want to get out and garden earlier, they will once in a while get caught and lose a plant or two to frost. This is fine as long as they know the risk and have a backup plan to replace their frozen plants. They also reap the rewards of fresh vegetables sooner if the plants don’t get frozen. In our commercial vegetable operation, I will plant 25% more of everything so that in the case of a killing frost, I will have some backup plants. Even if you are just starting out, take a risk and plant some plants out early. Remember to cover those plants if a frost is predicted.

First Fall Frost

In the fall, I start to check the weather forecast about 2 weeks before our average first frost date. I will be prepared to cover any plants that I want to have live longer. As stated above cool weather plants can take a frost down to about 28 degree F. Warm weather plants, however, never get used to frost and will need to be covered or taken in the house if they are in pots. Most years my peppers are not done ripening and I will cover them a few times to get more peppers ripe. In our area we get a hard frost around September 20th then the month of October is usually mild. Therefore, if I can get my warm weather plants through the one or two frosts in the fall we can get another month of production.

The pumpkins and winter squash can take a frost down around 28 deg. F. Below 28 deg. F the squash get frost damage on the fruit and will not store well. I try to leave my winter squash and pumpkins out until we get a light frost to take down the foliage and then I can see the fruit better.

How to Be a Garden Super Star

Knowledge is the game changer for beating Mother Nature at her own game. Start by finding out your zone as well as first and last frost dates. Then determine the best time to plant your cool weather and warm weather plants. Next, check the weather forecast and plant if the weather looks fair. Be prepared to cover your plants if necessary. For cool weather plants, cover them if temperatures are predicted to go below 28 deg. F. For the warm weather crops cover the plants if the temperature is predicted to go below 35 deg. F. Use blankets for the colder nights and plastic to keep the blankets dry. By using this knowledge to your advantage you will have so much more control over your garden and you will be a garden super star!

Lynn Gillespie and her family own The Living Farm, a 212 acre organic sustainable farm in Paonia, Colorado. Lynn is an organic vegetable grower and author of several gardening books. For more information and more articles and videos about gardening, cooking the harvest or preserving the harvest go to www.thelivingfarm.org