



# SEASON EXTENSION

Certain techniques can be used to add frost-free growing days to gardens. These techniques allow us to get our plants in the ground earlier, and keep them there later in the season by creating micro-climates. Here are several techniques to use when trying to protect your plants from the cold.

## High Tunnels

High tunnels are more expensive options, but are wildly popular for the amount of food that can be produced and their ability to provide year-round growing options. High tunnels are different from greenhouses. Tunnels are passively heated by the sun, and the temperatures are regulated by opening and closing the sides and doors. Greenhouses are heated and cooled using electricity and/or fossil fuels and regulated with thermostats to maintain constant temperature ranges.

There is a learning curve here in understanding how fast tunnels heat up on a sunny day and how quickly they cool down at the end of the day, but it just takes a bit of practice. I like to compare it to our cars. Even on a cold day, if your car is in the sun and has been all day, it's going to be a nice and warm inside. If it's cloudy and cold, your car is not going to warm up much at all. This is kind of like how a high tunnel acts. The sun makes a big difference.

Keep in mind that high humidity can promote fungal diseases in many plants. Air flow through the tunnel is important on humid days.

## Low Tunnels

Low tunnels are similar to high tunnels but are not tall enough for you to walk through. Sometimes they are covered with plastic for extra frost protection, but often times they are just covered with agricultural fabric (see below). This is a cheaper option than high tunnels, and it is very easy to transition them with the seasons. When the weather warms up, just take off the plastic and/or agricultural fabric and remove the support hoops until the weather cools back down in the fall.

## Agricultural Fabric

Agricultural fabric is often referred to as remay, row cover, or Agribon (which is a popular brand of remay). This fabric is a synthetic, woven material that comes in different weights for different levels of heat retention (medium weight is often recommended). Remay allows a necessary amount of light through for plant growth and traps heat, creating a warmer, protected space for plants when the temps dip below freezing. Remay can keep your plants several degrees warmer than the outside temps.

**BONUS:** Agricultural fabric is also used to keep bugs from eating your plants and helps protect them from other elements, like wind. Many greens grow easily underneath it, so consider covering newly seeded rows with this cloth to help keep the beds moist through germination and keep your crops as bug-free as possible.

## Cold Frames

Traditionally, these are low, glass structures often smaller in size and used for kitchen gardens. They work the same as high tunnels, trapping the days' warmth to keep plants frost-free during cold nights. They can be purchased as kits or built with repurposed materials.

One innovative, less expensive style of cold frame to consider uses straw bales as a border around your plants while placing repurposed glass doors or windows on top of the bales.

## Get Creative

Once you understand the principles of season extension and micro-climates, get creative! Pinterest and online message boards are great ways to get inspired to try new things. Gardens are places for learning and exploration. If something doesn't go as planned, it's a great lesson for everyone and an opportunity to try something different.