Early Season Vegetable Gardening
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Growing More Vegetables

Getting vegetables out of season
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- The sunny weather can't help but get gardeners excited
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- Sunshine and warm weather are all it takes to inspire you to get out and get planting.
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- There's no crystal ball to predict upcoming weather, so consider using season-extending gardening techniques to get a jump on things.
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– One often-overlooked aspect of accelerating the gardening season is to select the best varieties for our area.
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–Whatever other methods you use, be sure to choose recommended varieties
–This makes more difference than almost any other decision when growing vegetables
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- Days to harvest are an important consideration.
- The number of heat units required for maturity and preferred growing temperature are also important.
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– Certain crops don't mature in our area even though our growing season is long enough because they do not get warm enough temperatures for a long enough time.
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– When planting the garden, the weather isn't the only limiting factor
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- Soil temperatures are often more restrictive than air temperatures.
- Plants may tolerate cool air temperatures, but all seeds require certain soil temperatures before they can germinate.
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- Warming the soil is one way to accelerate the gardening season.
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– The only practical method to warm soil is to utilize the natural warmth of the sun
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- Soil that is well drained and doesn't retain large amounts of water warms faster than wet soil.
- Improving drainage allows the soil to be worked earlier and allows it to warm faster.
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- Raised beds are an excellent way to counteract cool, wet soil in the early spring.
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- Test your garden to see if it is dry enough to be worked by turning over a shovel full of soil
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– Pick up a handful and squeeze it tightly into a ball
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- Toss the ball lightly in the air and if it crumbles, you can start tilling
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– If it remains wet or stuck together, don’t work the garden until it dries out
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– Wall O' Waters allow the earliest planting
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- Advocates of Wall O' Waters have had plants growing in them for several weeks.
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- These ingenious devices hold almost 25 pounds of water
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The water warms in the day and releases heat at night and if the water freezes it releases more heat
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– This protects and warms the plants and accelerates planting times and maturity
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- For earliest maturity, grow tomatoes that set fruit at colder temperature including Glacier, Oregon Spring and others.
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Wall O’ Water  No Wall O’ Water

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– Hot caps give some protection from the wind and cold temperatures
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– This protection is very limited and also offers minimal soil warming
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- Planting can be accelerated only a week or two with hot caps, milk jugs or similar devices.
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- The use of protective coverings to produce a miniature greenhouse effect is not a new idea.
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- Placing glass bell jars over plants was a popular way to get early produce in the 1900s in Europe.

- In 1910, 2 million jars were in use on Paris farms.
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- Less expensive paper "hot caps" or "hot tents" covers replaced bell jars by the 1950's
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Red plastic under tomatoes

Expensive pyramid hot caps

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-Late frosts, low yields, a short growing season and insect damage are four common problems that home gardeners would rather do without.
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– Fortunately, row covers add choices to the eco-gardener's management strategy
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- Row covers are available in a variety of materials, including plastics and fabrics.
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- Floating row covers can allow earlier planting, enhance yields, allow an early harvest, and extend fall harvest
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– When properly used, they effectively block the feeding activity of some insects
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- An ideal row cover would be inexpensive and prevent air temperatures from falling below freezing at night
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- It would increase growing degree-days, and avoid excessively high temperatures and humidity that can have a negative impact on growth and flower development.

- If you have experimented with row covers on your own, you know there is no such material at this time.
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- There are no row covers that can offer more than a few degrees of frost protection
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- Their major benefit is more rapid growth by increasing daytime temperatures, not with frost protection.
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An approximate ranking of row cover types from warmest to coolest is:

- Hottest
- Clear w/ holes
- Spunbonded fabrics
- White w/ holes
- Woven fabrics
- Clear slitted
- White slitted
- Coolest
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Wire hoops are needed to support plastic row covers as they cannot touch the plants.
After the crop is planted, 10 gauge hardened galvanized wire pieces are bent in the shape of an arch and placed in the soil at 3-4 ft. intervals.
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- The height of the tunnel is determined by the height of the crop to be grown
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- This tunnel is closed with clothes pins so it can be opened up to let heat escape
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- Lightweight spunbonded floating row covers can be placed over the plants without wire supports with the edges held down with soil or stones.
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- These are easier to apply, and are the choice for small gardens
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- Proper ventilation is essential, particularly with the hottest materials.
- Growers drill holes in the rolls of plastic prior to application; home gardeners may do this or slit plastic after it has been rolled out.
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- Excessive heat build-up is the most costly and common error with first-time row cover users
- Usually, if outside air temperatures approach 80 degrees F., additional ventilation is needed
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- Insect control
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- Another benefit is that covers exclude many crop-damaging insect pests, including aphids, cabbage loopers and other worms.
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– For insect control, row covers must go on before the insects are present
– Rotate the location of crops that attract insect pests that overwinter in the soil
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- To be effective insect barriers, row covers must be sealed at the sides and ends of the rows.
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– If you don't you can increase insect problems by trapping the insects with their food source
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- Floating row covers are permeable to water, oxygen and light and don’t require support.
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– Cover the beds with the row covers after planting
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- These lightweight spun-polyester covers produce amazing results.
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– Since the cover is so light in weight, it never has to be removed
– It is easy to use and causes almost no interference with the plants
– Temperatures underneath the cover climb 8 to 10 degrees, and the cover gives several degrees of frost protection in the event of a late spring frost
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- Plastic mulches warm the soil to allow earlier planting and enhanced maturity
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- While black plastic gets very warm, it only warms the soil by 2 or 3 degrees
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- Clear plastic can raise soil temperature by 10 degrees F. allowing earlier planting and maturity.
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- I have had some of my best success from using Wall O' Waters with clear plastic mulch.
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- Organic mulches generally cool the soil and are not used to facilitate earlier planting.
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- Plant protection devices keep the plants and soils warmer and protect the plants and soils from the wind.
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- Peppers: Flower abortion can occur with high temperatures, so adequate ventilation is critical.
- Early growth and early yield can be successfully obtained with ventilated white plastic.
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- Tomatoes: Row covers are not recommended as high temperatures reduce early yields.
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- Cole Crops, Lettuce, Spinach, Celery: Row covers increase early production with these crops.
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- Spinach, Beets, and Chard: Row covers increase growth and provide protection from leaf miners
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- Muskmelon: A 7-10 day earlier harvest and better yields but remove tunnels when plants flower.
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- Summer Squash: Similar to melons, it is easy and responsive to growing under tunnels.
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- Cucumber: Similar to melons, but ventilated white plastic or fabric tunnels are safest
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- Plant protection devices help make possible an accelerated start even in a questionable season.
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– Though it's not nice to fool Mother Nature, it's OK to help plants to grow faster and better
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– Use these techniques to help bring about some of the best plantings and greatest harvests you'll ever enjoy