



SEASON EXTENSION TIP SHEET

Start your season early and extend it further into the fall to maximize the harvest from your garden by following these tips:

Considerations:

Extending the season on either side of the summer comes with a different set of conditions to deal with. Be prepared not only for colder temperatures but also shorter days, temperature swings, and pest outbreaks in enclosed spaces.

End of Season:

Get more from your garden this fall!

- Crop selection: most greens, as well as peas and crops in the cabbage and onion families, do well in colder temperatures
- Low tunnels: simply place metal or PVC hoops over your crops and cover with plastic or agricultural fabric, which will keep the air underneath 1 to 2 degrees warmer than outside
- Cold frames: essentially a box with a glass roof that heats up from the sun's energy during the day. Can be as simple as four straw bales with an old window on top
- High tunnels/hoop houses: a larger, more permanent version of a low tunnel, through which a person can walk. More work to set up than a low tunnel, but it will fit more plants and require less daily maintenance
- Greenhouse: a permanent structure where conditions are easier to control, and to which heat or grow lights can be added to create ideal conditions for your plants any time of year

Start of Season:

Start early, harvest early!

- Crop selection: start early with cold-hardy crops
- Start seeds indoors: use warmer indoor spaces to give an early start to tender crops or crops that take a while to mature, like tomatoes, squash, or broccoli
- Grow first crops under low tunnels or in cold frames for an extra-early start; once harvested out, replace with more tender transplants
- High tunnels/hoop houses: once seedlings are getting too big for their pots, they can be transplanted into high tunnels earlier than into the ground outside
- Greenhouse: great indoor space for starting seeds
- Heated beds: seeds sprout sooner and plants grow faster when the soil is warm. These can be incorporated into any of the above structures. For a cheap and easy technique, use incandescent rope lights, heater cable, and/or hot manure, cover with straw or sand and place your growing layer on top

Get the most out of these techniques by addressing temperature swings. The sun can be very intense even in the middle of winter, which can turn any structure you use into a solar oven. Be sure to vent during the day, cover everything at night, and use thermal mass to your advantage. You can do this by placing any season-extension structures on the south side of a building, which will absorb excess heat during the day and release it at night near your plants, or by placing bricks, rocks, or gallon jugs filled with water near your crops for the same effect.



Some season extension techniques. There are near-endless variations on all these designs.

Low tunnels:



South-facing greenhouse:



Cold frames:



Heated seedbeds for early seed starting:



Hoop house:



Thermal mass:



For materials like plastic film, fabric row covers, polycarbonate panels, greenhouse and hoop house (high tunnel) kits, and more, check out [Growers Supply](#) and [Peaceful Valley](#).

NCAT Regional Offices: