Cold-frames Successful for Early Planting

To my surprise, I recently discovered that a co-worker was growing lettuce outdoors in the middle of January. To do so, she planted the seed inside a cold-frame. Cold-frames utilize the greenhouse effect by trapping the sun's heat during the day and retaining enough heat overnight that plants inside can grow. The same thing happens inside a vehicle on a sunny day.

Cold-frames range in size from very small to very large and are constructed of varying types of material, depending on the purpose of the structure. Many garden centers use large cold-frames to ready spring crops such as annual flowers and vegetable starts. However, for most hobbyists, inexpensive structures are very suitable. They can be constructed of spare lumber made into a frame with a clear plastic covering placed over the top and sides. More permanent structures are also relatively inexpensive to build. They can be constructed of pressure-treated or redwood lumber covered with glass or more forgiving clear polycarbonates such as Plexiglas or Lexan. Such structures make it possible to plant crops outdoors one-to-two months earlier than normal planting dates allow, and sometimes even earlier. For crops such as tomatoes, it is recommended that special varieties be grown that are more resistant to cold. These can be ordered from many mail-order seed companies or online.

Professors at USU are also using cold-frames in their research, growing many crops including squash, strawberries, raspberries, blackberries, tomatoes and melons. They have had success in producing tasty crops much earlier than normal. In addition, they have developed a structure larger in size constructed of greenhouse-grade plastic and PVC pipe that can be used to grow sizable amounts of crops. These structures were originally intended for commercial operations, but anyone interested can easily build one at a cost of less than $700. For detailed construction plans, access the following Web site: http://extension.usu.edu/files/publications/publication/HG_High_Tunnels_2008-01pr.pdf.

Season-extending structures and materials can be purchased online and from local garden centers. I have seen some that can be unfolded and then pop up like windshield shades. Items that protect individual plants can also be purchased and are popular for starting vegetables such as tomatoes, squash and peppers.

Plastic sheeting and a product called floating row cover can also be used as season extenders. Plastic sheeting warms the soil, and floating row cover (made of remay) traps the sun's heat. Some local growers use these to more reliably ripen tomatoes and melons. Depending on the type of row cover and plastic sheeting used, crops can be planted between two and four weeks early. They are then left covered with an appropriate row cover until daytime temperatures are consistently above 80 F. Row cover can be placed on the plants again in the autumn when temperatures begin to drop. Temperatures below the row cover range anywhere from 2 to 10 F above daytime temperatures, depending on the kind used. Row covers are also utilized as a pesticide-free way to prevent insect damage on some crops.

On another note, the Master Gardener classes are starting in less than a month and space is still available. Contact Evelyn Andrew at 435-752-6263 for further information or to register.