

Winter Crop Production

During the winter, many miss fresh garden produce and some are even willing to try growing it indoors themselves to get it. Growing up, I remember my father wanting fresh tomatoes after the growing season ended and transplanting plants from our garden into large pots. He placed the newly potted plants near a west facing glass deck door. They all died. I tried a different approach and seeded 'Early Girl' tomatoes in October in a greenhouse. They grew well but did not ripen fruit until March. The tomatoes tasted excellent, but it turned out that these were the most expensive tomatoes I had ever eaten due to having to heat the greenhouse for the entire winter to ripen them.

However, I have successfully grown other crops indoors much less expensively using some basic techniques such as providing additional light and optimal temperatures. As far as light is concerned, west or south facing window often provide sufficient light for many crops. Another option is inexpensive florescent lighting. The key factor to using this is that the light must be within approximately 6 inches of the plants. Do not use incandescent bulbs. The wavelengths of light they produce are not readily utilized by plants. Additionally, grow lights do not work any better than florescent bulbs and are much more expensive.

Growing plants at an appropriate temperature is also important. I have known people who attempted to grow plants in an unheated garage during the winter with no success. I personally store soda pop in my garage at this time because my garage is a natural refrigerator. A good temperature for most plants is around 70 degrees F.

Additionally, grow plants in potting soil and not soil from the garden. If starting plants from seed, inexpensive seed starting supplies are available from local retailers. Once plants have been growing for around a month, they often require fertilizer to keep them healthy. Mild, liquid house plant formulations or slow release granular products such as Osmocote™ work well.

Monitor plants closely for insect pests and diseases. When a plant may be infested, isolate it from the others to prevent further spread. Heavily infested plants should be thrown away.

Some plants that can be successfully grown indoors include lettuce, peas and many herbs. When growing peas or other crops that may grow too large for limited indoor spaces, dwarf varieties can be located. These are often available from online seed companies or even from local retailers.

The USU Crop Physiology Lab has also specifically researched growing crops in artificial environments such as indoor spaces for many years and has identified several "super dwarf" species, including Early Green pea and Microtina tomato. I have grown successfully Microtina tomato on several occasions. Additionally, these and the other varieties they have located have actually been grown in space on space shuttles or the space station. For more information about starting seeds indoors and how to purchase these specific crops, access the USU Crop Physiology Lab webpage at: <http://www.usu.edu/cpl/outreach.htm>.