Plants that require a longer growing season than our climate allows can easily be started indoors when a few simple guidelines are followed. Select your favorite tomato, eggplant or pepper plant and experience the satisfaction of growing your own vegetable plants. Seedlings are often started indoors 4 to 12 weeks before the last spring frost. Check the back of the seed packet for this information.

**Containers:**

Gardeners can consider using recycled containers for germination trays and growing pots as long as adequate drainage holes are made in the bottoms and the containers are sterile. To sterilize containers, wash to remove any debris and then immerse them in a solution of one part chlorine bleach to ten parts water for 5 minutes.

**Planting material:**

A wide range of materials can be used to germinate seeds. The material should be sterile (free of insects, disease organisms, weeds, and weed seeds). A homemade mix containing equal parts of sand, loam and peat moss can be used. Or purchase commercial potting material that is soil-less and sterile such as mixtures of perlite, vermiculite and organic materials. Do not use garden soil to start seedlings; it is not sterile, it is too
heavy, and it does not drain well. Lightly moisten planting material. Fill containers with moistened material and add seeds. A 4” flowerpot may be seeded with 18-20 seeds. Cover the seeds with ¼” material. Label the pot or flat and place it in a clear plastic bag. Tie the bag so moisture does not escape. No further watering is needed until the seedlings appear. Keep the seeds at room temperature (68-75°F) and out of direct sunlight; otherwise, the temperature may increase and injure the seeds.

After germination, remove the plastic bag and move the flats to a well-lighted location. Daytime temperatures should be 65-70°F and nighttime at 55-60°F. Seedlings must receive bright light after germination. Low light intensity will result in weak, spindly, pale green seedlings. Place them in a south-facing window. If a large, bright location is not available, place the seedlings under fluorescent lights. Use two, 40-watt, cool-white fluorescent tubes. Position the plants 6 inches from the tubes and provide 12 hours of light daily. As the seedlings grow, the lights should be raised.

If the plants were not started in individual pots they will need to be separated. It is time to separate seedlings then their first true leaf appears. This usually happens 2-3 weeks after germination. Carefully loosen the soil around the roots easing seedlings apart to avoid root injury. Handle small seedlings by their leaves, not their delicate stems. Place each plant in a 3” pot or space 6-8 plants in a larger plastic or pressed paper container. Firm the soil around the plant and water gently. Newly transplanted seedlings should not be placed in bright, intense light for a few days after transplanting. Seeds have all the nutrients needed for germination. When the seed leaves start to turn yellow, it is time to fertilize starting with a diluted solution. Uniform watering, fertilizing and at least 12 hours of sunlight daily will produce a stocky transplant with good production potential.

**Hardening:**

This is the process of conditioning a plant for growth outdoors. The process should be started at least 2 weeks before planting in the garden. (If you have coldframes, the plants can be moved outside earlier.) Place plants outside in a protected area on warm days, and increase the length of exposure gradually. Do not put tender plants outdoors on windy days or when temperatures are below 45°F.

**For More Information:**

OSU Website:
http://extension.oregonstate.edu/gardening
http://extension.oregonstate.edu/umatilla/mg