UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Vegetable Gardening in a Drought

Planting Strategies

- **If you anticipate a dry season,** plant shorter season crops and fewer crops
- **Plant in blocks**, rather than rows. This creates shade for roots and reduces evaporation.
- **Control weeds**, they are competing with the vegetables for the water supply.
- **Use containers or plant vertically to reduce the soil area that needs irrigation.**
- **Group plants** with similar water needs together on the same soaker hose. Cucumber and zucchinis and squash, for example, require similar water applications.
- **Provide windbreaks** to reduce evaporation of moisture from soil and plants.
- **Amend your soil with organic matter** to increase the water holding capacity.

Practice Efficient Irrigation

Drip or trickle irrigation is ideal in the vegetable garden, reducing water usage by about 50%. The soaker hose is probably the least expensive and easiest to use in a vegetable garden setting. It is a hose that allows water to seep out all along its length at a slow rate. They run at low pressure, for only 10 to 15 minutes per irrigation. Other options include: tubes with holes for the water to drip out. and a hose bubbler which is a hose end attachment to irrigate the base of a plant.

Check soil moisture regularly to avoid over-application. Squeeze soil in your hand; if it sticks together, it is moist and irrigation should be delayed. If the soil has dried out to a depth of 2-4 inches, plan to water. This is especially important if using mulch, where water can be held in the soil for longer periods of time. *Place soaker hoses or drip irrigation under the mulch used in the vegetable garden.*

Know the critical watering periods for vegetables and target the timing and amount of water accordingly. As a rule of thumb, water is most critical during the first few weeks of development, immediately after transplanting, and during flowering and fruit production. The critical watering periods for selected vegetables follow:

- **Asparagus** - Spear production, fern development.
- **Cole crops: broccoli, cabbage, and cauliflower** - The quality of cole crops is significantly reduced if the plants get dry anytime during the growing season. Water use is highest and most critical during head development.
- **Beans** - Beans have the highest water use of any common garden vegetable, using ¼ to over ½ inch of water per day (depending on temperature and wind). Blossoms drop with inadequate moisture levels and pods fail to fill. On warm, windy days, blossom drop is common. For the observant gardener, a subtle change in plant color indicates a need for irrigation. When moisture levels are adequate the bean plant is a bright, dark grass green. As plants experience water stress, leaves take on a slight grayish cast. Water is needed at this point to prevent blossom drop.