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## Drought tolerant gardening

The last few years in Kansas have been dry, causing many gardens and lawns to suffer. As our growing season winds down, it is the perfect time to brainstorm how to make your yard more drought tolerant for next year.

One way to prevent your garden from turning brown and crispy, is to plant drought tolerant species. Drought tolerant plants are accustomed to living without excess water, and will send deep roots into the ground to find moisture when our topsoil is dry. As any plant, these drought tolerant species will need extra moisture while germinating. Once they are established, however, will not require the same water consumption as other plants. Drought tolerant species include aster, showy goldenrod, lambs ear, coneflowers, coreopsis (tickseed), peonies, yarrow, and back-eyed susan. You can contact your local extension office for a longer list of drought tolerant species.

Even if you have drought tolerant species, you should work to increase your soil's moisture retention. This will help supply water to plant roots even when we go for weeks without rain. To help trap moisture in your soil employ the following techniques:

- **Cover any bare soil.** Bare soil that is exposed to the sun will lose water very fast. Planting groundcover, cover crops, or mulching around your existing plants will provide a layer of insulation to your soil. When the sun cannot reach the soil, you get cooler soil temperatures and less water evaporation.
- **Add in shade.** If your garden has no shade, consider putting up a thin shade cloth on hot days. Plants have pores under the leaves called stomata, where water is released and evaporates. That process is called transpiration. A hot, sunny day will increase the rate of transpiration. Shade cloths will keep plants cooler, decreasing water loss.
- **Add compost or manure.** Adding a layer of organic matter to your soil not only provides nutrient, but helps improve soil structure, which increases the ability for water to move through the soil. This helps increase water absorption and retention in your soil.
- **Use a soaker hose or drip irrigation.** Soaker hoses and drip irrigation put water straight into the soil and move water at a slower rate. If you have ever used a hose to water plants, you know that water will pool up on the soil where you are watering. By slowly adding water, you are giving the soil time to absorb it all, rather than creating run off.
- **Water deeply and less often.** Even when your top layer of soil has dried out, you often have moisture deeper underground. If we keep the very top layer of soil moist, plants may not have a reason to send their roots down to find moisture deeper in the ground. Try watering slowly, so that water goes 6 to 12 inches deep into the soil, and water less frequently, about once a month. This encourages plants to send their roots downward to find water and they do better in times of drought.
- **For lawns, mow taller and more frequently.** Tall grass has deeper root systems, and provides more shade to your soil. This both increases water retention and help your grass become more drought tolerant.

These strategies should help you to keep your garden green when we see little rain. For more information about water-wise gardening, you can contact your local extension office.