

Flower Management Before, During and Following Drought

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No current watering restrictions:

The following practices will help keep your flowers healthy while conserving water.

Proper soil preparation prior to planting will help conserve water.

*Prepare soil before planting by loosening soil to 12 inches. If it is a heavy clay or sandy soil, add 2-3 inches of compost on the soil surface and then till in to a 12-inch depth.

Proper Mulch

*Apply 1-2 inches of organic mulch between flowers to reduce evaporation and control water-using weeds.

Fertilization

*Fertilizing perennials is generally not needed if proper soil preparation is done prior to planting. Fertilizer causes lush growth that requires more water. If fertilization is needed, a slow release fertilizer can be applied in the spring.

*Moderate fertilization for bedding for bedding plants is recommended either as liquid or granular or a combination of both.

Irrigation

*Annual and perennial flowers under water stress will have drooping leaves and a lack of blooms. Foliage often appears gray-green in color. Water when signs of stress become obvious. Apply irrigation in the evening or early morning to minimize evaporation.

*Overhead spray irrigation is the least water wise method as much water is lost to evaporation and wind drift. Soaker hoses or drip irrigation are more efficient because they deliver water to the ground level near roots. Hand watering is another alternative that maximizes delivery of water to the soil and roots.

Plant Selection

*Some perennials are more efficient at utilizing water than others. Choose your plants to match the site conditions.

*Gray-leaved annuals and perennials are often more drought tolerant. Spring bulbs are drought avoiders as they complete their life cycle prior to the onset of hot weather.

Some Drought Tolerant Annuals

Annual Fountain Grass – (*Pennisetum setaceum*)

Bachelor Button – (*Centaurea cyanus*)

Cockscomb – (*Celosia plumosa*)

Coreopsis – (*Coreopsis tinctoria*)

Cosmos – (*Cosmos sulphureus*)

Creeping Zinnia – (*Sanvitalia procumbens*)

Cup Flower – (*Nierembergia hippomanica* var. *violacea*)

Dusty Miller – (*Senecio cineraria*)

Gazania – (*Gazania rigens*)

Globe Amaranth – (*Gomphrena globosa*)

Johnny-Jump-Up – (*Viola tricolor*)

Mealy Cup Sage – (*Salvia farinacea*)

Mexican Sunflower – (*Tithonia rotundifolia*)

Moss Rose – (*Portulaca grandiflora*)

Periwinkle – (*Catharanthus roseus*)

Rocket Larkspur – (*Conslida ambigua*)

Rudbeckia – (*Rudbeckia hirta* var. *pulcherrima*)

Spider Flower – (*Cleome hassleriana*)

Sweet Alyssum – (*Lobularia maritima*)

Some Drought Tolerant Perennials

Artemisia – (*Artemisia* species)
Blanket Flower – (*Gaillardia x grandiflora*)
Blue Fescue – (*Festuca cinerea*)
Creeping Phlox – (*Phlox subulata*)
Creeping Potentilla – (*Potentilla neumanniana*)
German Statice – (*Goniolimon tataricum*)
Globe Thistle – (*Echinops ritro*)
Hens and Chicks – (*Sempervivum tectorum*)
Ice Plant – (*Delosperma* species)
Lambs Ear – (*Stachys byantina*)
Lavender Cotton – (*Santolina chamaecyparissus*)
Little Bluestem – (*Schizachyrium scoparium*)
Oriental Poppy – (*Papaver orientale*)
Ozark Primrose – (*Oenothera missouriensis*)
Penstemon – (*Penstemon* species)
Plumbago – (*Ceratostigma plumbaginoides*)
Poppy Mallow – (*Callirhoe involucrata*)
Prairie Coneflower – (*Ratibida columnifera*)
Prairie Dropseed – (*Sporobolus heterolepis*)
Purple Coneflower – (*Echinacea purpurea*)
Russian Sage – (*Perovskia atriplicifolia*)
Snow-in-Summer – (*Cerastium tomentosum*)
Stonecrop – (*Sedum* species)
Yarrow – (*Achillea* species)

When water restrictions are expected in the next few weeks or mild restrictions are in place:

- *Annuals can be watered 2-3 times per week if approximately 1 inch of water is applied during each irrigation cycle.
- *Water perennials deeply (1 inch of water or more) 2 times per week during hot, dry periods. Water in the evenings or early morning to prevent evaporation loss.
- *Mulching both annuals and perennials is critical to prevent moisture loss.

When no watering is allowed:

- *Do not plant annuals when outside watering is not allowed.
- *Do not plant new perennials and mulch existing plants.

After watering prohibition is lifted:

- *Some perennials may not survive extended drought.
- *Resume watering and check for signs of new growth that should appear in several weeks.
- *Water perennials well in the fall and monthly during dry winters with no snow cover to ensure survival during the dormant season. Mulching the crowns of dormant perennials will prevent frost heaving and conserve moisture in the plant through the winter.