

# Salt tolerance of Herbaceous Perennials and Groundcovers

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## BACKGROUND

In order to conserve water, many municipalities in the Southwest encourage homeowners and businesses to reduce turf coverage in landscapes with incentive programs (e.g., El Paso, Texas and Las Vegas, Nev.). An alternative to turf may be the low-water use herbaceous perennials and groundcover species, which have been popular in recent years in landscapes because of low maintenance and increasing of diversity. As the fresh water supply is diminishing and urban populations continue to increase, use of recycled water to irrigate landscapes may be inevitable in the future. The major concern of using recycled water for landscape irrigation is the elevated salinity, which causes salt damage or even death to sensitive species. In order to minimize the potential damage, salt tolerance of popular herbaceous perennials and groundcovers needs to be determined.



*Salt tolerance study in the greenhouse*



*Salt tolerance study in the field*

## OBJECTIVES

To determine the salt tolerance of commonly used herbaceous perennials and groundcovers under greenhouse and field conditions and to understand the general mechanisms of salt tolerance in these species.

## RESULTS AND BENEFITS

- A wide range of salt tolerance was found among a number of tested herbaceous perennials and groundcovers. A list of salt tolerant plant species will be updated.
- Salt damage due to non-potable water irrigation will be minimized by avoiding planting salt-sensitive plants.
- Irrigation water cost can be reduced and availability of water supplies for nursery and landscape irrigation will be increased.
- Knowledge on salt tolerance mechanism of landscape plants will be increased.