

## WATER REQUIREMENTS FOR LANDSCAPE PLANTS CENTRAL AND SOUTHERN ARIZONA

University of Arizona

### SPACE DEFINING PLANTS

<u>LOW WATER REQUIREMENT</u>	<u>DIAMETER ***</u>	June 27th	
		GALLONS PER PLANT PER DAY **	
		<u>TUCSON</u>	<u>PHOENIX</u>
Desert Broom, <i>Baccharis sarothroides</i>	6	0.9 - 1.4	1.1 - 1.8
Arizona Cypress, <i>Cupressus arizonica*</i>	20	12.7 - 20.4	15.3 - 25.5
Hop Bush, <i>Dodonaea viscosa</i>	4	0.4 - 0.6	0.5 - 0.8
Creosote Bush, <i>Larrea divaricata</i>	6	0.9 - 1.4	1.1 - 1.8
Texas Sage, <i>Leucophyllum frutescens</i>	4	0.4 - 0.6	0.5 - 0.8
Alligator Juniper, <i>Juniperus deppeana*</i>	8	1.9 - 3.0	2.3 - 3.8
Pomegranate, <i>Punica granatum*</i>	15	9.3 - 21.2	11.9 - 26.4
African Sumac, <i>Rhus lancea*</i>	14	4.8 - 7.7	5.8 - 9.6
Joboba, <i>Simmondsia chinensis</i>	4	0.4 - 0.6	0.5 - 0.8
Arizona Rosewood, <i>Vaquelinia californica*</i>	6	0.9 - 1.4	1.1 - 1.8
<u>MEDIUM WATER REQUIREMENT</u>			
Lemon Bottlebrush, <i>Callistemon citrinus</i>	8	3.0 - 6.4	3.8 - 7.8
Pampas grass, <i>Cortaderia selloana</i>	4	0.6 - 1.3	0.8 - 1.6
Italian Cypress, <i>Cupressus sempervirens 'stricta'</i>	3	0.5 - 1.0	0.6 - 1.2
Japanese Euonymus, <i>Euonymus japonica</i>	4	0.6 - 1.3	0.8 - 1.6
Pineapple Guava, <i>Feijoa sellowiana</i>	6	1.4 - 3.0	1.8 - 3.7
Spreading Juniper, <i>Juniperus species</i>	5	1.0 - 2.1	1.2 - 2.6
Glossy Privet, <i>Ligustrum lucidum</i>	6	1.4 - 3.0	1.8 - 3.7
True Myrtle, <i>Myrtus communis</i>	6	1.4 - 3.0	1.8 - 3.7
Oleander, <i>Nerium oleander</i>	6	1.7 - 3.6	2.1 - 4.4
Chinese Photinia, <i>Photinia serrulata</i>	6	1.4 - 3.0	1.8 - 3.7
Podocarpus Yew Pine, <i>Podocarpus macrophyllus</i>	3	0.5 - 1.0	.6 - 1.2
Pyracantha species, <i>Pyracantha</i>	6	1.4 - 3.0	1.8 - 3.7
Xylosma, <i>Xylosma congestum</i>	6	1.4 - 3.0	1.8 - 3.7
<u>HIGH WATER REQUIREMENT</u>			
Japanese Boxwood, <i>Buxus macrophylla japonica</i>	4	1.3 - 1.6	1.6 - 2.0
Waxleaf Privet, <i>Ligustrum japonicum (texanum)</i>	4	1.3 - 1.6	1.6 - 2.0
Golden Bamboo, <i>Phyllostachys aurea</i>	3	1.0 - 1.3	1.2 - 1.5

### GROUNDCOVER PLANTS

<u>LOW WATER REQUIREMENT</u>	<u>DIAMETER ***</u>	June 27th	
		GALLONS PER PLANT PER DAY **	
		<u>TUCSON</u>	<u>PHOENIX</u>
Australian Saltbush, <i>Atriplex semibicata</i>	1	.02 - .04	.03 - .05
Rosemary, <i>Rosemarinus officinalis* prostratus</i>	2	.1 - .2	.12 - .20
Lavender Cotton, <i>Santolina chamaecyparissus*</i>	2	.1 - .2	.12 - .20
<u>MEDIUM WATER REQUIREMENT</u>			
Sprenger's asparagus, <i>Asparagus densiflorus sprengeri</i>	2	.2 - .3	.20 - .41
Trailing gazania, <i>Gazania rigens leucolaena</i>	1	.04 - .08	.05 - .1
Algerian Ivy, <i>Hedera canariensis</i>	2	.2 - .3	.20 - .41
English Ivy, <i>Hedera helix</i>	2	.2 - .3	.20 - .41
Trailing Lantana, <i>Lantana montevidensis*</i>	2	.2 - .3	.20 - .41
Trailing African Daisy, <i>Osteospermum fruticosum</i>	1	.04 - .08	.05 - .1
Lady Bank's Rose, <i>Rosa Banksiae</i>	6	1.4 - 3.0	1.8 - 3.7
Star Jasmine, <i>Trachelospermum jasminoides</i>	4	.6 - 1.3	.8 - 1.6
Periwinkle, <i>Vinca major</i>	2	.2 - .3	.20 - .41

**SHADE AND SHELTER**

	<u>DIAMETER ***</u>	June 27th	
		GALLONS PER PLANT PER DAY **	
		<u>TUCSON</u>	<u>PHOENIX</u>
<u>LOW WATER REQUIREMENT</u>			
Sweet Acacia, <i>Acacia Smallii</i>	10	2.4 - 3.9	2.9 - 4.9
Coast Beefwood, <i>Casuarina stricta*</i>	20	11.8 - 18.9	14.1 - 23.5
Blue Palo Verde, <i>Cercidium floridum</i>	16	8.8 - 20.1	11.3 - 25.1
Red Gum, <i>Eucalyptus camaldulensis*</i>	30	28.6 - 45.8	34.4 - 57.3
Silver Dollar Gum, <i>Eucalyptus polyanthemos*</i>	20	11.8 - 18.9	14.1 - 23.5
Ironwood, <i>Olneya tesota</i>	16	6.3 - 10.0	7.5 - 12.5
Mexican Palo Verde, <i>Parkinsonia aculeata</i>	10	3.4 - 7.8	4.4 - 9.8
Chilean Mesquite, <i>Prosopis chilensis</i>	20	13.7 - 31.3	17.6 - 39.2
Aleppo Pine, <i>Pinus halepensis*</i>	20	11.8 - 18.9	14.1 - 23.5
African Sumac, <i>Rhus lancea*</i>	14	4.8 - 7.7	5.8 - 9.6
<u>MEDIUM WATER REQUIREMENT</u>			
Edible Fig, <i>Ficus carica</i>	15	17.6 - 29.7	22.0 - 36.4
Arizona Ash, <i>Fraxinus velutina</i>	25	49.0 - 82.6	61.2 - 101.0
Thornless Honey Locust, <i>Gleditsia tricanthos</i>	25	49.0 - 82.6	61.2 - 101.0
Glossy Privet, <i>Ligustrum lucidum</i>	20	15.7 - 33.3	19.6 - 41.1
Chinaberry, <i>Melia azedrach 'umbraculifera'</i>	25	49.0 - 82.6	61.2 - 101.0
Olive, <i>Olea europaea</i>	25	24.5 - 52.0	30.6 - 64.3
Date Palm, <i>Pjoenix dactylifera</i>	12	6.8 - 14.4	8.5 - 17.8
Chinese Pistache, <i>Pistacia chinensis</i>	25	49.0 - 82.6	61.2 - 101.0
	20	31.3 - 52.9	39.2 - 64.6
Fruiting Peach, <i>Prunus persica</i>	8	5.0 - 8.5	6.3 - 10.3
Cork Oak, <i>Quercus suber</i>	20	15.7 - 33.3	19.6 - 41.1
California Pepper, <i>Shinus molle</i>	25	24.5 - 52.0	30.6 - 64.3
Xylosma, <i>Xylosma congestum</i>	16	10.0 - 21.3	12.5 - 26.3
<u>HIGH WATER REQUIREMENT</u>			
Sour Orange, <i>Citrus aurantium</i>	12	12.0 - 14.8	14.6 - 18.3
Loquat, <i>Eriobotrya japonica</i>	10	8.3 - 10.3	10.1 - 12.7
Southern Magnolia, <i>Magnolia grandiflora</i>	10	10.0 - 12.3	12.3 - 15.3
Fruitless Mulberry, <i>Morus alba 'fruitless'</i>	30	114.6 - 141.0	141.0 - 172.
Fremont Cottonwood, <i>Populus fremontii</i>	30	137.5 - 169.2	169.2 - 206.4

**ACCENT PLANTS**

	<u>DIAMETER ***</u>	June 27th	
		GALLONS PER PLANT PER DAY **	
		<u>TUCSON</u>	<u>PHOENIX</u>
<u>LOW WATER REQUIREMENT</u>			
Sweet Acacia, <i>Acacia smalii</i>	10	2.4 - 3.9	2.9 - 4.9
Century Plant, <i>Agave americana*</i>	6	.9 - 1.4	1.1 - 1.8
Bird of Paradise, <i>Caecolpinia gilliesii</i>	6	1.2 - 2.8	1.6 - 3.6
Feathery Cassia, <i>Cassia artemisioides*</i>	4	.4 - .6	0.5 - 0.8
Desert Spoon, <i>Dasyilirion wheeleri</i>	3	.2 - .4	0.3 - 0.4
Mexican Blue Palm, <i>Erythea armata</i>	10	2.4 - 3.9	2.9 - 4.9
Ocotillo, <i>Fouquieria splendens</i>	4	.7 - 1.6	0.9 - 2.0
Soaptree, <i>Yucca elata</i>	6	.9 - 1.4	1.1 - 1.8
<u>MEDIUM WATER REQUIREMENT</u>			
Shrimp Plant, <i>Justicia brandegeana</i>	3	.4 - .8	0.4 - 1.9
Lemon Bottlebrush, <i>Callistemon citrinus</i>	8	3.0 - 6.4	3.8 - 7.8
Mediterranean Fan Palm, <i>Chamaerops humilus</i>	6	1.4 - 3.0	1.8 - 3.7
Pampas Grass, <i>Cartaderia selloana</i>	4	.6 - 1.3	0. - 1.6
Italian Cypress, <i>Cupressus sempervirens 'stricta'</i>	3	.5 -1.0 0	.6 - 1.2
Sago Palm, <i>Cycas revoluta</i>	3	.4 - .8	0.4 - 0.9
Heavenly Bamboo, <i>Nandina domestica</i>	2	.2 - .3	0.2 - 0.4
Date Palm, <i>Phoenix dactylifera</i>	12	6.8 - 14.4	8.5 - 17.8
Flowering and Fruiting Peach, <i>Prunus persica</i>	8	5.0 - 8.5	6.3 - 10.3
Pyracantha species, <i>Pyracantha</i>	6	1.4 - 3.0	1.8 - 3.7
California Fan Palm, <i>Washingtonia filifera</i>	12	6.6 - 14.4	8.5 - 17.8
Mexican Fan Palm, <i>Washingtonia robusta</i>	12	7.3 - 15.6	9.2 - 19.2
Spanish Dagger, <i>Yucca gloriosa</i>	2	.2 - .3	0.2 - 0.4
Pendulus Yucca, <i>Yucca recurvifolia (pendula)</i>	2	.2 - .3	0.2 - 0.4

HIGH WATER REQUIREMENT

Sour Orange, <i>Citrus aurantium</i>	12	12.0	-14.8	14.8	- 18.3
Loquat, <i>Eriobotrya japonica</i>	10	8.3	- 10.3	10.3	- 12.7
Common Banana Plant, <i>Musa paradisiaca sapientum</i>	8	6.4	- 7.9	7.8	- 9.8

**FOUNDATION PLANTS**

<u>LOW WATER REQUIREMENT</u>	<u>DIAMETER</u> ***	June 27th			
		GALLONS PER PLANT PER DAY **			
		<u>TUCSON</u>		<u>PHOENIX</u>	
Bird of Paradise, <i>Caeoalpinia gilliesii</i>	4	0.5	- 1.3	0.7	- 1.6
Feathery Cassia, <i>Cassia artemisioides</i> *	4	0.4	- 0.6	0.5	- 0.8
Creosote Bush, <i>Larrea divaricata</i>	6	0.9	- 1.4	1.1	- 1.8
Texas Ranger, <i>Leucophyllum frutescens</i>	4	0.4	- 0.6	0.5	- 0.8
Rosemary, <i>Rosemarinus officinalis</i>	4	0.4	- 0.6	0.5	- 0.8
Lavender Cotton, <i>Santolina chamaecyparissus</i> *	2	0.1	- 0.2	0.1	- 0.2
Jobba, <i>Simmondsia chinensis</i>	4	0.4	- 0.6	0.5	- 0.8

MEDIUM WATER REQUIREMENT

Shrimp Plant, <i>Justicia brandegeana</i>	3	0.4	- 0.8	0.4	- 0.9
Japanese Euonymus, <i>Euonymus japonica</i>	4	0.6	- 1.3	0.8	- 1.7
Primrose Jasmine, <i>Jasminum mesnyi</i>	4	0.6	- 1.3	0.8	- 1.7
Spreading Juniper, <i>Juniperus species</i>	3	0.4	- 0.8	0.4	- 0.9
Trailing Lantana, <i>Lantana montevidensis</i>	2	0.2	- 0.3	0.2	- 0.4
True Myrtle, <i>Myrtus communis</i>	6	1.4	- 3.0	1.8	- 3.7
Heavenly Bamboo, <i>Nandina domestica</i>	2	0.2	- 0.3	0.2	- 0.4
Tobira, Japanese Mock Orange, <i>Pittosporum tobira</i>	6	1.4	- 3.0	1.8	- 3.7

HIGH WATER REQUIREMENT

Bear' s Breech, <i>Acanthus mollis</i>	2	0.3	- 0.4	0.4	- 0.5
Gardenia, <i>Gardenia jasminoidea 'veitchii'</i>	4	1.3	- 1.6	1.6	- 2.0
India Hawthorn, <i>Rhapiolepis indica</i>	3	0.8	- 1.0	0.9	- 1.1

**BEDDING PLANTS**

<u>WARM SEASON</u>	<u>DIAMETER</u> ***	GALLONS PER 100 FT <sup>2</sup> PER DAY **			
		<u>TUCSON</u>		<u>PHOENIX</u>	
Clumping Gazania, <i>Gazania splendens</i>	1	6.9	- 8.7	8.4	- 10.6
Madagascar Periwinkle, <i>Catharanthus roseus cultivars</i> #	1	15.6	- 16.8	19.0	- 20.5
Marigold, <i>Tagetes, many cultivars</i> #	1	15.6	- 16.8	19.0	- 20.5
Common Zinnia, <i>Zinnia sp.</i> #	1	15.6	- 16.8	19.0	- 20.5
<u>COOL SEASON</u>		<u>April 23</u>			
African Daisy, <i>Dimorphotheca sinuata</i> #	1	4.4	- 5.6	5.4	- 6.8
Petunia, <i>Petunia hybrids</i> #	1	4.4	- 5.6	5.4	- 6.8
Tufted Pansy, <i>Viola cornuta</i> #	1	4.4	- 5.6	5.4	- 6.8

\* Requires supplemental water most years

# Annual Plant

\*\* Does not include special watering needs such as leaching, etc.

\*\*\* Diameter of Plant Canopy in feet