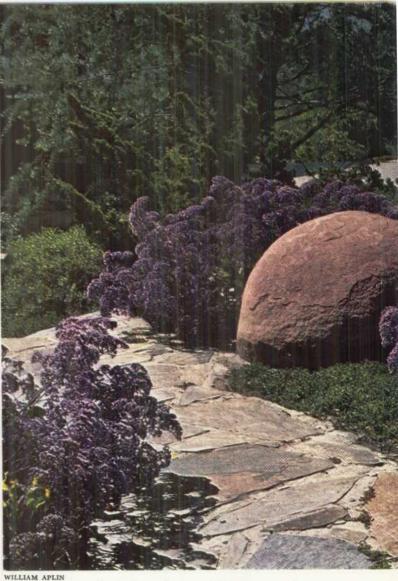




No-water trio in April: Yellow-headed shrub-tree is Cytisus racemosus, with gazania ground cover, eucalyptus, in Menlo Park, California



WILLIAM APLIN

Arid pair in June: Purple dome plants are Limonium perezii.

All-green ground cover is Baccharis pilularis. They're in the garden of Mrs. Patricia Weinberger, Ojai, California

Good looking...unthirsty

Here are dozens of don't-need-a-drink-all-summer plants to help you with watering and even garden survival in summer-dry California, Arizona

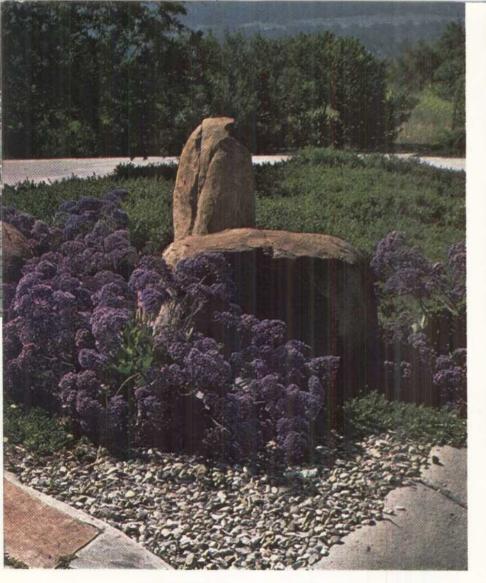
Call them drought-tolerant or droughtresistant or unthirsty—these are the plants that can grow well with little or no water beyond what nature provides. They are the plants that many Western gardeners probably will want to turn to more and more.

California's low rainfall winter of

1975-76 brought serious water shortages to some districts (Santa Barbara to Sonoma County) and awakened Californians elsewhere to the fact that in time they could be in the same predicament. In Tucson a falling water table threatens the city's wells.

When you set out to save water in the

garden, sooner or later you must reckon with the thirstiness of plants—whether landscaping a new garden, relandscaping an existing one, or just routinely replacing plants that have run their course. The West's best unthirsty plants are what you see here, on our cover, and on the pages that follow. Their water needs vary



Yellow-flowered kniphofias bloom above another bed of Baccharis pilularis; July, Santa Rosa, California. Design: Lester Hawkins NORMAN A. PLATE





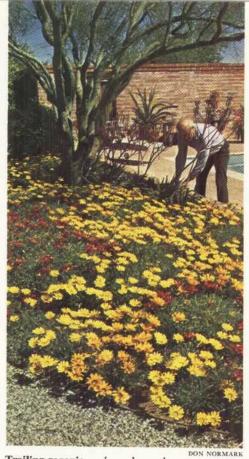
Seldom-watered bank of aloes five kinds (count them) in March, West Los Angeles. Design by Dave Verity



Two low plants that give the most for the least water—santolina (yellow flowers), rosemary (it's out of bloom, foreground)

—and much depends on your climate but most can get along on no water once established.

There's a substantial reason for planting these plants in October: In the next four to six months, most Western gardens will get all the free water (rain) that they're going to get for a year. Even if the



Trailing gazania under palo verde tree. Howard Kroehl garden, Tucson. Design: Warren D. Jones



Fountain grass, 3 feet high, 4 feet wide, blooms in June



It's July—no water since last rain in April. Coreopsis verticillata



Flower of Matilija poppy (Romneya coulteria), 6 inches wide, May to July

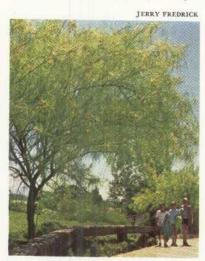


Famous dry plant in coastal Southern California, Echium fastuosum

NORMAN A. PLATE

Smoke tree (Cotinus coggygria) makes these big puffs in summer. No water

He's looking at Cistus villosus flowers; they bloom May to July on rainfall alone



Tree is Parkinsonia aculeata, ground cover is baccharis. No irrigation ever steve w. marley

PETER O, WHITELEY

The same lavender that goes with old lace is a tough drought fighter



Unthirsty doesn't mean unlovely. Consider the lavender or the Matilija. Or the cistus



A hedge of oleander (single-flowered white—one of a dozen kinds) in July. No watering needed, once established

rainfall is less than normal, it will irrigate newly-set-out plants without diminishing local supplies.

For those desert climates that get summer rainfall, fall is the best planting season because plants establish themselves in winter when there's the least stress from heat.

Planting doesn't have to take place only within October's 31 days. November, December, and January will also do.

The Mediterranean climate plants

Charts on the next four pages describe the 92 nursery-available plants that do the best job of living through California's typical five to seven-month dry season without being watered.

About 25 percent of these best droughttolerant plants are native in the arid West, mostly in California. California except for the mountains and deserts has a Mediterranean climate. Another 37 percent are from the world's five other Mediterranean climates.

A Mediterranean climate is one with mild wet winters and mostly rainless summers. Besides California, the other five are: the lands around the Mediterranean Sea, part of South Africa, the coast of Western Australia, part of South Australia, and part of coastal Chile.

Chapters of the California Native Plant Society are staging two big plant sales this month. They'd be good places to buy some of the drought-tolerant plants. (But remember that not all California native plants will tolerate drought.)

In Oakland on October 7, the San Francisco Bay Area chapter sale will be at Merritt College, Redwood Road and Campus Drive, from 10 A.M. to 3 P.M.

In Riverside on October 30, the Southern California chapter sale will be held at the U.S. Forest Service Forest Fire Laboratory, 4955 Canyon Crest Drive, from 10 A.M. to 3 P.M.

How to get the plants established

"Once established" is the zinger in the heading of the last column in the charts, the "how unthirsty?" column.

Obviously, no plant could make it through a rainless summer if it was just removed from its container and planted. To become drought-tolerant a plant must grow its roots down to the soil level where some moisture from winter rain remains far into the dry season. You must help them grow to that level.

The deeper and more permeable the soil, and the more rain it gets during the rainy season, the more likely a droughttolerant plant is to survive.

Other factors that help determine survival or nonsurvival are: the plant's inherent ability to root deep and do other things that minimize water loss; how hot or how windy it gets in the dry season—the hotter or windier, the more difficult survival is; the kind of soil (clay holds water longer than sand); the presence of mulches or the practice of regular cultivation (both retain moisture below).

As a general rule, water drought-tolerant plants during the first winter and spring if rains aren't frequent and heavy enough to keep the soil damp. And water them heavily two, three, or four times during their first dry season. By their second summer, most such plants should not need water. But some may.

We assume that the winter of 1975-76 was just a freak and that weather patterns will return to what we consider normal. This past summer, some long-established drought-tolerant plants died—presumably because there wasn't enough rainfall during the preceding winter to supply the deep reservoirs from which the plants had previously taken their dry-season survival juice.

Your climate zone—basic information

The Pacific Ocean, our hills and mountains, and the latitude (distance from the equator) prevail as the basic determiners of which plants grow where. Mostly, climate zones are defined by how much cold a spot gets in winter.

Climate zones in the charts are from the Sunset Western Garden Book. Briefly, this is what the zone numbers mean:

 2, and 3. The coldest-winter climates in the West; with snow every winter. 4, 5, and 6. Climates west of the Cascades in the Pacific Northwest.

7. In California, the foothill elevations where Digger pines grow.

8, 9. The Great Central Valley's colder and milder parts, respectively.

10, 11. High deserts in Arizona and California, respectively.

12, 13. Intermediate and low deserts respectively.

14. Cold-winter valleys with some coastal influence: Ukiah, Santa Rosa, Sacramento, Walnut Creek, Woodside, Gilroy, King City, Santa Ynez.

15, 16, 17. Northern California's coast and Bay Area, coldest to mildest parts respectively.

18, 19. Interior Southern California, coldest (Northridge, Chino) and mildest (Encino, Ontario) respectively.

20, 21. Intermediate Southern California, coldest (Burbank, El Monte) and mildest (Pasadena, Escondido) respectively.

22, 23. Subtropical Southern California, coldest (Inglewood, Fountain Valley) and mildest (Beverly Hills, Fallbrook) respectively.

24. Southern California beaches.

On the next 4 pages we chart 92 plants noted for drought tolerance

What do the charts mean when they say "climate zones" and "... once established?" Read the explanations on this page.

	Where from?	Climate zones	Size	Performance	How easy to get?	How unthirsty once established?
Achillea Yarrow	Northern Hemisphere	All	1-foot mat to 5-foot plant	Erect stem with aromatic green or gray ferny leaves and flat-headed clusters of yellow or white flowers	Fairly easy	Very unthirsty but typically it collapses late summer, comes back after rains
Aloe	South Africa mostly	8, 9, 12-24	12 to 18 feet high	Picture at upper right on page 79 shows a bunch of aloes and what they do	You must shop around	Can shrink and curl up from absolute drought but perks up with watering
Callistemon citrinus Lemon bottlebrush	Australia	8, 9, 12-24	25 feet high, 15 feet wide	Massive shrub, small pruned tree, hedge, or espalier. Flowers are abundant, bright red brushes	Easy	Completely unthirsty if soil is deep and you wean it gradually
Cassia artemisioides Feathery cassia	Australia	8, 9, 12-24	3 to 5 feet high	Light, airy evergreen shrub Showy yellow flowers	Sometimes easy	Holds up through whatever California summers can throw at it
Centranthus ruber Red valerian	Mediter- ranean	All	To 3 feet high	See them in vacant lots and along railroad tracks. Selected varieties can be well worth growing—reds, pinks, whites	Not often sold	Dependable spring bloom annually with no irrigation, usually collapses in late summer
Cistus Rockrose	Mediter- ranean	7-9, 12-24	2 to 6 feet high, 6 feet wide	Picture at bottom of page 80 was taken at end of spring flowering season. At peak, plants have more flowers	Fairly easy	When really dry the leaves fold up tight— but plants always survive
Convolvulus cneorum Bush morning glory	Mediter- ranean	7-9, 12-24	2 to 4 feet high and as wide	Silvery shrub flowers in abundance. Flowers Good on banks with cistus all summer	Usually available	May get along on no water or may benefit from monthly waterings
Cortaderia selloana Pampas grass	Argentina	4-24	8 to 20 feet high	Big white plumes ride above broad clumps of big tough grassy leaves. Can become a nuisance	Very easy	Not a desert plant. Give it some water in the dry season if it looks tacky
Coreopsis verticillata	Eastern U.S.	All	2½ feet high and wide	See it at top right, page 80. A plant for rock gardens or flower borders. Bare in winter	Mail-order it from east	Completely unthirsty as are most of the other kinds of coreopsis
Cotinus coggygria Smoke tree	S. Europe to Asia	All	8 to 25 feet high	See it at lower left, page 80. Use it as a singular summertime showpiece. Bare in winter	Some nurs- eries sell it	Very unthirsty It may look better if you water it
Cytisus and Spartium Broom	Europe, Canary Islands	5-9, 11-24	3 to 8 feet high, 4 to 6 feet wide	See one kind upper left, page 78; others bloom red, purplish, cream, white. Plants usually have many stems. Mass them for dramatic spring color display	Easy	Very unthirsty. Many brooms naturalize in our dry hills
Echium fastuosum Pride of Madeira	Canary Islands	7-9, 14-24	3 to 6 feet high, many widths	See it at center of page 80. Showy near or far. Best on coast plant	Fairly easy	Very. Plant it on a slope—on a flat it would drown from too much water
Escallonia	Chile	14-17, 20-24	3 to 15 feet high	Evergreen shrubs with glossy leaves and white, pink, or red flowers in clusters. Good screen or hedge	Easy	Quite unthirsty
Eriogonum Buckwheat	California chaparral	7, 13-24	1 to 6 or 8 feet tall, 1 to 5 feet wide	Clouds of tiny flowers in pale yellow, pink, red, or white. They dry to clouds of buff or brown; good for flower arrangements	Scarce, but obtainable with effort	Very unthirsty. Once established needs no water; must have good drainage; self-sows
Fremontodendron Fremontia	California foothills	7-9, 14-24	6 to 20 feet tall, about as wide	Spectacular show of big, bright yellow flowers over a long season in spring, early summer	Spottily available	Wants no summer water Needs good drainage. No good in desert
Garrya elliptica	California coast and coast ranges	6-9, 14-21	4 to 8 feet, possibly 30-foot tree	Attractive foliage; looks like ever- green oak. Male plants have attrac- tive long flower catkins Likes the coast	Fairly easy in northern California	Thrives without water in sun or light shade. Tolerates summer water, too
Kniphofia uvaria Red-hot poker	South Africa	1-9, 14-24	Flowers to 6 feet, 4-foot leaf clump	See young plants of yellow-flowered kind at lower left, page 79. Red form is more common	An over-the- fence plant	If it gets a wet winter it will perform through any summer
Lantana	Tropics around the world	12, 13, 15-22	1 to 6 feet high, can spread for miles	The fewer the frosts, the better lantana can cover the landscape. Profuse display of 2-inch flower clusters (choose from many colors) through all the warm months	Easy	As drought tolerant as most plants described here
Lavandula Lavender	Mediter- ranean	All	To 3 or 4 feet high and across	See one kind on right-hand side of page 80. Plant beds of it or mix with other colorful drought resisters	Fairly easy	Reasonably drought tolerant, but should be watched
Limonium perezii Sea lavender	Mediter- ranean, Europe, Asia	13, 16, 17, 20-24	12-inch leaves and flower spikes up to 3 feet	See it across top of pages 78 and 79. Supplies purple in summer and even blooms in winter in mild places Its name is purple	Easy	Never seems to suffer
Nerium oleander Oleander	Mediter- ranean	8-16, 18-23	8 to 12 feet high and as wide	See it on the cover (a white and a red) and as a hedge on page 81. Use as screen, hedge, bank plant	Very easy	Freeway plants get watered but many private ones don't—they all look the same
Ochna serrulata Mickey Mouse plant	Tropical Africa	14-24	4 to 8 feet tall and across	Year-round performer. Yellow flowers, red and black fruit, angular branch pattern. Good espalier, feature plant	Supply is improving	Has survived 3 years in abandoned gardens. Thrives with once-a-month watering

Pennisetum setaceum Fountain grass	North Africa	All	2 to 4-foot clumps	See it at top center, page 80. Use it singly of for its fuzzy display	r in mass	Fairly easy	Self-sows even in desert. Can look dry and dreary with absolutely no water
Plumbago auriculata Cape plumbago	South Africa	8, 9, 12-24	To 6 feet high, 8 to 10 feet wide	Cool blue or white flowers in hottest weather. Boundary plant, bank cover	In summer looks cool	Easy	Survives with no water during dry season
Poinciana gilliesii Bird of paradise bush	South America	8-16, 18-23	10 feet high and nearly as wide	Filmy foliage, attractive structure, exotic-lo flowers with long red stamens. All-summer	ooking yellow bloom	Fairly easy	Has gone native in Southern California and Arizona. Takes what you give it
Romneya coulteri Matilija poppy	Southern California, Mexico	5-10, 12-24	Long stems reaching to 8 feet or more	See a single flower at center of page 80. Flo individually at top of vertical stems—many Grows and shows well on banks or flats		Scarcer than it should be	Quite unthirsty. If it gets ratty looking after bloom, cut it back
Satureja montana Winter savory	Mediter- ranean	All	6 to 15 inches high, spreading	An edging plant. Aromatic olive-green leaves (good for flavoring) and white to lilac flowers at branch ends		Sold some as an herb	Try it first with monthly waterings. It might get along with even less
Teucrium fruticans Bush germander	Mediter- ranean	4-24	4 to 8 feet high and as wide	Silvery shrub with blue flowers. Makes good hedge or screen	Good hedge	One nursery in three	Looks best with two or three waterings in a summer
Agave	Mexico, tropical America	12-24	1 to 6 feet high, flower spikes often to 40 feet	Thick, fleshy, long-pointed leaves in clump spines on sides of leaves. Succulent	s. Some have	Easy	Shrivels from serious drought but plumps up again when watered or rained on
Arbutus unedo Strawberry tree	S. Europe, Ireland	4-24	8 to 35 feet high and as wide	Grows as a large shrub, or prune to make it a tree. Good screen plant, too	Nice big green blob	Easy	Can grow on rainfall alone
Artemisia Wormwood	Northern Hemisphere	All	1 to 15 feet	Low woody perennials to big shrubs. Some grown for attractive silvery to white leaves, others for flavoring		Available if you search	Silvery sheen develops best under drought conditions
Atriplex Saltbush	Dry climates around world	8, 9, 14-24	1 to 7 feet high, 1 to 8 wide	Many kinds, all with gray or silvery foliage resistant. Tough but monotonous	. Many are fire	Shop to find it	Never suffers from dryness but does suffer from watering
Centaurea gymnocarpa	Caprera Is., near Sardinia	8-24	18 to 24 inches high and as wide	Nice little plant makes ferny white feltlike leaves; a plant to feel	White felty leaves	Usually available	Monthly watering may be needed
Dodonaea viscosa Hopseed bush	Arizona and other warm climates	7-9, 12-24	12 feet high, 6 to 8 wide	Willowlike green or bronze-purple leaves 4 grow from many upright stems	inches long	Easy	An exemplary no-irrigation shrub. Needs some irrigation in desert
Elaeagnus	Around the world	1-9, 14-24	Mostly very big shrubs	Serves as screen plant with very little upker foliage with metallic dusting	ep. Dull green	Easy	Will make it through summer with no water in most places but not in desert
Pittosporum (some species)	Australia, Asia, South Africa	12-24	12 to 25 feet high	Grow these evergreens for foliage and form. Very popular ornamentals	Some are tough enough for desert	Very easy	P. phillyraeoides is tough, naturalizes in desert. P. viridiflorum, P. crassifolium also tough. Others suffer drought, but recover
Portulacaria afra Elephant's food	South Africa	16, 17, 22-24	4 to 20 feet high and as wide	Unique, especially with age. From hefty tre red stems carrying small, roundish, succule	unks grow limber ent leaves	Easy to get little ones	Very unthirsty. Grows in sun or black shade
Prunus lyoni, P. ilicifolia, P. caroliniana	Southern California, eastern U.S.	7-24	6 to 40 feet high	Attractive, densely foliaged evergreens tha screens or clipped hedges and don't look dr	t make good ought resistant	Very easy	They make it unwatered with no visible distress
Rhamnus alaternus, R. crocea ilicifolia	Mediter- ranean, California	7-24	To 15 feet high	R. alaternus is a fast-growing screen or hedge plant. R. crocea ilicifolia has singular character	Quick screen or hedge	Fairly easy	No trouble
Rhus ovata Sugar bush	Southwestern U.S.	7-24	2½ to 10 feet high and as wide	Glossy-leafed, willing evergreen shrub. Pir flowers in spring followed by reddish berri sweet-tasting crust	nkish white es with a	Five growers offer it	Needs no summer water at all
Senecio cineraria Dusty miller	Mediter- ranean	All	1 to 3 feet high and spreading	Silvery shrub grown for its woolly-white le yellow flowers	aves and	Spottily available	Will survive all but driest summers without water
Xylosma congestum	Southeast China	8-24	8 to 10 feet high and often wider	Graceful, spreading evergreen shrub with shiny, light green foliage	Both graceful and tough	Sold everywhere	Will survive any dryness but might look sparse during the worst
Yucca	North America	All	2 to 20 feet or more	Clusters of sword-shaped leaves; stemless s showy white or whitish flower spikes	shrub or tree,	Fairly easy	Can be dry all summer and give no indication of trouble

		Where from?	Climate zones	Size	Performance		How easy to get?	How unthirsty once established?
	Bougainvillea	South America	12-24	Big mound or huge vine	Evergreen vine, ground cover, or lumpy shrub with showy blooms	The older the less thirsty	Very easy	Becomes really drought resistant once the stems become woody
	Campsis Trumpet creeper	China and U.S.	All	Can bury a house or a back yard	Clinging vine or invasive ground cover. Pre (orange to red flowers, late summer) and to		Some nurs- eries sell it	Grows on in abandoned gardens and places that get no water
	Solanum hartwegii Cup-of-gold vine	Mexico	15-24	One vine can run 40 feet along an eave	Frost-tender evergreen vine. Large glossy leaves, large yellow flowers in spring	Likes a warm wall	Fairly easy	Becomes drought resistant when stems get woody
2	Solanum jasminoides Potato vine	South America	8, 9, 14-24	To 30 feet	Evergreen, shiny dark foliage, beautiful wh flowers the year around	ite	Fairly easy	May do better with monthly waterings than with no water at all
	Tecomaria capensis Cape honeysuckle	South Africa	12-13, 16-24	A sprawling bush or a fence vine	Fine-textured evergreen. Clusters of orange-red flowers, fall, winter	Grow it on a fence	Easy	Very unthirsty, very long-lived
	Vitis vinifera Wine grape	Europe, Asia	7-24	With training to 10 feet or more	Perfect vine for Mediterranean climates; pr summer and ripe grapes in October. Decidu		Very easy	Deep rooted, withstands long dry periods
	Wisteria	Japan, China	All	Can reach 100 feet or more	Rampant deciduous woody vine provides grand spring flower show	The spring star	Very easy	Drought-stressed plants often bloom better than watered plants
	Acacia— certain species	Mostly Australia	7-9, 13-24	Large shrubs to small trees	Profuse sprays of bright yellow or gold flow to March. Excellent hedge, screen, windbre		Many kinds available	Most kinds make it through summer without looking bedraggled
	Casuarina Beefwood	Australia	7-9, 11-24	20 to 60 feet	Cypress lookalike with olive drab color. To wind. Useful in coastal and desert areas	lerates heat and	Takes a search	Pretty much on its own
	Cedrus deodara	Himalayas	4-12, 14-24	Huge. Allow for 40-foot-diameter branch sweep	Graceful big gray-green tree with bent-over ways for the right climates, but its hugeness in landscaping		Very easy	Roots probably go as deep as its branches grow wide—no grief from lack of summer water
	Ceratonia siliqua Carob	Mediter- ranean	13-16, 18-23	Big shrub or tree to 40 feet	Worthy plant with dense dark green foliage and big leathery edible pods	Pods taste like chocolate	Easy	Does better without summer water than with it
	Cercis occidentalis Western redbud	Western U.S.	2, 9, 14-24	Small tree, several trunks, to 20 feet	Red flowers in spring, blue-green leaves and in summer, fall-colored foliage, bare in wint		Search for it	Grows wild in California to Utah with no summer water at all
	Cercidium Palo verde	Deserts of Southwest	10-13, 18-20	To 25 feet and as wide	Bright yellow flower display in spring. Intric pattern. Choice desert tree	cate branch	Easy in low desert	At home under drought conditions
	Cupressus glabra Arizona cypress	Northern Hemisphere	8-24	20 to 40 feet high	Small scalelike evergreen leaves. Quickly becomes big part of landscape	Grows tall fast	Easy	Unusually drought resistant
	Eriobotrya japonica Loquat	China	4-24	15 to 30 feet high	Evergreen tree, leathery leaves, tasty fruits; cover right above head of the standing man	see one on the	Easy	Takes drought in coastal climates (zones 14-17, 20-24)
	Eucalyptus	Australia	8-24	Sprawling shrubs to towering trees	Sturdy trees—some with colorful flowers, or interesting foliage. Use tall ones as windbrea		Very easy	Most are drought resistant, some extremely so
	Geijera parvifolia	Australia	7-24	To 30 feet high, 20 feet wide	Fine-textured tree with graceful way of hanging all leaves down	Tough Australian	Fairly easy	Considered very drought resistant in the dry interior of Australia
]	Hakea (tree types)	Australia	9, 12-24	10 to 20 feet	Popular barrier and screen tree. Dense, dark Showy clusters of flowers on H. laurina	green foliage.	Easy	Holds up great all summer
	Heteromeles arbutifolia Toyon	Foothills of California and Baja		Shrub to 10 feet or multitrunked 25-foot tree	Toothy, glossy green leaves and abundant co winter berries. One of few chaparral plants t in desert		Fairly easy	Lives on just the rain in California but needs supplementary water in the desert
	Juglans hindsii California black walnut	Northern California	5-9. 14-20	30 to 60 feet	Deciduous tree with broad crown, many leaflets. Edible nuts. Always has aphids—drop sticky stuff	Don't park under it	Shop for it	Famous as an unirrigated roadside tree in northern California
	Lyonthamnus floribundus asplenifolius Catalina ironwood	Channel Islands	15-17, 19-24		Evergreens with long scallop-edged leaves, redwoods, small white flowers	bark like	Often available	As drought resistant as our native oaks

	Melaleuca linarifolia, M. styphelioides	Australia	9, 13-24	20 to 40 feet	See them (even nursery youngsters) to appreciate their feathery foliage. Later, you get unique bark and flowers	Easy	Very unthirsty
	Olea europaea Olive	Mediter- ranean	7-24	25 to 30 feet	Choice tree with picturesque branch structure and willowy foliage. Fruit is bonus to some, nuisance to others	Very easy	Holds up well; many old abandoned trees make it on their own
	Palms	Mild climates worldwide	5-24	20 to 100 feet high	Since civilization began palms have given the soft, lush oasis look to lofty	Easy	Chamaerops, Erythea, Phoenix, and Washingtonia can do it with no irrigation
	Parkinsonia aculeata Mexican palo verde	American tropics	11-24	15 to 30 feet high and as wide	See it on page 80 growing in a big bed of Baccharis pilularis	Easy in desert, hard on coast	Long dry seasons don't faze it
	Pinus Pines	Northern Hemisphere	All	30 to 80 feet or more	Evergreens for practically any situation. Need little care, although pruning can improve shape of some varieties	Very easy	Many, particularly P. halepensis and P. pinea, tolerate long drought
	Pistacia chinensis Chinese pistache	China	8-16, 18-23	To 60 feet high, 50 feet wide	Reliable deciduous tree that gives nice foliage color in autumn Great autumn color	Fairly easy	In deep soils it can thrive on no summer water at all
	Quercus Oaks	Northern Hemisphere	All	30 to 90 feet	Evergreen or deciduous; an oak will become the dominant plant in its garden	Very easy	Deep tap roots get water from many feet down
	Rhus lancea	South Africa	8, 9, 12-24	To 25 feet, spreading	Slow-growing evergreen with slightly weeping habit. Use as a single or multitrunked tree or as a clipped hedge	Very easy in desert	Drought resistant but also thrives in lawns
	Robinia (tree forms) Locust	North America	All	40 to 70 feet high	Deciduous, fast, tough, brittle. Divided leaves, white or pink flowers aggressive	Easy	Takes much drought
	Schinus molle California pepper	American tropics	8, 9, 12-24	25 to 40 feet with equal spread	Billowy, weeping tree is tough, dependable performer. Produces little rosy berries. Messy but worth it	Easy	Takes drought easily. Some older trees are very much at home in abandoned areas
	Sequoiadendron giganteum Big tree	Sierra Nevada	All	Biggest in the world	Massive evergreen tree is densely foliaged, symmetrical, surprisingly easy to live with for one so famous	Easy	If soil is deep, drought is no problem
	Tamarix aphylla Salt cedar	Asia	All	30 to 50 feet	Fast-growing, excellent windbreak tree. Very competitive roots—not for a cherished garden	You can get it	Perhaps the world's most drought-resistant tree. In Australia, it out-famined eucalyptus
	Baccharis pilularis Dwarf coyote brush	Northern California coast	7-24	8 to 24-inch billowy mat with 6-foot spread	See it at top and bottom on page 79 and under the parkinsonia on page 80. High-growing ground cover or low-growing foliage mass	Very easy	Needs no water at all wherever trees grow naturally. In hot barren places, needs some
	Gazania	South Africa	8-24	6 to 8 inches high	See it at upper left on page 78 and at upper left on page 80. Colorful ground cover in spring and early summer	Very easy	Unthirsty in mild-summer coastal climates. Elsewhere, drought collapses it in summer
1	Hypericum calycinum Creeping St. Johnswort	Asia Minor	2-24	1 foot high	Evergreen with 4-inch-long leaves, bright yellow 3-inch flowers invasive	Easy	Known to be unthirsty where the coast influences the climate
	Rosmarinus officinalis Rosemary	Mediter- ranean	4-24	2 to 6 feet tall, 4 to 8 feet wide	See it at base of bank on cover and at lower right, page 79. In spring, profusions of lavender-blue flowers	Very easy	Really outstanding performance in most drought situations
	Santolina chamaecyparissus	Mediter- ranean	All zones	Can reach 2 feet	See it at lower right on page 79. Attractive with or without yellow flowers. Aromatic foliage	Easy	Generally better under drought conditions than when watered
	Ceanothus	California mostly	5-9, 15-24	2-inch-high mat to 14-foot shrub-tree	Dark green evergreen foliage is perfect background for its spring blue flowers (many shades) Great slope cover	Fairly easy	Totally unthirsty
	Cotoneaster	China mostly	All	Ground cover to 20-foot fountain- ing shrub	Evergreen and deciduous, mostly with oval leaves shorter than an inch, white flowers followed by red berries. Vigorous, easy to maintain		Can get by on no water if soil and climate are right
0)	Grevillea	Australia	8, 9, 12-24	Low, ground- covering shrub to 60-foot tree	Many forms—all evergreen, with fine-textured foliage and long, slender, curved flowers (red, pink, white, cream) in dense clusters	Fairly easy	All are unthirsty; more kinds succeed on coast than inland
3	Juniperus Juniper	Northern Hemisphere	All	Ground covers 2 inches high,	All have needlelike or scalelike foliage and fleshy berrylike cones. Susceptible to various mites and insects but otherwise	Easy	Pretty unthirsty but you don't know they're in trouble until they die
100	Jumper	riemsphere			amenable		mey are

GROUND COVER

MANY FORMS



River rock and rosemary make an unthirsty ground-cover spread in this good-looking desert garden in Tucson.

Landscape architect was Warren D. Jones



NORMAN A. PLATE
Nonthirsty deck replaced beds of annuals. Deck contains
plants in containers. Trimmed xylosma hedge in background is
watered once a month. Landscape architect was Roy Rydell



Rock and masonry combine here to provide walls and floor for a desert garden. It's an unthirsty, good-looking entryway. Landscape architect was Thomas C. Zimmerman for the Robert Langs of Phoenix

Instead of a big thirsty lawn

There are many other good-looking ways to go, among them crushed rock, bricks in sand, unthirsty ground covers, or a small lawn







Truck spreads crushed granite in even, thin layer, saves gardener-owner hours of wheelbarrow and shovel work. Metal rake (right photograph) is ideal tool for final spreading of rock, also for freshening the look of older, settled-in rock areas

When there's water in abundance, there will be lawns. But where water is now limited, or is likely to be in the future, you may want to look at alternatives. On these two pages we show several ways gardeners in arid areas of the West are attractively covering level garden areas in an unthirsty manner.

Crushed rock and gravel are one answer. These materials can be stylish, even elegant, and there are other advantages: The rock is relatively cheap and widely available, and a rock cover allows what rain you get to enter the soil, instead of running off. Bark and wood chips also soak up rain with no runoff. Brick on sand is almost as water absorptive. All these have the added advantage of keeping the soil cool and thereby reducing evaporation. Weed growth can be greatly controlled by spraying or putting down plastic film under the cover, perforated here and there for drainage.

Decks also shade the soil and allow what rain you do get to drip down between the boards. Tree and shrub roots growing under the structure also get excess water dripping from containers you water on the deck.

Lawns are the thirsty ground cover. One useful idea is to cut back on lawn area. In some situations, a small lawn with a definite shape—square, rectangular, even round—becomes a special place. It helps to edge it with a wood or masonry mowing strip.

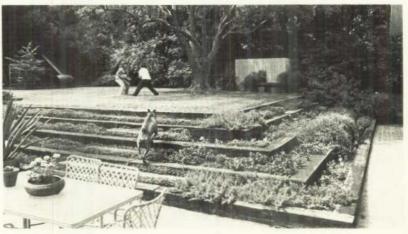
The grass you take out can be replaced with unthirsty ground covers, with paving, or with deck.

OCTOBER 1976

A green 10 by 24-foot island, this small lawn provides a soft play surface and a cool color expanse, uses little water. Landscape architect was Roy Rydell for Mr. and Mrs. Donald Mays, Santa Cruz, California



Raised planting tiers and railroad tie steps lead to a small lawn that's a cool contrast to the brick patio below. Landscape architect was George Fuller for the Robert E. Hinerfelds, Los Angeles



This Sunset Magazine reprint is presented as a public service by the Santa Clara Valley Water District in the hope that its contents will prove helpful to all who would like to know how and why to use drought resistant species in new or existing gardens. Widespread acceptance and use of these beautiful plants could eventually reduce outdoor water use in Santa Clara Valley by 10 per cent. Further information about "unthirsty" species, their availability and uses can be found at your local nursery.

