

Suggested Landscape Plant List

Size	Specimen Name	Specimen Type	Water Use	Location	Height
Trees					
30-gal box	Acacia Greggii. (Catclaw Acacia)	Deciduous Tree	Low	Sunny	16'
30-gal box	Albizia Julibrissin var. (Rosea Mimosa)	Deciduous Tree	Medium	Sunny	20'
30-gal box	Cotinus Coggygria (Smoketree)	Deciduous Tree	Medium	Sunny	16'
30-gal box	TX Honey Mesquite (Prosopis glandulosa)	Deciduous Tree	Low	Sunny	20'
30-gal box	Bubba Desert Willow (Cheilosis Liners)	Deciduous Tree	Low	Sunny	25'
30-gal box	Paloverde Desert Museum Parkinsonia	Deciduous Tree	Low	Sunny	20'
30-gal box	Forestiera Neomexicana (New Mexico Olive)	Deciduous Tree	Medium	Sunny	20'
Cactuses & Plants					
5-gal	Santa Rita-Opuntia (Prickly Pear)	Cactus/Succulent	Low	Sunny	8'
5-gal	Bunny Ears (Opuntia Microdasys)	Perennial/Cactus	Low	Sunny	3'
5-gal	Spineless Opuntia (Ellisiana Tiger tongue)	Cactus/Succulent	low	Sunny	6'
5-gal	Sotol Dasyliro (Wheeleri S Watson)	Perennial/Deciduous	Low	Sunny	8'
5-gal	Yucca Elata (Soap tree)	Evergreen/Cactus	Low	Sunny	12'
5-gal	Agave Parryi Engel	Evergreen/Succulent	Low	Sunny	6'-8'
5-gal	Flame Acanthus (Anisa canthus Quadrifidus)	Deciduous Shrub	Low	Sunny	6'-8'
5-gal	Red Bird of Paradise (Caesalpinia Pulcherrima)	Evergreen Shrub	Low	Sunny	5'
5-gal	Damianita (Chrysactinia Mexicana)	Evergreen Shrub	Low	Sunny	3'
1-gal	Blackfoot Daisy (Melampodium Leucanthemum)	Perennial	Low	Sunny	2'
5-gal	Giant Hesperaloe (Funifera Agave)	Perennial/Subshrub	Low	Sunny	4'-6'
5-gal	Regal Mist (Muhlenbergia Capillaries)	Deciduous/Evergreen	Low	Sunny	4'-6'
5-gal	Deergrass (Muhlenbergia Rigens)	Perennial Bunchgrass	Low	Sunny	5'-6'
5-gal	Black Delea (Frutescens Var)	Deciduous/Perennial	Low	Sunny	4'-5'
5-gal	Mexican Wild Olive (Cordia Boissiera)	Semi-evergreen	Medium	Sunny	5'-7'
5-gal	Green Cloud Sage (Cenizo Leucophyllum)	Evergreen Shrub	Low	Sunny	4'-6'
5-gal	Chaparral Sage (Silvia Clevelandii)	Perennial Shrub	Medium/Low	Sunny	4'-6'
5-gal	Yellow Bells (Tacoma Stans L)	Deciduous Shrub	Low	Sunny	4'-6'
5-gal	Ruby Muhly (Muhlenbergia Reverchonii)	Perennial Grass	Medium/Low	Sunny	3'-5'
5-gal	Ocotillo (Fouqueria Splendens)	Evergreen Spiny Shrub	Medium/Low	Sunny	8'-12'
5-gal	Lechuguilla (Agave Lophantha Var)	Cactus/Succulent	Low	Sunny	2'
3-gal	Scarlet Beehive (Echinocereus Coccineus,E)	Cactus/Succulent	Low	Sunny	2'-4'
5-gal	Barrel Cactus (Ferocactus Wislizeni Britton C)	Cactus/Succulent	Low	Sunny	4'-6'
5-gal	Agave Parryi Var	Deciduous/Evergreen	Low	Sunny	4'-6'
15 gal	Argentina Saguaro (Echinopsis Terscheckii)	Cactus/Succulent	Medium/Low	Sunny	8'12'

Conditions for Planting in the Chihuahuan Desert

Planting in the Chihuahuan Desert requires understanding its unique climate, soils, rainfall patterns, and microclimates. These factors determine which plants thrive and what practices ensure long-term success.

1. Climate: High Sun, Low Humidity, and Temperature Extremes

The Chihuahuan Desert is characterized by:

- High elevation (~4,000+ ft), which creates *cooler summers than lower deserts* but also hard winter freezes.
 - Summer monsoon rainfall, mostly July–September.
 - Low annual precipitation (6–16 inches), with the Las Cruces area often averaging around 8–9 inches—but some years are far drier (2024 recorded only 4.7 in.)
 - Intense sun exposure, making full-sun species ideal for most landscape zones.
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2. Water Availability: Limited and Highly Variable

Water scarcity defines desert planting:

- Deserts have high evapotranspiration, meaning more water is lost to air and soil than falls as rain.
 - Supplemental irrigation—especially drip irrigation—is essential for new plantings. Drip systems help water penetrate slowly, avoid soil compaction, and encourage deeper roots.
 - New plantings need consistent but conservative irrigation until established; desert-adapted species require minimal water thereafter.
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3. Soil Conditions: Caliche, Rocks, and Low Organic Matter

Native Chihuahuan Desert soils often contain:

- Caliche (a hardened calcium-carbonate layer) is one of the biggest barriers to successful planting in Southern New Mexico. It prevents water infiltration and restricts root growth—so proper amendment is essential.
- Caliche can occur 6–20 inches below the soil surface and acts like cement, stopping water and root penetration. To improve planting conditions, you must physically break up this layer using tools such as digging bars, pickaxes, or mechanical augers. Best for: Trees, shrubs, and deep-rooted perennials.

Extremely low organic content— Desert soils in the region often contain less than 1% organic matter, so amendment is essential. Compost acts like a sponge, holding nutrients and moisture while slowly releasing them to plant roots. Incorporate compost into the upper soil layer will Improving water retention, nutrient availability, and overall soil health.

- Break up caliche mechanically OR use raised beds for non-desert-adapted species.
- Add compost to improve moisture retention.
- Apply mulch (wood chips, straw, lawn clippings, even newspaper) to reduce evaporation and add organic matter as it breaks down.

4. Wind Exposure: A Major Stressor

Southern New Mexico experiences frequent winds:

- Wind increases evaporation and root desiccation.
- Use windbreaks, fencing, walls, or strategic plant placement to shield young or sensitive plants.

5. Microclimates: Use Them to Your Advantage

Your specific site may include:

- Hot south-facing walls
- Shaded north exposures
- Wind-protected corners
- Moisture-retaining low spots

Microclimates play a major role in planting success.

6. Plant Selection: Choose Desert-Adapted and Native Species

Plants naturally occurring in the Chihuahuan Desert are the easiest and most sustainable choices. Common successful species include **See Suggested Landscape Plant List**.

Choosing native desert species dramatically reduces water use and increases survival rates.

7. Pollinator Considerations

The Chihuahuan Desert supports important pollinator species:

- Native plants feed bees, butterflies, beetles, wasps, and moths.
- Many plants support **specialist pollinators** requiring specific host species.
[\[xerces.org\]](http://xerces.org)

Implication:

Including milkweeds, desert willow, and desert marigold increases biodiversity and resilience.

References:

Xerces Society for Invertebrate Conservation. Native Plant Pollinator Botanical Information — Southwestern Chihuahuan Desert.
https://xerces.org/sites/default/files/publications/22-034_01_NPPBI%E2%80%9494SWChihuahuanDesert_web.pdf

Climate data: New Mexico State climatology office. <https://weather.nmsu.edu/>

Soil data: NRCS Soil Surveys, <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/soil-surveys-by-state>

Plant Attributes: New Mexico State University Agriculture Extension, <https://extension.nmsu.edu/areas/garden.html>