

Common Differences Between *Opuntia engelmannii* and *O. valida*

Opuntia engelmannii	Opuntia valida
Elliptical or obovate pads	Elongate or rhomboid pads
1 or 4 centrals (or none), to 2 inches long	2 or 3 centrals up to 1 ½ inches long
May occasionally have radials flat against pad	Radials never flat against pad
Spines more slender	Spines more robust
Spines not angular in cross-section	Spines angular in cross-section
Smaller areoles	Larger areoles
Older stems do not become spinier	Older stems (often the base of the plant or near the base) become spinier and carry large and many glochids
Pear-shaped, barrel-shaped, or globose fruit	Slender fruit, not globose
Spines white, yellow, tan, or variable	Spines cream-colored
Spine bases brown, red-brown, sometimes dark	Spine bases chocolate, very dark
Widespread	Restricted distribution over a large range
Spine color may fade or darken with age	Spine color doesn't change with age, except on very old stems where they may darken
Pads generally green or pale-green	Pads often slightly blue-green
Generally upright, not radiating, not ascending	Ascending, widely radiating, may ascend, not upright
Mature plants up to 2 m tall	Mature plants up to 1 m tall