

## Rio Grande and Cottonwood



The Rio Grande cottonwood grows near water, and in places where its roots reach moist soil, in the lower stream valleys, from 4000 to 7000 feet or so in elevation, near the lower limit of the Narrowleaf cottonwood's range, along the Colorado, San Juan, Yampa, White, and Gunnison Rivers; in the southwestern corner of Colorado; and near the old Spanish settlements along the Rio Grande in Colorado and New Mexico. It is very similar to the Plains cottonwood except in detail.

These cottonwoods grow 50 to 90 feet high with a thick trunk up to 4 or more feet in diameter. A Rio Grande cottonwood growing in Ruby Canyon on the Colorado River at the Utah border was 207 years old when it was measured in 1995, a very old age for a cottonwood, and it was still alive.

The Rio Grande cottonwood (scientific name “*Populus deltoides* H. Marshall subsp. *wislizenii* (S. Watson) Eckenwalder”) is similar to the Eastern cottonwood, as is Colorado's Plains cottonwood. One difference of the Rio Grande cottonwood from the Eastern is that the stalks of the seed capsules are longer than the capsules. The Rio Grande cottonwood and Plains cottonwood may hybridize if they grow close enough for cross-pollination.

In the old Spanish settlements the cottonwood was known by the name Alamo, and a cottonwood gave its name to the famous mission of San Antonio, Texas. The Rio Grande cottonwood is sometimes called the Valley cottonwood or the Wislizenus cottonwood. That name, and the subspecies name, is for Frederick Aldolphus Wislizenus, a German physician and plant collector who traveled in Colorado in 1839.

Indians ate the raw catkins (flower spikes) of this tree, and made baskets from young cottonwood shoots. The vegas or roof beams of adobe houses are made from the trunks. The foliage is browsed by mule deer and horses, and presumably beavers eat the leaves and use stems for building as they do with other poplars.

The leaves are coarsely toothed with usually fewer than 10 teeth per side, with a narrow, tapering drawn-out point, while Plains cottonwood leaves usually have more than 10 teeth per side. The leaf blade is a broad triangle usually 2 to 4 inches long and 2 to 3 inches wide. Leaf stalks are about two inches long and flattened. The flattened leaf stalks allow the leaves to sway back and forth in any breeze.

The bark is quite similar to Plains cottonwood bark: on mature trees, the bark is light gray to pale

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brown, with flat-topped ridges bisected by v-shaped vertical grooves, which can be an inch or more deep. The bark itself may be several inches thick on large old trees.

The Fremont cottonwood is similar to the Rio Grande cottonwood and was once thought to grow in Colorado. The Forest Services' s Fire Effects Information System says “Fremont cottonwood does not occur in Colorado. Cottonwoods previously misidentified there as Fremont cottonwood have been reassigned as Rio Grande cottonwood (*Populus deltoides* var. *wislizeni*).” The Fremont cottonwood grows along rivers of the southwest and California.

Forest Services' s Fire Effects Information System (<http://www.fs.fed.us/database/feis/plants/tree/popfre/all.html>), accessed May 10, 2011.

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