

MESQUITE TREES



- Yuma is not necessarily known as a region for the propagation of ornamental and other landscape trees, yet some niche production does occur in the area. Case in point is the mesquite tree, destined for Colorado River reclamation and other desert renovation projects.
- The mesquite tree is one of the most common trees of the southwestern United States and parts of Mexico. It is a member of the legume family of plants which includes peanuts, alfalfa, clover, and beans. Perfectly adapted for its dry environment, the mesquite is a hardy tree.
- The mesquite grows in the northern parts of Mexico including the Chihuahuan Desert, a mountainous desert region that is on the US-Mexico border. The mesquite thrives from its Mexican range all the way through Texas and up into the southwestern portions of Kansas. It extends from the Sonoran Desert in southern California to southwestern Utah. Most of the places that you will find mesquite trees in have a low annual rainfall.
- There are three types of mesquite tree that grow in this region. One is the honey mesquite, another is the screwbean mesquite, and finally there is the velvet mesquite. The honey mesquite gets its name from its fragrant flowers. The screwbean mesquite is so named because it has screw-like pods. The velvet mesquite has leaflets which feel velvety to the touch.
- The honey mesquite can grow to 20 feet in height with a trunk that is a foot in diameter. Like the other mesquite species it has spines; they are 3 inches long and occur along the branches. The narrow leaves are pointed and are 2 to 3 inches long. The screwbean also can get as large as 20 feet, and has a 2-inch fruit that develops from its flowers that resembles the spiraling shape of a screw. The velvet mesquite is bigger than the other two, with a diameter that can reach 2 feet and growing to an average of 30 feet. It has 4-inch long spikes and an 8-inch fruit, like the honey mesquite does.
- Mesquite trees have a long taproot that they use to locate enough moisture to keep them alive. This feature allows them to survive through droughts. There are recorded instances of taproots of the mesquite tree reaching a depth of almost 200 feet down into the soil. The roots of the mesquite can regenerate if the tree is chopped off above, making the mesquite one tough tree to get rid of. Ranchers feel that the mesquite removes water from the land that could be used for livestock and farming, making it unpopular with those individuals.
- The benefits of the mesquite tree far outweigh any perceived shortcomings. The wood is very hard and it is used in making furniture and tool handles. The flowers from the mesquite species provide bees with nectar to produce honey. They grow rapidly and are a shade source for animals. The bean pods they produce can be turned into flour and used for baking. Animals can eat the fruit; coyotes survive almost exclusively on mesquite pods during the winter months. Mesquite wood used for firewood burns slowly and generates great heat;

it is used to barbecue food in the southwest and lends a distinct flavor to whatever is cooked over it.

- Mesquite is an extremely hardy, drought-tolerant plant because it can draw water from the water table through its long taproot (recorded at up to 190 ft in depth). However, it can also use water in the upper part of the ground, depending upon availability. The tree can easily and rapidly switch from utilizing one water source to the other. Many people, especially ranchers, consider the tree a nuisance because they believe it competes with rangeland grasses for moisture. In many parts of Texas, particularly West and Central Texas, the proliferation of mesquite is blamed for lowering of groundwater tables. However, salt cedar has had a greater effect on water consumption, in some cases even displacing existing mesquite.
- New growth of mesquite has tough, needle-sharp thorns up to 3 inches long. The spines are tough enough to penetrate the soft soles of sneakers or similar footwear and can easily puncture tires. Fortunately older branches lose their spine as they grow, making it safer around children, pets, and animals.
- Mesquite trees furnish shade and wildlife habitat where other trees will not grow. They will often be found in alkaline soils near water holes.
- Although a single flower of the blossom is only a few millimeters long, they are clustered into a yellow creamy blossom attracting many different types of pollinators.
- The various types of mesquite can be identified by the seed pods. Screwbean mesquite pods curl around back onto them and are the easiest to identify. Honeybean and velvet mesquite are a little harder to differentiate. While both trees' seed pods are long and legumous, the velvet mesquite pods have a slight velvety appearance and feel.
- Native Americans in some areas could have hardly survived without the mesquite. They would grind the pods into a coarse flour, and after winnowing, grind the seeds again into a fine flour. Cakes would be made of both flours and would turn late spring and the summer into a time of plenty.
- Eradicating mesquite is difficult because the plant's bud regeneration zone can extend down to 6 inches below ground level. The tree can regenerate from a piece of root left in the soil. Some herbicides are not effective or only partially effective against mesquite.
- The tree's flowers provide a nectar source for bees to produce mesquite honey, which has a characteristic flavor.
- Mesquite trees grow quickly and furnish shade and wildlife habitat where other trees will not grow. Being a legume, it fixes nitrogen in the soil where it grows, although this is rather newly discovered and is still a poorly understood part of its life cycle.
- The bean pods of the mesquite can be dried and ground into flour, adding a sweet, nutty taste to breads, or used to make jelly or wine.

- When used in baking, the mesquite bean flour is used in combination with other flours – substitute ¼ cup-to-½ cup mesquite flour, for each cup grain flour. Mesquite bean flour is used in breads, pancakes, muffins, cakes and even cookies. Mesquite powder is also high in calcium, magnesium, potassium, iron and zinc, and is rich in the amino acid lysine.
- Wild animals also eat mesquite bean pods. In places like Death Valley and much of the Sonoran Desert coyote feces consisting almost entirely of mesquite beans and pods can often be seen.
- Mesquite leaves were once used medicinally; water infused with the leaves can be used as eye drops.
- Mesquite wood is hard, allowing it to be used for furniture and implements. The wood is used for decorative woodworking and woodturning. It is highly desirable due to its dimensional stability, after being fully cured. The hard, dense lumber is also sold as Texas Ironwood and is rather harsh on saws, chain saws, and other tools. It must be noted, however, that mesquite and Ironwood are different species.
- As firewood, mesquite burns slow and very hot. When used to barbecue, the smoke from the wood adds a distinct flavor to the food. This is common in the Yuma area, while in the Southeast, hickory is usually used.

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