



Giant Reed

Arundo donax



FAMILY	Poaceae – grasses	ORIGIN	Eastern asia
LIFE CYCLE	Perennial	OTHER NAMES	Arundo grass, giant cane, Spanish reed, bamboo reed

QUICK FACTS

- Giant reed is a tall perennial cane grass that can reach up to **30 feet**. It has hollow stems up to 1.6 inches in diameter. Leaves are alternate, pale green to blue-green and over a foot long.
- Native to Eastern Asia, this plant is considered beneficial in its native range and can be used in several different ways. However, outside its native range, it **grows aggressively, creating flood and fire hazards** that alter ecosystems and habitats.
- Giant reed only reproduces asexually outside of its native range, but spreads quickly and easily through rhizomes and plant fragments. This plant can grow up to **4 inches per day** and creates dense monocultures that native plants cannot penetrate.

One of the world's most invasive species.

Giant reed is present in most warm climates worldwide and is considered invasive outside its native range. It establishes itself in moist places like ditches, streams, and riverbanks and grows best in areas where the water table is near the soil surface with abundant moisture and sunlight. This weed primarily invades southern New Mexico at elevations of 4000-4500 feet and occurs in floodplains, arroyos, and the Rio Grande River. [2,4]

What does it look like?

Giant reed is a tall perennial cane grass found in riparian areas with abundant moisture. Its stems can grow up to 30 feet tall, are bamboo-like, and have large alternating leaves over 1 foot long. Leaves are blue-green to lime green and have sharp margins. This plant can be confused with common reed or immature bamboo. Some distinguishing characteristics from common reed are its height, as common reed only grows up to 14 feet tall, while giant reed grows up to 30 feet tall. It can be distinguished from bamboo by stem thickness, as giant reed stems can reach up to 1.6 inches in diameter, whereas bamboo is typically thicker.



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Plant: Giant reed is a large perennial grass with bamboo-like stems that can grow 6 to 30 feet in height. These stems are hollow and grow very densely together. Culms are 0.4 to 1.6 inches in diameter and often branch in the second year. Leaves are alternate, flat, sharp-edged, and wrap around the stem. Flowers are a long, dense plume at the top of a plant that is purplish in color and up to 36 inches long. [1,5]

Roots: Roots are thick, knotty rhizomes that spread extensively and create mats over 3 feet thick. Creeping rhizomes can be about half an inch thick and are very tough. [1,5]

Leaves: Leaves are arranged alternately. They can be pale green to blue-green, 2-3 inches wide at the base, and over a foot long. Leaves are flat, sharp-edged, and taper to a fine point. They wrap around the stem and have long wavy hairs along the margins. [1,5]

Flowers: Large plumes at the ends of stems and branches. They can appear from June to September, are purplish-red and turn silvery as they age. [5]

Seeds: Seeds are not viable outside of their native range. The plant is only known to produce seeds from stem fragments and rhizomes in North America. Fruits are single-seeded, dried fruits that are light brown and 3-4 mm long. [1,5]

Impact and Management

Ecosystem Health

Once established, giant reed displaces native plants, resulting in a notable loss of floral and faunal biodiversity. This can significantly reduce forage availability for game, particularly during the winter months, and may even alter migratory patterns. Giant reed reproduces quickly, which displaces native plants. Its stands do not provide shade, which warms the water and displaces fish and other riparian animals.

Economic

This weed will become a monoculture through aggressive vegetative growth. It is not very palatable to most livestock (except sheep and goats), but they occasionally eat it during the cold months when the weed is dry. The cost of removal can be \$10,000/ ha, and plants can easily reinvade if not done properly. Additionally, giant reeds often redirect water, forcing floodwaters into new channels and causing erosion and infrastructure damage, thereby increasing repair costs.

Fire & Flood Hazard

Giant reed often alters water flow, causing flooding and erosion in new areas. This can be dangerous, as flooding can damage infrastructure. While riparian areas where the weed grows are not very susceptible to fires, giant reed is highly flammable and burns easily once it catches on fire. A large infestation can start a severe fire.

Erosion & Infrastructure

Giant reed significantly increases the risk of soil erosion by outcompeting and displacing native ground cover. While this plant can stop erosion in infected areas, they take up three times more water than native plants and alters water flow, which often results in flooding and erosion in downstream areas, which can damage homes, roads, bridges, and irrigation canals..

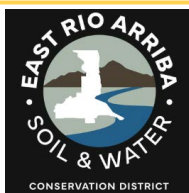
The best way to manage this weed is through preventive measures, such as avoiding unnecessary soil disturbance and cleaning equipment to prevent accidental introduction into new areas. If an infestation occurs, a combination of mechanical and chemical methods works best at managing giant reeds. Small infestations can be managed easily by digging out the entire plant and its roots and disposing of them, or by repeated cutting or mowing to deplete the plant's energy reserves. Larger infestations can be managed with grazing, fire, and cutting only when combined with chemicals, due to its rhizomatous roots. Giant reed can grow from plant fragments and roots, so it is important to dispose of plants appropriately.

DO's

- Combine mechanical and chemical control methods to kill plants entirely and prevent regrowth.
- Attempt to remove as much of the roots as possible to prevent regrowth.
- Continuously cut new growth to drain the plant of energy reserves and prevent reinfestation.

DON'Ts

- Allow it to become widespread. It is easier to manage small or individual infestations.
- Spread plant fragments to new areas, as plants can easily form new stands from plant fragments.
- Disturb soils, as this disrupts native plants and allows weeds to grow.



For more information on managing Giant reed, please visit www.nmweeds.org

