

PAMPAS GRASS AND JUBATA GRASS

Cortaderia selloana

Grass Family (Poaceae)

Cortaderia jubata

DESCRIPTION

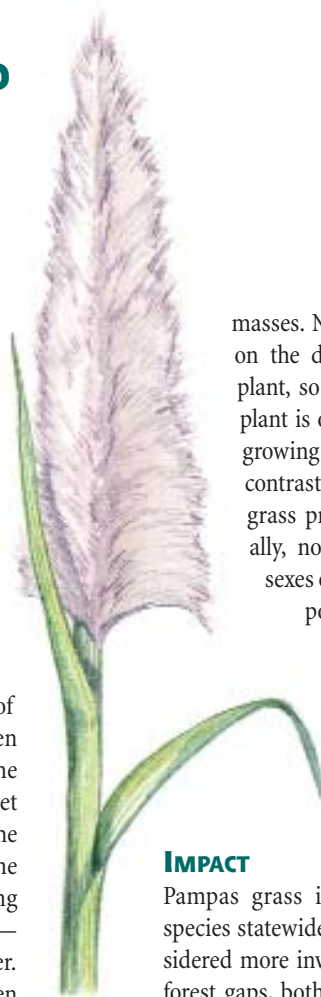
Pampas grass is a common name used for both *Cortaderia* species. For clarity in this discussion, *Cortaderia jubata* will be called jubata grass, while pampas grass will refer only to *C. selloana*. Both species are rapid-growing perennials that form large clumps. Jubata grass is found only in coastal areas, but pampas grass also infests more inland locales. Both are found in disturbed areas, slopes and cliffs, coastal scrub, and forest clearings.

Jubata grass leaves reach a height of 5–7 feet at maturity. The dark green leaves have sharply serrated margins. The flowering stalks can tower up to 20 feet above the mass of spreading leaves at the base. The inflorescence—a showy plume ranging from pink to violet, turning creamy white or golden in maturity—typically appears from July to September.

Pampas grass leaves are gray-green and narrower than those of jubata grass. The leaves tend to curl at the tips. The flower stalks grow only a little taller than the mound of leaf blades, giving pampas grass a more rounded appearance than jubata grass. The plumes are paler (generally pale pink to silvery white) than those of jubata grass.

REPRODUCTION

Female jubata grass plants produce seed asexually by apomixis. Thousands of seeds that are genetically identical to the parent plant are then wind-dispersed. Plants live for over a decade, and within their lifetime will develop huge root



masses. New seedlings often grow on the dead mass of the parent plant, so what appears to be one plant is often several generations, growing one on top of the other. In contrast to jubata grass, pampas grass produces seeds only sexually, not apomictically, so both sexes of plants are necessary for pollination and seed production. Both grasses can spread vegetatively from tillers or fragments of a mature plant that root in moist soil.

IMPACT

Pampas grass is the more widespread species statewide, but jubata grass is considered more invasive in coastal areas. In forest gaps, both species can prevent the growth of saplings by limiting available water and nutrients. Both readily establish in disturbed areas including landslides, road cuts, and cliff faces. Seeds are wind-dispersed and populations expand quickly in coastal areas, significantly reducing grassland, scrub, and rocky outcrop habitats. The sharp, sawtooth-edged leaves can cut human skin. Both grasses increase the risk of fire when leaves dry out or die back.

KEY FACTORS

- u Serrated leaves require the use of gloves and protective clothing.

- u Sprouts from roots left in contact with soil.
- u Thrives in moist areas: keep pulled vegetation away from water.
- u High seed production.
- u Seeds remain viable approximately 9–12 months.

TREATMENT OPTIONS

- u **Pull** seedlings by hand or with the help of a pick, Pulaski, or shovel.
- u **Cut** larger plants and remove the root mass. First, carefully cut and dispose of all seed plumes, including immature ones that have yet to emerge from their sheath, because they may be able to mature.

Next, cut stems and leaf blades to near ground level with a Pulaski, Swedish brush ax or chainsaw. Some practitioners prefer to use a chainsaw to remove the mass of leaves, while others caution that this is dangerous (the chainsaw user must kneel and cannot see the blade) as well as slow (the grass quickly clogs the chainsaw guard). An expertly sharpened machete is also effective, but like a chainsaw, is an appropriate tool only for experienced professionals.

Finally, remove the root mass. If it is very large, use the ax side of the Pulaski to chop it into 4- or 5-inch squares, then use the flat side of the Pulaski to hoe out the pieces.

- u **Pull** very large plants with a truck hitch. This is possible if the pampas or jubata grass is near a road and a strong truck is available. Place a choker cable around the plant, digging it into the ground a little behind the plant so it won't slip off. Secure the cable to the truck hitch, and pull the plant out easily. This is very impressive to volunteers!
- u **Cut** the plumes of plants you are unable to remove, as a temporary containment measure. Cut the plumes while they are still pink or

purple (prior to producing seeds)—typically August to October near the coast, earlier inland and in hotter areas. Note, however, that cut plumes can produce another seed plume from the same stalk in as little as 1–2 weeks.

- u **Foliar spray** 2 percent glyphosate on all green growth during the active growth period (November–July, or even August–September along the Central Coast). Spraying minimizes soil disturbance, but the herbicide must contact the entire leaf surface, a difficult task for large plants. An additional caution: plants that appear dead soon after spraying may survive and regrow the following year.
- u **Cut and treat.** As an alternative to foliar spraying, you could cut away the stems and leaves and then apply herbicide to the cut stems near the root mass. Practitioners report mixed results with this technique.

DISPOSAL

To prevent resprouting, turn the whole uprooted mass upside down and leave it in place to dry out. Small, stringy roots left in the soil will not regrow, but all parts of the main root mass must be at least several inches away from the ground.

Place the cut plumes on top of cut grass leaves. To prevent any seeds from being blown away, make a “pampas sandwich” by covering the seed heads with a second layer of foliage. Some practitioners bury the seed plumes under something more substantial than the leaves, as they can dry out and blow away—with the seeds! Finding a way to leave the plumes behind means you won't have to haul heavy bags off-site, especially in steep, remote areas. Given that jubata grass seeds don't need to be pollinated, it's important to cover or remove them as soon as possible.

FOLLOW-UP

Check for sprouts twice a year.

INTERESTING FACTS

Pampas grass and jubata grass are native to South America. No one knows quite when and how jubata grass was introduced to California, but pampas grass was introduced to the state in

the mid-1800s. Both grasses were widely planted as ornamentals and have been used to prevent erosion on slopes. *Cortaderia* comes from the Spanish for “cutter” and refers to the plant’s sharp leaf margins.

Notes