

Pampas Grass (*Cortaderia selloana*), **Jubata Grass** (*Cortaderia jubata*)

Varieties: Andes Silver; Bertini; Gold Band; Monvin; Patagonia; Pumila; Pink Feather; Silver Comet; Sundale Silver; Sunstripe; Albolineata; Aureolineata; Sunning Dale Silver; Pink Pampas; Black Pampas; Purple Pampas

Description: Pampas grass is a fast growing, densely tufted perennial grass. It forms a large clump of long, narrow leaves that grow up to 5-7 feet tall. The leaves are flat or folded and have sharply serrated margins. Stems have huge, feathery flower plumes that grow higher than the clumps of foliage. Pampas grass and Jubata grass appear similar and are both invasive plants.

History : Pampas grass is native to South America (Argentina, Brazil, and Uruguay). The species was introduced to California in 1848 as an ornamental plant and used in gardens as a hedge, focal point, and wind break. For production purposes, nurserymen in California selected the showier female plants of Pampas grass and propagated them through vegetative cuttings. However, in recent years, some nurseries have propagated pampas grass from seed. This caused male plants to be introduced into the environment and the escape of the plant from gardens into natural areas. Jubata grass was also introduced to California in the late 1800's as an ornamental plant. Unfortunately, Jubata grass seed was accidentally used to propagate nursery stock, releasing the invasive variety to natural areas as well.

Impacts: Pampas grass is highly invasive due to its ability to tolerate a wide range of habitats and temperatures. Its prolific seed production, rapid growth and accumulation of above and below-ground biomass allows it to acquire light, moisture, and nutrients that would be used by other plants. It can be damaging even at low densities because of the amount of cover it can occupy. Pampas grass creates a fire hazard with its excessive build up of dry leaves and flowering stalks. Pampas grass is also allergenic causing the following symptoms: sniffing, sneezing, coughing, itchy, watery eyes, etc. Plants can flower in their first year of growth, and some established plants can flower twice during the same season. Pampas grass flowers need pollen from another plant to develop seeds. Individual plumes can produce 100,000 seeds, and a large plant can produce a million or more seeds.

Jubata grass is also highly invasive with the same properties as Pampas grass. One difference is that Jubata grass is less tolerant of extreme weather conditions. Jubata is also self pollinating with no need for an opposite sex plant to produce seeds. The threat from Jubata grass applies only to Western Washington, whereas Pampas grass threatens both sides of the state. Spread occurs by wind-blown seed or by people using mature inflorescences in decorative arrangements or using plants in landscaping. Seeds have been reported to disperse over twenty miles under windy conditions. Pampas grass can also reproduce from fragmented tillers (short root rhizome or runner).

Control Options: Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The strategy of Thurston County's IPM policy is to minimize the use of pesticides.

- ▶ **Cultural / Habitat:** Do not intentionally plant pampas grass in your landscape. Report any escaped plants to the Noxious Weed Control agency.
- ▶ **Manual / Mechanical:** Small populations of very young plants (10 to 20 or more if they are manageable) can be hand pulled or dug out with a shovel or pick. Large, established plants may require cutting the tops first before attempting to dig out their large root masses. Carefully cut, bag, and dispose of all flower plumes. Even immature flower stalks should be disposed of as they are capable of maturing and spreading seed after removal. Root material should also be contained as new plants can start from root fragments, and roots left in contact with soil can re-sprout. **Be sure to wear gloves and protective clothing, as the serrated leaves can cause injury.**
- ▶ **Biological:** There are no known biological control agents available for Pampas grass.



► **Chemical:** Two herbicides are effective in treatment of Pampas grass. Products containing **glyphosate** should be used where sensitive plants are nearby. At sites where escaped populations of Pampas grass are present, the product containing **imazapyr** should be used, unless there are other sensitive plants nearby.

Spot spraying with an herbicide containing the active ingredient **glyphosate** (example: Roundup Pro[®], Eliminator Weed and Grass Killer[®], etc.) can be used to treat Pampas grass effectively. Glyphosate is a non-selective herbicide and can damage or kill any other plant that it contacts, including grass. The Roundup Pro[®] label recommends mixing a 1.5–2% solution for hand-held or spot applications for control of Pampas grass (University of California Cooperative Extension reports effective control of Pampas grass at 2%).

Due to recent health reviews, Thurston County recognized some scientific studies have concluded the use of glyphosate products have carcinogenic potential. The risk of spot spraying with these products is considered to be low provided the applicator uses personal protection equipment which includes chemically resistant gloves in addition to long sleeve shirt, long pants, socks and shoes and all other label precautions are followed.

Imazapyr (example: Polaris[®] or Alligare[™] Imazapyr 2SL) is also effective in controlling Pampas grass. Imazapyr is a non-selective herbicide and may damage or kill any other plants that it contacts. It may also leave persistent bare ground in the treatment area. This can be minimized by using only as directed, spraying at the recommended strength and no more than necessary to wet the surface of the leaves and stems. Products containing the active ingredient imazapyr are considered “moderate in hazard” by Thurston County’s pesticide review process for the potential for chemical mobility and persistence.

Thurston County has observed that most ready-to-use, pre-mixed products do not contain sufficient active ingredients to be as effective as concentrated products that are then mixed with water to create a specific finished concentration. The following instructions are for concentrated products which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.

Foliar applications:

- Using a spot application, spray plants thoroughly on the stems and leaves, enough to be wet but not to the point of dripping. Spot application means the herbicide is applied only to target plants, and not on surrounding plants or soil.
- As an alternative to spraying entire plants, you can first cut away the stems and taller portions of the foliage. Then, when the new growth is a couple feet tall, spot apply herbicide to the re-grown vegetation. Monitor twice a year with either technique for regrowth, as some plants that appear to be dead may survive and re-grow the following year.
- Addition of a methylated seed oil or a non-ionic surfactant to the tank mix may assist the herbicide in adhering to and penetrating the leaves and stems. Follow label recommendations for type and amount to use.
- Keep people and pets off treated areas until spray solution has dried.

Timing: Apply either glyphosate or imazapyr to actively growing foliage during the spring and summer or fall before a killing frost. In general, fall treatments seem to be somewhat more effective than spring or summer. **Bagging and disposing of mature plumes** is essential to reduce further spread of the species even with treatment.

Pollinator Protection: Pampas grass is wind pollinated, so the risk to pollinators of treating small local sites is minimal. Be aware of the presence of bees and other pollinators in adjacent vegetation and avoid them if possible.

Product/Method	Rates	Mix
Imazapyr Polaris [®] Alligare [™] Imazapyr 2SL	2%	Add 2.6 oz (5.2 Tablespoons) concentrated product per gallon of water.
Glyphosate Roundup Pro [®] Eliminator Weed & Grass Killer [®]	2%	Add 2.6 oz (5.2 Tablespoons) concentrated product per gallon of water.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions including site specific and safety measures. Always use personal protective equipment that includes coveralls, chemical resistant gloves, shoes plus socks, and protective eyewear. Use of brand names does not connote endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually. Product names and formulations may vary from year to year.

REFERENCES:

California Invasive Plant Council, Invasive Plants of California’s Wildland: *Cortaderia Pampas*
<http://www.cal-ipc.org/ip/management/ipcw/pages/detailreport.cfm?usernumber=33&surveynumber=182.php>

Oregon Department of Agriculture, Noxious Weed Control Plant Profiles: Pampas Grass
http://www.oregon.gov/ODA/PLANT/WEEDS/profile_Pampasgrass.shtml

The Weed Workers’ Handbook, by The Watershed Project and California Invasive Plant Council, 2004, pages 96-98.

The Nature Conservancy, Element Stewardship Abstract for *Cortaderia Pampas* <http://tncinvasives.ucdavis.edu/esadocs/documnts/cortjub.pdf>

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Thurston County Noxious Weed Control
 11834 Tilley Road S.
 Olympia, WA 9812
 Phone: 360-786-5576
 T.D.D. 360-754-2933
tcweeds@co.thurston.wa.us
www.co.thurston.wa.us/tcweeds