



Middle Rio Grande Endangered Species Collaborative Program Science Symposium – Dec 4, 2019

Presentation - Dealing With Ravenna Grass in the Bosque

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Ravenna grass (*Saccharum ravennae*) is a relatively new invasive in the Middle Rio Grande Valley

- There is a story out there that it was brought in by the zoo for the elephants, but it is likely it was cultivated in local gardens (ornamental). That is the source listed for other states.
- It is a bunchgrass that can get over 10 feet around. The culm (seed stalk) can rise up over 10 feet from the ground.
- It is a prolific seed producer. It also has rhizomes, but these seem to be more a method for individual plants to grow outward? The rhizomes / roots can resprout if using mechanical methods of removal.
- Looks similar to Pampas grass (*Cortaderia selloana*). Both are in the family Poaceae, but are not in the same genus. Leaf edges of Pampas grass can cut skin; Ravenna is friendlier.

Dakota
Dominguez
RMYC



Fortunately, we have both...

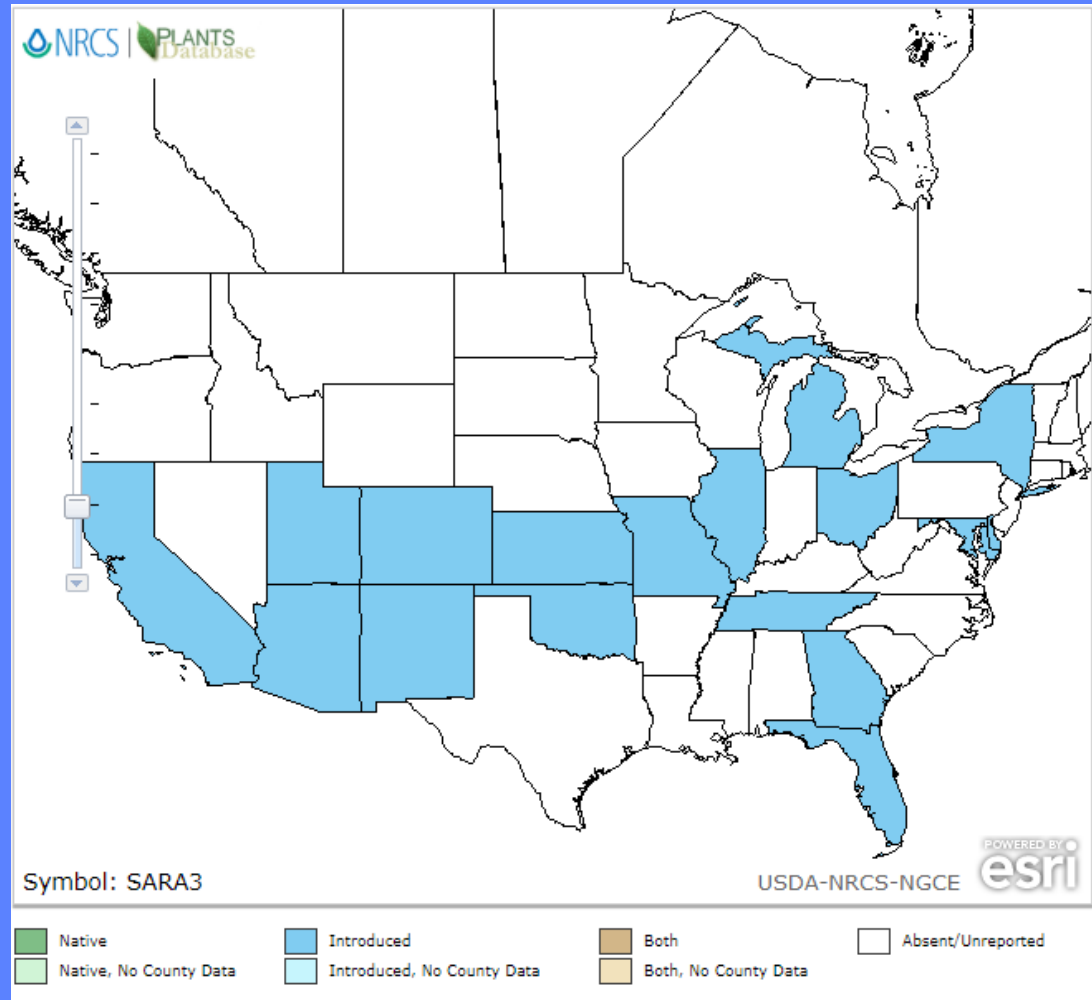


And phragmites!



More on Ravenna grass

- Native to the Mediterranean region
- Has been sold in the US for over 90 years as a cold-hardy ornamental grass
(Oregon Dep't of Agriculture info sheet)
- Most of the west / SW, like NM, are only recently seeing it as a problematic invasive
- In the MRGV, it is at least as far south as T or C. The northern limit seems to be Rio Rancho / Sandia Pueblo.



States reporting Ravenna grass:
from plants.usda.gov

OR and WA should be on this map

Why is it such a concern?

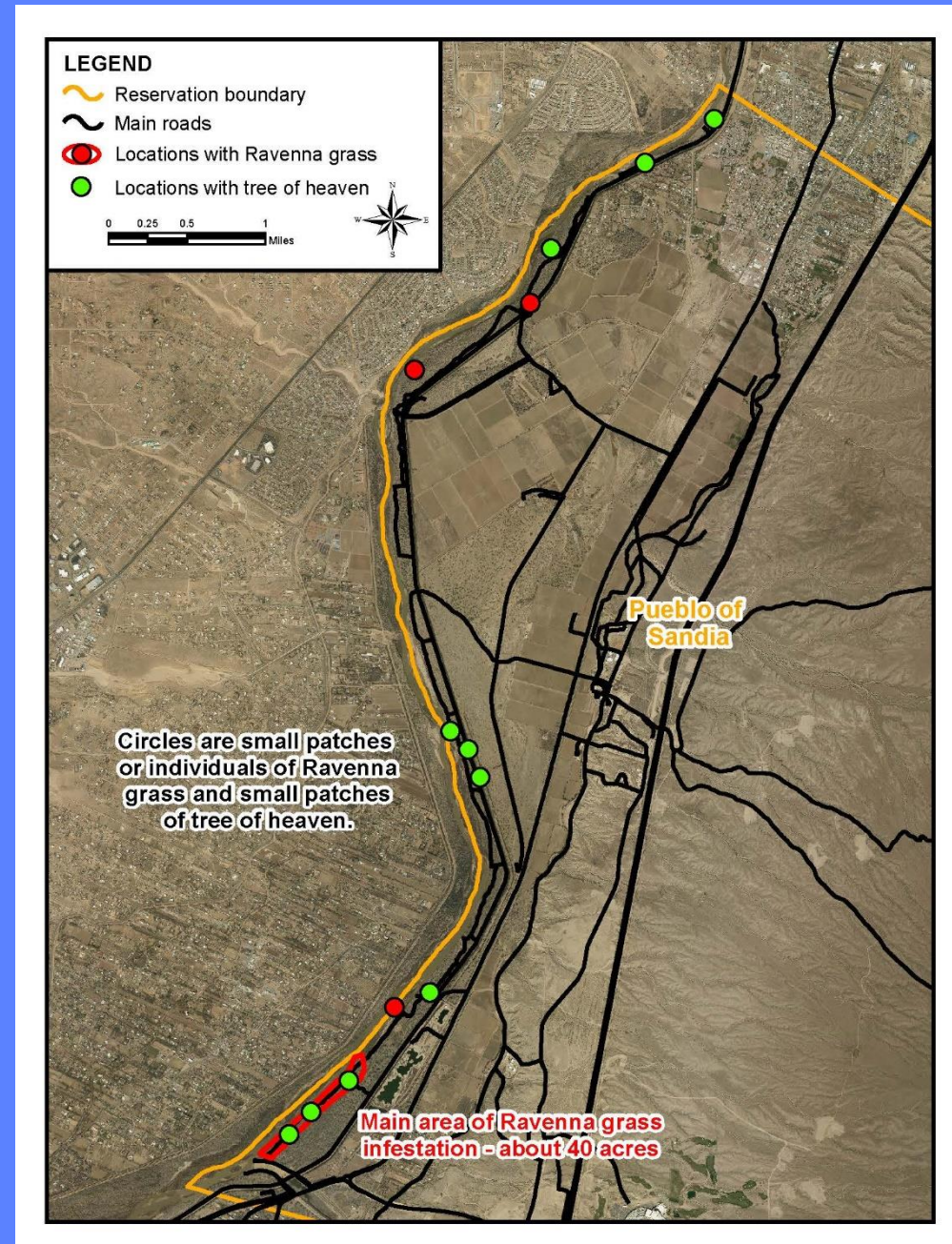
- It is aggressive: it can crowd out native species and become a monoculture.
- The vegetation it displaces is mostly riparian and wetland: habitat areas that are especially critical in the SW.
- It has long leaves that dry out along with long culms and “fluffy” seed heads: it is a major potential fire spreader.
- It doesn't need disturbed areas, but definitely takes advantage of them, including restoration sites.



What to do?

Not ready to tackle the whole infestation? Then do containment.

- Identify Ravenna grass patches and individuals
- Use mechanical or herbicide methods to get outermost plants or plants off by themselves
- Cut off and dispose of as many seed heads as possible



Herbicide Method

Triclopyr (Garlon) does not work on grasses.

Imazapyr (Habitat, Polaris AC) is pretty effective. The challenge is that the plant is so large that it is hard to get the coverage needed to kill the whole plant. PLAN FOR A FOLLOW-UP TREATMENT.

Spray in late March/early April before migratory bird restrictions kick in.

Then, PLAN FOR A FOLLOW-UP TREATMENT in late August / early September after migratory bird season. This will get resprouts and is a good time to hit new/missed plants before they go to seed.

Glyphosate also works.



Mechanical Methods - digging

For digging, first determine what the plan is for all the biomass that will be created. If the goal is also fuels reduction, then it must be sufficiently buried after digging up or removed from the site.

Regular, center-pointed digging shovels work best. Push shovel into the ground at the edge of the base of the plant. Push shovel handle down to lift the plant a little. Move over and repeat. Continue around the plant until it is ready to come out. Grab around it (give it a hug...) and pull it out completely.



Dug up Ravenna grass

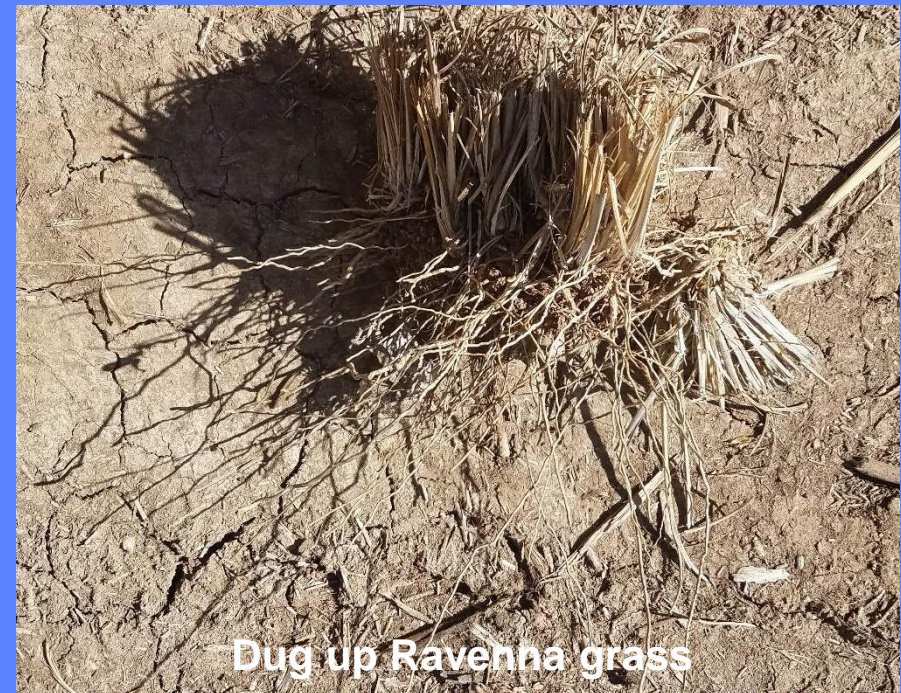
Mechanical Methods - digging

The general pattern for the roots is many shallow ones (evident on previous slide) with some that extend way out, as shown to the right.

These long roots are the reason resprouts are always a concern. Follow-up treatment, follow-up treatment, follow-up treatment...



Ravenna grass that was sprayed in March, resprouted over the summer and dug up in the fall. Note the lack of roots on the sprayed plant and small roots on the resprout.



Dug up Ravenna grass

Other Methods – Call the Youth Corps!

The Pueblo was able to get a grant to tackle the Ravenna grass in its Bosque. The work plan included hiring youth corps. Ancestral Lands is a Native American focused division of Southwest Conservation Corps. They came in the spring and focused on digging out Ravenna grass that was too close to cottonwoods to safely spray them with imazapyr, which can travel through the soil to non-target trees. Then ended up digging out a lot more.

Then Rocky Mountain Youth Corps arrived in September and completed the job in two days. No herbicide was used and the money saved will likely hire a youth corps to do some follow-up work in 2020.



Ancestral Lands heading to work

Questions?

