



AGGRESSOR IN YOUR GARDEN

European Common Reed (Phragmites australis subsp. australis) is one grass you don't want growing.

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T ARRIVED UNANNOUNCED . . .

or perhaps you unwittingly invited it in. It is beguilingly attractive with its luxurious plumes waving regally in the wind . . . winter, spring, summer and fall.

It took up residence in a spot that is a little difficult to manage . . . a seasonally wet ditch . . . a patch of low land in a field or meadow.

It is so pretty and requires so little maintenance on your part.

Perhaps you will let it stay.

DON'T!

Because in a very few years it will engulf you, your car, and possibly your house! Maybe even your neighbours too! It will squeeze out all your native plants and it will create dense colonies that are virtually impassable for turtles, frogs, you, your dog and anything else that moves.

It is European Common Reed (*Phragmites australis subsp. australis*).

Also known as invasive Phragmites.

No one really knows where it came from or when . . . possibly Eurasia.

We do know it is a perennial grass that grows in dense stands in shallow waters near wetlands, streambanks and lake-shores, and in wet fields and ditches. It can grow to be 2-6 metres (20 feet) tall. (Making it impossible to see around when it's at a rural intersection!)

We do know it is a problem rapidly enveloping all of North America.

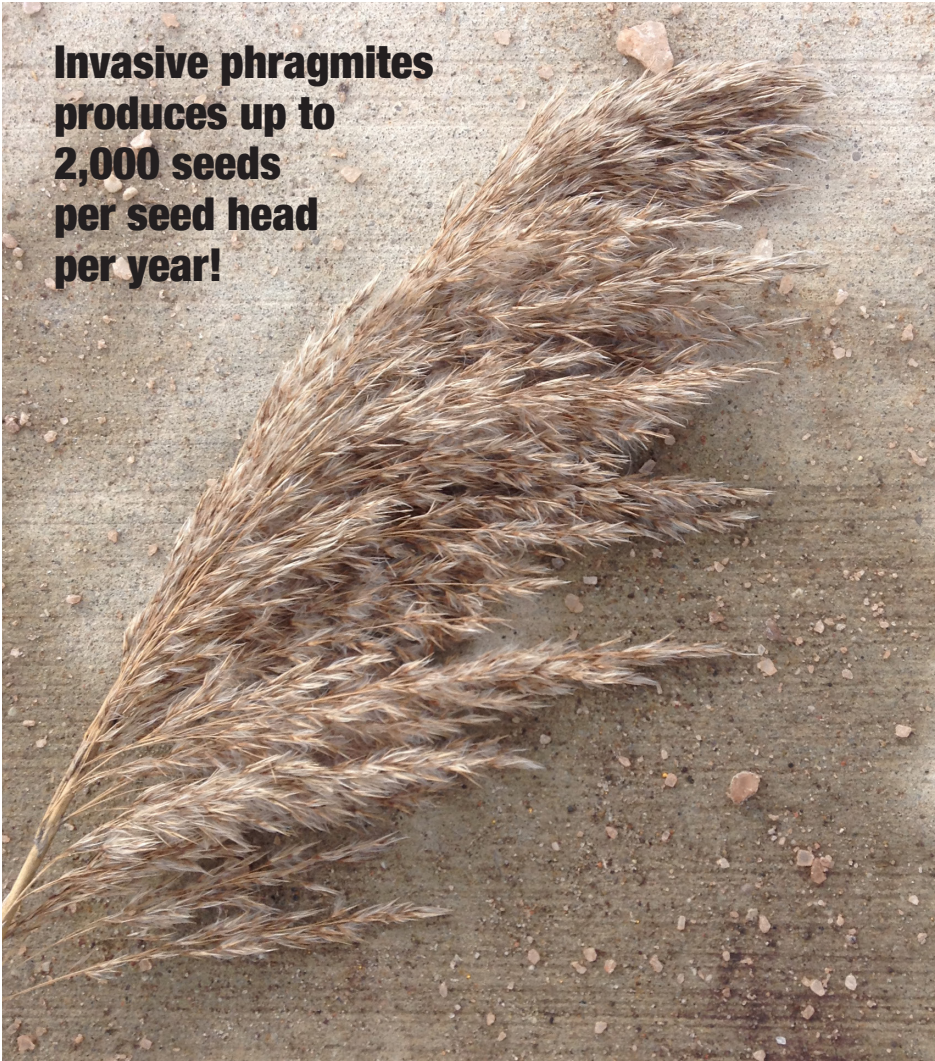
We know it spreads quickly and out-competes native species for water and nutrients. It releases toxins from its roots into the soil to hinder the growth of and kill surrounding plants.

While it prefers areas of standing water, its roots can grow to extreme lengths, allowing it to survive in even relatively dry areas.

We also know that once it has set up residence, it is very, very difficult to get rid of. Once established, invasive Phragmites is an indiscriminate destroyer of natural ecosystems. And for this reason, it is now considered a **restricted invasive species** under Ontario's Invasive Species Act.

That means, in effect, you cannot prop-

Invasive phragmites produces up to 2,000 seeds per seed head per year!



agate, buy, sell, or trade it.

Not that you would want to, once you recognized what a thug it was.

Typically Phragmites is spread by wind or animal-borne seeds (it produces up to 2,000 seeds per seed head per year), or by intentional introduction by people.

More commonly however, Phragmites spreads by horizontal above-ground stolons and underground rhizomes. You know . . . the kind that if you cut them . . . they are stimulated to grow even further and faster.

So what can you do to prevent phragmites from taking over?

First you have to identify it.

This shouldn't be too hard, except you have to recognize that there is a native phragmites which is not invasive.

Generally, the native one does not grow as tall as the invasive one and it does not out-compete other native

species, which means there is diversity of plant material in the patch.

The native phragmites also does not hold onto its plume all winter in the same way the invasive one does.

For more identifying characteristics see the accompanying sidebar.

The Spading Technique

Once you have identified invasive Phragmites there are a few things you can do to try and eradicate it. However, if it has established itself, it is probably going to take repeated yearly treatments. Eliminating it will be neither fast or easy.

Lynn Short, a Humber College Horticulture Professor and Researcher has developed a method of control called ***The Spading Technique***. It is labour intensive, but a practical way to control the problem that can be employed by both teenagers and adults. It is easy to learn and uses basic garden tools. The strategy prevents the plant from being able to photosynthesize which

INVASIVE VS. NATIVE

INVASIVE PHRAGMITES:

- grows in stands that can be extremely dense with as many as 200 stems per square metre;
- can grow so densely that it crowds out other species;
- can reach heights of up to 6 metres (20 feet), and
- has stems that are tan or beige in colour with blue-green leaves and large, dense seedheads.

NATIVE PHRAGMITES:

- grows in stands that are usually not as dense as the invasive plant;
- well-established stands are frequently mixed with other plants; and
- usually has more reddish-brown stems, yellow-green leaves and smaller, sparser seedheads.

necessitates removing it below the soil surface repeatedly and persistently. This weakens the plant until it disappears, replaced by native species again.

See method opposite or visit the ecospark website.

Removing Seed Heads

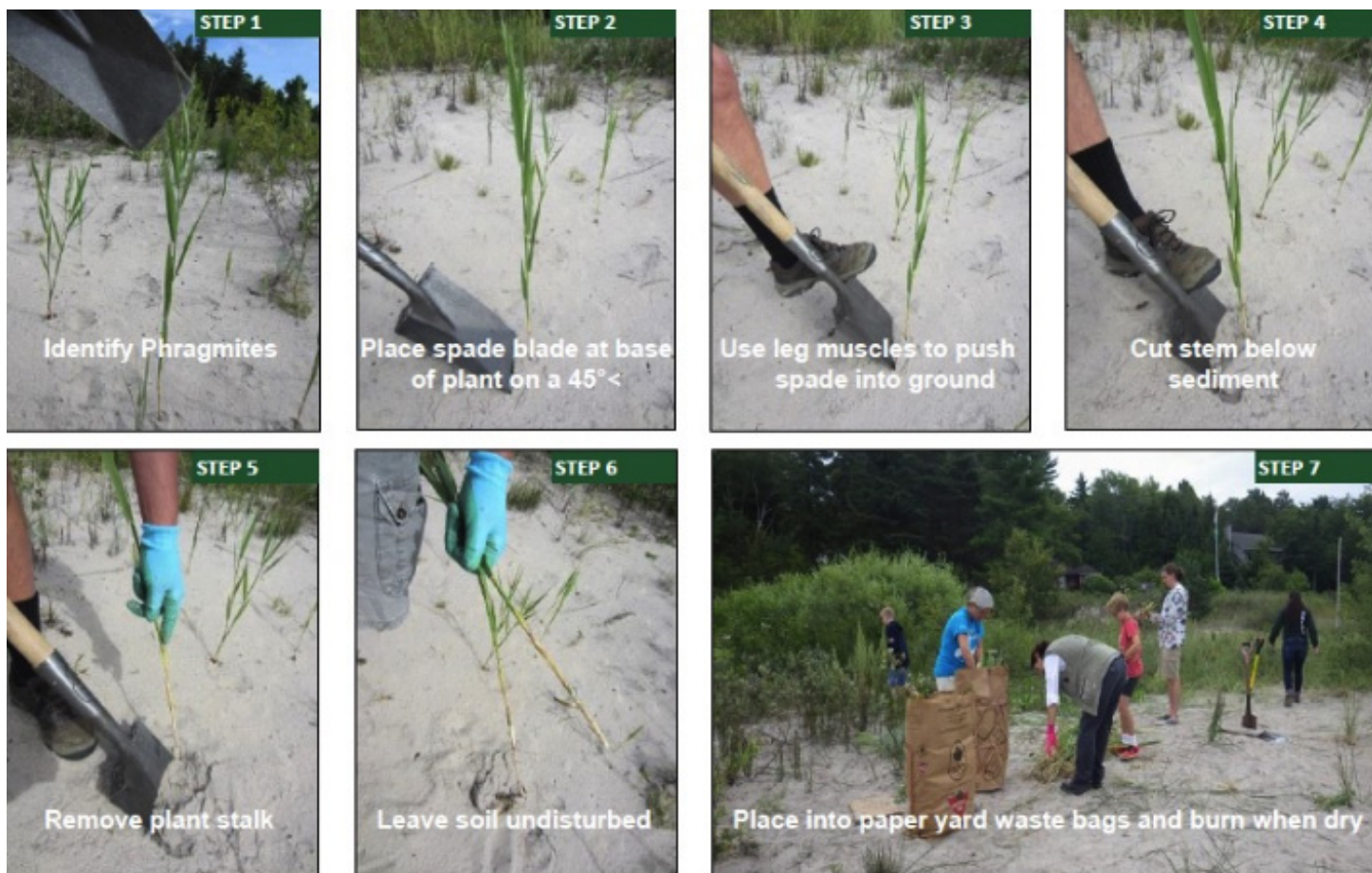
If you are not up for the task of repeatedly digging out your uninvited guest . . . at the very least, try to remove the seed heads. Place them in black plastic bags and let them bake in the hot sun for a few weeks. They can then be placed out for pick up, but remember, only after they have been baked, drowned or burned.

Do not put phragmites seed heads in your backyard compost as this will never get hot enough to kill the seed.

Additional approaches:

Black Plastic

After cutting a stand of phragmites, anchor a sheet of black plastic over



Humber College Professor **LYNN SHORT'S SPADING METHOD** to remove invasive phragmites. For more information visit www.ecospark.ca/blog/pub:47/Phragmites-Researcher-Interview-Lynn-Short or www.glc.org/work/phragmites

the cut area using sand bags or rocks. High temperatures under the plastic may eventually kill off the plants. This technique works best when the treated area is in direct sunlight. The following year when the plastic is removed, a few phragmites shoots may return. These can be cut or hand-pulled.

Reinforced Geomembrane Barrier:

An impervious reinforced polypropylene geomembrane may prevent the spread of phragmites when installed vertically in a trench dug around the perimeter of a phragmites patch. This barrier is used to prevent phragmites from encroaching into a landscape. Rhizomes and adventitious roots are not able to penetrate the barrier and will subsequently grow in other directions.

Prescribed Burning:

Prescribed burning, as a treatment by itself, can actually increase shoot densities and below ground biomass

of phragmites. Burns can be effective, however, if followed by flooding. Flooding a marsh after a burn requires the capacity to manipulate water levels. Burning has also been used successfully following herbicide applications.

All applicable permits and licenses must be obtained prior to conducting a controlled burn. Phragmites fires can burn very hot and fast, and may start spot fires some distance away. ***This technique can be dangerous, and is only appropriate for professional land managers.***

Herbicides:

Glyphosate is best applied in late summer when phragmites is in full bloom. Repeated treatments will likely be necessary. If the plants are too tall to spray, cut back in mid summer and apply glyphosate when regrowth reaches 2 to 3 ft tall. After 2 or 3 weeks following application of glyphosate, cut or mow down the stalks to stimulate the emergence and growth of other plants

previously suppressed. Use of Glyphosate may require a permit and it is a chemical, so needs to be handled with care. It is also very expensive.

Things NOT TO DO:

- Do not compost invasive Phragmites. Both seeds and rhizomes can survive and grow in compost. Black bag it and cook it in the hot sun if possible.
- Do not plant invasive Phragmites. Native Phragmites have the same appearance and do not pose an ecological risk.
- When hiking stay on designated trails. Leaving trails or entering areas containing invasive Phragmites can encourage the spread of this plant.

More information:

www.ecospark.ca
www.glc.org
www.invadingspecies.com
www.ontarioinvasiveplants.ca
www.trca.on.ca/yards