

quack grass

Elymus repens

Identification:

Poaceae (Grass family)

Abundant Perennial graminoid

Height: 18-36" **Width:** 8"-∞

Leaf Arrangement: alternate

Flower: Green, Yellow

Blooms: Early summer

Fruit: Grain

Fall Color:

Unfortunately, quack grass is not particularly distinctive to the untrained observer. The leaves are usually 6-10" long, 1/4 to 1/3" wide. They are fairly stiff, often angling off of the stem at a rough 30 degree angle. At the base of these leaves the auricles which have small, hook-like outgrowths that clasp around the stem, one above the other. This is a fairly distinctive feature, however other grass species may have similar auricles. The seed heads which are typically stiff and upright can be up to 36" in height, but are often less than 24". Individual spikelets of flowers/seeds are clearly differentiated and well spaced in an alternate pattern along the narrow spike of the seed head. Generally this seed head looks similar to rye (*Lolium* sp.) or to their close relatives the wheat grasses (*Elytrigia* sp.)



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**Weed
Invasive**

Description & Impact:

Quack grass (*Elymus repens*, formerly *Agropyron repens*), is an aggressive cool-season perennial grass originally from Eurasia. It was brought to North America as a contaminant among grain or hay, but it is sometimes intentionally seeded into pastures or for erosion control. It spreads primarily by creeping, mat-forming rhizomes (up to 5' of spread in a year), but can also spread by seed. These rhizomes produce a chemical that suppresses the growth of other plants. Once established, quack grass is extremely difficult to eradicate. It is typically found in full sun in medium to dry soils with a history of disturbance such as gardens, right-of-ways, roadsides, mined sites and waste areas.

Control Methods:

Organic: For small patches, hand tools can be used to grub out the plants and all of their roots. While effective, this method is very labor intensive and must be repeated to remove any surviving root fragments. Once removed the plants must be burned or disposed of in a landfill, not in compost where it can resprout.

For larger areas, conducting a prescribed burn in late-spring after the quack grass has begun sprouting new leaves will top-kill the plants and force them to send up shoots from dormant buds. To prevent reproduction and weaken the plants, mow or graze the area in late spring, shortly after they develop flower spikes. Mow/graze them again in late fall, after native plants go dormant but while the quack grass is green and growing. For complete eradication, tilling is an effective method of breaking-up and killing the root system. Repeated tilling over the course of a growing season should kill a colony of quack grass.

Chemical: Quack grass is most susceptible to herbicide treatments when it is actively growing from late-April to early-June as long as the vegetation is at least 4" tall and preferably when temperatures are below 70 F. Glyphosate (Round-Up®, etc.) is effective. Fall applications, when quack grass is 4-6" tall, after desirable plants have gone dormant, but prior to hard frosts have been very effective for quack grass control. If some broadleaf plants remain within the quack grass treatment area and/or temperatures are above 70 F. use a grass-specific, sethoxydim-based herbicide (Vantage®, Poast®, etc.), though these chemicals must be used at a time of low UV light levels (cloudy day or dusk).

Always read herbicide labels carefully before use and always apply according to the instruction on the product label.

- As soon as you can: Mow it as low as possible. Even if it means mowing native plants next to it, be sure you get every blade of quack grass. A weed whip is the best tool for this. If it's practice harvest the seed heads before hand and put them in the trash. If that's not practical, make an effort to really mulch it all up to destroy as much of the seeds as possible.

- Since quack grass is a cool-season grass, that should force it into dormancy for the summer. If we have a cool/wet summer it may regrow. Mow it again any time it reaches 4" in height.

- In early-fall, mow it every time it reaches 6" in height. But last mowing should be in mid-to-late September, then

Revegetation Recommendations:

Since this is a full-sun weed we recommend a diverse selection of prairie species to replace quack grass. Vigorous native plants will be needed to compete against and replace the quack grass, and to develop a more stable and productive plant community for the site. Contact us for specific recommendations.