QUACKGRASS

Elytrigia repens (L.) Nevski

Family: *Poaceae* (Grass).
Other Scientific Names: *Agropyron repens*.
Other Common Names: Couchgrass.
Legal Status: Regional Noxious: Peace River.

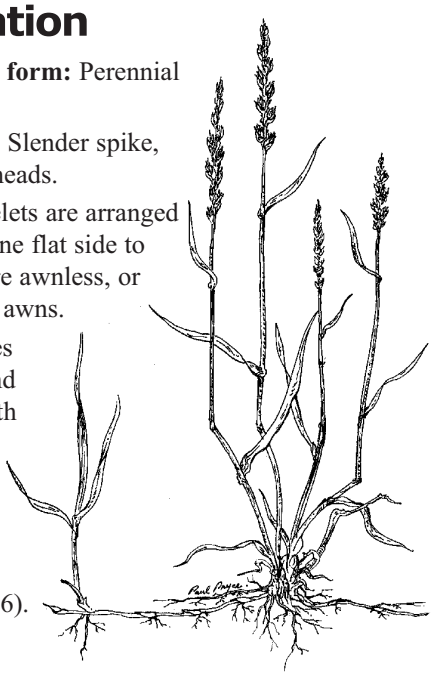
Identification

Growth form: Perennial grass.

Flower: Slender spike, resembling wheat heads.

Seeds/Fruit: Spikelets are arranged in 2 long rows, borne flat side to the stem. Florets are awnless, or with short, straight awns.

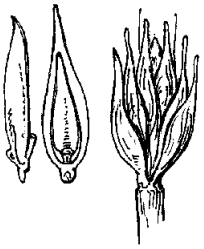
Leaves: Leaf blades are flat, pointed, and 6–12 mm wide, with small, ear-like appendages (auricles) at the junction of the blade and sheath (Whitson et al. 1996).



Stems: Mature plants are usually 0.3–1.0 m tall and have erect stems.

Roots: Rhizomes are yellowish white, cord-like, sharp-pointed, and somewhat fleshy.

Seedling: Both leaf sheath and blade are hairless or sparsely hairy. Clasping auricles and a short membranous ligule are present (Carey et al. 1993).



Similar Species

Exotics: None known.

Natives: None known.

Impacts

Agricultural: Quackgrass reduces productivity in crops, rangeland, and pasture.

Ecological: Quackgrass rapidly invades and quickly stabilizes moist eroding soils. It invades mixed-grass prairies, stream banks, roadsides, ditches, crop fields, gardens, yards, and disturbed moist areas. It is believed to be allelopathic (Whitson et al. 1996).

Human: No information available.

Habitat and Ecology

General requirements: In BC, grows at low- to mid-elevations in fields, gardens, roadsides, and disturbed sites. It is well adapted to moist soils in temperate climates. The plant is only moderately shade tolerant and vigour is reduced when shading exceeds 50%.

Distribution: Quackgrass is common in southern parts of the province and occurs in all agricultural reporting regions in the province. It is considered a threat to the fine seeds industry in the Peace River. It is widely distributed in North America.

Historical: Introduced from Europe.

Life cycle: Rhizomes begin growth in early spring and then again in autumn with the onset of seasonal rains and cooler temperatures. Quackgrass flowers from June through August. Cross-pollination is necessary for seed production. Seeds germinate in autumn or spring, and plants are capable of producing seeds more than once per season.

Mode of reproduction: Mainly vegetatively from roots but also by seed.

Seed production: No information available.

Seed bank: Seeds may remain viable for up to 10 years.

Dispersal: No information available.

Hybridization: Although considered a weed, quackgrass is often crossed with other wheat grasses to create hybrids for grazing.

Management

Biocontrol: None.

Mechanical: Very difficult to manage by mechanical methods because broken rhizomes quickly regenerate (Rutledge and McLendon. Undated). Mowing can prevent flowering the following season under some circumstances (FEIS 1996).

Fire: Burning may reduce vigour and abundance (Rutledge and McLendon. Undated).

Herbicides: Many herbicides are available for selective control of quackgrass in crops and non-crop situations. Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations. **Before applying herbicides, read the label for full use and precautionary instructions.**

Cultural/Preventive: Prevent new infestations by minimizing disturbance and seed dispersal, eliminating seed production, and maintaining healthy native communities.

Integrated Management Summary

Combining mowing or burning to reduce plant vigour with herbicides may be the most effective way to control quackgrass. It may also be gradually replaced by other species through natural succession processes (Rutledge and McLendon. Undated).

References

Carey, J. B., J. J. Kells, and K. A. Renner. 1993. Common weed seedlings of Michigan. Department of Crop and Soil Sciences, Michigan State University Extension. Bulletin E-1363. http://www.msue.msu.edu/msue/iac/e1363/e1363.htm [27 Oct 99].

FEIS—Fire Effects Information System. 1996. Prescribed Fire and Fire Effects Research Work Unit, Rocky Mountain Research Station (producer), US Forest Service. http://www.fs.fed.us/database/feis/ [12 Mar 98].

Rutledge, C. R., and T. McLendon. Undated. An assessment of exotic plant species of Rocky Mountain National Park. Department of Rangeland Ecosystem Science, Colorado State University. Northern Prairie Wildlife Research Center Home Page. http://www.npwrc.usgs.gov/resource/othrdata/Explant/explant.htm [15 Dec 98].

Whitson, T. D. (ed.), L. C. Burrill, S. A. Dewey, D. W. Cudney, B. E. Nelson, R. D. Lee, R. Parker. 1996. Quackgrass. *Weeds of the West*. Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services, Newark, CA.

Get the complete GUIDE TO WEEDS IN BC at:
http://www.weedsbc.ca/resources.html