

# Quackgrass

*Elytrigia repens*



**FAMILY** Poaceae-Grasses

**ORIGIN** Eurasia

**LIFE CYCLE** Perennial

**OTHER NAMES** Couch Grass, common couch

## QUICK FACTS

- Quackgrass is an invasive perennial that grows up to **4 feet tall**, has grey-green leaves, and alternating spikelets. It is **allelopathic** and fast-growing, enabling it to readily take over.
- Native to Europe and Asia, this grass was used in Europe during periods of famine as a flour substitute, but it **reduces the yield** of other food sources, such as corn and root vegetables like potatoes, by **impaling** tubers with its sharp roots.
- Quackgrass mainly spreads through its rhizomes (creeping root system), which can grow up to an **inch every day** and can regrow from small root fragments left in the soil. While seeds are not very effective at spreading this weed, the plant can produce **15-25 viable seeds per stem**, up to twice a year.

A common nuisance across a majority of the U.S.

Quackgrass quickly took over the U.S. shortly after its introduction in the 1600s. It was likely introduced to New Mexico by contaminated hay or straw. It can be found creeping into gardens, roadsides, ditches, and fields. It is usually grazed by cattle. Although it has adapted to grow under various conditions, it struggles in arid regions.

## What does it look like?

Quackgrass is an aggressive perennial that spreads by seed and rhizome. It can grow between 1 and 4 feet tall, has grey-green leaves, and green or blue-green stems. It also bears alternating spikelets, 2-10 inches long, at the top of the stems. Quackgrass can be found in disturbed sites like fields, roadsides, and urban areas. Quackgrass can be easily confused with other grasses like brome, wheatgrass, or ryegrass. It can be differentiated by its height, crowded spikelets, rhizomes, and clasped auricles.



Steve Dewey, Utah State University, Bugwood.org



Ohio State Weed Lab, The Ohio State University, Bugwood.org



Robert Vidéki, Doronicum Rft., Bugwood.org

**Plant:** Quackgrass can grow 1-4 feet tall and is unbranched, but can grow multiple culms. Plants can be green or blue-green and may be hairy near the leaves. It germinates in early spring and has a rounded spike at the top of the stem, with alternating spikelets.

**Roots:** Quackgrass produces rhizomes with sharp points to penetrate hard soils. Most roots are within 6 inches of the soil surface but can reach depths of up to 11 inches and spread laterally 3-5 feet. Rhizomes also grow fibrous roots at nodes. Roots are white to yellow. New Plants can grow from rhizome fragments left in the soil.

**Leaves:** There are 3-5 leaves, each about 2-12 inches long and up to 3/8 inch wide, grey-green, and arranged alternately along the stem. Leaves are flat, stiff, and sometimes have hair along the top of the leaf. Quackgrass leaves have a clasping auricle (a claw-like appendage at the end of a grass leaf that wraps the stem).

**Seeds:** Seeds can be produced at any time between spring and fall. Quackgrass produces a 2-10 inch long spike that has rows of alternating spikelets. Immature spikelets are green and turn tan when mature. Grains (seed) are elliptical and have a white tuft of hair at the tip. Each stem can produce 24-40 seeds, but many are sterile because this plant primarily propagates via rhizomes.

# Impact and Management

## Wildlife Habitat

The continued spread of quackgrass harms wildlife and agriculture. It prevents native plant establishment and reduces insect diversity in infected areas. While small rodents and birds may use it for cover, food availability for these small animals declines, and they soon leave.

## Agriculture and Food Security

Farmers face increased costs associated with managing this weed because of its ability to penetrate potato tubers with its rhizomes. Furthermore, weeds can harbor pests and diseases that may affect crops, exacerbating the threat to food production. The economic burden on farmers and the potential for decreased food supply contribute to the overall negative impact on food security.

## Ecosystem Health

Once established, quackgrass displaces native plants, resulting in a notable loss of floral and faunal biodiversity. Quackgrass's allelopathic tendencies and rapid growth suppress other plants, resulting in a loss of insect and animal diversity in the area.



Pat Deacon, Inaturalist.org

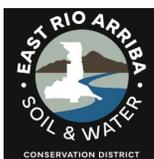
The most effective way to manage quackgrass is to prevent it by avoiding unnecessary soil disturbance, particularly in wet areas where this weed thrives. Keep existing vegetation healthy to prevent rhizomes from establishing. Additionally, cleaning equipment and inspecting seed mixes can prevent the accidental introduction of weeds into new areas. Mechanical removal, such as digging or pulling, can be effective if the entire root is removed; however, it is difficult because plants can regrow from root fragments left during pulling or digging. Tilling is not recommended, as it can further spread rhizomes. Mowing prevents seeding, but quackgrass can still spread via root systems. Herbicides can be effective. Fire is not considered an effective management method.

### DO's

- Prevent the plant from establishing by avoiding unnecessary soil disturbance.
- Plant healthy vegetation, such as native species or cover crops, to prevent quackgrass from establishing.
- Dig about 12 inches deep to remove the entire root and dispose of it appropriately.

### DON'Ts

- Allowing infestations to become widespread makes them easier to manage when small.
- To a depth of the ground, this breaks and spreads rhizomes, allowing more plants to establish.
- Rely on only mowing, as this does not prevent quackgrass from spreading.



For more information on managing quackgrass, please visit [www.nmweeds.org](http://www.nmweeds.org)

