

ANNUAL RYEGRASS

COVER CROP FACT SHEET FOR IOWA

Annual ryegrass (*Lolium multiflorum*) is a deep-rooted winter annual grass recommended for experienced cover croppers. Annual ryegrass is a quick growing cover crop that is very good for fighting soil compaction.



Identifying Features

- » Sheath split to base
- » Small, clasping auricles
- » Leaves are dark green and glossy
- » Leaves are narrow and hairless
- » Often confused with fescue

Cultural Traits

- » Winter annual grass
- » Minimum germination soil temperature: 40° F
- » Cold temperature tolerance: 0° F
- » Seeding date: Mid July to Late August* (F)***
- » Seeding date: Early April to Early May* (S)***

Planting Information

- » **Drill** at ¼ - ½ inch (12 lbs./acre PLS**)
- » **Broadcast** (14 lbs./acre PLS)
- » **Aerial** (18 lbs./acre PLS)

*Planting information from Midwest Cover Crop Council (midwestcovercrops.org). Refer to local NRCS office recommendations (Iowa Field Office Technical Guide, Section 4, 340 Cover Crop) for seeding dates and rates pertinent to location specific financial assistance program requirements.

**Pure Live Seed

***F=Fall S=Spring

Additional planting information:

- » ~190,000 seeds/lb.
- » Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.
- » Use a diploid variety with minimally waxy leaves to make termination more successful.



Annual Ryegrass Seed



Annual ryegrass seed



Vegetative (Danielle Sherry)



Annual ryegrass seedlings

C:N (Carbon:Nitrogen) Ratios

- » Annual Ryegrass 20:1 to 31:1

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Annual ryegrass provides fall soil protection after fall corn harvest.



A wide look at a ryegrass cover crop growing between cornstalks.

Performance

Dry matter = 1,000 - 4,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

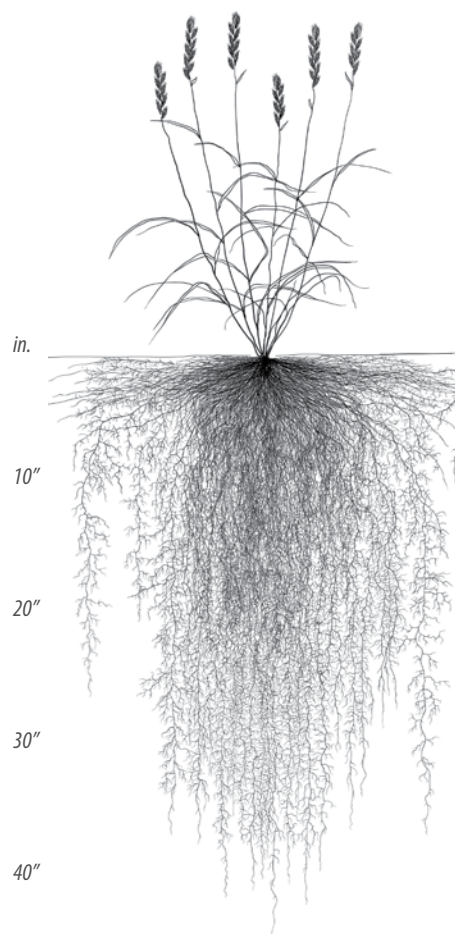
Performance Ratings

» Cash crop interseed (<i>early vegetative</i>)	Excellent
» Cash crop overseed (<i>late seed fill</i>)	Very good
» Grazing quality	Very good
» Mechanical forage harvest	Very good
» Nitrogen fixer	N/A
» Nitrogen scavenger	Good
» Weed suppression	Good
» Compaction fighter	Very good
» Erosion control	Good
» Lasting residue	Very good
» Quick grower	Excellent
» Drought tolerance	Fair
» Low fertility tolerance	Fair
» Shade tolerance	Good

Additional Considerations

- » Could increase the risk of spring cutworm.
- » Using a 'not stated' variety will increase termination difficulty.
- » Terminate at 6-8 inches and follow best spray practices to ensure termination success.
- » Not recommended to plant in a cover crop mixture.
- » Annual ryegrass can be difficult to terminate and is generally not recommended except for specific uses and by highly experienced cover crop users.

Annual Ryegrass Plant and Root Structure



Drawing provided by Conservation Cropping Systems Initiative (ccsin.org)

This fact sheet is a collaborative effort of USDA's Natural Resources Conservation Service (NRCS) and Iowa State University Extension and Outreach to provide cover crop options and information for Iowa landowners.