



Annual Ryegrass

Lolium multiflorum

Annual ryegrass, also known as Italian ryegrass, is a turf grass with a dense, shallow root system. Its extensive root system tolerates compacted soils and makes it an effective catch crop for soils with excess nitrogen. Its many benefits include erosion control, improvement of aggregate stability, and minimization of soil compaction, making it useful in high traffic areas. Annual ryegrass is an effective management tool in vegetable crop rotations.



Land preparation A good cover crop choice for heavier ground. A rapid start depends on adequate soil moisture² and a well-drained seedbed free of clods and weeds. There is often sufficient residual nitrogen after vegetables. If there is not sufficient nitrogen, 30 lb/ac can double the fall growth of annual ryegrass.

Seeding rate Drill at 10- 20 lb/ac. Broadcast at 20-30 lb/ac and cover with 1/2 inch of soil.³ When blending with clover, use 2/3 annual ryegrass and 1/3 clover. Plant at 15- 25 lb/ac.⁴

Seeding date Early spring through late summer. Avoid seeding ryegrass during hot, dry weather. It can be interseeded between or over established vegetable crops. Broadcast the seed when conditions are moist and before the canopy fills in. Ryegrass can be planted in fall as a winter cover or as a nurse crop for clover.

Seed sources Local seed sources, Seedway, Ernst Conservation Seeds. Annual ryegrass is produced in Oregon. For a list of seed dealers providing varieties suitable for cover crops, see www.ryegrass.com/dealers.

Maintenance Mow for visual effects. If fall-planted with legumes, mow to prevent the legumes from being smothered.¹

Control Ryegrass will mostly overwinter, especially where there is good snow cover. One concern is preventing it from going to seed in the spring. Volunteers can be controlled with tillage and/or herbicides (see below). This is especially important if you have small grains in your rotation.

Tips Heavily crusted soil at planting time will inhibit growth, resulting in gaps in the carpet of grass. August-seeded ryegrass makes a dense carpet of sod by the spring, which is valuable for improving soil health and for nitrogen scavenging. It takes some time for decomposition after spring tillage. Ryegrass is susceptible to crown and brown rust (*Puccinia* spp.).² Resistant varieties include Passerel Plus and Marshall.⁸

More on herbicides and tillage

The timing of herbicide applications is important to control ryegrass. Apply glyphosate at 3 pt/ac when the grass is 6-9 inches tall, day temperatures are greater than 50° F, and the weather is sunny. A second or third application may be necessary to burn down ryegrass. Simazine can be added to the tank mix but requires rain to activate; Atrazine should not be tank-mixed with other herbicides. Apply Atrazine 14-21 days after the glyphosate. Atrazine also needs rain to activate.⁷

When tilling, plow under and disk as soon as conditions permit.⁶

Additional information

- Can be used as a nurse crop with fall-planted legumes, such as clover.
- Grows vigorously enough to out-compete late summer annuals and fall-sown winter annuals.
- Tolerates a wide range of soils but performs best on loam soils with high fertility.¹
- Grows rapidly and densely, suppressing weeds in 4-6 weeks.
- Provides winter cover.
- Southern types, such as Gulf, will winter-kill; Midwestern types will survive.⁵ The variety is often not specified for the New York market.

For more information, visit <http://www.ryegrasscovercrop.com/>.

References:

¹Ryegrass, Soil Health Series, Fact sheet #13, Rodale Institute Research Center, 1993.

²Dan Towery phone call

³Clark, A. 2007. Managing Cover Crops Profitably, 3rd ed., Sustainable Agriculture Network. p.70.

⁴The New Farm's Cover Crop Guide, Bob Hofstetter, P. 5, 1988.

⁵Dan Towery phone call

⁶<http://www.sarep.ucdavis.edu/>

⁷www.ryegrasscovercrop.com

⁸http://www.penningtonseed.com/section/forage_02.asp?type=articles&id=743&home=results

Disclaimer

This fact sheet reflects the current (and past) authors' best effort to interpret a complex body of scientific research, and to translate this into practical management options. Following the guidance provided in this fact sheet does not assure compliance with any applicable law, rule, regulation, or standard, or the achievement of particular discharge levels from agricultural land.

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For more information



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