



Annual ryegrass

Lolium multiflorum

Annual ryegrass is a turf grass with a dense, shallow root system. It is also called Italian ryegrass. The extensive root system of this cover crop will tolerate compacted soils and makes it an effective catch crop for excess nitrogen. It offers many benefits including erosion control, improving aggregate stability and minimizing soil compaction, which is useful in high traffic areas. It and can also be used as a nurse crop with fall planted legumes such as clover. Annual ryegrass grows vigorously enough to out-compete late summer annuals as well as winter annuals that start in the fall. Ryegrass will tolerate a wide range of soils but performs best on loam soils with high fertilityⁱ. Rapid dense growth will suppress weeds in 4-6 weeks and will provide winter cover. These many attributes make annual ryegrass an effective management tool in vegetable crop rotations.



Land preparation

Annual ryegrass is a good cover crop choice on heavier ground. A rapid start depends on adequate soil moisture ⁱⁱand a well-drained, clod-free seed bed free of weeds. There is often sufficient residual nitrogen after vegetables. However, if there is not sufficient nitrogen, 30 lbs./acre of N can double the fall growth of ryegrass.

Seeding rate

Drill at 10- 20 lbs./acre
Broadcast at 20-30 lbs./acre and cover with 1/2 inch of soil.ⁱⁱⁱ
When blending with clover use 2/3 annual ryegrass and 1/3 clover. Plant at 15-25 lbs./acre^{iv}.

Seeding date

Early Spring through late Summer. Avoid seeding this cover crop during hot dry weather. Annual ryegrass can be interseeded between or over established vegetable crops. Broadcast seed when conditions are moist and before the canopy fills in. Plant in Fall as a winter cover or as a nurse crop for clover.

<i>Seed Source</i>	Local, 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 .
<i>Maintenance</i>	Mow for visual effects. If Fall planted with legumes mow to prevent the legumes from being smothered. ⁱ
<i>Control</i>	Annual ryegrass will mostly overwinter, especially where there is good snow cover. Southern types such as Gulf will winterkill, Midwestern ones will survive ^v . The variety is often not specified for the New York market. A concern with annual ryegrass is preventing it from going to seed in the spring. Annual ryegrass volunteers are particularly undesirable in small grains, so special care must be taken if they are part of your rotation. It can be controlled with tillage and/or herbicides. When tilling, plow under and disk as soon as conditions permit. ^{vi} The timing of herbicide applications is important to control ryegrass. Apply glyphosate at 3 pts./acre when the grass is 6-9 inches tall, day temperatures are > 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 14-21 days after the glyphosate. Atrazine also needs rain to activate. ^{vii}
<i>Tips</i>	Heavily crusted soil at planting time will inhibit growth, resulting in gaps in the carpet of grass. August seeded annual ryegrass makes a dense carpet of sod by spring. This is valuable for improving soil health and for nitrogen scavenging. It takes some time for decomposition after spring tillage. For additional information see http://www.ryegrasscovercrop.com/ .
<i>Problems</i>	Ryegrass is susceptible to crown and brown rust (<i>Puccinia</i> spp.) ⁱⁱ Resistant varieties include, Passerel Plus and Marshall. ^{viii}

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

ⁱⁱ Dan Towery phone call

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

^{iv} The New Farm's Cover Crop Guide, Bob Hofstetter, P. 5, 1988.

^v Dan Towery phone call

^{vi} <http://www.sarep.ucdavis.edu/>

^{vii} www.ryegrasscovercrop.com

^{viii} http://www.penningtonseed.com/section/forage_02.asp?type=articles&id=743&home=results