

ANNUAL RYEGRASS

A Deep Rooting Winter Cover Crop



Build Soil & Boost Production

- ✓ Deep Rooting (36-60")
- ✓ Nitrogen Scavenger
- ✓ Improves Crop Yields
- ✓ Excellent Forage or Hay Crop
- ✓ Soybean Cyst Nematode Suppression
- ✓ Controls Erosion/Improves Water Quality
- ✓ Improves Soil Tilth



Annual Ryegrass roots break through soil compaction layers to reach deep water and nutrients. It leaves improved soil structure and increased organic matter in its path.

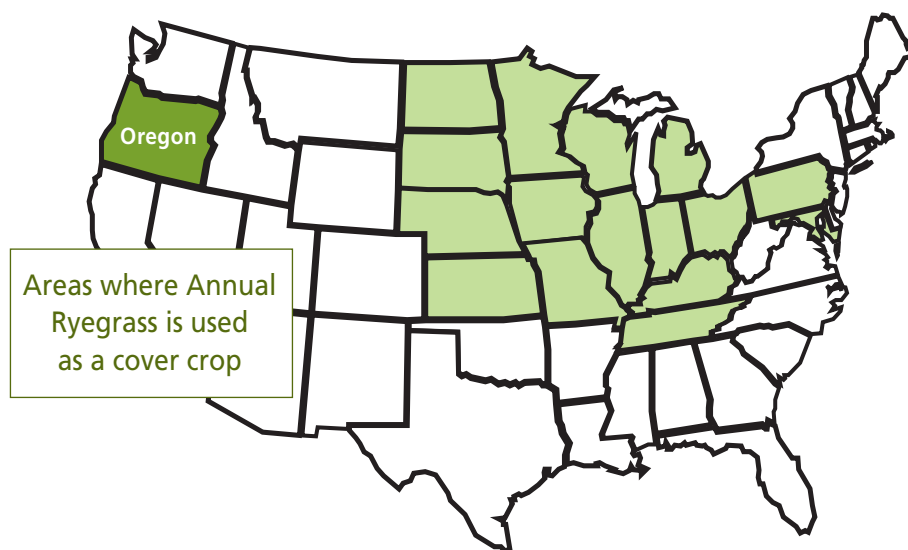
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WHY COVER CROPS AND NO-TILL?

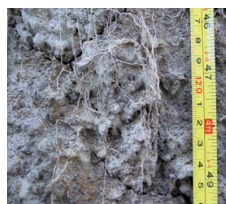
Conventional tillage oxidizes soil organic matter and leaves the soil exposed and vulnerable (or subject to) erosion and water run off. Fuel and equipment costs are higher with conventional tillage systems.

Covering corn and soybean fields with cover crops for the winter is not new. However, Annual Ryegrass has properties which reduce the risk associated with other cover crops. After a year, positive soil changes are generally evident. After several years, expenses for nitrogen should be reduced. In dry conditions, Annual Ryegrass contributes to bigger crop harvests because its deep roots create channels that crop roots readily follow.



MAKE SURE IT SAYS OREGON-GROWN

For decades Oregon-grown annual ryegrass has been used successfully as a pasture and hay crop for livestock. It is nutritious and highly palatable. Since 1990, it has become part of a new management strategy when used as a cover crop, especially in no-till acreage. University research and extended farm trials have shown Annual Ryegrass to be effective over a wide range of soil types and farm crops.



ANNUAL RYEGRASS (*LOLIUM MULTIFLORUM*)
IT'S NOT THE SAME AS CEREAL RYE

OPENING SOIL PATHWAYS

Compacted soil layers, natural or man-made, prevent corn and soybean roots from reaching their potential depth. In dry years, this shallow rooting starves plants from adequate moisture. Annual Ryegrass grows through and breaks up these compacted layers during winter and early spring, when rain and melted snow saturate deep into fragipan and glacial till soils. Root depths of between 5 and 6 feet are common.



GREATLY IMPROVES SOIL BIOLOGY

Annual Ryegrass roots create a vast root system that improves the texture and the amount of organic matter in the soil structure. The population of earth worms and microbes increases rapidly, which takes care of most ryegrass surface residual matter during the growing season. Access to deeper soil also allows crops to mine nutrients previously trapped beneath compacted layers.

Livestock manure disposal, a problem on many farms, can be an asset if applied to Annual Ryegrass. Annual Ryegrass scavenges excess nitrogen (keeping it in the soil profile) which is then available for the next crop.



ANNUAL RYEGRASS AS A COVER CROP

Improved organic matter and soil structure



CONVENTIONAL TILLAGE

Less organic matter, poor soil structure

MANAGEMENT OF ANNUAL RYEGRASS

Converting to no-till with cover crops requires new management know-how. In regards to Annual Ryegrass, we have details on planting methods and seeding rates, when to plant based on where you're located, the types and amounts of herbicides to use for controlling Annual Ryegrass and when to kill it in conjunction with spring crop planting. Control with recommended herbicides and good spraying practices while the ryegrass is still small (before jointing) results in excellent control.



Annual Ryegrass is a leafy, nutritious cool-season grass which is highly preferred by livestock as well as farm producers in overseeding and cover crop programs. See for yourself the benefits of Ryegrass in your farming operation.



With Annual Ryegrass, corn production more than doubled that planted with no cover crop in a dry year.



Annual Ryegrass roots break through soil compaction layers to reach water and nutrients.



Annual Ryegrass reduces the need for tilling, thus reducing tractor hours and the amount of fuel used.



Preliminary research suggests Annual Ryegrass may also curtail soybean cyst nematode.

SUMMARY OF RYEGRASS BENEFITS:

- ❑ Prevents soil erosion and nutrient run-off
- ❑ Deep rooting aids subsequent row crops in gaining moisture and nutrition
- ❑ Increases soil organic matter
- ❑ Great asset in managing livestock manure waste
- ❑ Ideal source of low-cost, nutritious forage or haylage
- ❑ May reduce field populations of soybean cyst nematode
- ❑ Cuts costs for field inputs while improving crop productivity
- ❑ Excellent nitrogen scavenger

Annual ryegrass is a vigorous cool season grass with an extensive, fibrous root system. Because of the number of annual ryegrass types, there is some confusion when it comes to choosing the right one for use as a cover crop for corn or soybeans in the Midwest.

Ryegrass includes both perennial and annual species, and there are diploid and tetraploid varieties of each. Sometimes, annual ryegrass is called "Italian" or even "Westerwold." These are, in fact, part of an evolving spectrum of the species (*Lolium multiflorum*).



Annual ryegrass planted in the fall, growing in corn stubble.



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