

Peace Region Perennial Ryegrass Seed Production

The Seed Head #37

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End Use and Markets

- Perennial ryegrass (PRG) is the most used grass globally. Varieties are bred for either turf or forage use but the majority of usage is for turf.
- PRG seed grown in the Peace Region is generally US varieties contracted with Peace Region companies.
- Contracts with growers are generally for one year. A second year of production is ONLY suggested in wet spring conditions.
- Fits well in annual cropping rotations as it can be seeded with an annual crop, harvested the following year and then taken out of rotation and back into annual crop. There is no lost year for establishing PRG.
- Peace Region Average Seed Yields: 600 lbs/acre with a range of 200 to 1200 lbs/acre.

Field Selection

- PRG does well on a wide range of soils but does best on high fertile fields and in areas that have above average precipitation. It requires good precipitation in spring and summer for highest yields.
- Fields should be as clean as possible of weeds such as quackgrass, wildoats, foxtail barley, volunteer brome, Canada thistle.
- Pre or post-harvest glyphosate must be done on the field prior to seeding and preferably multiple years before planting.

Seeding and Establishment

- PRG is seeded with glufosinate tolerant canola or wheat. The majority of fields are now established with glufosinate tolerant canola and is the preferred establishment system. PRG can tolerate a single application of most rates of glufosinate. Two in-crop applications of 1.35 L/acre of glufosinate (150g/L) may result in some damage. Perennial ryegrass can also be seeded in mid July to early August on fallow.
- PRG is generally seeded in the same row as canola but has seen successful stand establishment by broadcasting and harrowing prior to seeding the canola. This system provides more ground cover than seeding in rows.
- Seeding rates are typically 12 to 15 lbs/acre.
- Pre-seed glyphosate applications at a minimum of .540 ai kg/acre to manage perennial grassy weeds.
- Rolling is recommended if rocks are present.
- Straight combining canola is generally the preferred harvest method but swathing can be done assuming the swaths do not remain in the field for an extended period of time. Saflufenacil can be applied as a desiccant to canola for straight combining and not affect the ryegrass. Leave canola stubble tall – at least 10" high for snow retention.
- Straw/chaff must be spread uniformly across the field.
- Assess establishment prior to winter and again in the spring. PRG can be slow to green up and should be given until the third week of May to make a final assessment. Winter or early spring injury to PRG can occur in some years.



Perennial ryegrass the year following establishment with glufosinate tolerant canola

Fertilizing

- Spring application works well but some growers prefer to fertilize in the fall. PRG responds well to nitrogen fertilizer. Rates vary from 70 to 100 lbs/acre of nitrogen. Sulphur should be applied at 15lbs/ac. Phosphorus and potassium applications should be based off soil test results.

In-crop Herbicides on Established Stands

- Grassy Weed Control: Fenoxaprop-p-ethyl is only herbicide option for wildoat control. There are no options for suppression of foxtail barley or quackgrass.
- Broadleaved Weed Control: Active ingredients in mixtures that are safely used are MCPA ester, fluroxypyr, florasulam, clopyralid, pyrasofotole and bromoxynil

Growth Regulators

- Trinexapac-ethyl (Moddus) is distributed by Syngenta and registered for use on PRG. PRG is very responsive to Moddus but should only be considered on stands with high seed yield potential. Research trials are being conducted to evaluate the use of Moddus on PRG stands in the Peace Region.

Swathing

- Swathing is generally the second week of August but on dry years as early as the last week of July or first week of August. The best method to determine when to swath is to hand thrash seeds from heads that have been picked across the field. Swath when seed moisture is in the 38-42% range. PRG can shatter easily. Swathing early in the morning or late at night is recommended. If high amounts of material are present swath 20 ft or less. This helps with drying especially if rain falls on the swaths.

Combining

- Combining is generally recommended a week after swathing but depends on weather conditions and size of swath. Seed moisture at combining should be 11% or lower. Aeration is recommended to reduce heat and moisture. PRG handles easily.
- The outside swath of the field should be combined and stored separately from the rest of the field. This reduces the risk of quackgrass and/or brome grass seed being present in the main seed lot which reduces grade and price.

Terminating Stands

- Stands are sprayed out with glyphosate and either worked or left to direct seed peas or canola the following year. PRG volunteers but there are several in-crop herbicides that can be used to manage volunteer PRG in annual crops.



Perennial ryegrass seed production field

2025 Perennial Ryegrass Production Cost Analysis

Income			
Average Yield	600lb/ac		
Average Price	\$0.90		
Total Income (lb/ac)	\$540.00		

Expenses	Machinery Custom Rate	Seed/Fert & Herbicides Used	Cost
Year one			
Seeding Rate @ 12lb/ac		P. Ryegrass Seed	\$12.00
Pre-Seed Spray		Roundup Transorb (1L/Ac)	\$4.65
Totals			\$0.00
			Year One Total
			\$16.65
Year Two			
Land Cost	\$50.00		
Fertilizer Spreading	\$12.00	46-0-0 Fert @ 150 lb	\$61.24
In Crop Spraying	\$11.00	Infinity FX, Puma	\$20.71
Swathing	\$14.00		
Combining	\$25.00		
Trucking - \$20/tonne	\$5.44		
Fall Spraying	\$6.00	Roundup Transorb (2L/Ac)	\$9.24
Totals			\$123.44
			Year Two Total
			\$214.63

Products		Total Costs	\$231.28 Per Acre
46-0-0 Fertilizer / Tonne	\$900		
Roundup Transorb - \$69.45 / 10 L	\$6.95	Break-Even Yield @ \$0.90	256.98 Lbs/Acre
Puma - \$175 / 20 Ac	\$8.75	Brk Evn. Price @ 600 lb/Ac	\$0.39 Per Lb
Infinity FX - \$239.25 / 20 Ac	\$11.96	Profit on 600Lb @ \$0.90	\$308.72 Per Acre
Perennial Ryegrass Seed / Lb	\$1.00	Profit vs. Investment Per \$	1.33 :1

*Note - All costs used are retail pricing, custom rates, and current rental rates. (Subject to change)

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