

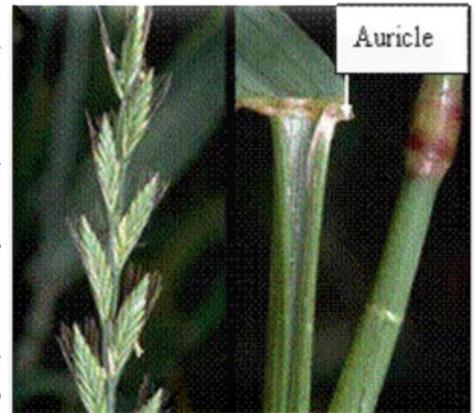
NOVEMBER 2007

STEVE'S Weed of the Month

Italian Ryegrass

Also Known As: Annual Ryegrass, Darnel

Italian ryegrass (*Lolium multiflorum* Lam.), native to southern Europe, Italian ryegrass is a cool-season, annual or biennial bunchgrass. Mature plants grow 1 to 3 feet tall. Stems (culms) are often purplish at the base, and consist of nodes and internodes. A leaf attaches to the stem at each node. Leaf sheaths are often tinged red at the base, a feature that distinguishes the plant from perennial ryegrass. Leaf blades of Italian ryegrass are rolled in the bud (unlike those of perennial ryegrass, which are folded). The blades are dark green and 2 ½ to 8 inches long. They are prominently veined on the upper surface, while the lower surface is smooth, shiny and hairless. Auricles (small claw-like appendages at the junction of the leaf sheath and blade) are conspicuous and help distinguish this grass from others. This can be confused with quackgrass; however, quackgrass has auricles that clasp around the stem. The top culm segment (peduncle) supports the inflorescence, or the seedhead, which in the case of Italian ryegrass is a solitary spike that ranges 4 to 16 inches long (typically 12 inches) and consists of alternately arranged spikelets that attach **edgewise** directly to the flowering stem (see picture). Long awns (bristles) on spikelets and at least 10 florets per spikelet help differentiate Italian from perennial ryegrass. The root system of Italian ryegrass is highly branched and dense, with many fibrous, adventitious roots. While the root system is shallow in irrigated areas, it extends to over 3 feet deep in non-irrigated areas.



Italian ryegrass regenerates entirely by seed, and germinates readily with sufficient moisture. The plant is best adapted to cool, moist climates, and grows best between 68 and 77°F. It is highly shade intolerant, but can adapt to many climatic conditions. Italian ryegrass grows in a wide range of soil types, although it prefers fertile, well-drained soils.

Italian ryegrass is a problematic weed in cereal crops and grass seed crops. It establishes quickly and grows rapidly. For that reason, in certain areas it is planted as a cover crop and quick food source. Italian ryegrass is very palatable and nutritious for livestock and most wild ruminants.



Italian Ryegrass Infestation In Wheat Field

Control Methods

Prevention Control: Prevent introduction of ryegrass onto property by ensuring that seed, feed, and equipment are free of ryegrass contaminants. Control is becoming more difficult every year due to its adaptability, high seed production, and adapted tolerance (resistance) of many herbicides used for control.

Chemical Control: Herbicides have been used in crops to control established plants and prevent seed production, but the *Lolium* species is gaining resistance to several herbicides. For instance, Diclofop-resistant ryegrass is a major weed problem worldwide. Other herbicides that have been used to control Italian ryegrass, but may have also developed some resistance, include: clodinafop, chlorsulfuron, mesosulfuron-methyl, or

flucarbazone. To prevent resistance, use herbicides with different modes of action on a rotational basis. Also, rotate crops. Herbicide resistant crops (Clearfield Wheat) can be used in some areas. The use of imazamox on Clearfield® wheat can provide effective Italian Ryegrass control; however, continued use of this group II herbicide could lead to resistance.

Note: Some of these active ingredients are only registered on a subset of the sites listed above.

**More information can be found in the
PNW Weed Management Handbook**

Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

Questions: contact [Steve Van Vleet](#) or by phone, (509) 397-6290