

**REED CANARYGRASS**  
 (Phalaris arundinacea L.)

by

Gregory L. Brann  
 Grazing Lands Specialist  
 Natural Resources Conservation Service  
 Nashville, Tennessee

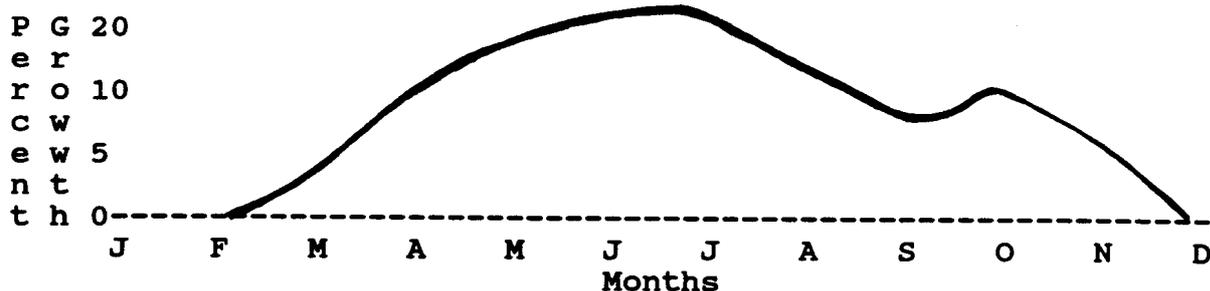
**ORIGIN**

Reed canarygrass was cultivated in Sweden by 1749 and in other parts of northern Europe by 1850. The first recording of a U.S. planting was in Oregon in 1885. Reed canarygrass is indigenous to the temperate portions of all five continents, and is well adapted to the northern half of the 48 states and southern Canada. The largest acreages are found in the Pacific Northwest and the humid northern central states.

**DESCRIPTION**

Reed canarygrass (*Phalaris arundinacea* L.) is a tall, leafy, high yielding perennial. It is a cool season grass which is winter hardy and resistant to foliar diseases. The plants spread and thicken from short rhizomes, creating a dense sod. If not grazed or clipped, plants will reach heights exceeding 5 feet under high fertility conditions. Forage quality is good prior to seedhead emergence, but drops rapidly thereafter, seeding only once during the year. Regrowth following cutting or grazing is rapid and continues throughout the growing season. Seed production is good, but seeds shatter readily. Reed canarygrass does have the potential to become invasive, not allowing other vegetation to become established.

**Seasonal yield distribution of Reed canarygrass:**



## ADAPTATION AND USE

Reed canarygrass does well on most Tennessee soils, except droughty sands. Reed canarygrass provides a tremendous opportunity being a highly productive grass adapted to wet sites where landusers often are producing little or nothing. After establishment of Reed canarygrass, this area could easily be their most productive fields. It is well adapted to poorly drained soils because of its tolerance to flooding and standing water. In addition to its adaptation to wet sites, Reed canarygrass is also drought tolerant. Under proper management, this species does well on upland sites. Reed canarygrass is slow to establish and may be hard to establish on droughty land; however, it is suitable for deep, well drained soils. It equals orchardgrass in drought tolerance. It will withstand relatively long periods of inundation (49 plus days) or drought, but performs best on moist, cool sites with high levels of soil fertility. Its vigorous, sodding growth form is highly competitive with other plants. Reed canarygrass is an excellent plant for waterways, streambanks, canals, and shorelines of reservoirs. Do not use on waterways with less than 3 percent slope or on irrigation ponds or ditches used for irrigation because of the potential for becoming a weed.

## CULTURAL SPECIFICATIONS

Adapted Reed Canarygrass Varieties: Older varieties (Common, Ioreed, Rise, Vantage) contain high levels of alkaloids which make these Reed canarygrasses less palatable than other grasses. Newer varieties (developed since 1976) contain lower levels of alkaloids and are more palatable. Low alkaloid varieties are Palaton and Venture. Both varieties are high yielding, have good winter hardiness, and can be used for pasture or in mixture with a legume for hay and silage.

Reed Canarygrass Establishment: Reed canarygrass may be sown during the same seeding dates as tall fescue, February 20-April 1 or August 15-October 1. Late summer seedings are often more successful because weeds are less of a problem. Reed canarygrass can be slow to establish and may fail when weed competition is severe during establishment or if seeded too close to frost.

If a late summer seeding is planned, prepare the seedbed two to four weeks ahead of seeding, if possible. This will allow the soil to become firm and provide an opportunity to accumulate moisture in the seedbed. Early seedbed preparation will also allow weed seed to germinate and be controlled. Best seeding time is before September 15.

Best stands of Reed canarygrass are obtained when sown not deeper than one-half inch in a well prepared, firm level seedbed. Roll or cultipack before seeding if when walking over the field, the sole of your shoe sinks to the soil surface. Roll or cultipack after seeding with grain drills not equipped with press wheels or after broadcast seeding. Caution must be used not to bury the seed after broadcast seeding.

Reed canarygrass should be drilled at 8 lbs./acre or broadcast at 10 to 12 lbs./acre when seeded alone. Seed germination can drop rapidly in storage. Purchase seed showing at least 70 percent germination. There are 506,000 seeds per pound. Legume mixtures are recommended especially when low rates of nitrogen are desired and for hay or silage production. Alsike clover is the most wet tolerant legume. Establishment has been successful on nonseedable, wet sites by sprigging roots or freshly cut, well jointed stems.

#### **MANAGEMENT**

Reed canarygrass can be used for pasture, hay, or silage. Recovery following defoliation is excellent in the spring and early summer, and is fair to good in late summer and early fall. However, it is frost sensitive and will turn brown after frosts (28 degrees F.).

Reed canarygrass is high yielding when cut for hay or silage. Highest yield is obtained when harvested at heading. In contrast, highest quality is obtained before seed heads begin to appear and declines rapidly thereafter. This change in quality is primarily due to increases in portions of the stem relative to the leaf. There is not a close relationship between time of first harvest and stand persistence. Regrowth after harvesting Reed canarygrass will be leafy with stem elongation, but no seed heads will be produced.

When using Reed canarygrass for pasture, do not graze the fields until plants are well established. Reed canarygrass will not persist under close grazing; therefore, rotational grazing is necessary. It should be mowed or grazed sufficiently to prevent excessive growth that becomes tough and unpalatable. It is recommended to harvest the first crop for hay, leaving a four-six inch stubble to regulate grazing height. Approximately 50 percent of the total yield of Reed canarygrass is produced by July. Maintain the grass below 10 to 12 inches tall during the rapid spring growth of May and June. Short duration, rotational grazing with a heavy grazing pressure will allow the best utilization and greatest animal gains per acre. In addition, rotational grazing is recommended to allow hay harvesting of the ungrazed paddocks during the spring. Reed canarygrass should not be grazed closer than 3 to 4 inches above the ground. A recovery period following grazing will also improve productivity.

**FERTILITY**

Fertilization is important to take advantage of the high yielding characteristics of Reed canarygrass. Determine the lime and fertilizer needs by soil testing before seeding. Reed canarygrass tolerates a pH range of 4.9 to 8.2.

A soil test is the best guide for proper fertilization of established Reed canarygrass. In pure Reed canarygrass stands, apply nitrogen annually. Reed canarygrass responds more to nitrogen fertilization than the most cool season grasses. Matua is another cool season grass that responds well to nitrogen. Annual rates of N application may range from 80 to 240 lbs. per acre, depending on soil condition and type and consequently yield potential. Generally, about 40 lbs. of nitrogen is required per ton of forage produced. Nitrogen rates in excess of 120 lbs. per acre should be applied in split applications. Fertilization systems which apply one-half of the annual N in August can be utilized to take advantage of Reed canarygrass in the fall. However, Reed canarygrass does not stockpile for winter forage as well as tall fescue.

**WILDLIFE VALUE**

Reed canarygrass is often thought to have little or no wildlife value. This may be true when managed for top forage production; however, when Reed canarygrass is allowed to get tall and mature and develop more cover and openings underneath its canopy, the value can be of great benefit. Periodic prescribed burning will also remove excess duff and allow chicks to move more freely.

**SUMMARY**

Reed canarygrass is a tall growing, perennial grass which is best suited to Middle and East Tennessee conditions. Southwest Tennessee is on the southern fringe of Reed canarygrass adaptability range. It is particularly well adapted to wet soils and soils with a pH below 6.0. Reed canarygrass has unjustly gained a reputation as a low quality, undesirable forage. This misconception is in part due to the high alkaloid content of older varieties and the practice of delaying harvest until Reed canarygrass is mature. However, newer varieties of Reed canarygrass are equal in quality to other cool season grasses when harvested at similar stages of maturity. Yield of Reed canarygrass is closely related to the rate on N fertilization.

**SOURCES**

Corland Seeds LTD.	1-800-265-4321
Oldfields Seed Co.	1-800-448-5145
The Hogan Company	1-888-224-6426
Sharp Bros. Seed Co.	1-800-451-3779

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AGRONOMY TECHNICAL NOTE NO. TN-19

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