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# Alene Kentucky Bluegrass

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Alene Kentucky bluegrass (*Poa pratensis* L.) was developed and released by the Idaho Agricultural Experiment Station in 1986. It was derived from three generations of maternal line selection from germ plasm introduced from southwestern Europe.

Seed of Alene is expected to be grown on Palouse-Latahco silt loam soils in northern Idaho and eastern Washington. Approximately 80 to 85 percent of the Kentucky bluegrass seed in the U.S. is produced in this 4,000-square mile area.

The name Alene is from the phrase, Coeur d'Alene, which was the name given the important Indian tribe of the area by the Hudson Bay explorers and later given both the city and the lake in northern Idaho. Coeur d'Alene is interpreted to mean the heart (core) of the awl. The awl was a routine trade item among the Indians and the explorers.

## Plant Characteristics

Among the outstanding characteristics of Alene Kentucky bluegrass are rapid seed germination and excellent seedling vigor. Plants have strong tillering and rapid rhizome development which makes a dense sod. Mature, spaced plants are relatively tall, averaging 37.2 inches (Table 1). They grow erect with strong stems that are somewhat tolerant to lodging. Alene is a relatively early maturing bluegrass, similar to Kenblue and Argyle and 10 to 15 days earlier than Baron and Merion. Early maturity enhances seed development and productivity on non-irrigated soils of the area. Alene is tolerant to droughty periods and withstands low temperatures common in this region.

Alene is a distinctive plant at seed maturity (Fig. 1). It has a relatively large, pyramidal, slightly nodding panicle with intermediate open branches (Fig. 2). It has an average of 259 spikelets per panicle, which makes dense branches, but the panicles are characteristic *Poa* type. The large size and shape of the panicle are attributes contributing to seed productivity. The cultivar is 90 to 95 percent apomictic which gives uniform plant appearance in field stands. In comparison to other *Poa pratensis* L. cultivars, Alene has large but fewer (48) chromosomes.

**1. Typical Alene Kentucky bluegrass plant.**


**Fig. 2. Panicle size and shape of Alene compared with other bluegrass cultivars.**

**Table 1. Plant, seed and turf characteristics of Alene and other Kentucky bluegrasses.[1]**

| Cultivars | Seed size[2] | Emergence[3] | Height[4] | Maturity[5] | Leaf width[6] | Panicle length | Spikelets /panicle | Seed yield | Turf quality[7] | Scores color[8] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | (inches) | (days) | | (inches) | | (lb/acre) | | |
| Alene | 3880 | 71 | 37.2 | 185 | 4.9 | 4.7 | 259 | 553 | 6.0 | 6.0 |
| Argyle | 2734 | 71 | 33.5 | 186 | 4.9 | 5.0 | 239 | 657 | 5.0 | 5.0 |
| Baron | 4586 | 46 | 22.9 | 195 | 4.6 | 3.2 | 123 | 466 | 5.8 | 5.7 |
| Kenblue | 3116 | 58 | 34.3 | 185 | 4.0 | 3.7 | 201 | 483 | 4.3 | 4.0 |
| South Dakota | 1956 | 48 | 31.8 | 186 | 3.9 | 3.3 | 138 | 405 | 4.8 | 3.3 |

[1]Average of 4 years' data.
[2]Average weight (mg) of 10,000 seeds.
[3]Percentage emergence 10 days after seeding in greenhouse.
[4]Height at seed maturity (swathing).
[5]Julian date at maturity.
[6]Measured (in mm) on mature plants.
[7]Rated in midsummer on a scale of 9 = excellent, 1 = poor.
[8]Rated for all months on a scale of 9 = dark green, 1 = light.

## Seed Production

Alene has been a superior seed-producing cultivar in experimental plots and is expected to produce good seed yields in the non-irrigated bluegrass seed area of northern Idaho and eastern Washington. Seedings should be made in early May in fall-prepared, firm, fertile soil free of noxious weeds. Seed at a depth of ¼ inch in rows 7 to 14 inches apart. Seeding rates vary from 2 to 4 pounds per acre of pure live seed.

Soils should be tested before seeding and periodically after the grass is established to determine fertilizer needs. Adequate phosphorus is important for seedling growth and development. If soil testing shows less than 2 ppm of phosphorus, apply 60 pounds per acre of $P_2O_5$; for 5 ppm, apply 20 pounds per acre. Once the seedlings are established, 60 to 120 pounds per acre of nitrogen are needed each year. Apply this in early October, after the previous year's residue has been burned. Excess nitrogen will cause lodging on most soils. (For a complete discussion of bluegrass seed fertilization, see CIS 788, *Northern Idaho Fertilizer Guide: Bluegrass Seed.*)

For weed control, the grower must apply recommended chemicals at rates listed on the labels. Control of grassy weeds such as quackgrass is important for a long-lasting stand. Consult the current year's Pacific Northwest Weed Control Handbook for appropriate recommendations. Each county Extension office has a copy.

Irrigation is not usually applied on the Palouse-Latahco silt loam soils of the area, but supplemental irrigation is used and needed when Kentucky bluegrass is grown on gravelly soils. The amount and timing of irrigation depend upon the soil type and climate. Irrigation may be needed from mid-May until about a week before swathing.

Kentucky bluegrass seed harvest begins with swathing in early July. The exact date depends upon the cultivar and seasonal climate. Combine harvesting is done 2 to 3 weeks after swathing. Between seed harvest and September 15, bluegrass fields require complete stubble removal by burning. This is necessary to promote green, fall growth and to initiate the reproductive cycle in the grass plant. With proper management, seed fields established in noxious weed-free soils should remain productive for several years.

## Seed Certification

Alene has been approved for seed certification production in Idaho and Washington. Producers need to contact seed certification agencies in these states to obtain the rules and regulations to produce Alene. Plant Variety Production (PVP) application No. 8600165 is pending with the U.S. Department of Agriculture. The Alene name can be used only for seed sold as a class of certified seed.

## Adaption and Use

Alene Kentucky bluegrass turf is adapted to the climates and soil conditions in the central to northern U.S. and southern Canada where annual precipitation is from 15 to 40 inches. Alene is drought tolerant, but some supplemental summer irrigation will be required for suitable turf. Turf scores at the University of Idaho plots near Moscow show that Alene is better than average for quality, texture and color (Table 1). The grass is cold tolerant and once established will persist on well-drained loam soils. It does not tolerate heavy shade.

Alene develops a rapid and strong sod because of its extensive rooting and rhizome systems. This cultivar is expected to play a significant role in sod seed mixes and for seeding highly erodible soils where soil conservation practices are recommended.

## Diseases

Alene has excellent resistance to stem rust. It has moderate resistance to leaf rust, pink snow mold, gray snow mold and leafspot. Alene has not been tested widely in the Midwest or eastern areas of the U.S. or Canada and may not be resistant to some common turfgrass diseases found in those areas.

## Additional Information

Other College of Agriculture publications relating to bluegrass production and turfgrass establishment are:

Ensign, R. D. 1979. Establishing and maintaining Idaho lawns. Univ. of Idaho, College of Ag. Bull. 565.

Mahler, R. L., and R. E. McDole. 1986. Northern Idaho fertilizer guide — bluegrass seed. Univ. of Idaho, College of Ag. Current Info. Series 788.

**The Author**

R. D. Ensign, a professor and agronomist in the Department of Plant, Soil and Entomological Sciences, leads the UI research project to develop improved bluegrass and fescue cultivars for turf.

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