normally heads about 3 days later. It is not recommended for nonirrigated production in low rainfall areas.

Klages averaged 8.7 and 10.1% higher than 60Ab1810 and Pirolone, respectively, in yield in seven station-years (1971 to 1973) of testing under irrigation at Aberdeen, Twin Falls, and Teton. In the 1972 Western Two-Row Barley Nursery grown at 19 stations, Klages exceeded 60Ab1810 in average yield by 2.5% and exceeded Pirolone, 'Vanguard,' and 'Shabet' by 3.6, 4.5, and 5.1%, respectively.

Klages averaged 80.9% malt extract in the Western Two-Row Barley Nursery at 11 stations in 1972, compared with 78.2% for Pirolone. Fine-coarse difference for Klages averaged 1.9%, compared with 2.8% for Pirolone. Klages and Pirolone averaged about the same in diastatic power, and 41.1 and 30.4 (20° Units), respectively, in alpha amylase.

Plant scale evaluations of malting and brewing quality of 60Ab1810 were initiated in 1970 in cooperation with the MBIA. 60Ab1810 was classified as suitable for malting and brewing by industry members of the MBIA in 1972. Available 1971 and 1972 quality data show essentially identical malting quality characteristics for Klages and 60Ab1810.

The cultivar is named in honor of the late Dr. Karl H. Klages, Head of the University of Idaho Department of Agronomy from 1936 to 1962.

Breeder and foundation seed will be maintained by the Teton Branch Experiment Station, P.O. Box 72, St. Anthony, ID 83445.

REGISTRATION OF CASCADE CHEWINGS FESCUE1
(Reg. No. 9)

R. V. Frakes

' CASCADE' chewings fescue (Festuca rubra var. Commutata Gaud.) was released in 1966 by the Oregon Agricultural Experiment Station. Established seed fields of chewings fescue, tracing to a New Zealand source, served as the original material. Seed from 16 seed fields were examined for chewings fescue seed characteristics. Equal amounts of seed from 12 of the fields were used to establish the basic seed source of Cascade.

Cascade is a noncreeping turf-type cultivar with dark green color and fine-leaf texture. The variety performs as the original Oregon chewings ecotype in that it responds similarly to fertility, clipping height, and turf management as other red and chewings fescues.

Breeder seed is maintained by the Oregon Agricultural Experiment Station from a block consisting of 1,016 plants established from seed. Seed production includes one generation each of breeder, foundation, registered, and certified classes.

REGISTRATION OF OTO INDIANGRASS
(Reg. No. 32)

L. C. Newell

The Nebraska Agricultural Experiment Station, Agricultural Research Service, USDA sponsored the release of 'Oto' indiangrass (Sorghastrum nutans (L.) Nash). The forage cultivar resulted from cooperation between the University of Nebraska, the Nebraska Agricultural Experiment Station, and the Nebraska Agricultural Experiment Station, Corvallis, OR.

The Oto indiangrass is a perennial warm-season bunchgrass, with 31. Fawn has good seedling vigor, growth, and regrowth after clipping. In Oregon, its forage advantage is in early spring where Fawn has produced better yields than other varieties in 5 years of evaluation. Oregon tests show Fawn to be superior to Alta and Kentucky 31 for best use in western Nebraska plantings.

Breeder seed is maintained by the Oregon Agricultural Experiment Station and is the bulked seed from eight parent clones in isolation. Seed produced from one generation each of the breeder, foundation, and certified seed classes.

1 Registered by the Crop Science Society of America, Oregon Agricultural Experiment Station, Technical Paper Number 3217. Received Nov. 12, 1973.

2 Professor of Plant Breeding, Department of Agronomic Crop Science, Oregon Agricultural Experiment Station, Oregon State University, Corvallis, OR 97331.

* D. D. Warnes, L. C. Newell, and W. J. Moline, 1971. Per-