Aurora was given Canadian license No. 813, in September 1961. Breeder seed is maintained by the Texas Agricultural Experiment Station. Foundation seed is produced from breeder seed. Foundation seed is from breeder seed, propagation in isolation at Beaverlodge to produce breeder seed of the variety Aurora. A typical for the diploid form of the species Trifolium hybridum L. in all plant characters. It is superior to 'Alon' and the Swedish variety 'Tetra' in hardness and seed yield. In forage production it was superior to 'Alon' and equal to Tetra. It was superior to Strain 11 at all test locations except Prince George, British Columbia to Normandin, Quebec. All strains, with the exception of Strain 11 (Prince George), were similar thus were mixed in equal quantities and propagated in isolation at Beaverlodge to produce breeder seed of the variety Aurora. Tetra. It was superior to Strain 11 at all test locations except Prince George and Normandin where Strain 11 excelled in seedling vigour, establishment, hardiness and yields of seed and herbage.

Seed of Aurora is increased on a three generation basis; breeder, foundation and certified. Certified seed of Aurora has been grown since 1961, in selected commercial fields maintained to meet pedigreed standards in Northern Alberta. Breeder seed was used to establish foundation fields in 1965 under the Canadian Forage Seeds Project. Thus all future production of certified seed will be from field seeded with breeder or foundation seed. Breeder seed is maintained at the Canada Agriculture Research Station, Beaverlodge, Alberta. 1

REGISTRATION OF AURORA ALSIKE CLOVER 1

(Away No. 8)

C. R. Elliott

Aurora is a synthetic variety that consists of 43 S₁ and S₂ clones representing three inbred lines selected for improved palatability when grazed free-choice by cattle. Since 1958, the variety has been compared with commercial varieties of tall fescue for palatability and agronomic characteristics in numerous tests. In each test, Kenwell was significantly better grazed than commercial varieties. Relative palatability of Kenwell and 'Ky. 31' varieties was determined in one test during 1959 and 1960 by sampling a portion of the variety before and after grazing to obtain dry matter consumption. Results from the test, repeated grazed for a 2-year period, showed that cattle consumed 44% more dry matter of Kenwell than of Ky. 31 when the animals were given free-choice of both varieties. Kenwell, which is less robust and less competitive than Ky. 31, is considered satisfactory in those characteristics. Kenwell has greater tolerance to certain leaf diseases and, consequently, maintains better color during dry periods and into winter. The variety is approximately 5 to 10 days later maturing than 'Alta,' 'Fawn,' 'Goar,' and Ky. 31 tall fescue at Lexington, Ky. The difference between Kenwell and other commercial varieties in maturity, palatability, and competitive ability offers a better opportunity for maintaining associated legumes.

Kenwell and Ky. 31 tall fescue were compared for chemical constituents generally considered to be criteria of forage quality. Although the differences were not statistically significant, Kenwell was slightly higher in total sugar, crude protein, in vitro digestibility of dry matter, and lower in crude fiber than Ky. 31. Seed propagation of Kenwell tall fescue is limited to three generations of increase from breeder seed, namely, one of each of breeder, registered, and certified. Breeder seed is maintained by the Kentucky Agricultural Experiment Station. Breeder seed originates from the 43 S₁ and S₂ clones used to develop the variety. Seed production from certified seed cannot be certified. Production of registered and certified Kenwell seed began in Kentucky in 1966 and 1967, respectively.

REGISTRATION OF BOREAL RED FESCUE 3

(Reg. No. 6)

C. R. Elliott

'Boreal' red fescue, Festuca rubra L., was produced by the Canada Department of Agriculture, Beaverlodge, Alberta. It was licensed for sale in Canada, February 1966. Boreal was developed as a general purpose variety for turf and pasture. Original selections were made in 1956 from rejuvenated commercial seed fields in Northern Alberta which had been seeded 10 to 15 years earlier to the 'Olds' red fescue. The 36 parent clones were selected on polycross progeny performance for seed and herbage yields, maturity and height. Syn 1 seed, used to establish the breeder seed plot, is constituted by mixing equal amounts of polycross seed from each parent clone. The parent clones are maintained at Beaverlodge and will be used to reconstitute the variety as required. Boreal was superior to Olds, 'Duraturf,' 'Penlawnn,' and 'Illaha' red fescue in seed and herbage yields and seedling vigor in comparative tests in Western Canada. It is more winter hardy than Penlawnn or Illaha and equal to Olds and Duraturf. It tends to have a stronger creeping root system than these varieties. Boreal has a high degree of uniformity in the mature seed stands thus facilitating straight-combines harvesting in most seasons.

Seed of Boreal is increased on a three generation basis; breeder, foundation and certified. Breeder seed will be maintained at Beaverlodge by the Canada Department of Agriculture. Foundation seed is available through the Canadian Forage Seeds Project.