REGISTRATION OF KENSTAR RED CLOVER¹
(Reg. No. 17)

Norman L. Taylor and M. K. Anderson²

'Kenstar' red clover (Trifolium pratense L.) was developed by the Kentucky Agricultural Experiment Station in cooperation with the Agricultural Research Service, USDA. The experimental designation during the testing period was Ky Syn A-3. This new cultivar was released on September 1, 1973.

Kenstar is a 10-clone synthetic cultivar of medium red clover selected for greater persistence under Kentucky conditions than is available in 'Kenland' and other cultivars. Stands of Kenstar under optimum conditions, have lived for 3 to 4 years, with the year of seeding as the first year.

Breeding of Kenstar was begun in 1955 when approximately 1,500 third-year plants of Kenland were selected from fields throughout Kentucky. These and other plants from breeding nurseries were tested for agronomic qualities. The most productive clones were vegetatively increased and allowed to intercross producing polycross seed. After polycross progeny testing, the 10 clones which had the most persistent (long-lived) progenies were selected as the genetic source of the synthetic, Kenstar. The 10 clones are maintained vegetatively to reconstitute the cultivar as seed is needed.

Kenstar is more uniform in flowering than Kenland and flowers less profusely, indicating greater dormancy in the late fall.³ Because 1 of the 10 clones is not leafmarked, Kenstar possesses somewhat more nonleafmarked plants than Kenland. It is very similar to Kenland in possessing resistance to southern anthracnose, moderate susceptibility to powdery mildew, and in general morphological appearance at most stages of growth. Based on test results, Kenstar is adapted to the same general areas as Kenland, the south central clover belt consisting of Kentucky, Tennessee, Virginia, North Carolina, West Virginia, Missouri, and the southern parts of Ohio, Indiana, and Illinois.

Only two classes of seed of Kenstar are recognized beyond breeder seed: one generation each of foundation and certified. Breeder seed will be maintained by the Kentucky Agricultural Experiment Station from progeny of seed produced on the 10 vegetatively propagated clones. Breeder seed will be used for foundation seed production and foundation seed for the production of certified seed. Seeding year harvests are not eligible as foundation or certified seed. West of 98° longitude, foundation and certified seed must be produced above 40° latitude.

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²Professor and Assistant Professor of Agronomy, University of Kentucky, Lexington 40506, respectively.

(Editor's Note: The following five registration articles have been published together because the tables and references are common to the articles.)

REGISTRATION OF BONNET 73 RICE¹
(Reg. No. 36)

Bonnet 73 is characteristic of an awnless, gold-hulled, and other offtypes. Breeder seed panicle length was determined by the Kentucky Agricultural Experiment Station in cooperation with the Crop Science Society of America. Bonnet 73 was released on September 1, 1973.

Bonnet 73 requires less nitrogen than does Starbonnet to produce maximum grain yields (Wells et al. 1973). High rates of nitrogen (especially above 135 kg/ha) also may favor disease development and lodging. The original release of Bonnet 73 contained a scattering of other awnless, gold-hulled, and other offtypes.