EMERALD CROWNVETCH
(Reg. No. 4)

V. B. Hawk and C. P. Wilkie

'EMERALD' crownvetch, Coronilla varia L., is a hardy variety with vigorous growth in both the seedling and mature plant stages. It was selected for and is well adapted to soil and climatic conditions in the Midwest. It is particularly suited for well-drained and calcareous soils. Its greatest use to date has been for erosion control on steep banks. Recent developments indicate possibilities for pasture on soils too dry for birdsfoot trefoil and where alfalfa will not persist under grazing.

Emerald was developed and released jointly by the USDA, Soil Conservation Service, and the Iowa Agricultural and Home Economics Experiment Station. The variety is essentially a product of natural selection under the environment typical of the north central states.

Records indicate that John Martin, Botany Department, Iowa State College, received a crownvetch strain, F.C. 19,295, from the Bureau of Plant Industry, USDA, in 1937. F.C. 19,295 derives from P.I. 32,305, collected in southeastern Russia in 1911 by Frank N. Meyer, an early plant explorer. It was planted at the Arlington Experiment Station, USDA, and later established on a hillside there. Seed was harvested in 1929 and 1930 and distributed to Experiment Stations, including the lot to Dr. Martin. A portion of this seed was obtained from Martin by M. E. Heath and planted at the Ames SCS Nursery in 1938. As SCS No. M2–10215, it was compared with strains of crownvetch from Pennsylvania, New York, New Jersey, and Indiana during a 20-year period. Decision for naming and release was based on its rank growth and seedling vigor from 1949 to 1960. In recent years, Emerald has continued to show outstanding vigor when compared with 'Penngift', 'Chemung', naturalized collections from Kentucky, Kansas, and Iowa, and foreign plant introductions. Penngift crownvetch is the first named and registered variety.

Emerald differs substantially from Penngift by having more vigorous seedlings, taller growth, coarser stems, broader leaves, and paler pink flowers. There is an occasional white-flowered plant in Emerald.

Since crownvetch is most commonly used for bank stabilization and use for forage has been considered only recently, forage yield data are limited. In a 2-year test at Ames, Iowa, the annual yield of Emerald of 3.88 tons per acre was significantly greater than the 3.46 tons produced by the Penngift variety.

Certified seed of Emerald was first available in 1963. Over one ton of seed was produced in 1963 and again in 1964. Seed yields have varied with climatic conditions with a potential of over 400 pounds per acre.

Foundation seed stocks are produced by the Committee for Agricultural Development at Ankeny, Iowa, and the SCS Plant Materials Center at Elsberry, Missouri.

MANSFIELD TREFOIL
(Reg. No. 3)


'MANSFIELD' trefoil is a hardy, fast growing European-type variety, adapted to a wide range of soils and soil moisture conditions. It was developed at the Vermont Agricultural Experiment Station by selection and polycross recombination from three parental seed sources: 'Abbey' (FC 22671), a Columbia Co., N.Y., selection; V 101; and bulked seed from Roskilde, Denmark. The characteristics of the New York and Danish material have been described by MacDonald. All sources are of known winterhardiness and good seed set.

Mansfield can be easily distinguished from narrowleaf varieties, and as readily from Empire. It is similar to other varieties of European origin in flower color, maturity, recovery after cutting, and seedling vigor. However, in spaced plantings Mansfield tends to be more spreading, and also differs from other European types in that a large proportion of plants are characterized by shorter stems, large and more rounded leaflets, and by the distinct glaucous-green color of the leaves. Mansfield has stems and leaves characteristically larger than those of Empire, and it also flowers 10 to 20 days earlier than the native New York state variety.

Forage yields have been conducted in Vermont and elsewhere. In general, hay yields have been equal to or, in some areas, somewhat superior to other European-type varieties. Acceptable Mansfield seed yields of 100 to 300 pounds per acre have been obtained in the Champlain valley.

Certified seed of Mansfield was first available for planting in 1955. Foundation seed stocks are maintained by the Vermont Agricultural Experiment Station under the supervision of the Agronomy Department.

CORRECTION

The article "Forage and Grain Production of Four F1 Barley Hybrids and Their Parents" by P. E. Pawlisch and A. H. Van Dijk on pages 135–136 of the March–April issue contains an easily apparent but none-the-less unfortunate error. The word "wheat" somehow crept into the last sentence of the second paragraph of the second column on page 135 during the printing operations. It should be deleted.

*Henson, Paul R. Crownvetch—a soil conserving legume and a potential pasture and hay plant. USDA, ARS 34–53. April 1963.