Well-fertilized Gahi-1 can be grazed 2 or 3 times and still produce more than 20 tons of silage per acre. To make top quality silage it should be cut when the first heads appear. Mixing the chopped forage with ground snappled corn at the rate of 150 lbs. per ton of forage will enhance the quality of the silage. On fertile soil 2 or 3 cuttings of silage per year are possible.

Gahi-1 has usually outyielded sudangrass and *Sorghum almum* Parodi by a substantial margin in the deep South. It seems to require higher temperatures than the sorghums for optimum growth and usually yields less than sudangrass in the northern states except in unusually warm summers. Gahi-1, like other pearl millets, is free of prussic acid.

Numerous tests by experiment station workers show Gahi-1 is well adapted throughout the southeastern U.S. and along the Atlantic Coastal Plain as far north as Virginia.

The seed used to plant commercial Gahi-1 seed was a mixture of equal numbers of pure live seeds of the 3, 5, 9, 23, and 26. The increase of these inbreds in the production of this seed mixture is the result of a National Foundation Seed project. Since much of Gahi-1 is due to heterosis which is lost in inbreeding, only first-generation seed may be called Gahi-1.

### Registration of Varieties of Other Legumes

G. W. McKee

**PENNGIFT CROWNVETCH (Reg. No. 2)**

**PAPAGO** peas, the first variety to be registered in the "Other Legumes" class was reported in the *Agronomy Journal*.

PENNGIFT CROWNVETCH, named and released by the Pennsylvania Agricultural Experiment Station in 1954, was, in so far as can be ascertained, the first named variety of the species, *Coronilla varia* L.

Crownvetch, introduced and naturalized from Europe, is abundantly, but locally, established over much of the United States. The local ecotype, later named Penngift crownvetch, originated between 1905 and 1910 from volunteer plants in a field seeded to imported alfalfa on the farm of the late Robert Gift near Virginville, Berks County, Pennsylvania. The plants persisted in successive cultivated crops and finally spread to an adjacent rough, hilly pasture. In time, the crownvetch came to occupy, as it still does today, virtually the entire 10-acre field to the practical exclusion of other types of vegetation.

F. V. Grau, then Extension Agronomist of the Pennsylvania State University, first observed the field in 1935. From 1940 to 1943 hand-harvested seed as well as crowns collected by F. V. Grau were used to establish a planting on a rough stony pasture in Centre County, Pennsylvania. By 1946 the planting was of sufficient size and thickness to harvest for seed. The perennial habit and ability to produce a dense protective surface cover as well as a deep penetrating root system in poor soils suggested that the plant might be of value in stabilizing the raw slopes of highway embankments and similar sites.

In 1946, H. B. Musser in cooperation with the Pennsylvania Department of Highways, utilizing seed harvested from the above planting, initiated studies on the possible use of crownvetch for slope stabilization. By 1953 over 100 plantings on highway embankments had been made in 30 Pennsylvania counties. The seed was used in many Pennsylvania counties and the initial results were outstanding. The 1000 seeds given to each of 30 highway construction projects in the state resulted in 1000 plantings.

In 1954, a demonstration planting was made on a road embankment near New Stanton, Pennsylvania, where it is still in excellent condition.

In 1951, a second planting was made at Berks County, Pennsylvania, where it is still in good condition.

The Penngift crownvetch has been distributed to many states and it is now being used in many highway construction projects.

Penngift crownvetch is long-lived, having escaped, from a wide range of soil conditions, is drought-resistant and seems to be almost completely free of soil insect pests. Penngift crownvetch spreads by stolons, which extend 6 to 10 feet. The plant may be controlled by mowing, cultivation, or herbicides. The stem is finer than those on plants from some seed sources and is strongly branching and up to 6 feet in length, pink to purplish, but usually form a dense mat approximately 2 feet tall. The flowers are white to pink, with flowers on some plants purplish, almost white, hue.

Penngift crownvetch competes successfully with legumes, and weeds and soon comes to dominate the field. Adapted, Penngift crownvetch excels the best of the warm grasses in persistence and quality of slope protection. Further information on the performance of Penngift has been reported.

In 1961, provisions were made to certify a crownvetch produced in Pennsylvania. A limited program of breeder seed, foundation seed, and certifying seed was established. The breeder seed will be harvested in Berks County, Pa., Foundation seed will be harvested in Centre County, Pa., from fields seeded to breeder seed and foundation seed of Penngift crownvetch. The seed will be under the supervision of the Pennsylvania Agricultural Station. In 1961 there were 300 and 100 acres of seed, and foundation seed respectively within the state.

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1. Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy.
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