REGISTRATION OF CULTIVARS

seeds with black hila. Cutler, like Kent, is resistant to frog-eye leaf spot (race 2), susceptible to phytophthora root rot, and susceptible to bacterial pustule. It is somewhat more susceptible to downy mildew than Kent but less so than Clark 63. Seed multiplication of Cutler has not been reported to occur in releasing states, however, some shattering has occurred in areas south of its adaptation area.

Foundation seed of Cutler was produced in 1968 for release to certified soybean seed producers in 1969. The Purdue Agricultural Experiment Station will be responsible for maintenance of breeder seed.

Other information on Cutler was published in the Soybean Digest 28:15-16, 1968.

REGISTRATION OF CLAY SOYBEANS

J. W. Lambert

'CLAY' soybeans (Glycine max (L.) Merr.) originated as an F1 plant selection from the cross 'Renville' × 'Capital' in a cooperative program of the Minnesota Agricultural Experiment Station and the University of Minnesota Soybean Laboratory. Prior to its release Clay was identified by the number M395. It is classified in the early range of Group 6 maturity, averaging about 6 days earlier than 'Merit' and 2 days later than 'Flamebeau.' It will probably be most useful as a full season variety in the Red River Valley counties of Minnesota and North Dakota and in a small area of Northeastern South Dakota. It may also be useful for late planting in southern Minnesota and comparable areas.

Distinguishing characteristics of Clay are purple flowers, gray pubescence, shiny yellow seed coats, and colorless hila. The plants are medium to short and have excellent standing ability. The canopy is rather broad in relation to plant height and the leaves are dark green. The seeds are medium in size and have a high oil content.

In Minnesota tests Clay has averaged about 10% higher in yield than Merit and 15% better than Flamebeau. It has also outyielded Merit in the Uniform Regional Group 0 tests.

Seed was released to certified growers in Minnesota, North Dakota, and South Dakota in 1968. The Minnesota Agricultural Experiment Station will be responsible for maintenance of breeder seed. Other information on Clay is published in Varietal Improvement of C. P. 67-500 soybean.

REGISTRATION OF C. P. 67-500 SUGARCANE

D. M. Broadhead and O. H. Coleman

'C. P. 67-500' sugarcane (Saccharum sp.) was selected and propagated as a single clone selection from the progeny of the cross C. P. 50-11 × C. P. 51-30. The cross was made at the U. S. Sugar cane Field Station, Canal Point, Fla., during the 1933 crossing season. C. P. 67-500 was developed for sirup production through cooperative research of the U. S. Department of Agriculture and the Mississippi Agricultural Experiment Station at Meridian and Poplarville, Miss. Before release, C. P. 67-500 was identified by the number Pop. 56-14.

C. P. 67-500 grows c revert and has heavy wax on the bluish stalks. The stalks are shorter and slightly larger in diameter than those of C. P. 36-111, the leading commercial sirup variety. C. P. 67-500 is superior to C. P. 36-111 in yield of sirup per ton of cane and resistance to lodging. The two varieties are equal in yield of sirup per acre and processing qualities. C. P. 67-500 is more tolerant to early freezes than C. P. 36-111. It is resistant but not immune to strain G of sugarcane mosaic virus that is present in Mississippi.

Vegetative cuttings of C. P. 67-500 will be maintained through the Mississippi Foundation Seed Program at the U. S. Sugar Crops Field Station, Meridian, Mississippi.

REGISTRATION OF VERDANT TIMOTHY

E. L. Nielsen, D. C. Smith, and P. N. Drolsom

'Verdant' timothy (Phleum pratense L.) was released in 1968 by the Wisconsin Agricultural Experiment Station in cooperation with the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. Verdant is a 22-clone synthetic cultivar developed from a basic stock derived from the interpollination of 81 clones selected from diverse sources (1). The principal area of utilization is expected to be the western section of the North Central States, and particularly Minnesota and Wisconsin.

Verdant timothy resulted from a progeny selection program wherein the principal characteristics evaluated were disease tolerance, leafiness, late maturity, seed and forage production, and seedling vigor.

About 650 plants, selected from replicated progenies of the 81 basic stock plants, were subjected to artificial epiphytotics of stem rust (Puccinia graminis var. phlei-pratensis (Eriks. & Henn.) Stak. & Pimm. (4)). Sixty-four plants possessed high levels of tolerance to stem rust. Tolerance to brown leaf blight (Scole-cotrichum graminis Fkki) was based upon field performance in progeny tests. Twenty-two parental plants were included in the final recombinations which was designated T-1 for subsequent evaluation.

Verdant timothy, which matures 7 to 10 days later than 'Climax,' is vigorous, leafy, and has good tolerance to both stem rust and brown leaf blight. Tolerance to the latter disease diminishes as seed ripening occurs, a characteristic feature of timothy generally.

Since 1961, Verdant, under the experimental designation T-1, has been included in the national perennial grass testing program coordinated by the Forage and Range Research Branch, Crops Research Division, USDA. Forage yields have approximated those cultivars with which it has been compared. For example, in trials conducted in 1967 at the Marshfield Experimental Farm, Marshfield, Wis., Verdant yielded 9.6 metric tons oven-dried herbage per hectare (4.3 short tons per acre). It ranked third in a trial of five early and midseason cultivars and two experimental synthetic strains. In this trial it outyielded Climax by 6% and 'Common' by 100%. It outyielded eight other late-maturing strains and experimental synthetics in another trial. At both harvest dates in 1967, early strains were at advanced growth stages compared to vegetative growth on late-maturing cultivars. These differentials in maturity would penalize dry matter percentages in the less mature herbage.

Verdant is characterized by relatively long inflorescences. Seed production has been adequate. The three recognized seed classes for Verdant are one generation each of breeder seed, foundation seed, and certified seed. The Wisconsin Agricultural Experiment Station maintains breeder seed.