REGISTRATION OF CLAY SOYBEANS
(Reg. No. 76)

J. W. Lambert

'CLAY' soybeans (Glycine max (L.) Merr.) originated as an F1 plant selection from the cross 'Renville' x 'Capital' in a cooperative program of the Minnesota Agricultural Experiment Station and the U.S. Regional Soybean Laboratory. Prior to its release Clay was identified by the number M393. It is classified in the early range of Group 6 maturity, averaging about 6 days earlier than 'Merit' and 2 days later than 'Flamebean.' 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 hilum. 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 Flamebean. 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 the Soybean Digest 28:15-16, 1968.

REGISTRATION OF VERDANT TIMOTHY
(Reg. No. 4)

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'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. Verdent is a 22-clone synthetic cultivar developed from a basic stock derived from the interpollination of 81 clones selected from diverse sources (3). The principal area of utilization is expected to be the western section of the North Central States, and particularly Minnesota and Wisconsin.

Verdent 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. & Pern. (4)). Sixty-four plants possessed high levels of tolerance to stem rust. Tolerance to brown leaf blight (Scolocyrtium graminis trk) was based upon field performance in progeny tests. Twenty-two parental plants were included in the final recombination which was designated 3-11 for subsequent evaluation.

Verdent 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, Verdent, 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, R.D. 1, Madison, Wis. 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., Verdent 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 10%. 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.

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