REGISTRATION OF GERMPLASM

CP 63-306, an early-maturing, self-stripping, erect variety is recommended for early harvest on both warm and cold lands. CP 63-306 exceeded CL-41-223 by 18% in cane per acre, 9% in sugar per ton of cane, and 29% in sugar per acre in the average of 43 plant cane and ratoon experiments. CP 63-306 is superior to CL-41-223 in sucrose content early in the season and equal to CL 41-223 in juice extraction. CP 63-306 was moderately resistant to mosaic disease in greenhouse tests, but no diseased plant has ever been found in the field. The variety grows rapidly in the spring, and its habit could be an important factor in mechanical harvesting.

Seedcane of CP 63-306 will be maintained by the U.S. Department of Agriculture at the U.S. Sugarcane Field Station, Canal Point, Fla.

Registration of Germplasm

REGISTRATION OF SC-1 WHITE CLOVER GERMPLASM
(Reg. No. GP-2)

Pryce B. Gibson

SC-1 white clover (Trifolium repens L.) germplasm was released in January 1972 by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture, and the South Carolina Agricultural Experiment Station.

SC-1 is the first generation recombination among 145 genetically diverse white clover clones selected for tolerance to root-knot nematode [Meloidogyne incognita (Kofoid and White) Chitwood]. Several thousand plants from cultivars and foreign plant introductions were screened for tolerance from 1959 to 1970, by a technique developed by the Federal-State white clover research team at Clemson. This technique consisted of establishing individual plants in 65-mm clay pots plunged in a sand-filled bed in the greenhouse. After the plants were established a hole 15 mm in diameter and the depth of the soil was cut near the center of the pot by using a small soil sampling tube. This hole was filled with inoculum mixed with sand. Thereafter, the temperature of the bed was prevented from dropping below 24°C by use of heating cables buried beneath the pots. Stolons of each plant were clipped as necessary to restrict growth to the pot. After differential survival developed, usually 60 to 90 days, the plants were rated for nematode damage. Prior to rating the roots were separated from the soil and washed in water. Other than a few elite clones selected prior to developing the screening technique, each clone in SC-1 was selected as a seedling using this technique. All clones in SC-1 were restated by rating vegetative cuttings by the procedure.

Small quantities of SC-1 seed will be provided, until the supply is exhausted, upon request to the Agronomy Department, South Carolina Agricultural Experiment Station, Clemson, S.C. 29631.

CMR-1 is an advanced generation composite of dwarf-internode lines, derived from crosses designated as M59001. M58010 is a cross of T53222-1-1-10-7-1-4-12 made at the Mississippi Delta Branch Experiment Station, Stoneville, Miss. in 1958. T53222 is a cross of 'Cimarron', made at the Texas A&M University Agricultural Research Station, Chillicothe, Texas in 1953. RA11 is a late-maturing, dwarf-internode type and resistant to Alternaria leaf spot. CMR-1 has good drought tolerance and resistance to bacterial leaf spot. CMR-1 is a capsule mold-resistant composite of dwarf-internode lines, derived from crosses designated as M59001. M58010 and three sub-families of M59001 was composed and planted in an isolation block. Number of seed came from 24 to 305 in the nine sub-families. Plants were interpollinate one generation. Seed of the composite was in the F2 generation. Plants in the composite are normal monocious, medium node, medium height (70 to 90 cm); stems, petioles, racemes are compact; semi-compact, racemes are medium-size and brown in length; capsules are spined; seed are medium-size and mottled. The composite is heterozygous for bloom (waxy and nonwaxy).

The derived lines making up the composite are moderately high in oil content (51% on a fresh basis), indeliscent, resistant to capsule mold, and are low to intermediate in node number (9 to 13 nodes). CMR-1 should provide a source material to castor breeders interested in extramold resistant pollinators.

Seed is available in limited amounts upon request. USDA Castor Project, Texas A&M University Agricultural Research and Extension Center at Chillicothe-Vernon, Texas 76384.

REGISTRATION OF UC-90 DWARF RYE GERMPLASM
(Reg. No. GP-1)

J. P. Gustafson, C. O. Qualset, and J. A. Ruper

REGISTRATION OF CMR-1 CASTOR GERMPLASM
(Reg. No. GP-1)