REGISTRATION OF GERMLASM

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 sugar per ton of cane, 9% in sugar per acre, 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 erect habit could be an important factor in mechanical harvesting.

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

Registration of Germplasm

REGISTRATION OF SC-1 WHITE CLOVER GERMLASM
(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. 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.

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

CMR-1 is an advanced generation composite of capsule mold resistant lines, derived from crosses designated as M59001. M58010 is a cross of T53222-1-1-10-1-4-1-12 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 an early-maturing dwarf-internode type and resistant to Alternaria leaf spot. CMR-1 is a late-maturing, normal-internode type with good drought tolerance and resistance to bacterial leaf spot. MW-1-12 is a selection from 'Mississippi Wild' non-capsule mold resistant castor, found growing uncultivated in Mississippi. M59001. M58010 is a cross of T53222-1-1-1-1-10-7-1-4-M6-4 x MW-1-12 made at the Mississippi Delta Branch Experiment Station, Stoneville, Miss. in 1958. Baker 296 is a dwarf-internode castor variety developed and registered by the Baker Castor Oil Company, Plainview, Texas 79072. Baker 296 is resistant to capsule mold but is susceptible to Alternaria leaf spot.

Selfed seed from six capsule mold resistant sections of M58010 and three sub-families of M59001 was co-planted in an isolation block. Number of seed coming from 24 to 305 in the nine sub-families. Plants were interpollinated one generation. Seed of the composite was grown in the F6 to F8 generation.

Plants in the composite are normal monocious, dwarf-internode type, medium height (70 to 90 cm); stems, petioles, and leaves are green; racemes are compact to semi-compact, 9 to 13 nodes in length; capsules are spinose; seed are medium-sized, non-waxy. The composite is heterozygous for bloom (waxy and nonwaxy).

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

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

REGISTRATION OF UC-90 DWARF CASTOR GERMLASM
(Reg. No. GP-1)

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