REGISTRATION OF CP 72-370 SUGARCANE
(Reg. No. 57)

H.P. Fanguy and R.D. Breaux1

'CP 72-370' sugarcane, a tri-species hybrid involving Saccharum officinarum L., S. spontaneum L., and S. barberi Jeswiet, is a selection from the cross ‘CP 61-37’ × ‘CP 52-68.’ The cross was made at Canal Point, Fla., during the 1967 crossing season. CP 72-370 was developed through cooperative research of AR-SEA-USDA, the Louisiana Agricultural Experiment Station, and the American Sugar Cane League.

CP 72-370 is recommended for culture on light and heavy soils in Louisiana. It is a high-sucrose, moderately erect cultivar. It equaled the leading commercial cv., ‘CP 65-357,’ in yields of sugar/ha and sugar per ton of cane in 68 replicated tests. CP 72-370 also equaled CP 65-357 in overall yield of cane/ha for a three-crop cycle, but with a significantly lower yield of cane in the plant crop on light soils. Yields of sugar/ha on heavy soils were equal to that of CP 65-357. CP 72-370 is not brittle and is well adapted to machine harvesting.

CP 72-370 is moderately susceptible to infection with sugarcane mosaic virus and susceptible to infection with raton stunting disease. Preliminary data indicate that the cultivar is resistant to infection with sugarcane rust (caused by Puccinia melanocephala H. & P. Syd.) and smut (caused by Ustilago sclaminea Syd.). CP 72-370 is moderately resistant to borer (Diatraea saccharalis F.), equaling CP 65-357. Preliminary data indicate that CP 72-370 has moderate resistance to post-freeze deterioration.

Seed cane of CP 72-370 will be maintained by AR-SEA-USDA, at the U.S. Sugarcane Field Laboratory, Houma, Louisiana.

1 Registered by the Crop Sci. Soc. of Am. Contribution of AR-SEA-USDA in cooperation with the Louisiana Agricultural Experiment Station, and the American Sugar Cane League of the USA, Inc. Accepted 11 May 1981.

REGISTRATION OF NC 82 TOBACCO
(Reg. No. 84)

G. R. Gwynn1

'NC 82' is a flue-cured tobacco (Nicotiana tabacum L.) developed and released cooperatively by AR-SEA-USDA and the North Carolina Agric. Res. Serv. It was tested as line 2082 in the North Carolina Official Variety Test2 in 1973, 1975, and 1978; in the Flue-Cured Regional Small Plot Test in 1974, 1975, 1977, and 1978; and in the Flue-Cured Regional Farm Test in 1975 and 1978. It was also tested in the North Carolina Official Variety Test after its release as NC 82 in 1979 and 1980. NC 82 was a breeding line in the F10 stage of inbreeding at the time of its release in 1979. It results from a cross of ‘Virginia 21’ × ‘Bottom Special’ × breeding line 8038-3.

North Carolina Official Variety Tests are conducted at Research Stations at Whiteville, Kinston, Rocky Mount, Clayton, Oxford, and Reidsville, North Carolina. Regional Tests are conducted in Georgia, South and North Carolina, and Virginia.

NC 82 is highly resistant to black shank [caused by Phytophthora parasitica f. nicotianae (Breda de Haan) Tucker] and resistant to bacterial wilt [caused by Pseudomonas solanacearum E. F. Smith], Fusarium wilt [caused by Fusarium oxysporum (Schlecht.) W. & P. nicosianae Johnson], and black root rot [caused by Thielaviopsis basicola (Berk. & Br.) Ferraris]. It is essentially the same height (104 cm) as ‘NC 95’ or slightly shorter and is usually topped at 19 leaves. It produces ground suckers at the same rate as Coker 319 which is usually 0.6 per plant. It can also flower prematurely to the same degree as Coker 319 and ‘NC 2326’. The leaf type and shape of the plant resembles Coker 319. Yield of this variety at 5,085 kg/ha is greater than Coker 319 at 2,870 kg/ha. It has very good cured-leaf quality and is consistently one of the leading entries in price as well as quality index. In the 1980 Official Variety Test NC 82 had the highest price per pound at $1.54 and the highest grade index at 49. It has met the chemical, physical, and smoking standards as developed and administered by the Regional Flue-Cured Tobacco Quality—Varieties Committee. NC 82 represents a high-quality tobacco such as Coker 319 with improved resistance to black shank and bacterial wilt particularly and perhaps Fusarium wilt and black root rot. It is also somewhat higher yielding and easy to cure while still maintaining the good cured leaf appearance of Coker 319. It should adapt well to the entire flue-cured production area but should not be planted extremely early because cold conditions can increase the amount of premature flowering.

Breeder seed of NC 82 will be maintained at the Oxford Tobacco Research Laboratory. Foundation seed is distributed by the North Carolina Foundation Seed Producers, Inc., North Carolina State Univ., Raleigh, N.C. 27695.

REGISTRATION OF CANUCK WHEAT
(Reg. No. 446)

R. M. De Pauw and D. S. McBean1

'Canuck,' hard red spring wheat (Triticum aestivum L. em Thell.), CI 17542, was developed by the Research Station, Agriculture Canada, Swift Current, Saskatchewan. It received license number 1533 in Canada in April 1974.

Canuck was selected from a cross between 'Canthatch' and a sawfly resistant line from 'Mida' × 'Cadet' / 'Rescue.' It was developed using a modified pedigree breeding system and tested in the Western Bread Wheat Cooperative Tests as CT 774. Breeder seed was developed by bulking the progeny from 98 uniform plant rows.

In 109 station-years of tests in Western Canada during the period 1968 to 1973, Canuck averaged 9% higher grain yield than 'Cypress' and 10% less than 'Neepawa.' In the drier prairie area where the wheat stem sawfly (Cephus cinctus Nort.) is likely to be a serious pest of wheat, Canuck averages 10% higher yield than Cypress and 2% more than Neepawa. Canuck has a solid stem which confers a high degree of resistance to the wheat stem sawfly.

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