Registration of ‘LCP 86-454’ Sugarcane

‘LCP 86-454’ sugarcane (Reg. no. CV-102, PI 590278), an interspecific hybrid of Saccharum officinarum L., S. spontaneum L., and S. barbieri Jeswiet, was developed through cooperative research by the Louisiana Agricultural Experiment Station of the Louisiana State University Agricultural Center, the USDA-ARS, and the American Sugar Cane League of the USA, Inc. LCP 86-454 was selected from progeny of the cross CP 77-310/CP 69-380 made at Canal Point, FL, in 1981.

Stalks of LCP 86-454 range from light green in the canopy to bronze when grown in direct sunlight. The tops are erect, with wide leaves and no auricle. Results from 89 replicated trials over 7 yr and 19 test locations indicate that the yield of sugar and cane per area of LCP 86-454 are comparable to ‘CP 70-321’ (1) and are not affected by soil type. The cultivar produces a low population of large-diameter stalks. The stalk number per area is less than that of CP 70-321 in plant cane (94%) and similar in ratoon crops (101%). The stalks of LCP 86-454 are greater in weight than those of CP 70-321 (121%) and all check cultivars in all crops. The recoverable sugar content (kg ha⁻¹) of the cultivar is similar to ‘CP 65-357’ (2) and has a milling factor of 1.035 and a cane fiber content of 12.6%. The cultivar is suited to mechanical harvesting, with harvesting characteristics similar to ‘CP 72-370’ (3) and ‘CP 74-383’ (4).

LCP 86-454 is resistant to injury caused by the sugarcane borer [Diatraea saccharalis (F.)], and is resistant to smut (caused by Ustilago scitaminea Syd. & P. Syd.), moderately resistant to leaf scald [caused by Xanthomonas albilineans (Ashby) Dowson], susceptible to the sugarcane mosaic virus, and susceptible to ratoon stunting disease (caused by Clavibacter xylī subsp. xylī). Preliminary data suggest that the cultivar is tolerant to herbicides used in sugarcane production.

Seed cane of LCP 86-454 will be maintained at the St. Gabriel Research Station of the Louisiana Agricultural Experiment Station. A small number of cuttings are available from the corresponding author upon request.


Registration of ‘Council’ Soybean

‘Council’ soybean [Glycine max (L.) Merr.] (587091) was developed by the North Dakota State University and the University of Minnesota soybean breeding projects from 1989 to 1994 by the North Dakota State University, that includes eastern North Dakota and western Minnesota.

Council is an F₃-derived line, originally developed at Fargo, ND, and has the pedigree ‘Ozzie’ × ‘Dawson’ (1,2). The cross was made in the glasshouse in the winter of 1986-1987 and the F₁ plants were grown in the second glasshouse generation in 1986-1987. The F₂ population was grown in 1987 and advanced to the F₃ generation by the single-pod bulk method. F₃ plants from the segregating population were threshed in the 1987-1988 Chile winter nursery. The F₃ rows were selected in 1988. ND88-597 was first tested in yield trials in 1989.

Council was evaluated in the Uniform Soybean Test of North Dakota, from 1992 to 1994 (3). In 3 yr of Uniform Soybean Test, Council averaged 15% higher in seed yield than ‘Lambert’ (5), and matured 1 d earlier. Council averaged 11% higher in seed yield than ‘Agassiz’ (4), and matured 2 d earlier than Lambert. Lodging and seed quality scores of Council are similar to Agassiz and Lambert.

Council has purple flowers, gray pubescence, dull yellow seeds with yellow hilum. It is a Maturity Group 0 indeterminate cultivar and is generally adapted as a maincrop variety from 45 to 48° N lat. Council was evaluated in the Red River Valley of the North from 1989 to 1994 by the North Dakota State University and University of Minnesota soybean breeding projects for a total of 22 location-years. In these Red River Valley test trials, Council averaged 11% higher in seed yield than Lambert 2 d later. Council averaged 8% higher in seed yield and matured 1 d earlier. Iron chlorosis scores are similar to Dawson and superior to Ozzie. Council has the Rps1 gene for resistance to phytophthora soybean blight caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann.

Breeder seed of Council will be maintained by the North Dakota State University Agricultural Research and Education Center, Fargo, ND, for at least 5 yr. Protection for Council will be applied for under the U.S. Plant Variety Protection Act.

References and Notes
5. Fanguy, H.P., P.H. Dunkelman, R.D. Breaux, and R.M. Jeswiet, was developed through cooperative research by the Louisiana Agricultural Experiment Station of the Louisiana State University Agricultural Center, the USDA-ARS, and the American Sugar Cane League of the USA, Inc. LCP 86-454 was selected from progeny of the cross CP 77-310/CP 69-380 made at Canal Point, FL, in 1981.