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by *Xanthomonas malvacearum* (E. F. Sm) Dows.]. The okra-leaf trait reduces boll rot by opening up the plant canopy and confers resistance to white fly [*Trialeurodes abutilonea* (Haldeman)] (1), and to pink bollworm [*Pectinophora gossypiella* (Saunders)] (4). Okra-leaf plants also mature earlier (1). These germplasm lines should be useful in cotton improvement programs to reduce leaf and boll diseases, and to control insects.

The four germplasm lines were designated Aub Br Ok4 (GP-288), Aub BR Ok5 (GP-289), Aub BR Ok6 (GP-290), and Aub BR Ok7 (GP-291). The lines originated from the cross (Auburn BR1 with B_2B_3 genes × Auburn 56 Okra Leaf) × (Auburn BR1 × 79N with $B_2B_3B_7$ genes). The origin of okra leaf in Auburn 56 Okra Leaf is unknown. The origins of 79N (3) and Auburn BR1 (2) were reported previously. Selections were made for okra leaf and bacterial blight resistance in the F_2 through F_4 generations after plants were inoculated with a mixture of races 1, 2, 6, 7, 10, and 18 of the bacterium in the field. In F_4, self-pollinated seed of 40 to 50 bacterial blight resistant–okra leaf plants of each line were bulked for increase and release. The germplasm lines, along with the check 'Auburn 56', were field tested in 1984.

Lint yield of Aub BR Ok4 was not significantly different than that of Auburn 56, but the other three lines had lower yields. Each of the lines had lower lint percentages [(lint/seed cotton) × 100], fiber elongation (E_1), and micronaire than that of the check. Boll weights of the lines were similar to the check. All of the lines had longer and stronger fiber than the check.

Small amounts of seed of these four lines are available for distribution to cotton breeders, geneticists, and other research workers. Written requests should be addressed to R. L. Shepherd, USDA-ARS, Crop Science Research Laboratory, P.O. Box 5367, Mississippi State, MS 39762-5367.

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References and Notes

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REGISTRATION OF EIGHT BACTERIAL BLIGHT RESISTANT COTTON GERMPLASM LINES

EIGHT cotton (*Gossypium hirsutum* L.) germplasm lines (Reg. no GP-292 to GP-299; Table 1) with resistance to bacterial blight [Xanthomonas malvacearum (E. F. Sm) Dows.] were released by the USDA-ARS and the Alabama Agricultural Experiment Station in 1986. Bacterial blight resistance reduces angular leaf spot and boll rot diseases caused by the bacterium. These germplasm lines offer breeders and other research workers the advantages of host plant resistance to bacterial blight in a broad germplasm base. These germplasm lines should be useful in cotton breeding programs to reduce bacterial blight and associated diseases.

The B_2B_3 genes in the Auburn 56 line, which originated from K_4E, provides resistance to bacterial blight races 1, 2, 6, 7, and 10, and the $B_2B_3B_7$ genes in 79N provides resistance to bacterial blight races 1, 2, 6, 7, 10, and 18 (Table 1). The origins of K_4E and 79N were reported previously (1). Selection for resistance was done in each backcross cycle and in the F_2 through F_4 generations after the last backcross by inoculating plants in the field with a mixture of races of the bacterium. In the F_4 after the last backcross, self-pollinated seeds of 40 to 50 resistant plants of each germplasm line were bulked for increase, field testing, and release.

Each germplasm line, along with a 'Stoneville 213' check, was tested in a field in which incidence of bacterial blight disease was insignificant in 1984. All germplasm lines produced yields comparable with that of the check, except Aub BR10 had a lower yield. All germplasm lines had equal or longer fiber, comparable fiber elongation, equal or stronger fiber, generally lower micronaire, and lower lint percentages [(lint/seed cotton) × 100] than that of the check.

Small amounts of seed of these eight lines are available for distribution to cotton breeders, geneticists, and other research workers. Written request should be addressed to R.L. Shepherd, USDA-ARS, Crop Science Research Laboratory, P.O. Box 5367, Mississippi State, MS 39762–5367.

Table 1. Eight bacterial blight resistant lines of cotton.

Germplasm identification	Registration no.	Parentage
Aub BR3	GP-292	'Deltapine 16' × an Auburn 56 line with B_2B_3 genes, then four backcrosses (BC) to Deltapine 16, next crossed to 79N with $B_2B_3B_7$ genes and then four BC to Deltapine 16.
Aub BR4	GP-293	Same as Aub BR3, except BC were to Pee Dee 0109.
Aub BR5	GP-294	Same as Aub BR3, except BC were to 'Dixie King II' and three BC to 79N instead of four.
Aub BR6	GP-295	Same as Aub BR3, except BC were to 'Deltapine 26'.
Aub BR7	GP-296	Same as Aub BR3, except BC were to 'McNair 511'.
Aub BR8	GP-297	Same as Aub BR3, except BC were to 'Coker 310' and three BC to 79N instead of four.
Aub BR9	GP-298	Same as Aub BR3, except BC were to 'Acala SJ-2'.
Aub BR10	GP-299	Same as Aub BR3, except BC were to 'Delcot 277'.

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References and Notes

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