nematode-resistant germplasm line developed by the Louisiana Agricultural Experiment Station (3). C32, a USDA breeding line, was developed from a cross between 'McNair 220' (4,5) and 'G&P 3774' (4,5). Compared with Stoneville 453, the lint percentage of N419-1-91 was 2% lower, but its fiber was 5% longer.

Field studies conducted from 1992 through 1994 in reniform nematode-infested vs. fumigated soils indicated that yield reductions in the infested soils for N220-1-91, N222-1-91, N320-2-91, and N419-1-91 were 15, 18, 3, and 12%, respectively, compared with 44 and 23%, respectively, for Stoneville 453 (a susceptible check) and La. RN 1032 (a reniform nematode-resistant germplasm) (3). In the fumigated soils, N220-1-91 and N419-1-91 produced significantly higher lint yield than Stoneville 453 and La. RN 1032, whereas all four germplasm lines produced higher yield in the reniform nematode-infested soil. In laboratory evaluations, reniform nematode reproduction indices (final population/initial population) of N220-1-91, N222-1-91, N320-2-91, and N419-1-91 at 6 wk were 59, 39, 53, and 49%, respectively, of the index observed for Stoneville 453. At 6 wk, root-knot nematode reproduction indices of N220-1-91, N222-1-91, N320-2-91, and N419-1-91 were 7, 11, 10, and 215%, respectively, of that measured for Stoneville 453.

Seed of the four lines will be maintained by the USDA-ARS Conservation and Production Research Unit at Weslaco, TX. Small quantities of seed (25 g) for research and breeding purposes may be obtained from the corresponding author until supplies are exhausted. Appropriate recognition is requested when this germplasm contributes to the development of a new cultivar or germplasm.

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References and Notes

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Registration of C221-91, C224-91, C300-91, and C306-91 Cotton Germplasm Lines

C221-91 and C224-91 have both glabrous and pubescent plants. C221-91 possesses good bacterial blight resistance, and C224-91 has shown good field tolerance to the southern root-knot nematode [Meloidogyne incognita (Kofoid & White) Chitwood], Race 3. C300-91 and C306-91 are highly resistant to all of the causal agent of bacterial blight. C306-91 has shown good field tolerance to the southern root-knot nematode [Meloidogyne incognita (Kofoid & White) Chitwood], Race 3. C300-91 and C306-91 are highly resistant to all of the causal agent of bacterial blight. C306-91 has shown good field tolerance to the southern root-knot nematode [Meloidogyne incognita (Kofoid & White) Chitwood], Race 3.

A limited quantity of seed is available for distribution to cotton geneticists, breeders, and other research personnel upon written request to the corresponding author. When this germplasm contributes to the development of a new cultivar, appropriate recognition is requested.

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References and Notes
2. C221-91 and C224-91 were developed from a cross between 'McNair 220' (4,5) and 'G&P 3774' (4,5). Compared with Stoneville 453, the lint percentage of N419-1-91 was 2% lower, but its fiber was 5% longer.

Field studies conducted from 1992 through 1994 in reniform nematode-infested vs. fumigated soils indicated that yield reductions in the infested soils for N220-1-91, N222-1-91, N320-2-91, and N419-1-91 were 15, 18, 3, and 12%, respectively, compared with 44 and 23%, respectively, for Stoneville 453 (a susceptible check) and La. RN 1032 (a reniform nematode-resistant germplasm) (3). In the fumigated soils, N220-1-91 and N419-1-91 produced significantly higher lint yield than Stoneville 453 and La. RN 1032, whereas all four germplasm lines produced higher yield in the reniform nematode-infested soil. In laboratory evaluations, reniform nematode reproduction indices (final population/initial population) of N220-1-91, N222-1-91, N320-2-91, and N419-1-91 at 6 wk were 59, 39, 53, and 49%, respectively, of the index observed for Stoneville 453. At 6 wk, root-knot nematode reproduction indices of N220-1-91, N222-1-91, N320-2-91, and N419-1-91 were 7, 11, 10, and 215%, respectively, of that measured for Stoneville 453.

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