REGISTRATION OF GERMPLASMS

It is resistant to prevalent races of stem rust (caused by Puccinia graminis Pers. f. sp. tritici Eriks. and E. Henn.); moderately resistant to common root rot [caused by Bipolaris sorokiniana (Sacc. in Sorok.) Shoem. and Fusarium sp.] and common bunt [caused by Tilletia foetida (Wallr.) Liro and Tilletia caries (DC.) Tul.]; and moderately susceptible to loose

sorokiniana

smut [caused by Ustilago tritici (Pers.) Rostr.

The Canadian Expert Committee on Grain

Sinton equal in breadmaking quality to 'Marquis'.

A more detailed description of the cultivar has

Breeder seed is being maintained at the

Agriculture Canada, Regina, Saskatchewan.

Registration of Germplasms

REGISTRATION OF BW76-31 COTTON
GERMPLASM

The BW76-31 cotton (Gossypium hirsutum L.) was released as a germplasm line by the Missouri Agric. Exp. Stn., 31 Jan. 1981.

BW76-31 cotton is a doubled haploid with high gossypol. A haploid of an F1 plant from the cross {['Deltapine 277' x 'MoDel'] F1 x Delcot 277} BC, was derived via semigamy (4) and doubled to produce BW76-31. F1 x BC, was a selection derived from {['Deltapine 15' x 'Socorro Island'] F1 x M11} F2. Socorro Island was a wild Gossypium hirsutum possessing high flower bud gossypol (3). M11 was a doubled haploid derived from the 'Empire' cultivar (1).

BW76-31 is a prolific, early-maturing, storm resistant, small-bollled, determinate to semi-determinate line that produces a 2X normal amount of gossypol and/or other terpenoid-like granular components in flower buds and vegetative parts.

BW76-31 is resistant to Xanthomonas malvacearum (E. F. Sm.) Dows; races 1 and 11 and moderately tolerant to the Verticillium wilt pathogen caused by Verticillium dahliae Kleb. It is moderately tolerant to the Fusarium wilt-root knot disease complex incited by Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Synd. and Hans. and Meloidogyne incognita (Kofoid and White) Chitwood (2). BW76-31 is sensitive to Cercospora-Alternaria leaf blight complex, frequently causing premature defoliation.

BW76-31 produces lint yields of approximately 80% of the yield of standard commercial varieties. Plants tend toward dwarfness with soil or moisture stress. Adaptation is narrow. Flower bud gossypol averaged 1.03% for BW76-31 and 0.52% for 'Stoneville 213'.

Seed index of BW76-31 compared with Stoneville 213 averaged 11.3 vs. 12.0 g; lint fraction 35.5% vs. 36.7%; boll size 4.4 vs. 5.9 g; 2.5% span fiber length 27.4 mm vs. 28.5 mm; fiber length uniformity ratio 48 vs. 46; fiber micronaire units 4.7 vs. 4.8; T1 fiber strength (cN/tex) 20.60 vs. 17.79; yarn tenacity (cN/tex) 11.40 vs. 12.86; and E1 fiber elongation (%) 9.34 vs. 9.51.

The doubled haploid genetic stability, high gossypol producing capabilities, dwarf and prolific fruiting plant type, moderate yield, disease resistance potentials, acceptable boll, seed, ginning and fiber quality characteristics all contribute to the potential usefulness of BW76-31 as a germplasm source of high gossypol and for inter/intra-specific hybrid cotton development.

Seed of BW76-31 will be maintained by the Missouri Agricultural


REGISTRATION OF HYC76-59 COTTON
GERMPLASM

HYC76-59 cotton (Gossypium hirsutum L.) was released as a germplasm line by the Missouri Agric. Exp. Stn., 2 Feb 1981.

HYC76-59 originated as a single F1 plant selection of HYC76-59 cotton line. HYC76-59 was derived via semigamy (4) and doubled to produce BW76-31. BW76-31 was derived via semigamy (4) from {('Deltapine 277' x 'MoDel') F1 x Delcot 277} BC, was a selection derived from {('Deltapine 15' x 'Socorro Island') F1 x M11} F2. Socorro Island was a wild Gossypium hirsutum possessing high flower bud gossypol (3). M11 was a doubled haploid derived from the 'Empire' cultivar (1).

HYC76-59 is a prolific, early-maturing, storm resistant, small-bollled, determinate to semi-determinate line that produces a 2X normal amount of gossypol and/or other terpenoid-like granular components in flower buds and vegetative parts.

HYC76-59 is resistant to Xanthomonas malvacearum (E. F. Sm.) Dows; races 1 and 11 and moderately tolerant to the Verticillium wilt pathogen caused by Verticillium dahliae Kleb. It is moderately tolerant to the Fusarium wilt-root knot disease complex incited by Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Synd. and Hans. and Meloidogyne incognita (Kofoid and White) Chitwood (2). HYC76-59 is sensitive to Cercospora-Alternaria leaf blight complex, frequently causing premature defoliation.

HYC76-59 produces lint yields of approximately 80% of the yield of standard commercial varieties. Plants tend toward dwarfness with soil or moisture stress. Adaptation is narrow. Flower bud gossypol averaged 1.03% for BW76-31 and 0.52% for 'Stoneville 213'.

Seed index of BW76-31 compared with Stoneville 213 averaged 11.3 vs. 12.0 g; lint fraction 35.5% vs. 36.7%; boll size 4.4 vs. 5.9 g; 2.5% span fiber length 27.4 mm vs. 28.5 mm; fiber length uniformity ratio 48 vs. 46; fiber micronaire units 4.7 vs. 4.8; T1 fiber strength (cN/tex) 20.60 vs. 17.79; yarn tenacity (cN/tex) 11.40 vs. 12.86; and E1 fiber elongation (%) 9.34 vs. 9.51.

The doubled haploid genetic stability, high gossypol producing capabilities, dwarf and prolific fruiting plant type, moderate yield, disease resistance potentials, acceptable boll, seed, ginning and fiber quality characteristics all contribute to the potential usefulness of BW76-31 as a germplasm source of high gossypol and for inter/intra-specific hybrid cotton development.

Seed of BW76-31 will be maintained by the Missouri Agricultural

HYC76-59 cotton (Gossypium hirsutum L.) was released as a germplasm line by the Missouri Agric. Exp. Stn., 2 Feb 1981.

HYC76-59 originated as a single F1 plant selection of HYC76-59 cotton line. HYC76-59 was derived via semigamy (4) and doubled to produce BW76-31. BW76-31 was derived via semigamy (4) from {('Deltapine 277' x 'MoDel') F1 x Delcot 277} BC, was a selection derived from {('Deltapine 15' x 'Socorro Island') F1 x M11} F2. Socorro Island was a wild Gossypium hirsutum possessing high flower bud gossypol (3). M11 was a doubled haploid derived from the 'Empire' cultivar (1).

HYC76-59 is a prolific, early-maturing, storm resistant, small-bollled, determinate to semi-determinate line that produces a 2X normal amount of gossypol and/or other terpenoid-like granular components in flower buds and vegetative parts.

HYC76-59 is resistant to Xanthomonas malvacearum (E. F. Sm.) Dows; races 1 and 11 and moderately tolerant to the Verticillium wilt pathogen caused by Verticillium dahliae Kleb. It is moderately tolerant to the Fusarium wilt-root knot disease complex incited by Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Synd. and Hans. and Meloidogyne incognita (Kofoid and White) Chitwood (2). HYC76-59 is sensitive to Cercospora-Alternaria leaf blight complex, frequently causing premature defoliation.

HYC76-59 produces lint yields of approximately 80% of the yield of standard commercial varieties. Plants tend toward dwarfness with soil or moisture stress. Adaptation is narrow. Flower bud gossypol averaged 1.03% for BW76-31 and 0.52% for 'Stoneville 213'.

Seed index of BW76-31 compared with Stoneville 213 averaged 11.3 vs. 12.0 g; lint fraction 35.5% vs. 36.7%; boll size 4.4 vs. 5.9 g; 2.5% span fiber length 27.4 mm vs. 28.5 mm; fiber length uniformity ratio 48 vs. 46; fiber micronaire units 4.7 vs. 4.8; T1 fiber strength (cN/tex) 20.60 vs. 17.79; yarn tenacity (cN/tex) 11.40 vs. 12.86; and E1 fiber elongation (%) 9.34 vs. 9.51.

The doubled haploid genetic stability, high gossypol producing capabilities, dwarf and prolific fruiting plant type, moderate yield, disease resistance potentials, acceptable boll, seed, ginning and fiber quality characteristics all contribute to the potential usefulness of BW76-31 as a germplasm source of high gossypol and for inter/intra-specific hybrid cotton development.

Seed of BW76-31 will be maintained by the Missouri Agricultural

