REGISTRATION OF GERMPLASMS

sandy soils with high populations of several species of nematode, UC-PX 1971 had the best stand of all entries in three production years.

In a 5-year yield trial at Davis, forage yields of UC-PX 1971 were 114% of Lahontan and 102% of 'Moapa 69.' In a 4-year forage yield trial at the West Side Field Station, Five Points, California UC-PX 1971 yielded 109% of Moapa 69, 110% of Lahontan, and 111% of 'El Unico.' In a 4-year forage yield trial at the UC Riverside Moreno farm, UC-PX 1971 yielded 107% of El Unico. Fall dormancy of UC-PX 1971 is similar to that of Moapa, whereas spring recovery is slightly later.

One hundred grams of UC-PX 1971 seed are available upon written request and agreement to make appropriate recognition of its source a matter of open record when this germplasm contributes to the development of a new cultivar, hybrid, or germplasm. Request seed from either L. R. Teuber, Agronomy and Range Science, Univ. of California, Davis, CA 95616 or W. F. Lehman, P.O. Box 1004, E. Holton Rd., El Centro, CA 92243.

REGISTRATION OF TRIAZINE-RESISTANT
BRASSICA CAMPESTRIS GERMPLASM1
(Reg. No. GP 1)

W. D. Beversdorf, J. Weiss-Lerman, and L. R. Erickson

SUMMER turnip rape (Brassica campestris L.) germplasm with cytoplasmically inherited triazine resistance was released by the Crop Science Dep., Univ. of Guelph in 1979. The germplasm, referred to as ATR-5Ca, was derived from bulked seeds from the fourth backcross between a triazine resistant B. campestris weed biotype called bird's rape3 (donor parent) and 'Candle' (recurrent pollen parent), a triple zero (low erucic acid, low thioglucosinolate, low fiber) Canadian cultivar.

ATR-5Ca is resistant to atrazine (3.0 kg/ha) and cyanazine (3.0 kg/ha) applied post-emergence, preemergence, or post emergence, whereas Candle is killed by any of the above herbicide applications.

Seeds which were bulked to produce ATR-5Ca were similar to Candle in erucic acid content (less than 1% of total fatty acids) and seed coat color (yellow to brown). Glucose test strip assays indicate ATR-5Ca was also similar to Candle in thioglucosinolate content although no quantitative measurements have been completed. No deleterious effect from the cytoplasm of the weed biotype has been observed in ATR-5Ca.

Small quantities (2 to 4 g) of ATR-5Ca are available from the Crop Science Dep., University of Guelph, Guelph, Ontario, Canada, N1G 2W1.

1 Registered by the Crop Sci. Soc. Am. Accepted 8 Nov. 1979.
2 Assistant professor, graduate student, and graduate student, respectively, Crop Science Dep., Univ. of Guelph, Guelph, Ontario, N1G 2W1.

REGISTRATION OF TRIAZINE RESISTANT
BRASSICA NAPUS GERMPLASM1
(Reg. No. GP 2)

W. D. Beversdorf, J. Weiss-Lerman, and L. R. Erickson

ATR-STw has been released because of its potential as a source of triazine resistance and the potential value of such resistance in weed control programs for rapeseed. Small quantities (2 to 4 g) of ATR-STw are available from the Crop Science Dep., Univ. of Guelph, Guelph, Ontario, Canada, N1G 2W1.

THREE breeding lines of cotton (Gossypium hirsutum L.) were released by AR-SEA-USDA and the Alabama Agric. Exp. Stn. in 1975 (1). These breeding lines represent a significant step in overcoming the adverse association of lint yield, fiber quality, and disease resistance.

These lines were developed from the cross Pee Dee 2165, and each is from a single plant selected in the F2 generation. Pee Dee 4381 was developed from AC 239 × 'Auburn 56.' AC 239 was derived from crosses involving Triple Hybrid 171, Sealdent 7, and C 6-5. Pee Dee 2165 was derived from similar crosses involving Triple Hybrid 108 and 171, AHA 6-1-4, Sealdent 542, and C 6-5. Auburn 56 is a commercial field derived by the Alabama Agric. Exp. Stn. that promise to the fusarium wilt root knot-nematode complex by Fusarium oxysporum f. sp. vasinfectum (AHL) Hans. and Meloidogyne spp. (5).

Pee Dee 0109, Pee Dee 0111, and Pee Dee 0113 may produce yields equivalent to those of commercial types in the Southeast. Pee Dee 0113 is the most consistent producer and has shorter and weaker fibers than the others; however, it will not be highly resistant to the fiber strength check. Pee Dee 2165. Pee Dee 0113, a PD line derived from Triple Hybrid material to possess seeds late content) Canadian B. napus cultivar. In the program, Tower was used as a recurrent pollen parent.

Hybrids of the initial cross (bird's rape × Tower) were resistant to atrazine (postemergence) and cyanazine (postemergence) and used as the next cycle backcrossing. Resulting progeny (BC2) had 58 chromosomes and were resistant to atrazine. Subsequent cycles of backcrossing were continued with progeny with tolerance cycle subjected to a post-emergence application of atrazine (3.0 kg/ha). All progeny carrying cytoplasm derived from the bird's rape donor parent were resistant to the atrazine application.

Seeds bulked to form ATR-5Tw were from the backcross (bird's rape × Tower). ATR-5Tw is resistant to atrazine (3.0 kg/ha) and cyanazine (3.0 kg/ha) at 0.5 kg/ha applied post-emergence, preemergence, or post emergence. These are resistant to any of the above herbicide applications.

ATR-5Tw is similar to Tower in erucic acid content (less than 1% of total fatty acids). Glucose test strip assays indicate ATR-5Tw is similar to Tower in thioglucosinolate content although no quantitative determination has been completed.

ATR-5Tw has been released because of its potential as a source of triazine resistance and the potential value of such resistance in weed control programs for rapeseed. Small quantities (2 to 4 g) of ATR-5Tw are available from the Crop Science Dep., Univ. of Guelph, Guelph, Ontario, Canada, N1G 2W1.

REGISTRATION OF THREE GERMPLASM LINES OF COTTON1
(Reg. No. GP141 to GP143)

T. W. Culp and D. C. Harrell

THREE breeding lines of cotton (Gossypium hirsutum L.) were developed by the Alabama Agric. Exp. Stn. and the Alabama Agric. Exp. Stn. That promise to the fusarium wilt root knot-nematode complex by Fusarium oxysporum f. sp. vasinfectum (AHL) Hans. and Meloidogyne spp. (5).