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 CAMESTRIS GERMPLASM\(^1\)
(Reg. No. GP 1)

W. D. Beversdorf, J. Weiss-Lerman, and L. R. Erickson\(^2\)

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 rape\(^3\) (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 cyanoazine (3.0 kg/ha) and tolerant of metribuzin (0.5 kg/ha) applied preplant incorporated, preemergence, or post emergence. ATR-5Ca is similar to Candle in erucic acid content (less than 1% of total fatty acids). Glucose test strip assays indicate ATR-5Ca was also similar to Candle in thio-glucosinolate 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, Canada, N1G 2W1.

REGISTRATION OF TRIAZINE RESISTANT
BRASSICA NAPUS GERMPLASM\(^1\)
(Reg. No. GP 2)

W. D. Beversdorf, J. Weiss-Lerman, and L. R. Erickson\(^2\)

Hybrids of the initial cross (bird's rape × Tower) were triploids (2n = 29). Among backcross (BC) progeny, chromosome plants were identified by root-tip chromosome determinations. These were resistant to a single application of triazine (postemergence) and used as females in the next cycle of backcrossing. Resulting progeny (BC\(_2\)) had 58 chromosomes and were resistant to atrazine. Successive backcrosses were continued with progeny from the next cycle subjected to a post-emergence application of atrazine (3.0 kg/ha). All progeny carrying cytoplasm derived from tritium donor parent were resistant to the atrazine application.

Seeds bulked to form ATR-5Tw were from the fourth backcross (bird's rape × Tower). ATR-5Tw is resistant to atrazine (3.0 kg/ha) and cyanazine (3.0 kg/ha) and tolerant of metribuzin (0.5 kg/ha) applied preplant incorporated, preemergence, or post emergence. Tower is killed by 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 rapseds. ATR-5Tw is available in quantities (2 to 4 g) from the Crop Science Dep., Univ. of Guelph, Guelph, Ontario, Canada, N1G 2W1.

REGISTRATION OF THREE GERMPLASM LINES OF COTTON\(^1\)
(Reg. No. GP141 to GP143)

T. W. Culp and D. C. Harrell\(^2\)

THREE breeding lines of cotton (Gossypium hirsutum L.), PDP line derived from Triple Hybrid material to possess seeds with cytoplasmically inherited Fusarium oxysporum f. vasinfectum (Atk.) Syn. (4, 5) and Verticillium spp. at 5, 4), while more susceptible than its sister lines, may have sufficient resistance to withstand most field attacks of the pathogen. All breeding lines exhibited high yield potential. All breeding lines exhibited high yield potential. All breeding lines exhibited high yield potential. All breeding lines exhibited high yield potential.

These lines were developed from the cross Pee Dee 2165, each is from a single plant selected in the F\(_2\) generation. Pee Dee 4831 was developed from the cross AC 239 × 'Auburn 56.' AC 239 was derived from a series of crosses involving Triple Hybrid 171, Sealand 7, and C 6-5. Gee Dee 2165 was derived from similar crosses involving Triple Hybrid 108 and 171, AHA 6-1-4, Sealand 542, and C 6-5. Auburn 56 is a commercial cultivar developed by the Alabama Agric. Exp. Stn. that possesses resistance to fusarium wilt root rot and Verticillium wilt. Fusarium oxysporum f. sp. vasiclub (Atk.) Syn. and Meloidogyne spp. (5).

Pee Dee 4831, Pee Dee 2165, and Pee Dee 0113 produce yields equivalent to those of commercial lines; however, its yarn strength is equal to that of the high fiber strength check, Pee Dee 2165. Pee Dee 0113 is the most consistent producer and has shorter and weaker fibers than other two lines; however, its yarn strength is equal to that of the high fiber strength check, Pee Dee 2165. Pee Dee 0113 is the most consistent producer and has shorter and weaker fibers than other two lines; however, its yarn strength is equal to that of the high fiber strength check, Pee Dee 2165.