REGISTRATION OF USB SAFFLOWER GERMPLASM
(Reg. No. GP 10)

C. A. Thomas* and D. E. Zimmer*

'USB' safflower (Carthamus tinctorius L.) is a composite of lines selected at the Plant Industry Station, Beltsville, Md., in 1961, from P.I. 250724 and P.I. 255538. P.I. 250724, introduced from Portugal, and P.I. 255538, introduced from Iran, had been reported as resistant to phytophthora root rot in a field nursery at Biggs, Calif. Greenhouse tests at Beltsville revealed that both plant introductions were either mixed or segregating for resistance. Only those genotypes with a high level of resistance to Phytophthora drechsleri Tucker were selected in the greenhouse. Seed from homozygous-resistant plants from both introductions were bulked. USB was released in 1969 by the U.S. Department of Agriculture and the Utah Agricultural Experiment Station as a source of germplasm with a high level of resistance to P. drechsleri.

The resistance of USB is effective when wound-inoculated against all known pathogenic races of P. drechsleri. Resistance is conditioned by a single recessive factor pair. It is late in maturity and the seed has a low oil content.

In field tests at Logan, Utah, on artificially infested soil, and at Woodland, California, on naturally infested soil, the root rot resistance of USB was much greater than that of the cultivars 'Gila,' 'Pacific 7,' 'Ute,' and 'Frio.'

Seed can be obtained from the Oilseed and Industrial Crops Research Branch, Plant Science Research Division, ARS, U.S. Department of Agriculture, Beltsville, Md. 20705.

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REGISTRATION OF VFR 1 SAFFLOWER GERMPLASM
(Reg. No. GP 11)

C. A. Thomas*

'VFR 1' safflower (Carthamus tinctorius L.) was derived from selections made in the greenhouse at the Plant Industry Station, Beltsville, Md., in 1967, from the breeding line Nebraska 4051. Selection was practiced for a high level of resistance to verticillium wilt, incited by Verticillium albo-atrurn Reinke & Berth. Seed from homozygous-resistant plants were bulked.

The unselected Nebraska 4051 breeding line is resistant to all known pathogenic races of Fusarium oxysporum Schlecht. f. sp. carthami (Carthamus tinctorius L.) is a composite of lines selected at the Plant Industry Station, Beltsville, Md., in 1961, from the breeding line Nebraska 4051. Selection was practiced for a high level of resistance to verticillium wilt, incited by Verticillium albo-atrurn Reinke & Berth. Seed from homozygous-resistant plants were bulked.

The resistance of USB is conditioned by a single recessive factor pair. It is late in maturity and the seed has a low oil content.

In field tests at Logan, Utah, on artificially infested soil, and at Woodland, California, on naturally infested soil, the root rot resistance of USB was much greater than that of the cultivars 'Gila,' 'Pacific 7,' 'Ute,' and 'Frio.'

Seed can be obtained from the Oilseed and Industrial Crops Research Branch, Plant Science Research Division, ARS, U.S. Department of Agriculture, Beltsville, Md. 20705.

REGISTRATION OF PD 121 BURLEY TOBACCO GERMPLASM
(Reg. No. GP 11)

James F. Chaplin*

'PD 121' tobacco (Nicotiana tabacum L.) is a brown spot resistant, flue-cured tobacco breeding line that is resistant to brown spot and to rhizoctonia blight, incited by Phytophthora drechsleri. It is a hybrid of 'White Stem Orinoco' × 'Beinhart 1000-1,' a hybrid tobacco accession derived from Portugal, and P.I. 253538, introduced from Iran, had been reported as resistant to phytophthora root rot in a field nursery at Biggs, Calif. Greenhouse tests at Beltsville revealed that both plant introductions were either mixed or segregating for resistance. Only those genotypes with a high level of resistance to Phytophthora drechsleri Tucker were selected in the greenhouse. Seed from homozygous-resistant plants from both introductions were bulked. USB was released in 1969 by the U.S. Department of Agriculture and the Utah Agricultural Experiment Station as a source of germplasm with a high level of resistance to P. drechsleri.

The resistance of USB is effective when wound-inoculated against all known pathogenic races of P. drechsleri. Resistance is conditioned by a single recessive factor pair. It is late in maturity and the seed has a low oil content.

In field tests at Logan, Utah, on artificially infested soil, and at Woodland, California, on naturally infested soil, the root rot resistance of USB was much greater than that of the cultivars 'Gila,' 'Pacific 7,' 'Ute,' and 'Frio.'

Seed can be obtained from the Oilseed and Industrial Crops Research Branch, Plant Science Research Division, ARS, U.S. Department of Agriculture, Beltsville, Md. 20705.

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REGISTRATION OF L8 BURLEY TOBACCO GERMPLASM
(Reg. No. GP 12)

G. B. Collins, Paul D. Legg, C. C. Litton* and J. H. Smiley*

'L8' burley tobacco (Nicotiana tabacum L.) was released in 1970 by the U.S. Department of Agriculture and the Utah Agricultural Experiment Station as a source of germplasm with a high level of resistance to black shank disease. The new breeding line has been compared with 'Hicks' for characteristics, chemical constituents, and black shank resistance. The line is below that of Hicks, and the smoke from cigarettes made from 'L8' is much lower in nicotine. The line offers a definite advantage in a flue-cured type when compared with other lines for brown spot resistance over Beinhart 1000-1.

Seed of PD 121 can be obtained by tobacco breeders through the Tobacco Breeding and Disease Investigations, Plant Science Research Division, U. S. Department of Agriculture. Tobacco Laboratory, Oxford, N. C. 27565.