Registration of 'Prompt' Flax

'Prompt' flax (Linum usitatissimum L.) (Reg. no. CV-44, PI 522393) (CI 3131) was developed by the South Dakota Agricultural Experiment Station and was released in 1989. Prompt is the progeny of an F₂ plant from the cross BFP/'Culbert' (1). BFP is an unreleased flax population of F₂-derived lines from plants selected for rust resistance from 22 crosses involving 'Linott', 'Nored', 'Norstar', 'Foster', and various Cl numbers as parents. BFP was crossed with Culbert in 1978, and a single plant was selected in 1980 from the F₂ population. Subsequent generations were handled in bulk. Yield testing of Prompt in South Dakota began in 1982. It was first entered in the North Central Regional Flax Trial in 1985.

In 24 location-years of testing in South Dakota State University trials from 1982 to 1988, Prompt averaged 1668 kg ha⁻¹ seed yield, compared with 1629 kg ha⁻¹ for Culbert and 'Culbert 79', 1603 kg ha⁻¹ for Linott, 1640 kg ha⁻¹ for 'Clark', and 1648 kg ha⁻¹ for 'Dufferin'. In 3 yr of testing in the North Central Regional Flax Trials, Prompt averaged 1421 kg ha⁻¹ seed yield across all stations, compared with 1336, 1371, and 1365 kg ha⁻¹ for Linott, Culbert and Dufferin, respectively. Prompt is particularly high-yielding compared with other cultivars when sown late. Yield tested 1402 kg ha⁻¹ in seven late-seeded trials, while Linott, Culbert, and Dufferin averaged 1319, 1245, and 1027 kg ha⁻¹, respectively.

Prompt has blue flowers and small (5.5 g 1000 seeds⁻¹) brown seeds. It is early in maturity, flowering 1 to 2 d later than the early cultivars Linott and 'Culbert 79'. Day has a medium-low iodine number (181) compared with Linott, Culbert and Dufferin, respectively. Plants from foundation seed of Day are variable for plant height, resulting at times in a ragged appearance in the field. Its mean height (54 cm) does not differ significantly from other flax cultivars but it contains approximately 100 tall (60-66 cm) plants and 40 very tall (>66 cm) plants per 1000 plants, with similar proportions of short and very short plants. This variability in plant height is less pronounced in some environments. Day is resistant to all known naturally occurring North American races of flax rust, caused by Melampsora lini (Ehrenb.) Desmaz. (probable gene L₆). It is moderately resistant to wilt, caused by Fusarium oxysporum Schlechtend.:Fr. f. sp. lini (Bolley) W.C. Snyder & H.N. Hans., as determined in wilt nurseries at Fargo, ND, St. Paul, MN, and Morden, MB.

Day is adapted to the north-central region of the USA. Seed classes are limited to breeder, foundation, registered, and certified. Breeder seed of Day will be maintained by the South Dakota Agricultural Experiment Station, Foundation Seed Stock Division, P.O. Box 2207-A, Brookings, SD 57007.

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References and Notes

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Registration of 'Day' Flax

'Day' flax (Linum usitatissimum L.) (Reg. no. CV-45, PI 522505) (CI 3243) was developed by the South Dakota Agricultural Experiment Station and was released in February 1990. Day is the progeny of an F₂ plant from the cross N707/CI 2777/N419. Lines N707 and N419 originated from the breeding program at North Dakota State Univ., Fargo, ND. N707 is derived from a cross between 'Linott' and 'Nored'; N419 is a rust-resistant line selected from a cross of yellow-seeded parents Cl 1220Y and 'Foster'. Cl 2777 is a 'Norstar'-derived line from the Univ. of Minnesota, St. Paul, MN. The cross between N707 and Cl 2777/N419 was made in 1977. A single plant was selected from the F₂ population and another in the F₃ generation. Intervening and subsequent generations were handled in bulk. Yield testing of Day in South Dakota began in 1984. It was first entered in the North Central Regional Flax Trial in 1986.

In 22 location-years of testing in South Dakota State University trials from 1984 to 1989, Day averaged 1662 kg ha⁻¹ seed yield, compared with 1523 kg ha⁻¹ for Linott, 1606 kg ha⁻¹ for 'Dufferin', 1632 kg ha⁻¹ for 'Rahab', and 1569 kg ha⁻¹ for 'Linton', 'Vimy', and 'NorMan'. In 3 yr of testing in the North Central Regional Flax Trials, Day yielded 1224 kg ha⁻¹ over all stations, compared with 1218, 1230, and 1154 kg ha⁻¹ for Linott, 'Culbert', and Dufferin, respectively. Day has very high oil content (409 g kg⁻¹), ranking highest in oil over 3 yr of regional testing (Linott had 390, Culbert 397, and Dufferin 394 g kg⁻¹).

Day has blue flowers and small (5.8 g 1000 seeds⁻¹) brown seeds. It is medium-early in maturity, flowering 1 to 2 d later than the early cultivars Linott and 'Culbert 79'. Day has a medium-low iodine number (183) compared with Linott, Culbert and Dufferin, respectively. Plants from foundation seed of Day are variable for plant height, resulting at times in a ragged appearance in the field. Its mean height (54 cm) does not differ significantly from other flax cultivars but it contains approximately 100 tall (60-66 cm) plants and 40 very tall (>66 cm) plants per 1000 plants, with similar proportions of short and very short plants. This variability in plant height is less pronounced in some environments. Day is resistant to all known naturally occurring North American races of flax rust, caused by Melampsora lini (Ehrenb.) Desmaz. (probable gene L₆). It is moderately resistant to wilt, caused by Fusarium oxysporum Schlechtend.:Fr. f. sp. lini (Bolley) W.C. Snyder & H.N. Hans., as determined in wilt nurseries at Fargo, ND, St. Paul, MN, and Morden, MB.

Day is adapted to the north-central region of the USA. Seed classes are limited to breeder, foundation, registered, and certified. Breeder seed of Day will be maintained by the South Dakota Agricultural Experiment Station, Foundation Seed Stock Division, P.O. Box 2207-A, Brookings, SD 57007.

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References and Notes

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Registration of 'Tetracan' Russian Wildrye

'Tetracan' Russian Wildrye [Psathyrostachys juncea (Fischer) Nevskij] (Reg. no. CV-159, PI 565289) was released by the Agriculture Canada Research Station, Swift Current, SK, on 8 Aug., 1988. Tetracan is the first tetraploid cultivar of Russian wildrye registered for sale in Canada. It is a large-seeded cultivar, superior to 'Swift' (3) in establishment vigor, and well adapted for dryland pastures in the Canadian Prairies and the northern Great Plains region of the USA. Tetracan was tested under the experimental designation Sc RN3761. Open-pollinated seed of 27 diploid Russian wildrye plants