ata Corda). Seed lots of All*Star with a high percentage of Acremonium endophyte-infected seeds should produce turf with enhanced resistance to many but not all harmful turf insects. All*Star is recommended for use on lawns, sports fields, parks, industrial sites, school grounds, and golf course cart paths, tees, and fairways in areas where improved turf-type perennial ryegrasses are well adapted. It is often mixed with a blend of adapted Kentucky bluegrasses (Poa pratensis L.) for such uses. All*Star also performs well for the winter overseeding of dormant warm-season turfgrasses in the southern USA. When seed lots of All*Star containing high levels of endophyte are used, the seed should be either newly harvested or maintained in cold, dry storage. This is necessary to ensure the viability and effectiveness of the Acremonium endophyte where this is desired for improved turfgrass performance. However, seed containing high levels of viable endophyte should not be used to establish fields for pasture or forage. Endophyte-containing feed may adversely affect animal health and performance (2).

Breeders of All*Star is produced by International Seeds, P.O. Box 168, Halsey, OR 97348, under contract with J. and L. Adikes, the owners of All*Star, with the cooperation of the New Jersey Agricultural Experiment Station. Propagation of seed is limited to three generations of increase from breeder seed, and one generation each of foundation, registered, and certified.

Application (no. 8300059) has been made for U.S. Plant Variety Protection. All*Star received Registration no. 2698 from Agriculture Canada on 3 Oct. 1986.

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References and Notes


4. President, J. and L. Adikes, 182-12 93rd Ave. Jamaica, NY 11422; plant breeder, Glec Acre Farms, 36100 Highway 228, Brownsville, OR 97327 (former researcher director, Int. Seeds, P.O. Box 168, Halsey, OR 97348); research director, Pickseed West, P.O. Box 888, Tangent, OR 97389 (former research director, Int. Seeds); plant geneticist, South 1914 Early Dawn, Veradale, WA 99037 (former research director, Jakklin Seed Co., West 5300 Jakklin Ave., Post Falls, ID 83854); and professor, Soils and Crops Dep., New Jersey Agric. Exp. Stn. Publication no. D-1316:6-8, New Jersey Agric. Exp. Stn. Cook College, Rutgers Univ., New Brunswick, NJ 80903. Some of this work was conducted as part of NIAES Project no. 15166, supported by New Jersey Agric. Exp. Stn. funds, other grants, and gifts. Additional support was received from the U.S. Golf Assn. Green Section Res. and Education Fund. Registration by the Crop Sci. Soc. of Am. Accepted 30 May 1987.


REGISTRATION OF 'CASCADE' RAPESEED

'CASCADE' winter rapeseed [Brassica napus L. spp. oleifera (Metzg.) Sinsk. f. biennis] (Reg. no. 5) (PI 509072) is a Canola® quality, synthetic cultivar developed by the Idaho Agricultural Experiment Station at Moscow, ID 83843. This cultivar is protected by U.S. Plant Variety Protection (PVP 8500172). The four parental lines of Cascade were selected in the F4 generation from crosses between 'Indore' and three edible oil rapeseed lines: 'Sipal', 'WW827', and 'Liraglu', obtained from northern Europe. Indore is a low glucosinolate, high erucic acid industrial quality rapeseed cultivar released by Oregon State University in 1983 (2). Sipal is a determinate, early maturing line with high levels of glucosinolate developed by the Swedish Seed Association of Svalöf, Sweden. WW827 is a high-yielding, winter-hardy line developed by Weibulls at Landskrona, Sweden. Liraglu is a low glucosinolate, winter-hardy parent developed at Deutsche Saatveredelung at Lippstadt, West Germany. The segregating generations were advanced by single seed descent. The F2, F3, F4, and F5 generations were screened for low levels of glucosinolates in the mature seed. During the F4, F5, and F6 generations, seed of individual plants was screened for fatty acid composition. Cascade was officially released for commercial production in the fall of 1986.

Mature seed of Cascade contains in excess of 42% oil (8% seed moisture basis) with a fatty acid composition of < 2% erucic acid (1, 4). The oil of Cascade meets U.S. Food and Drug Administration requirements for low erucic acid rapeseed oil (LEAR) listed in Code for Federal Regulations (CFR) 184.1555 (9 Jan. 1985). Glucosinolate content of the defatted meal has ranged from 9.7 to 23.4 μmol g−1, dependent upon both the production environment and/or the analytical procedure utilized in the determination (4). Oil and meal characteristics are similar to the spring rapeseed 'Westar' (3), a Canola quality cultivar released in 1982 by Agriculture Canada at Saskatoon, Saskatchewan. The oil and meal of Cascade can be described using the term Canola (a registered trade mark of the Canola Council of Canada by a previous agreement). Canola is a term copyrighted by the Canadian Canola Council to describe rapeseed cultivars with < 2% erucic acid in the oil and < 30 μmol g−1 of glucosinolate in the defatted meal.

Seed and plants of Cascade are morphologically similar to 'Indore', but are 10 to 20 cm shorter in height than most other cultivars (4). Data from field testing demonstrates that Cascade averaged 48% better winter survival than Indore, the female parent of all four parental lines, but has produced equivalent yields (4). Cascade and Indore flower earlier and demonstrate a more determinate growth habit than most other cultivars of winter rapeseed, especially in the southeastern USA. In the Pacific Northwest, Cascade is usually planted in August and harvested the following July or early August. In the southeastern USA, Cascade seeded in October will mature in early June the following year. Cascade will not flower under most conditions unless plants are given 6 weeks of vernalization. In the Pacific Northwest and southeastern USA, Cascade has produced seed yields 72 and 143% of 'Dwarf Essex', respectively (1,4). The reduced yield potential of Cascade in the Pacific Northwest has been observed in all true Canola quality cultivars tested.

Seed increases of Cascade are limited by Plant Variety Protection to foundation and certified seed classes. Certified seed production in the USA is the exclusive right of the North Idaho Foundation Seed Association, Lewiston, ID 83501. Information on sources of certified seed of Cascade in other geographical areas, as well as seed for use as germplasm and other experimental purposes, is available from the director of the Idaho Agricultural Experiment Station, Moscow, ID 83843.

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References and Notes
