Average seed oil content of Selkirk was 397 g kg⁻¹; the average of six control cultivars was 392 g kg⁻¹. Selkirk's seed oil contained <10 g kg⁻¹ erucic acid, >610 g kg⁻¹ oleic acid, and <90 g kg⁻¹ linolenic acid. The remaining fatty acid profile was not significantly different from the cultivar Cascade (1). Selkirk seed meal glucosinolates are low (avg. <5 μmol total glucosinolate g⁻¹ defatted seed meal).

Selkirk has good winterhardiness and frost tolerance, both not significantly (P < 0.05) different from Capricorn, Ceres, and Pendleton. Average plant height is 159 cm, not significantly different (P < 0.05) from Pendleton (165 cm) and Ceres (161 cm). Selkirk flowers at an average of 159 d from 1 January, which is significantly (P < 0.05) later than Cascade and significantly (P < 0.05) earlier than Pendleton. Selkirk matures, on average, 8 to 10 d later than Ceres, and 1 to 2 d earlier than Pendleton. Average 1000-seed weight was 4.6 g, which is 0.1 g higher than Cascade.

U.S. plant variety protection of Selkirk is pending (PVP Certificate no. 9700370). Seed increases are limited to foundation and certified seed classes. Requests for seed of Selkirk for commercial production can be made to the Idaho Agricultural Experiment Station, University of Idaho, Moscow, ID 83844-2331. Small amounts of seed for experimental purposes will be available from the corresponding author for at least five years.

Registration of 'Sunrise' Spring Rapeseed

'Sunrise' spring rapeseed [Brassica napus L. subsp. oleifera (Metzg.) Sinskaya f. annua] (Reg. no. CV-14, PI 597352) was developed for use as an edible oil-quality (canola) cultivar by the Idaho Agricultural Experimental Station. 'Sunrise' is a near pure-line spring rapeseed cultivar with canola-quality seed oil and canola-quality seed meal, selected for adaptability to environments throughout the Pacific Northwest region (Idaho, Oregon, Washington, and Montana). Sunrise was developed from single-plant selections taken from an F₃ population derived from the cross 'Cyclone' x 'DNK.90.218'. Cyclone, a canola-quality cultivar with low erucic acid content (<20 g kg⁻¹) and glucosinolate of <30 μmol g⁻¹ in the defatted seed meal, was released in 1991 by Prodana Seeds, Denmark. DNK.90.218 is a canola-quality selection from Dansk Planterforaelding, Denmark.

F₁ seed from the original cross was produced in the spring of 1992. Progeny from the cross were evaluated in a multivariate cross prediction trial (5) in the greenhouse in 1992 (F₁ plants) and in the field in 1993 (F₂ plants). F₃ plants were grown in the greenhouse over the winter of 1993–1994 and individual plants threshed separately. Fatty acid content was determined on seed from each plant (3,4), and glucosinolate content was estimated using a Test-tape procedure (6). Progeny were selected for high oil content (>400 g kg⁻¹), low erucic acid content (<10 g kg⁻¹), and low Test-tape score (<0.5 units, on a scale of 0 to 5). Seed from selected plants was bulked and used for field trials in 1994. In addition, seed from 10 selected plants was planted separately, in single-plant plots, to initiate an elite seed increase.

Breeder seed of Sunrise was derived from a single-plant F₄ plot grown in the field in 1994. The initial selections were grown as F₅ single-plant plots in 1995, and prior to harvest, 50 single plants were selected with desirable uniformity, seed oil and seed meal quality. In 1996, seed from the 50 selected plants was grown in single-plant plots. During the growing season, these single-plant plots were visually inspected and any off-type plants were removed. Seed from 15 single-plant selections were taken from each single-plant plot and evaluated oil content, fatty acid profile, and seed meal glucosinolate content. Seed from 400 single F₇ plants was selected and their seeds combined to plant foundation seed in the spring of 1997.

Sunrise was evaluated in field trials carried out in 1994, 1995, and 1996. The 1995 and 1996 evaluations were part of the Pacific Northwest Canola Variety Trials (1,2). The performance of Sunrise was compared with the commercially available spring canola-quality rapeseed cultivars Westar, Springfield, and Helios. Springfield and Helios accounted for a high proportion of acreage in the Pacific Northwest region over the previous 5 yr, and Westar was included in these trials as an old standard. Seed of Sunrise for the 1994 yield trials was derived from bulked F₄ seed produced in the greenhouse. Seed for the 1995 and 1996 yield evaluations was derived from bulked seed from F₅ and F₆ single plants grown in 1994 and 1995, respectively.

Average seed yield of Sunrise over years and sites was 2013 kg ha⁻¹, compared with Helios, Springfield, and Westar with averages of 1663, 1584, and 1496 kg ha⁻¹, respectively. Mean oil content of Sunrise, across environments, was 395 g kg⁻¹, which is not significantly different (P < 0.05) from Helios (386 g kg⁻¹), Springfield (398 g kg⁻¹), or Westar (383 g kg⁻¹). Sunrise seed oil consistently contained <5 g kg⁻¹ erucic acid, <100 g kg⁻¹ linolenic acid, and >630 g kg⁻¹ oleic acid. Total glucosinolate content of Sunrise seed meal was low (avg. 6.2 μmol g⁻¹ defatted seed meal).

Mean plant height of Sunrise was 85 cm, compared with 79 cm, Westar at 83 cm, and Helios at 91 cm. Plants begin flowering approximately 51 d after planting, which was 3 and 3 d later than Springfield and Westar, respectively, and 6 d earlier than Helios. Sunrise plants reach maturity, on average, 91 d after planting, at a similar time to Westar. Average 1000-seed weight of Sunrise was 3.3 g, which was 0.4 g less than Westar.

U.S. plant variety protection of Sunrise is pending (PVP Certificate no. 9700369). Seed increases are limited to foundation and certified seed classes. Requests for seed of Sunrise for commercial production can be made to the Idaho Agricultural Experiment Station, University of Idaho, Moscow, ID 83844-2331. Small amounts of seed for experimental purposes will be available from the corresponding author for at least five years.