Registration of ‘Oropos’ Wheat

‘Oropos’ spring wheat (*Triticum aestivum* L.) (Reg. no. CV-975, PI 639687) (C. I. 02052 of the Variety Research Institute of Cultivated Plants, Greece) was developed by the National Agricultural Research Foundation (N.AG.RE.F.), Cereal Institute, Greece and released in autumn of 2000. Oropos is a high yielding, semidwarf bread wheat with broad adaptation. Oropos was released because of its high grain and bread quality and good adaptation in Central and Northern Greece, where the majority of bread wheat is produced.

Oropos was tested under the experimental design YG-09275–1, assigned through progressive generations of advancement and purification. Oropos was derived from the cross ‘Siete Cerros’/(2766/400 Erythr) (Siete Cerros (PI 338921) is a Mexican bread wheat variety, well known for its high bread-making quality, released by the International Maize and Wheat Improvement Center (CIMMYT) in Mexico. 2766/400 Erythr) is an old genetic stock, originating from the Bologna Institute and designated as YG-3927 in pedigree books of the Cereal Institute, Greece.

Oropos was developed by the pedigree breeding method and was bulked in the F5 generation as an F6:9 line in the summer of 1994. Single F2 plants were selected and threshed separately to establish F2:3 head rows in the fall of 1987. Single plant selections, based on visual evaluation for superior appearance, especially for short stem, lodging and disease resistance, intermediate flowering date, and early maturing and long-fertile ears, were repeated in the F3, F4, and F5 generations. Uniform and good appearing F5:9 head rows, selected in the summer of 1991, were harvested separately to establish F5:7 head rows and nonreplicated yield and quality microtrials in the fall of the same year.

Head row selection, based on uniformity and yielding ability and quality in microtrials, was repeated in F5:7, F5:8, and F5:9 head rows. Selected F5:9 head rows with exactly the same pedigree, were threshed and bulked to compose the first seeds of Oropos in summer of 1994. Purification of the variety, by means of ear-to-row procedure, was applied the next 2 yr to meet the standards of the OECD (Organization of Economic Cooperation and Development).

Oropos is a short midseason spring bread wheat with a height of 100 cm, compared with 110 cm for Siete Cerros and 110 and 80 cm for the two national checks ‘Vergina’ and ‘Yecora-S’, respectively. Oropos requires 172 d to reach maturity when sowed in the fall, compared with 167, 180, and 162 d for Siete Cerros, Vergina, and Yecora-S, respectively.

Oropos has red (bronze), parallel, compact spikes with long awns. Compared with Siete Cerros, the ear color and shape of Oropos are similar, but the spike is more compact in the case of Oropos. Seeds of Oropos are ovate, bronze, and hard, compared with oval (elliptic), bronze, and hard for Siete Cerros; oval, brown, and soft for Vergina; and ovate, light brown, and hard for Yecora-S. The 1000 kernel weight of Oropos is 35.3 g, compared with 34.8, 32.2, and 35.0 g for Siete Cerros, Vergina, and Yecora-S, respectively.

On the basis of field evaluations performed by the Cereal Institute at five locations for 3 yr (1994–1997), Oropos is resistant to lodging (1 on the scale of 0–9), compared with 4, 4, and 1 for Siete Cerros, Vergina, and Yecora-S, respectively, and tolerant to low temperatures and diverse pedoclimatic conditions. In the same fields and years, Oropos proved to be resistant to three rusts (0 on the scale of 0–9), namely stem rust (caused by *Puccinia graminis* Pers.:Pers. f. sp. *tritici* Eriks. & E. Henn), leaf rust (caused by *P. tritici* Eriks.) and stripe rust (caused by *Puccinia striiformis* Westend. f. sp. *tritici* Eriks.). Oropos is also resistant to *Septoria tritici* Rob., *Tilletia tritici* Bjerk, and *Erysiphe graminis* DC. (0 on the scale of 0–9).

Oropos compares favorably to most of the Greek bread wheat varieties, like ‘Aheilos’, ‘Dodoni’, ‘Louros’, ‘Melia’, and ‘Strymonas’, including the three national checks Vergina, Yecora-S, and ‘Dio’. In 11 site-years of replicated trials, performed by the Variety Research Institute of Cultivated Plants in Central and Northern Greece during 1999 and 2000, Oropos had a mean grain yield equal to the mean grain yield of the two national checks Vergina and Yecora-S (4.57 Mg ha–1). In low yielding environments, Oropos had a mean grain yield of 4.20 Mg ha–1, compared with 4.30 Mg ha–1 and 4.25 Mg ha–1 for Vergina and Yecora-S, respectively. In 15 trials, performed by the Cereal Institute in Central and Northern Makedonia and Thrace during 1994–1997, Oropos had a mean dry flour protein concentration of 149 g kg–1, compared with 148 g kg–1 for the mean of the national checks Vergina and Yecora-S. Oropos had a mean sedimentation value (Zeleny) of 38.54 compared with 38.34 for the mean of the national checks Vergina and Yecora-S.

Comparable laboratory estimations for grain volume weight, made in numerous samples during the last 3 yr, showed that Oropos had a mean grain volume weight of 749 g L–1, compared with 755, 705, and 769 g L–1 for Siete Cerros, Vergina, and Yecora-S, respectively. Estimations for Gluten Index made by the Perten Glutomatic Instrument in the same samples, showed that Oropos had a mean Gluten Index equal to 95.3 compared with 96.7 for Siete Cerros, 53.0 for Vergina, and 96.4 for Yecora-S.

Seed of Oropos is maintained by the National Agricultural Research Foundation (N.AG.RE.F.), Cereal Institute, Greece. Small quantities of seed for research purposes may be obtained by contacting the corresponding author.

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