Registration of Seven Early-Maturing Harosoy Near-isogenic Soybean Lines

Seven soybean [Glycine max (L.) Merr.] Harosoy (1) near-isogenic lines, OT93-26, OT93-28, OT94-49, OT94-51, OT94-37, OT94-39, and OT94-41 (Reg. no. GS-30 to GS-36, PI 591429 to PI 591435) (PGR 27316 to PGR 27322), developed by the Plant Research Centre, Agriculture and Agri-Food Canada, Ottawa, ON, were released in 1994. These near-isogenic lines have late-maturing alleles at only one of the $E_1$, $E_3$, or $E_4$ loci in an $e_2e_5$ background. These lines also differ for stem termination type and pubescence color. These $F_3$-derived lines can be used as sources of early-maturing material in cultivar development programs, in agronomic and physiological studies, in studies of individual maturity loci, and in studies of early-maturing $E_1$ genotypes (which are rare in the northern germplasm).

These near-isogenic lines were developed by crossing existing Harosoy isolines with different combinations of genes for maturity, stem termination type, and pubescence color. Harosoy, the original cultivar and recurrent parent used in backcrossing programs, has the genotype $t e_1 e_2 E_3 E_4 e_5 D t_1$. Parental near-isogenic lines with an L prefix have been described by Bernard et al. (2); those with an OT prefix have been developed at the Plant Research Centre, Ottawa. The $E_1$ allele was introgressed into an early-maturing background by crossing OT89-5 with L71-802. Selection was made for tawny pubescence in OT93-26 ($T E_1 e_3 e_4 D t_1$) and gray pubescence in OT93-28 ($t E_1 e_3 e_4 D t_1$). OT89-5 (PI 546043) is an indeterminate long-daylength-insensitive Harosoy $t e_1 e_3 e_4 D t_1$ isole (3). L71-802 is a Harosoy $T E_1 e_3 E_4 D t_1$ isole. A tawny determinate near-isogenic line OT94-49 ($T E_1 e_3 e_4 d t_1$) and a determinate line OT94-51 ($t E_1 e_3 e_4 d t_1$) were selected from the cross OT89-5/L71-802/OT89-6. OT89-6 (PI 546044) is a determinate long-daylength-insensitive Harosoy $t e_1 e_3 e_4 d t_1$ isole (3).

Three lines with combinations of alleles at the $E_1$, $E_3$, and $D t_1$ loci were selected from the cross K613-5-2/L67-153 (K613-5-2/L67-153) (Reg. no. GS-30 to GS-36, PI 591429 to PI 591435) (PGR 27316 to PGR 27322), developed by the Plant Research Centre, Agriculture and Agri-Food Canada, Ottawa, ON, were released in 1994. These near-isogenic lines have late-maturing alleles at only one of the $E_1$, $E_3$, or $E_4$ loci in an $e_2e_5$ background. These lines also differ for stem termination type and pubescence color. These $F_3$-derived lines can be used as sources of early-maturing material in cultivar development programs, in agronomic and physiological studies, in studies of individual maturity loci, and in studies of early-maturing $E_1$ genotypes (which are rare in the northern germplasm).

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References and Notes