REGISTRATION OF GENETIC STOCKS

Registration of Three Genetic Marker Stocks for Red Clover: TP-RC, TP-LS, and TP-MC

Three genetic marker stocks of diploid red clover (Trifolium pratense L.), TP-RC (Reg. no. GS-8, PI 583782), TP-LS (Reg. no. GS-9, PI 583783), and TP-MC (Reg. no. GS-10, PI 583784), were released by the Kentucky Agricultural Experiment Station in July 1994. These stocks were developed from the cultivar Kenstar as a by-product of breeding and genetic investigations. They are an addition to 11 stocks released earlier (1). Seeds have been increased periodically and are maintained in a freezer at 5 to 15°C. Description of stocks and inheritance patterns follow: TP-RC, rudimentary corolla, with crumpled petals is conditioned by a single recessive gene (r) (2), and is maintained in a heterozygous condition inasmuch as rudimentary corolla is sterile. TP-LS, long stem, has 112 mm long internodes, compared with 68 mm in ‘Kenstar’, and is inherited in a quantitative manner (3); and TP-MC, multiple cotyledon, apparently is controlled by recessive genes, but it has been impossible to obtain homozygous recessives even with inbreeding. Multiple cotyledon seeds may produce three to four cotyledons instead of the normal two. Use of each genetic marker stock may be obtained on written request and agreement to return increased seed to originator. Request seed from the Department of Agronomy, Agricultural Science Center North, University of Kentucky, Lexington, KY 40546-0091.

NORMAN L. TAYLOR* (4)

Registration of Seven Pairs of Durum Wheat Genetic Stocks Near-Isogenic for Glaucousness

Seven pairs of near-isogenic durum wheat (Triticum turgidum L. var. durum) genetic stocks were developed at the Agriculture and Agri-Food Canada Research Station at Swift Current, SK, and released in 1994. Each pair comprises a glaucous (waxy bloom on upper leaves, peduncle, and spike) and a nonglaucous isolate. The pairs are designated as follows, where the letter ‘G’ after the second dash indicates glaucous and ‘NG’ indicates nonglaucous: 8671-D373-G (Reg. no. GS-67, PI 583721) and 8671-D373-NG (Reg. no. GS-68, PI 583722); 8682-D051-G (Reg. no. GS-69, PI 583723) and 8682-D051-NG (Reg. no. GS-70, PI 583724); 8682-D174-G (Reg. no. GS-71, PI 583725) and 8682-D174-NG (Reg. no. GS-72, PI 583726); G8972-AE3-G (Reg. no. GS-73, PI 583727) and G8972-AE3-NG (Reg. no. GS-74, PI 583728); G8972-AE3-G (Reg. no. GS-75, PI 583729) and G8972-AE3-NG (Reg. no. GS-76, PI 583730); G8972-AE3-G (Reg. no. GS-77, PI 583731) and G8972-AE3-NG (Reg. no. GS-78, PI 583732); and G8973-AQ1-G (Reg. no. GS-79, PI 583733) and G8973-AQ1-NG (Reg. no. GS-80, PI 583734).

The 8671 pair derives from the cross P1 271894/DT369, and the 8682 pairs derive from the cross P1 283154/DT369. DT369 (P1 546362; McLeod et al., 1991) is a glaucous semi-dwarf line from our breeding program. The G8972 pairs derive from the cross ‘Valitalico’/Trinakria, and the G8973 pairs from the cross ‘Valgerardo’/Tibula’ made by V. Vallega. Valitalico and Valgerardo are highly glaucous. Each pair was developed by maintenance of heterozygosity for glaucousness in the F4 through F8 generations, followed by selection of homozygous glaucous and nonglaucous F8-derived lines. Nonglaucous was completely dominant in all four crosses (Clarke et al., 1994). The 8671-, 8982-D174-, AE3- pairs are of tall stature, while the 8682-D051- and AG2-, and G8973- pairs are of semidwarf stature. All lines are spring types requiring little or no vernalization. Measurements of epicuticular wax quantities in several segregating generations indicated that the glaucous lines have more wax than the nonglaucous lines (Clarke et al. 1994).

These isogenic pairs will be useful for studies of the effects of glaucousness and epicuticular waxes on the water relations and yield of durum wheat. Small amounts of seed are available on written request to the corresponding author.

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References and Notes

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