REGISTRATION OF TODD'S MITCHAM PEPPERMINT

(Reg. No. 1)

M. J. Murray and W. A. Todd

"Todd's Mitcham" peppermint (Mentha piperita L.), a Verticillium wilt-resistant clone, was developed by the A. M. Todd Company, Kalamazoo, Michigan, and released in 1971. Irrigated to agencies responsible for plant certification at Oregon State, Washington State, Michigan State, and Purdue Universities. This cultivar was obtained by mutation breeding from vegetative-propagated Todd's Mitcham. Todd's Mitcham was identified as Selection 58 in the breeding program.

A detailed account of the mutation breeding methods and screening procedures used in obtaining the Verticillium wilt-resistant Todd's Mitcham has not yet been published by Murray. Todd's Mitcham peppermint stolons irradiated in 1955-9 with X rays and neutrons at Brookhaven National Laboratory produced from 105,607 plants which were transplanted into a field heavily infected with Verticillium albo-atrum var. menthae Nec. In this planting Verticillium wilt became more severe each year and the ensuing screening program reduced the approximately estimated to a 1% stand in the sixth year.

This cultivar was obtained by mutation breeding from vegetative-propagated Todd's Mitcham. Todd's Mitcham produced an oil yield of 56 to 62 kg/ha (50-55 lb/acre) on the organic soil of Indiana under Verticillium wilt conditions that resulted in a nearly complete crop failure of the Mitcham cultivar.

Organoleptic tests and gas chromatographic analyses have indicated that the oil of Todd's Mitcham is not qualitatively different from that of the Mitcham cultivar. The oil has been accepted for quality by several major U. S. peppermint oil users. Todd's Mitcham has been classified as Mentha piperita by the FEMA Expert Panel and it has ruled that the oil is identical with Peppermint Oil already GRAS.

Todd's Mitcham has a darker green herbage color, slightly smaller leaves, a more erect and less branched plant habit (especially in spaced plants on organic soil), and is 5 to 10 days earlier in plant maturity than the cultivar Mitcham.

A limited amount of planting stock for grower increase can be obtained from Oregon State Seed and Plant Certification Board, Oregon State University, Coastal Plain Station, Tifton, Georgia.

Three-year regional tests at Medaryville, Indiana; Corvallis, Oregon; and Prosser, Washington in cooperation with the Plant Science Research Division, ARS, USDA, and the Oregon and Washington State Agricultural Experiment Stations showed that established plantings of Todd's Mitcham have yields equal to the 'Mitchan' cultivar. Further, Todd's Mitcham produces an oil yield of 56 to 62 kg/ha (50-55 lb/acre) on the organic soil of Indiana under Verticillium wilt conditions that resulted in a nearly complete crop failure of the Mitcham cultivar.

Tiflate is widely adapted and should do well wherever other pearl millet varieties are successful. Because of its short-day photoperiod sensitivity, Tiflate will not mature seed before December, regardless of the date planted in the U. S. Thus, only the southern tips of Florida and Texas can mature seed before frost. Preliminary studies suggest that September plantings will produce mature plants 5 to 6 feet tall in these areas with seed yields ranging from 600 to more than 2000 pounds per acre.

The Georgia Coastal Plain Experiment Station maintains breeder seed.

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REGISTRATION OF REMONT SAINFOIN

(Reg. No. 73)

Glenn W. Burton

'Remont', safflower, Onobrychis vicicifolia Sp., was released in 1971 by the Montana Agricultural Experiment Station. Prior to release Remont was tested under the designations of Montana Synthetic and Regrowth.

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