REGISTRATION OF GERMLASMS

REGISTRATION OF MCDERMID WHEAT
(Reg. No. 578)
W. E. Kronstad, C. R. Rohde, M. F. Kolding, and R. J. Metzger

'MCDERMID' (Triticum aestivum L., em. Thell.) CI 14565 is a soft white winter wheat developed by the Oregon Agric. Exp. Stn. in cooperation with ARS-USDA, from a cross between 'Nord Desprez' and Pullman Selection 101 (CI 13438) with one backcross to form breeder seed.

The relatively early date of maturity for McDermid, previously designated OR 63-130-66-5, proved to be a distinct advantage in the 300 mm or less rainfall areas where moisture stress usually prevails prior to harvest. Conversely, McDermid has the yield potential to respond under higher rainfall or irrigated conditions. McDermid has more winterhardiness than 'Hyslop' being similar to 'Nugaines.'

McDermid is resistant to the prevalent races of Puccinia rubigo-vera (De.) Wint. f. sp. tritici (Eriks.) and mature plant resistance to prevalent races of Stagonospora nodorum. It is moderately resistant to powdery mildew (Erysiphe graminis De. f. sp. Triticum sp. marchalii) and carries the Bt 1 and Bt 4 genes for common bunt (Tilletia foetida Walr.) Liro and T. Tul.

The Western Wheat Quality Laboratory has identified McDermid as having promising overall quality characteristics equal to or superior to the common soft winter wheat varieties currently in commercial production.

McDermid is medium height with a strong white mid-long spike. The shoulders are mid-wide with narrow, acuminate, one to three mm long beaks. Awns are white and two to eight cm in length. Kernels are white mid-long, ovate with a small germ and mid-wide caryopses shallow to mid-deep.

McDermid was named after the late Jack T. McDermid, who was the superintendent at the Red Soils and Sherman Branch Experiment Stations for many years.

Breeder seed is maintained by the Agronomic Crop Sci. Dep., Oregon State Univ., Corvallis, OR 97331.

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Professor of agronomy, Corvallis, Ore.; professor of agronomy, Pendleton, Ore.; instructor of agronomy, Pendleton; research geneticist, ARS-USDA, Corvallis, Ore.; research cereal breeder, ARS-USDA, Corvallis, Ore.

REGISTRATION OF PEARL MILLET GERMPLASM
(Reg. No. GP 7)
A. J. Casady, G. M. Paulsen, R. C. Hoseney, and O. J. Webster

RMP1(S)C1 is a grain-type, pearl millet [Pennisetum americanum (L.) K. Schum.], breeding population developed cooperatively by the ARS-USDA and the Kansas Agric. Exp. Stn. The population was officially released in 1975. Its experimental designation was Manhattan Pearl Millet Population. Basic seed stocks will be maintained by the Dep. of Agronomy, Kansas State Univ., Manhattan, KS 66506.

The parentage of RMP1(S)C1 is 'Serere 3A,' 'Serere 17,' and 'Tift 259DB2.' Serere 3A and Serere 17 were developed at the Serere Exp. Stn., Uganda, Africa. The Serere pearl millets varied somewhat in head shape and size, seed size and color, and maturity. At Manhattan, Kan., their grain yield was good compared with that of sorghum [Sorghum bicolor (L.) Moench] and their grain protein content and amino acid profile were more desirable than those of sorghum. Tift 259DB2, a dwarf inbred line developed for forage use, possessed the d4 gene for dwarfness.

Serere 3A and Serere 17 were crossed to Tift 259DB2为人isent rows of Tift 259DB2 within an isolated planting. F1 seed harvested from the cross was planted in isolation for the first random mating. The F2 generation was grown in isolation for the third and fourth random matings, and open-pollinated seed was harvested from open-pollinated plants. S0 seed from the third random mating was used to maintain 400 S1 lines. The 400 S1 lines were selected on a number of traits: head size, seed size, seed set, and lodging resistance. The S0 parent plants. The seed of the S1 lines was harvested only from tall plants.

Table I. Grain yield, grain protein, and grain amino acid profile of pearl millet population RMP1(S)C1 grown in replicated trial at Manhattan, Kan., 1975.

<table>
<thead>
<tr>
<th>RMP1(S)C1</th>
<th>Martin</th>
<th>RMP(S)C1</th>
<th>Martin</th>
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<tbody>
<tr>
<td>Grain yield</td>
<td>38.8</td>
<td>36.0</td>
<td>14.4</td>
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<tr>
<td>Grain protein</td>
<td></td>
<td></td>
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<tr>
<td>Amino acids:</td>
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