were made in the greenhouse and field, respectively. An F₃ head row grown in Mexico in 1973 to 1974 was bulked and designated SD2273. James was evaluated in state trials from 1974 to 1979, in the Uniform Regional Spring Wheat Yield Nursery, 1976 to 1978, and the Crop Quality Council Tests in 1978.

James has spring growth habit, early maturity, and mid-tall, white, hollow stem. Heads are awned, fusiform, and inclined. Glumes are glabrous, yellow, mid-long, and narrow with a well-defined keel. The shoulder is rounded; and the beak is acuminate, narrow, and 4 mm long. Kernels are red, hard, mid-long, and ovate with angular cheeks and a mid-wide, mid-deep crease. Plant color at booting is green, and a waxy bloom is present on the stem and leaf sheath.

James is expected to be grown in areas of South Dakota where early cultivars are best adapted. In South Dakota tests from 1974 through 1979, James had yielded 107, 101, and 97 9/₃ of 'World Seeds 1809,' 'Protor,' and 'Butte' which are early cultivars presently in commercial production. Test weight is similar to 'Chris' and 'Waldron.' James has good resistance to leaf rust (incited by Puccinia recondita Rob. ex Desm. f. sp. tritici Eriks.) and is resistant to prevalent races of stem rust caused by Puccinia graminis f. sp. tritici Eriks. and E. Henn. Grain protein of James varies from equal to or less than Waldron. Flour extraction percent is higher and ash content is lower than Waldron. Baking characteristics are generally similar to Waldron.

James was named and released by the South Dakota Agric. Exp. Stn. on 1 Mar. 1979. Tall and awnleted variants occurred in the original seed stock at a rate of 0.06 and 0.09 %, respectively. Breeder seed will be maintained by the Foundation Seedstock Project, South Dakota State Univ., Brookings, SD 57007. Application has been made for Plant Variety Protection with the seed certification option.

"McNair 1003" wheat (Triticum aestivum L. em. Thell.), CI 17829, Montana selection MT 7416, is a hard red spring wheat cultivar developed cooperatively by the Montana Agric. Exp. Stn. and AR-SEA-USDA. Marberg is an F₃-derived head selection from the cross 'Red River 68'/CI 13253/6 'Centana.' CI 13253, from O. A. Vogel's 'Norin 10'/Brevor,' was crossed with Centana at Bozeman, Montana in 1955. Backcrosses were then made with Centana as the recurrent parent. One of the selections from this series of crosses was then crossed to Red River 68 in 1968 to obtain resistance to stem rust. Semi-dwarf selections from this series of crosses were first tested for yield in a single row yield nursery in 1973, and Marberg was given the Montana selection number MT 7416 the following winter. MT 7416 was included in the Montana Yield Nursery at four locations in 1974, and it has been included in the Montana Advanced Yield Testing Program since that time. It was also included in the Uniform Regional Spring Wheat Yield Nursery, 1976 to 1978, and the Crop Quality Council Tests in 1978.

Marberg is an early maturing, semidwarf variety, heading approximately 2 days earlier than 'Blueboy.' It has stiff straw and produces grain of large size and high yield potential of Marberg. Grain yields of Marberg have been nearly equal to those of Pondera and 'Newana,' but the test weight is similar to 'World Seeds 1809,' 'Protor,' and 'Butte' which are early cultivars presently in commercial production. Marberg has a medium test weight, similar to 'Chris' and 'Waldron.' Marberg has been 1 to 2% lower. Like Pondera, the grain protein of Marberg has been slightly lower than that of 'Olaf,' but the reaction to other diseases is nearly equal to those of Pondera and 'Newana.' Marberg has been included in the Montana's Cereal Quality Laboratory rates for milling and baking properties.

About 8,200 kg (300 bu) of breeder seed will be released to Montana certified seed growers in the spring of 1980. Breeder seed will be maintained by the Plant Variety Improvement Program.

Marberg is named in honor of Marvin A. Berg, retired agronomist, who worked with the Montana Spring Wheat Development Program from 1941 to 1974, and it has been included in the Montana Adv.