

Naming and Release of Pinto Cultivar 'Montrose'

The Colorado Agricultural Experiment Station announces the release of 'Montrose', a semi-vine, disease resistant pinto bean (*Phaseolus vulgaris* L.) variety with excellent seed quality. Montrose was developed at Colorado State University and tested in the Midwest Regional Performance Nursery, Colorado Crop Testing Program and at the University of Nebraska, Panhandle Research Station as CO 51715.

Montrose is a pure line selected from a single F₅ plant in 1994 derived from a single cross between BelNeb2 × GH-196. Breeder's seed was produced at the Fruita Research Center, Fruita, Colorado in 1996. BelNeb2 (Stavely et al., 1989) is a medium white seeded line that carries resistance to rust [*Uromyces appendiculatus* (Pers.) Unger var. *appendiculatus*], common bacterial blight (caused by *Xanthomonas campestris* pv. *phaseoli*), halo blight (*Pseudomonas syringae* pv. *phaseolicola*) and bean common mosaic virus. GH-196 (Burke et al., 1996) is a pinto cultivar developed by personnel at the USDA Prosser, WA. It carries resistance to Fusarium root rot [caused by *Fusarium solani* (Mart.) Sacc. f. sp. *phaseoli* (Burkholder) W. C. Snyder & H. N. Hans.], BCMV (i, bc²), and curly top virus. GH-196 was subsequently released as cultivar UI-196 by the University of Idaho.

Montrose combines desirable mid-season maturity, high yield potential, and resistance to bean common mosaic virus and prevalent races of rust in the High Plains. It had the highest mean yield among all entries tested by the Colorado Crop Testing Program in 1997 and 1998. Montrose appears to have i bc-2² gene combinations for resistance to BCMV. In one test it was resistant to both NL 3 and NL 8, however, another test indicated it was resistant to strain NL 8 but susceptible to NL 3. Montrose carries Ur-5, Ur-11 and additional rust resistance genes derived from the Olathe (but not the entire block of Ur-6 gene) based on testing by Dr. Rennie Stavely, USDA/ARS, Beltsville, MD. It has medium maturity (92-95 d in Colorado) with a prostrate Type III (CIAT classification) growth habit similar to Bill Z.

Foundation seed of Montrose will be released to seed producers in April, 1998. Application for PVP under Title V will be sought. A "Technology Fee" paid to the Certification Agency in the state of production will be assessed on all Registered and Certified seed produced. Small amounts of seed are available from Mark Brick, Department of Soil and Crop Sciences, Colorado State University, Ft. Collins, CO 80523, mbrick@lamar.colostate.edu.

Mark A. Brick, Howard Schwartz, J. Barry Ogg, Jerry Johnson, Fred Judson, John Shanahan, and Calvin Pearson. Colorado State University, Ft. Collins, CO

References:

- Burke, D. W., J. P. Meiners, M. J. Silbernagel, J. M. Kraft, and H. H. Koehler. 1995. Registration of pinto GH-196, and JM-126, pink UNS-117 and 6R-42, and great northern JM-24 dry bean germplasms. *Crop Science* 35:945.
- Stavely, J. R., J. R. Steadman, D. P. Coyne and D. T. Lindgren. 1989. BelNeb rust resistant-1 and -2 great northern dry bean germplasm. *HortScience* 24:400-401.