

Application for Variety Certification

A. Variety Name:

DOI942 Spring wheat

B. Origin and Breeding History:

DOI 942 is a white awned and white shaft, semidwarf durum cultivar derived from exploitation of a "one irrigation" low input Male Sterile Facilitated Recurrent Selection (MSFRS) germplasm population established at the University of Arizona, Mesa Experimental Station in 1982. R.K. Thompson developed the MSFRS population until his retirement in 1987. R.T Ramage continued development until he retired and made it available to the public.

DOI942 was increased from a single F₂ head selection made in the spring of 1987 at Maricopa Arizona. Subsequent generation advancement was made by "best plant" selection. An F₆ selection was grown at Moscow, Idaho in 1993 under severe Hessian Fly pressure. The F₇ row increase at Maricopa furnished seed for evaluation by Plant Breeders 1 of Moscow, Idaho and row increase at Maricopa in 1995. A small increase was grown in 1996 and sent to Roman, Montana, out of the Karnal Bunt Quarantine area, for a breeder strip increase in 1997. The seed was increased to Certified Foundation at Eloy, Arizona and Kings county California in the 2000 production year.

DOI942 is uniform and stable with no know variants. The foundation fields were rogued for male steriles, offtypes, black awns and tails. Because black awns and male sterile plants are often found together and the possibility of seed on over looked male steriles the next generation may have up to 1 in 1000 male sterile or off type plants..

C. Detailed Description:

DOI942 is a semidwarf spring durum. Juvenile growth is erect and non-pigmented. The flag leaf at booting is erect and green. At maturity stem, spike and awns are white. Spikes are middense, tapered and may remain very nearly erect. Plant heights may range from 1 - 2 inches taller than Utopia at Joplin, Montana and 4 inches taller with higher inputs in the irrigated southwest. Seeds of DOI942 are long, elliptical, yellow amber and relatively free of black point with shallow narrow creases but angular cheeks. Glumes are large long and glabrous with slightly elevated shoulders and beaks 3 mm in length. Awns are long.