

APPLICATION FOR CERTIFICATION OF EXPERIMENTAL NO.8 DURUM

- (A) This line has not been named as yet and applicant wishes to have the Foundation fields inspected as Experimental No.8. A name will be given this experimental line before Foundation and/or Registered seed is sold.
- (B) Experimental No.8 was selected as a single head from a certified WestBred 881 field that did not have any aborted florets. In the spring of 1988 several thousand heads were pulled after maturity from low yielding Westbred 881 fields. The average number of aborted florets per head ranged from a low of 5 florets/head to a high of 9 florets/head in these fields. About 40 heads were found that did not have any aborted florets. These heads were planted in Bozeman, Montana, during the summer of 1988 along with certified seed of West-Bred 881.
- These head-rows in Montana were scored for floret abortions and some 25 rows were found that had no aborted seeds compared to an average of 6/head for the 881 check rows.
- In the fall of 1988, these 25 head-rows were planted and evaluated in Arizona for floret abortion, maturity, height, lodging, yield and quality. Experimental No.8 was found to have no floret abortions and about 15% higher yield than WestBred 881. Italian quality evaluation of No.8 and WestBred 881 showed No.8 to be slightly superior to WestBred 881.
- Breeders seed of Experimental No.8 was produced in Montana during the summer of 1989. Fields were checked for floret abortions and none were found, while WestBred 881 averaged about 5 aborted florets/head.
- (C) Experimental No.8 is 5 to 7 days later than WestBred 881 in heading, 5 to 10 cm. taller than WestBred 881, has essentially no aborted florets/head with or without stress, while WestBred 881 has about 10 to 15% aborted florets/head under slight to

moderate stress. (temperature, water, fertilizer or almost any growing condition,) This is why 881 has very poor yield stability while Experimental No. 8 has excellent yield stability.

The major morphological characteristic separating West-Bred 881 from Experimental No.8 are head length and seed size. Experimental No.8 has heads that are about 2 times longer than WestBred 881. This extra length is obtained by longer rachis internodes. Both WestBred 881 and Experimental No.8 have the same number of rachis internodes per head. The 1000 kernel weight of Experimental No.8 is about 46.10 gm/1000 compared to 52.40 gm/1000 for WestBred 881.

- (D) Evidence for supporting the identity was given in (C) above.
- (E) Experimental No.8 is adapted to desert Southwest areas of Arizona and California where WestBred 881 is grown.
- (F) Breeders, Foundation, Registered and Certified classes will be recognized for varietal multiplication.
- (G) Breeders seed will be maintained by Albert E. Carleton as the Breeder. Head rows from Breeders fields will be used to reconstitute new Breeders seed when needed.
- (H) No restrictions.
- (I) Seed samples of Experimental No.8 and WestBred 881 grown in the same nursery have been enclosed for your inspection. Additional seed will be sent upon request.