

Registration of N246 and N247 Sorghum Germplasm R-Lines

Sorghum [*Sorghum bicolor* (L.) Moench] germplasm lines N246 (Reg. no. GP-565, PI 606746) and N247 (Reg. no. GP-566, PI 606747) were jointly developed by the USDA-ARS and the Agricultural Research Division, Institute of Agriculture and Natural Resources, University of Nebraska, and were released in June 1998.

N246 and N247 are very early R-lines (59 and 58 d to anthesis at Lincoln, NE), with tan plant color, are 75 and 115 cm in height, respectively, and have white seed with no pigmented testa. Both germplasm lines are F₇ selections from the cross 83M3 × E35-1. The line 83M3 was originally from a South Dakota breeding program and provided to this project by Thomas Hoegemeyer (Hoegemeyer Seeds, Hooper, NE). It is extremely early in maturity (56 d to anthesis), 90 cm in height at maturity, has purple plant color, red seed, and a pigmented testa layer. E35-1 has white seed and plant color is tan, but is late in maturity (99 d to anthesis) and tall (205 cm). Testcrosses on CMS CK60A₁ grown in the greenhouse classified N246 and N247 as good restorers of male fertility on the A₁ CMS system. All other data were collected in the field at Lincoln in 1997. For comparison, BTx399 was 100 cm at maturity and reached anthesis in 72 d; RTx430 was 130 cm at maturity, reaching anthesis in 84 d at Lincoln in 1997. Reactions of these germplasm lines to specific insects or diseases have not been determined.

These germplasms are a source of very early maturity packaged in lines with tan plant color and white seed. They have application as parents in applied breeding programs targeting early maturity. They may also have potential application as pollen parents for early hybrid production.

Seed of these germplasms will be maintained and distributed by the USDA-ARS Wheat, Sorghum, and Forage Research Unit, Dep. of Agronomy, University of Nebraska, Lincoln, NE 68583-0937, and will be provided without cost to each applicant on written request. Genetic material of this release will be deposited in the National Plant Germplasm System where it will be available for research purposes, including development and commercialization of new cultivars. It is requested that appropriate recognition be made if this germplasm contributes to the development of a new breeding line or cultivar.

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References and Notes

1. USDA-ARS and Dep. of Agronomy, Univ. of Nebraska-Lincoln, Lincoln, NE 68583-0937. Joint contribution of the USDA-ARS and the Dep. of Agronomy, Univ. of Nebraska-Lincoln, as Journal Series Paper no. 12374. Registration by CSSA. Accepted 28 Feb. 1999. *Corresponding author (jfp@unlserv.unl.edu).