

Garvin Lab Core Diploid Inbred *Brachypodium distachyon* Line Set (6/09)

Line Designation	Source Accession	Geographic Origin	Growth Habit
Bd1-1	PI 170218	Turkey	Winter
Bd2-3	PI 185133	Iraq	Spring
Bd3-1	PI 185134	Iraq	Spring
Bd18-1	PI 245730	Turkey	Winter
Bd21	PI 254867	Iraq	Spring
Bd29-1	PI 639818	Ukraine	Winter
Bd30-1	DSNSCA_6	Spain	Spring

Notes

- Bd1-1 through Bd29-1 derive from accessions in the USDA National Plant Germplasm System. Bd30-1 derives from an accession collected by Dr. Antonio Manzaneda.
- The inbred lines come from single seed descent inbreeding from the source accession.
- The source accession for Bd29-1 (PI 639818) was provided to the USDA National Plant Germplasm System under a Memorandum of Understanding with Ukraine. Please see usage terms associated with this accession (and thus Bd29-1) via the USDA NPGS web site (<http://www.ars-grin.gov/npgs/>).
- The genome of Bd21 has been sequenced in collaboration with the US Department of Energy.

RIL Development Status

- Bd3-1 x Bd21 (completed)
- Bd2-3 x Bd21 (seed bulk required)
- Bd3-1 x Bd1-1 (seed bulk required)
- Bd3-1 x Bd2-3 (seed bulk required)
- Bd21 x Bd1-1 (F₄ advancing to F₅)
- Many other populations at earlier stages of development

Inbred Line Development Information

Vogel J.P., Garvin D.F., Leong O., and Hayden D.M. 2006. *Agrobacterium*-mediated transformation and inbred line development in the model grass *Brachypodium distachyon*. *Plant Cell, Tissue & Organ Culture* 84: 199-211.

Garvin D.F., Gu, Y.-Q., Hasterok R., Hazen S.P., Jenkins G., Mockler T.C., Mur L.A.J., and Vogel, J.P. 2008. Development of genetic and genomic research resources for *Brachypodium distachyon*, a new model system for grass crop research. *The Plant Genome* 48:69-84.

Passport Information on Inbred Lines

What follows on the next page are direct images of passport data for each source diploid accession, from annual USDA NPGS collection records (where available). I have also added some comments. Information on polyploid inbred lines, and cross-referencing to other *Brachypodium* collections such as *Brachyomics*/Aberystwyth material, can be found at www.Brachypodium.org, under the “Genetic Stocks” section.

USDA Accession Original Collection Passport Data

Bd1-1 170182 to 170884.
From Turkey. Seeds collected by J. R. Harlan, Agricultural Explorer, Bureau of Plant Industry, Soils, and Agricultural Engineering, Beltsville, Md. Received Oct. 25, 1948.
Collected in 1948.

170218. BRACHYPODIUM DISTACHYON (L.) Beauv. Poaceae.
No. 2214. Soma, Manisa. June 9.

Note: Soma is a city, and Manisa is a province (there is also a city in the province with the same name) in western Turkey

**Bd2-3
and
Bd3-1** 185129 to 185166.
From Iraq. Seeds presented by the American Embassy, Baghdad. Received Nov. 16, 1949.

185129 to 185166—Continued

185133. AGROPYRON sp. Poaceae.

185134. AGROPYRON sp.

Note: This is the only information that I can find. The accessions were initially misidentified, and later corrected to *B. distachyon*

Bd18-1 245725 to 245758.
From Turkey. Seeds presented by the United States Operations Mission, Ankara. Received Feb. 7, 1958.

245730. BRACHYPODIUM DISTACHYON (L.) Beauv. Poaceae.

Kaman Kirschir Province. Arid; elevation 3,000 feet. Purple falsebrome.

Note: This presumably refers either to the city of Kaman, or Kaman district, in Kirsehir (not Kirschir) Province, located in central Turkey

Bd21 254859 to 254922.
From Afghanistan, Iraq and Spain. Seeds collected by P. F. Knowles, collaborator, New Crops Research Branch, Crops Research Division, Beltsville, Md. Received Jan. 9, 1959.

254867. BRACHYPODIUM DISTACHYON (L.) Beauv. Poaceae.

Col. No. K1202. Four km. from Salakudin, road to Mosul, Iraq. Plants to 12 cm. high, scarce.

Note: Salakudin is presumably a phonetic misspelling of the city Salah ad Din, about 20 miles northeast of the city of Irbil (or Arbil). Irbil is about 40 miles east of Mosul, in northern Iraq

Bd29-1 **PI 639818. *Brachypodium distachyon* (L.) P. Beauv.** Wild. UKR-99-081; W6 21754. Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 30' 55" N. Longitude 33 deg. 33' 23" E. Elevation 260 m. On road to Sevastopol. South slope, rocky, very dry.

Bd30-1 Source accession (DSNSCA_6) collected 1 km from the city of Dilar, in southern Spain. Dilar is approximately 10 km south of Granada. Elevation: 1220 meters. Coordinates: 36° 59' 25.76"N /3° 33' 31.44" W. Habitat: abandoned field/badland. Collected 6-19-2007 by A. Manzaneda, P. Rey, and J. Bastida