

**'BRS TIMBO': NEW COMMON BEAN CULTIVAR FROM "ROXINHO"
COMERCIAL GRAIN TYPE**

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Dry bean is one of the most important crop in Brazil because it is daily component of the food of the Brazilian population and most of the production came from small farms. The Brazilian production in the past ten years was between 2.2 and 3.4 million tons. It was observed a decreasing in planted area and an increasing in yield. The market for different grain types from carioca (beige with brown strips) and black is in expansion in Brazil. There is a demand by industry for a product with different type and quality to attend people with high income. The dry bean breeding program of Embrapa Rice and Beans, aims at the development of genotypes with adaptation, resistance to main diseases, yield, reduced high of plant. As result of this program, Embrapa Rice and Beans is releasing BRS Timbo, a cultivar of the grain type (purple) "roxinho".

The cultivar BRS Timbo is originated from a multiple cross performed at CIAT (A252/XAN105//A373/A213///A445/XAN112//BAT447/A213). Embrapa Rice and Beans received the developed line FEB 163 and promoted it to the Preliminary Trial in 1991. This line was assessed together with additional 22 lines and three controls in the National Trial, conducted in 1993 under eight environments, in the States of Goiás (2), Mato Grosso (1), Mato Grosso do Sul (1), Minas Gerais (3) and Espírito Santo (1). The joint analysis of the grain yield data and other agronomic characteristics provided the elements to promote FEB 163 to the Regional Trial during the 1995/96 crop season. This time, FEB 163 was assessed with seven additional lines and four controls in a randomized complete block design with four replications. in 26 environments in the States of Goiás (8), Federal District (2), Minas Gerais (5), Mato Grosso (7) and Mato Grosso do Sul (4), with average grain yield 3.5% superior than the controls (Table 1).

Table 1. Yield of cultivar BRS Timbo compared to the mean of two control cultivars in 1995 and 1996.

Region	State	BRS Timbo (kg/ha)	Mean for controls (kg/ha)	Relative Yield (%)	Number of sites
Southeast	Minas Gerais	2787	2649	105.2	5
	Goiás/Federal District	2449	2372	103.2	10
Center West	Mato Grosso do Sul	1544	1447	106.7	4
	Mato Grosso	1665	1653	100.7	7
Mean		2163	2089	103.5	

¹Controls: Vermelho 2157 and Roxo 90.

Based on these results it was released in 2002 with the trade name of BRS Timbo, for the States of Goiás, Federal District, Minas Gerais, Mato Grosso and Mato Grosso do Sul.

BRS Timbo has uniform grain size and color, average 100 grain mass of 19.3 g, excellent cooking quality and good grain appearance after cooked (Table 2).

Table 2. Technological and industrial quality of seeds from the cultivar BRS Timbo.

Cultivar	Cooking time (minutes)	Soluble solids (%)	Protein (%)	Whole grain (%)
BRS Timbo	30.0	9.5	23.43	92

BRS Timbo is resistant to common mosaic under artificial inoculation. It also presented resistance reaction to the following *C. lindemuthianum* pathotypes: 55, 89, 453, 585. In the field trials, it presented resistant reaction to rust, intermediate resistance to angular leaf spot and susceptibility reaction to common bacterial blight.

BRS Timbo presents semi-erect plant type in any crop system and under a variety of soil and climate conditions where it was evaluated. It also presented good lodging resistance throughout its cycle of 87 days, in average, from emergence to physiological maturity.

BRS Timbo, due to its superior yield potential and differentiated grain type, associated to excellent cooking performance, semi-erect plant type, resistance to lodging and to major diseases, is an interesting option for producers involved with specialty grain type production, providing a value added commodity for commercialization in the States of Goiás, Federal District, Mato Grosso, Mato Grosso do Sul and Minas Gerais.

Genetic seed stocks are maintained by Embrapa Rice and Beans and basic seed is available at Embrapa Technology Transfer.

Institutions of participating scientists:

Embrapa Arroz e Feijão; Embrapa Milho e Sorgo; Embrapa Cerrados; Embrapa Transferência de Tecnologia/Escritório de Negócios de Sete Lagoas-MG; Embrapa Transferência de Tecnologia/Escritório de Negócios de Goiânia-GO; Empaer-MT; Empaer-MS; Agenciarrural-GO; Universidade Federal de Viçosa; Universidade Federal de Lavras; Coagril; Fesurv/Esucarv.

References

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