



**ANNUAL REPORT OF THE
BEAN IMPROVEMENT
COOPERATIVE**



**A VOLUNTARY AND INFORMAL ORGANIZATION
TO EFFECT THE EXCHANGE OF INFORMATION AND MATERIALS**

**VOLUME 61
2018**

BRS PAISANO A NEW RELEASED COMMON BEAN CULTIVAR FOR SOUTHERN BRAZIL

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Common bean (*Phaseolus vulgaris* L.) breeding at Embrapa Clima Temperado (Temperate Climate Embrapa), a research center located in Pelotas, Rio Grande do Sul State, Brazil, has a long history, which began at the years sixties of the last Century, when the Ministry of Agriculture was in charge for the development of research activities with the species. At the creation of Embrapa, in 1973, research with common bean it was decided to concentrate at Goiás State, in Central Brazil Region, where was established the Centro Nacional de Pesquisa de Arroz e Feijão (National Research Center for Rice and Common Beans) – CNPAF, in 1974.

The research work that had been under way at Pelotas, was then discontinued from 1975 on. The lack of applied research with common beans from Embrapa in Rio Grande do Sul State, resulted in a demand from farmers for the return of the works with the species. The restoration of research on the theme occurred in 1986, and from then on, new cultivars have been released.

BRS Paisano is a new black bean cultivar for Southern Brazil. It results from the cross FT 206 X FT 90 10 654, conducted at Embrapa Clima Temperado, Pelotas, Rio Grande do Sul State, in 1994. Both parental lines are black seeded, and were originated at FT Sementes, a private company. At Embrapa Clima Temperado's experimental fields, were performed the F₂ to F₄ generation advances by single pod discent. In 1997, at the F₄ generation, was selected the plant that resulted, later on, in the line identified as TB 98-20. From 1999 to 2006 crop years, TB 98-20 has shown a favorable behavior both in preliminary as in advanced State trials. Based on these results, in 2006, the line was included in the Brazilian Southern Region Common Bean Research Network, covering the Southern States of Rio Grande do Sul, Santa Catarina and Parana, as well as São Paulo and Mato Grosso do Sul. From 2006/07 to 2009/10, from a total of 52 experiments scattered through the mentioned States, BRS Paisano showed a mean seed yield of 2,118 kg ha⁻¹, equal to the mean yield presented by the standard cultivars (Table 1).

At State level, presented in Rio Grande do Sul State, 2.7% higher yield than standard cultivars mean at the wet season and 13.8% higher in the dry season. For Santa Catarina State, 7.8 % at the wet season and -4.0% at the dry one, while in Paraná State, -3.1 in the wet season and -20.0% in the dry one. It has presented a good resistance level for antracnose and good performance under organic cultivation systems at farmers' fields.

BRS Paisano has been registered for cultivation both in wet and dry seasons at the Ministry of Agriculture in 2015, receiving the Registration Number 33733, being suitable for cultivation in States of Rio Grande do Sul, Santa Catarina, Paraná, São Paulo and Mato Grosso do Sul.

Table 1. BRS Paisano and standard cultivars mean seed yield (kg ha⁻¹) in State trials conducted in the Southern Region of Brazil, from 2002/2003 to 2007/2008.

Year	BRS Paisano	Standard cultivars mean yield*	Relative yield (%)	Nº of trials
Rio Grande do Sul State (RS)				
Wet season – 2002/2003 to 2007/2008				
Mean	2.153	2.097	102,7	19
Dry season – 2007/2008				
Mean	2.243	1.971	113,8	02
Santa Catarina State (SC)				
Wet season – 2006/2007 and 2007/2008				
Mean	3.587	3.238	107,8	10
Dry season - 2006/2007 and 2007/2008				
Mean	1.477	1.539	96,0	09
Paraná State (PR)				
Wet season – 2006/2007 and 2007/2008				
Mean	2125	2192	96,9	05
Dry season - 2006/2007 and 2007/2008				
Mean	1.879	2.350	80,0	07
Southern Region				
Wet season				
General mean	2.622	2.509	104,5	34
Dry season				
General mean	1.866	1.953	95.5	18
All trials				
General mean	2.118	2.108	100,5	52 (Total)

*Standard cultivars: **RS**: 2002/2003: TPS Soberano and BRS Valente; 2003/2004: BRS Expedito and BRS Valente; 2004/2005 and 2005/2006: BRS Expedito and BRSCampeiro; 2006/2007 and 2007/2008: Guapo Brilhante and BRS Valente; **SC**: 2006/2007 and 2007/2008: BRS Campeiro and BRS Valente; **PR**: 2006/2007 and 2007/2008: BRS Campeiro and Uirapuru