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BRS INTRÉPIDO – A BLACK COMMON BEAN CULTIVAR RELEASED FOR CULTIVATION IN SOUTH BRAZIL

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Black seeded common bean (*Phaseolus vulgaris* L.) cultivars are the preferred ones by consumers in Rio Grande do Sul State, and Western Santa Catarina and Parana States. These three States form the South Region of Brazil, the greater common bean producer region of the country.

Due to importance of common bean as source of proteins and carbohydrates for the Brazilian people, a significant number of breeding programs are under development in the South Region, both public and private.

In order to permit farmers to have quick access to new released cultivars, public research institutions of the South Region designed a common bean trial where each institution is given the possibility to place two lines from own choice, besides the presence of check cultivars chosen according to research teams of each state. At each two-year cycle, a common statistical analyses at each state is performed, from which the decision on the release of the respective line as a new cultivar is under judgment by each institution. The common bean trial has been called Ensaio Sul-brasileiro de Feijão (Southern Brazil Common Bean Trial), which attends Ministry of Agriculture requirements for cultivar registration, that permits commercial use of this new cultivar.

Embrapa Clima Temperado (Temperate Climate Embrapa), a research center located in Pelotas, Rio Grande do Sul State, Brazil, is one of the public research institutions that develops a common bean breeding program. The last black bean cultivar released by this research center, was BRS Expedito, in 2003. In 2015, two new black seeded common bean cultivars have been registered at the Brazilian Ministry of Agriculture: BRS Paisano and BRS Intrépido.

The present paper describes the work that has been conducted up to the registration of BRS Intrépido as well as reveals cultivar characteristics.

BRS Intrépido results from the cross TB 97-13 x TB 98-26 that was performed in 1999. TB 97-13 is a breeding line selected at Embrapa Clima Temperado from the cross FT Tarumã x BR-Ipagro 2 - Pampa, while TB 98-26 is also a line selected at Embrapa from the cross Iapar 31 x Guapo Brilhante, both commercial cultivars. At Embrapa Clima Temperado's experimental fields, were performed the F₂ to F₄ generation advances by single pod descent. In 2004, at the F₄ generation, was selected the plant that resulted, later on, in the line identified as TB 02-02. From 2004 to 2006 crop years, TB 02-02 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. From 2005/06 to 2007/08, from a total of 41 experiments scattered through the mentioned States, BRS Intrépido showed a mean seed yield of 2,370 kg ha⁻¹, 4.7% above mean yield of the standard cultivars (Table 1).

At State level, BRS Intrépido presented in Rio Grande do Sul State, 12.2 % higher yield than standard cultivars mean at the wet season and 11.1% higher in the dry season. For Santa Catarina State, 5.0 % at the wet season and -4.0% at the dry one, while in Paraná State, an equal mean yield at the wet season and 4.9% higher at the dry one. It has presented a good resistance level for antracnose and a type II plant architecture, being suitable to direct harvest.

BRS Intrépido has been registered for cultivation both at wet and dry seasons at the Ministry of Agriculture in 2015, receiving the Registration Number 33732, being suitable for cultivation in States of Rio Grande do Sul, Santa Catarina and Paraná.

Table 1. BRS Intrépido and standard cultivars mean seed yield (kg ha⁻¹) in State trials conducted in the Southern Region of Brazil, from 2005/2006 to 2007/2008.

Year	BRS Intrépido	Standard cultivars mean yield*	Relative yield (%)	Nº of trials
Rio Grande do Sul State (RS)				
Wet season – 2005/06 a 2007/08				
Mean	2544	2267	112,2	09
Dry season – 2007/08				
Mean	2239	2016	111,1	02
Santa Catarina State (SC)				
Wet season – 2006/07 e 2007/08				
Mean	3389	3238	105,0	10
Dry season - 2006/07 e 2007/08				
Mean	1446	1511	96,0	09
Paraná State (PR)				
Wet season – 2006/07 e 2007/08				
Mean	2189	2192	100,0	05
Dry season - 2006/07 e 2007/08				
Mean	2603	2481	104,9	06
Wet season – Southern Region				
General mean	2678	2523	106,1	24
Dry season – Southern Region				
General mean	2063	2003	103,0	17
All trials				
General mean	2370	2263	104,7	41 (TOTAL)

*Check cultivars: RS: 2005/06: BRS Expedito and BRS Campeiro; 2006/07 and 2007/08: Guapo Brillhante and BRS Valente; SC: 2006/07 and 2007/08: BRS Campeiro and BRS Valente; PR: 2006/07 and 2007/08: BRS Campeiro e Uirapuru