

BRS Pétala soybean cultivar

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Introduction

"BRS Pétala" soybean cultivar was developed by a modified pedigree selection from the cross Bragg X [Braxton*2 X (BR 27*4 X Cristalina)]. It was extensively evaluated under the experimental designation BR95-1985. It is recommended for growing in the states of "Goiás", "Minas Gerais", "Mato Grosso", "Tocantins" and "Distrito Federal".

"Pétala" was evaluated in VCU (value of cultivation and use) trials in 1998/1999 and 1999/2000 seasons (Tables 1, 2, 3, 4 and 5). "Pétala" out-yielded the cultivar checks in "Distrito Federal", "Goiás", "Mato Grosso", "Minas Gerais", and "Tocantins". The average seed yield of "Pétala" was 3381 kg/ha in Tocantins, 3356 kg/ha in Minas Gerais, 3068 kg/ha in Mato Grosso and has a yield potential of 4085 kg/ha.

Main characteristics and descriptors

Genealogy: Bragg X [Braxton*2 X (BR 27*4 X Cristalina)]

Growth habit: determinate

Average number of days to flowering: 61

Average number of days to maturity: 139

Height of insert of the first pod (cm): 19

Resistance to lodging: good

Flower color: purple

Pubescence color: brown

Pod color: brown

Hylum color: black

100-seeds weight : 17 g

Reaction to the peroxidase: negativa

Table 1. Average grain yield and other traits of "BRS Pétala" and check cultivars across 18 locations, in states of "Goiás and "Distrito Federal", over 1998/1999 and 1999/2000 seasons. "Embrapa Cerrados", "Brasília", DF. 2001.

Cultivar	Plant Height (cm)	Days to maturity	Grain yield	
			(kg/ha)	Relative (%)
BRS Pétala	89	138	3376	112
DM 339	87	138	3039	100
FT 104	85	143	3027	100

Table 2. Average grain yield and other traits of "BRS Pétala" and check cultivars across 8 locations, in the "Tocantins", over 1998/1999 and 1999/2000 seasons. "Embrapa Cerrados", "Brasília", DF. 2002.

Cultivar	Plant Height (cm)	Days to maturity	Grain yield	
			(kg/ha)	Relative (%)
BRS Pétala	60	117	3381	127
Garça Branca	52	109	2828	106
M-SOY 8800	44	115	2750	103
FT 104	47	112	2658	100

Table 3. Average grain yield and other traits of "BRS Pétala" and check cultivars across 9 locations, in the "Mato Grosso", over 1998/1999 and 1999/2000 seasons. "Embrapa Cerrados", "Brasília", DF. 2002.

Cultivar	Plant Height (cm)	Days to maturity	Grain yield	
			(kg/ha)	Relative (%)
BRS Pétala	83	122	3068	105
FT 104	76	120	3002	103
DM 339	74	118	2911	100

Table 4. Average grain yield and other traits of "BRS Pétala" and check cultivars across 12 locations, in the "Minas Gerais", over 1998/1999 and 1999/2000 seasons. "Embrapa Cerrados", "Brasília", DF. 2002.

Cultivar	Plant Height (cm)	Days to maturity	Grain yield	
			(kg/ha)	Relative (%)
BRS Pétala	79	134	3356	110
FT 104	84	138	3273	107
DM 339	80	142	3062	100

Table 5. Average grain yield and other traits of "BRS Pétala" and check cultivars across 47 locations, in the Brazilian Cerrado, over 1998/1999 and 1999/2000 seasons. "Embrapa Cerrados", "Brasília", DF. 2002.

Cultivar	Plant Height (cm)	Days to maturity	Grain yield	
			(kg/ha)	Relative (%)
BRS Pétala	80	130	3312	117
Garça Branca*	52	109	2828	103
M-SOY 8800*	44	115	2750	100
FT 104	76	132	3022	110
DM 339	81	111	3016	110



Reaction to the main diseases

Reaction to the stem cancer (*Diaporthe phaseolorum f. sp. meridionalis*): moderately resistant

Reaction the frog-eye leaf spot (*Cercospora sojina*): resistant

Reaction to powdery mildew (*Microspora difusa* Cke. & Pk.): tolerant

Reaction to the *Meloydogine javanica*: resistant

Reaction to the *Meloydogine incognita*: moderately resistant

Suggestion for cultivation

"BRS Pétala" exhibits a high stability of seed yield and is best adapted when planted in November at plant populations of 250,000 to 300,000 plants/ha in Minas Gerais, 300,000 to 350,000 plants/ha in Goiás and Distrito Federal and 300,000 plants/ha in Tocantins and Mato Grosso. Pétala is a high yielding, root knot nematode resistant soybean cultivar available for soybean farmers.