

UFVS-2002 Soybean Cultivar

Tuneo Sedyama^{*1}; Rita de Cássia Teixeira²; José Humberto Dutra³; Messias Antônio Silveira Andrade⁴; José Luiz Lopes Gomes¹ and Múcio Silva Reis¹

¹ Departamento de Fitotecnia, Universidade Federal de Viçosa, 36571-000 – Viçosa-MG, Brasil; ² Bolsista Programa Melhoramento Genético da Soja, Departamento de Fitotecnia, Universidade Federal de Viçosa, 36571-000 – Viçosa-MG, Brasil; ³ Central de Experimentação, Pesquisa e Extensão do Triângulo Mineiro, Universidade Federal de Viçosa, 38360-000 – Capinópolis-MG, Brasil; ⁴ Central de Ensino e Desenvolvimento Agrário de Florestal, Universidade Federal de Viçosa, 35663-000 – Florestal-MG, Brasil. (*Corresponding Author. Email: tuneo@mail.ufv.br)

ABSTRACT

The UFVS-2002 soybean cultivar was developed by the Soybean Genetic Breeding Program in the Plant Science Department at the Federal University of Viçosa, Minas Gerais, Brazil. It was released for sowing in Minas Gerais State. Flowering and maturity are on average at 67 and 136 days after emergence, respectively, with grain yield of 3,208 kg/ha in the regions of best adaptation and 3,184 kg/ha in experiments carried out in Minas Gerais State. It is resistant to stem canker, frogeye leaf spot, powdery mildew and bacterial pustule.

KEY WORDS: *Glycine max*, soybean, cultivar description and Seed production.

INTRODUCTION

Soybean (*Glycine max* (L.) Merrill) UFVS-2002 was developed by the Soybean Genetic Breeding Program at the Plant Science Department, Federal University of Viçosa, Minas Gerais, Brazil. It is a semi-late maturity cultivar, released for cultivation in Minas Gerais after field yield tests performed in the agricultural years 1997/98 and 1998/99 under the inbred line denomination UFV94-334268.

PEDIGREE AND BREEDING METHOD

The UFVS-2002 cultivar is an individual plant selection in the F6 generation of the cross between Doko and Paranaíba (Figure 1) obtained from modified genealogical method (SSD Single Seed Descent) proposed by Brim (1966) adapted to the single pod descent method (Sedyama et al., 1999). About one hundred plants were selected initially to assess the uniformity of the agronomic traits by a progeny test. Their seeds were cultivated in 2.0m long rows, spaced at 0.70cm with 12 plants/m density.

The most uniform progeny were inoculated with *Diaporthe phaseolorum* f.sp. *meridionalis*, by the toothpick method (Yorinori, 1991) and with *Cercospora sojina* Hara isolates, in a

greenhouse (Yorinori, 1989). After selecting the best progeny from the yield trials, 150 plants were sampled and sowed in single rows. The homogenous rows were mixed to compose the genetic seed.

PERFORMANCE

The UFVS-2002 cultivar yielded on average 3,184 kg/ha in 12 experiments carried out in the 1997/1998 and 1998/99 agricultural years in Capinópolis, Rio Paranaíba, Florestal, Uberlândia and Paracatu (Table 1). This yield was 3.7% higher than the CAC-1 cultivar and 2.2% more than the BR/IAC-21 cultivar. The average yield in four experiments carried out in Capinópolis and Uberlândia in the 1997/98 and 1998/99 agricultural years (Table 2) was 3,208 kg/ha, respectively 3.9% and 6.2% more than CAC-1 and BR/IAC-21 used as controls.

OTHER CHARACTERISTICS

The UFVS-2002 cultivar has determined growth habit and good resistance to pod dehiscence and moderate resistance to lodging. It flowers at 67 days on average and reaches harvest maturity at 136 days after emergence (Sedyama et al., 2001). The mean plant height was 101cm and weight of a 100 seeds was 17.3 g. The oil and protein

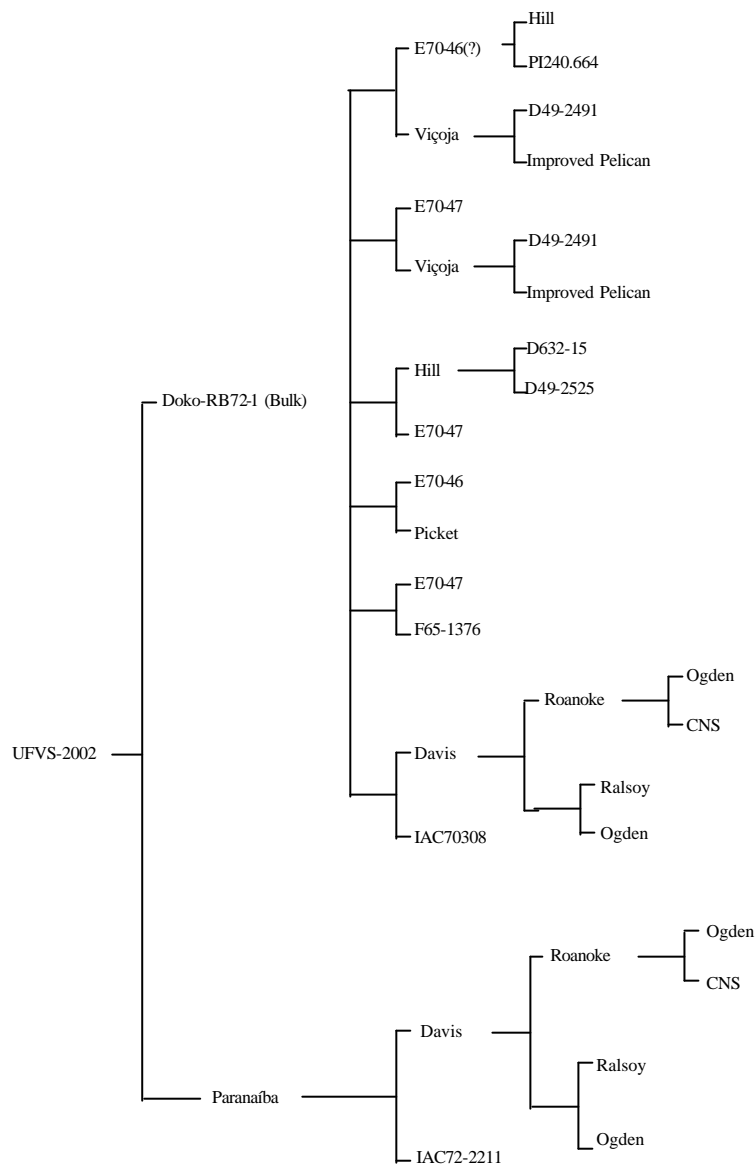


Figure 1- UFVS-2002 pedigree.

percentages were 22.73% and 39.41%, respectively. The UFVS-2002 cultivar has purple colored flowers, gray pubescence and pod, yellow seed coat and positive peroxidase activity. It is resistant to stem canker, frog-eye leaf spot, bacterial pustule and powdery mildew.

PEDIGREE SEED MAINTENANCE AND DISTRIBUTION

The UFVS-2002 seed is maintained by the Federal University of Viçosa, Plant Science Department, CEP 36571-000 Viçosa-MG Brasil.

Table 1 – Means of grain yield, relative yield and number of bags/ha, obtained in experiments carried out in Capinópolis, Rio Paranaíba, Florestal, Uberlândia and Paracatu, Minas Gerais, in the 1997/98 and 1998/99 agricultural years.

Cultivar	Grain yield (kg/ha)	Relative yield (%)	number of bags/ha (60kg/bag)
UFVS-2002	3,184	103.7	53.1
BR/IAC-21	3,116	101.5	51.9
CAC-1	3,070	100.0	51.2

Table 2 – Mean results of grain yield, relative yield and number of bags/ha, obtained in experiments in Capinópolis and Rio Paranaíba, Minas Gerais, in the 1997/98 and 1998/99 agricultural years

Cultivar	Grain yield (kg/ha)	Relative yield (%)	Number of bags/há (60kg/bag)
Capinópolis			
UFVS-2002	3,356	102.2	55.9
CAC-1	3,300	100.5	55.0
BR/IAC-21	3,285	100.0	54.8
Uberlândia			
UFVS-2002	3,059	111.0	51.0
CAC-1	2,875	104.3	47.9
BR/IAC-21	2,756	100.0	45.9
Capinópolis and Uberlândia Mean			
UFVS-2002	3,208	106.2	53.5
CAC-1	3,088	102.3	51.5
BR/IAC-21	3,020	100.0	50.3

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Received: March 08, 2001;
Accepted: May 03, 2001.