

“BRS Dourada” – ‘Table’ cassava and its diverse uses

Main morphological characteristics

Root	Characteristics
Shape	Conical-cylindrical
Skin colour	Light brown
Flesh colour	Yellow
Cortex colour	Pink
Aerial parts	Characteristics
Terminal bud colour	Purplish-green
Terminal branches' colour	Green
Petiole colour	Greenish-red
Lobe shape	Lanceolate
Stem colour	Golden

Technical recommendations

This variety is recommended for planting in areas under conditions such as those found in the *Recôncavo Baiano* and the *Tabuleiros Costeiros*, such as in Cruz das Almas, Bahia. These areas present an annual rainfall of around 1,200 mm, concentrated throughout April to August, an average annual temperature of 24°C and relative humidity of around 80%. The predominant soils are of the yellow *latosol* type.

The planting should take place at the beginning of the rainy season, using selected cassava cuttings of approximately 20 cm in length. The field must be kept clean for at least the first 120 days after planting.

By associating root yield data with quality, this variety is recommended for harvesting between 8 and 13 months after planting. By using irrigation and fertilization, harvesting can take place earlier, starting from six months of age.

“BRS Dourada”

Wania Maria Gonçalves Fukuda¹
Márcio Eduardo Canto Pereira
Luciana Alves de Oliveira
Rossana Catie Bueno de Godoy

Introduction

The project to develop cassava germplasm for different Brazilian ecosystems and uses, led by *Embrapa Mandioca e Fruticultura* and implemented in partnership with several of the country's research and teaching institutions, has as one of its objectives the broadening of the genetic base of cassava for fresh consumption.

The first step to meet this demand was taken in 1994, with the establishment of a germplasm bank of 'table' cassava, also known as sweet cassava, *macaxeira* or *aipim*, in the experimental area of *Embrapa Mandioca e Fruticultura*. Currently, the collection includes 130 accesses, obtained in the Brazilian Northeast or originating from the breeding program.

From 2001, research was carried out to identify and develop varieties of cassava with higher nutritional value, especially with higher levels of beta-carotene (precursor of vitamin A) in yellow-coloured roots.

The qualitative and quantitative evaluation and characterization of this material allowed for the selection of some varieties with higher levels of beta-carotene in the roots, high yield potential and quality for the fresh cassava market. Of this selection, the *BRS Dourada* variety stood out for its productivity and good organoleptic qualities.

Origin, yield and adaptation

The *BRS Dourada* variety originates from the Maragogipe municipality, in the state of Bahia, having been initially collected and introduced into the cassava collection of the *Escola de Agronomia da Universidade Federal da Bahia* and, later, to the Cassava Germplasm Bank of *Embrapa Mandioca e Fruticultura*, where it received the code BGM 1692.

In experiments undertaken under the conditions of the town of Cruz das Almas, Bahia, in 2002 and 2003, the variety yielded 48.7 t/ha of roots and 15.1 t/ha of dry matter, at 12

¹ Researchers from *Embrapa Mandioca e Fruticultura Tropical*. Cx. Postal 007, 44380-000, Cruz das Almas- Bahia.

E-mail: wfukuda@cnpmf.embrapa.br, marcio@cnpmf.embrapa.br,
luciana@cnpmf.embrapa.br, catie@cnpmf.embrapa.br

months of age. The dry matter content was 31%. The experiments were established in randomized blocks, and repeated six times. The cooking time was 20 minutes. The cooked dough presented an intense yellow coloration, an absence of fibres and plastic consistency.

At different harvesting ages, this variety presented root yield varying from 10 t/ha, at six months, to 33.8 t/ha at 13 months. The dry matter content varied from 27.9%, at seven months, to 40.6% at 12 months. The beta-carotene content in roots, determined by the HPLC method, were of 3.18 µg/gram, at eight months, and 4.11 µg/gram of fresh root, at 10 months.

With respect to the qualitative characteristics, this variety presented 500 ppm of HCN in the raw roots and a cooking time of 13 to 20 minutes in roots 6 to 13 months old. The lowest cooking time was observed in roots of 11 months. The cooked dough presented intense yellow coloration, characteristic flavour, absence of fibres, fine texture and plastic consistency.

Other than the qualities for cooked consumption, *BRS Dourada* variety presents great characteristics for consumption in the form of “fries”, cold and without pre-cooking.

In experiments carried out with farmers in Santo Amaro, Bahia, this variety presented a yield of 20 t/ha, at 10 months old. It was selected and multiplied in the communities for the production of fine yellow flour or *copioba* flour, without the need to use dyes, which are normally used by farmers to give a yellow colour to the product.