

ASWATHY, A NEW GINGER VARIETY FROM KERALA AGRICULTURAL UNIVERSITY FOR GREEN GINGER

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Kerala Agricultural University has released a new ginger variety "Aswathy". The variety was released in the 25th Kerala State Seed Sub Committee meeting held at Thiruvananthapuram on July, 2013.

The new ginger variety Aswathy, a single plant selection from somaclones of cultivar Rio-de-Janeiro, is a high yielding, high quality variety suitable for green ginger. It is characterized with dwarf stature, more number of tillers per plant, dark green broader leaves, bold rhizomes, high recovery of volatile oil and oleoresin and is suitable for cultivation both as pure and intercrop.

The new variety is the result of a series of field trials conducted at College of Horticulture, Vellanikkara, on selected farmers' fields and research stations of Kerala Agricultural University for a period of eight years (2005-2012). Rhizomes of the cultivar Rio-de-Janeiro collected from Regional Agricultural Research Station, Ambalavayal formed the source parent material for induction of somaclonal variation in ginger. Somaclones of ginger were produced through *in vitro* adventitious bud regeneration after passing through 10-12 subculture cycles. In the initial evaluation trials, twenty eight somaclones were evaluated for two seasons (2005 and 2006) along with the parent cultivar Rio-de-Janeiro. Seven clones selected based on yield, rhizome

characters and pests and disease reaction were advanced to Advanced Variety Trials. The Advanced variety Trials were conducted for three seasons (2007-2009) with released varieties (Athira, Karthika and Varada) as check. On farm evaluation of three selected superior somaclones was done in selected farmers' fields of four districts viz. Thrissur, Palghat, Ernakulam and Wayanad. The selected clones were also tested at KAU research stations in different agroclimatic zones. Based on the performance at different locations, the clone "292R" was selected for release under the name "Aswathy".

The variety Aswathy recorded 60 per cent higher yield than the parent cultivar Rio-de-Janeiro and 10 to 25 per cent higher yield than the other released varieties. Quality evaluation studies showed that Aswathy recorded higher quality attributes than the parent cultivar Rio-de-Janeiro and other check varieties evaluated. The volatile oil is rich in zingiberene. The variety performed well both in open and shaded condition and is best suited for homesteads as vegetable ginger. The variety exhibited very good field tolerance to *Phyllosticta* leaf spot disease. The incidence and severity of *Phyllosticta* leaf spot was found very less in the variety.

There is high demand for the cultivar Rio-de-Janeiro in the oil and oleoresin industry.

and also in ginger garlic paste industry. The released variety Aswathy which is a single plant selection from somaclones of cultivar Rio-de-Janeiro, with high yield, bold rhizomes, high recovery of volatile oil and oleoresin will be an

ideal variety to be exploited in the afore mentioned industries.

The salient features of the variety are summarized as below:-



Ginger plantation - Field view



New ginger variety - Aswathy

Year of release	July 2013
Parentage (Janeiro)	Single plant selection from somaclones of cultivar Rio-de
Morphological characters	Dwarf stature, more number of tillers/ plant, dark green broader leaves
Yield	
Average fresh yield	23t/ha
Potential fresh yield	30t/ha
Special features	
Rhizomes	Bold
Dry recovery	19.7%
Volatile oil	3.32% (Zingiberene - 32.46% , Citral - 2.13%)
Oleoresin	7.45% (Gingerols - 16.7% , Shogaol - 2.10% .)
Crude fibre	3.5%
Agronomic features	Ideal for cultivation both a pure and intercrop. Suitable for green ginger and highly suited for homesteads. Exhibits very good field tolerance to Phyllosticta leaf spot disease