

Bathiya (HF 02)-An Indeterminate type F1 hybrid tomato with bacterial wilt resistance and high yield potential

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Bacterial wilt of tomato incited by *Ralstonia solanacearum* is one of the most important and ubiquitous vascular diseases in tomato causing 10.8 to 90.6 percent yield loss. The effective method to manage this soil borne disease is growing resistant hybrid/open pollinated variety. At present consumers are much concerned about the yield and quality of fruits. Therefore, keeping this in view, the hybrid varietal development programme was initiated at Horticultural Crops Research and Development Institute, Gannoruwa during 1999-2006.

Several crosses using 10 promising donor parents were performed and one hybrid originating from a single cross combination was found to be promising. The yield evaluation studies in Randomized Complete Block Design with 7 exotic hybrids and two check varieties namely Maheshi (hybrid variety) and Rajitha (open pollinated variety) were carried out for 2 seasons. The hybrid Bathiya consistently gave significantly higher yields than all the tested varieties. The laboratory and field screening tests revealed that it is resistant to bacterial wilt disease. The consumer preference of this hybrid variety is very high due to the dark red fruit colour, shinny appearance, thick pericarp, long shelf life period and non cracking nature of fruits.

The weight of the fruit is about 75 g and yield potential is 67.2 t/ha and it is about 35 % higher than the recommended variety, Rajitha. The new hybrid variety Bathiya is a potential nominee for the varietal release in near future.

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