Bananas (Musaceae, Zingiberales) are one of the most important fruit crops and a staple food in many southern African countries, including South Africa. However, banana production is threatened by several viral diseases including Banana bunchy top disease (BBTD), caused by *Banana bunchy top virus* (BBTV), the most devastating virus disease of banana. BBTV was identified in South Africa in 2015, on Musa plantations in KwaZulu-Natal (KZN).

The recent outbreak of the disease in South Africa caused major concern to banana growers, as yield losses of up to 100% can be recorded. There are two different groups of BBTV isolates infecting banana, namely the ‘South Pacific’- and the ‘Asian’ groups, but only the South Pacific strain has been identified in South Africa.

**TRANSMISSION OF BBTV**

BBTV can spread from one plantation to the next by means of infected planting material, and between plants with the Banana aphid, *Pentalonia nigronervosa* Coquerel (Hemiptera: Aphididae). The immature aphid stages are small, reddish-brown to almost black, oval shaped, and wingless. Alates can easily be identified by the brown pigmentation bordering the wing veins. Aphid colonies are usually found around the base of pseudostems, on the newest unfurled leaf at the top of the plant, under old leaf sheaths, or in unfurled leaves of young suckers, with dense colonies tending to move upwards. Ants attend aphids in return for the honeydew excreted, and their presence on banana plants is usually a good indicator of the presence of aphids.

**SYMPTOMS OF BBTD ON BANANA PLANTS**

Symptoms include dwarfing, leaf atrophy, narrow upright leaves, chlorosis of leaf margins, stunting and dark green streaks on leaves, petioles and pseudostems. Advanced symptoms include a progressive shortening of leaves that become more erect, causing a bunchy appearance and thus giving rise to the name ‘bunchy top’. Symptoms of BBTV only appear about 25 days after inoculation by aphids. However, these symptomless plants may act as a source from which aphids can obtain the virus and spread it to surrounding plants. Plants infected early in their growth and those infected severely, usually bear no fruits or bear deformed fruits whereas later infected plants may bear normal or deformed fruits.

**CONTROL**

- Plant only healthy suckers
- Avoid moving planting material from affected regions
- Inspect your field regularly for symptoms. Early identification is critical to controlling the spread of BBTV
- Immediate treatment and removal of infected plants and the treatment of the area with an insecticide to ensure that all aphids are killed. This action will prohibit the spread of the virus to neighbouring plantations.
Plants showing suspicious symptoms should be sent to the ARC laboratory to confirm BBTV symptoms. Banana aphids collected in 99% ethanol, directly from banana plants, can also be tested to determine if they are carrying BBTV. BBTV detected in aphids are the early warning sign for the presence of BBTV in banana plantations, even before plants show symptoms.

**CROPS AT RISK IN SOUTH AFRICA**

Banana (*Musa*)

**REPORTING OF OUTBREAKS**

Please report all observations/outbreaks of possible BBTV to Dr Elize Jooste and Ms Marika van der Merwe (contact details below) with the following information: date observed, farm name, province, area of infestation, and visible damage.

*For more information contact:*

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