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PREVENTING THE SPREAD OF THE INVASIVE FRUIT FLY- *BACTROCERA INVADENS* IN SOUTHERN AFRICA

Photo: Peter Stephen, CRI

Bactrocera invadens is an invasive fruit fly pest of Asian origin that is spreading rapidly across Africa. It was detected in 2003 in Kenya and now occurs in 20 other countries on the African continent. The latest southernmost distribution records (2008) of *B. invadens* are in Zambia and northern parts of Mozambique and Namibia.

B. invadens causes significant damage to commercial fruit crops such as mango, banana and citrus. The pest can also develop in various other fruit types such as guava, marula, loquat, peach, persimmon, cashew, avocado, papaya, tomato, chilli pepper, bell pepper, cucumber, pumpkin and watermelon. *B. invadens* is mainly a lowland pest but can also exist at high altitudes (>1600 m above sea level).

B. invadens is a pest of high phytosanitary concern. An outbreak of this pest can be expected to result in disruption of fruit trade until adequate risk management procedures are implemented.

The spread of *B. invadens* in Southern Africa can occur through either passive expansion of the organism's distribution range or accidental introduction through movement of infested host material. The various fruit industries and the Department of Agriculture in South Africa are working collaboratively on measures to limit the spread of this pest. These include a steering committee, communication channels, surveillance, action plan, incursion prevention measures, preparation for eradication actions and the development of control and risk mitigation treatments. Enquiries on these measures can be directed to one of the following industry or Department of Agriculture (DoA) representatives (citrus – Vaughan Hattingh 021-8828553; deciduous fruit - Lindi Benic 021-8828470; table grapes - Andre van Wyk 021-8721438; subtropical fruit – Derek Donkin, 015-3073676; DoA: official and trade regulation matters - Marianna Theyse 012-3196091 & Jan Hendrik Venter 012-3196384).

Surveillance of *B. invadens* in South Africa is currently being conducted through a trapping programme using methyl eugenol (ME), which is a parapheromone attractant specific to males of this pest. Information from the trapping programme may then be used to determine either absence of the pest from an area (in the establishment and maintenance of pest free areas) or distribution of the pest in an area. The surveillance network should be expanded through participation of growers collaborating with assigned co-ordinators from respective industries (citrus - Aruna Manrakhan, 013-7598000; deciduous fruit including grapes – Leslie Brown, 021-8828470; and subtropical fruits – Wilna Stones, 015-3073676) and will form part of the national surveillance programme operated under the auspices of the Department of Agriculture.

In the event of a point incursion by *B. invadens*, a series of measures will be implemented (in accordance with an action plan approved by the *B. invadens* steering committee) to contain and eradicate the pest from the area. This can be achieved through a combination of the male annihilation technique (distribution of fibre-board blocks soaked in ME and insecticide to effect high male mortality) and application of insecticidal protein baits. The prospect of success with an eradication exercise is dependent on early detection which requires wide grower cooperation. Interested parties should make contact with one of the surveillance coordinators referred to above.

Aruna Manrakhan, CRI, 013-7598000; 08 December 2008