
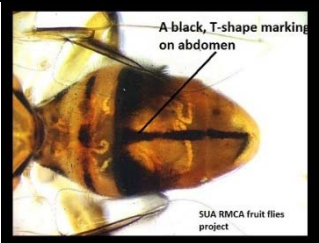





Pest name: - Fruit fly (*Bactrocera invadens*)

 <p>Adult Asian fruit fly (De Meyer et al.)</p>	 <p>Abdomen of adult Asian fruit fly (De Meyer et al.)</p>	 <p>Maggots of Asian fruit fly on rotting fruit (SUA)</p>
<p>Description</p>	<p>The Asian or invasive fruit fly (<i>Bactrocera invadens</i>) is the main insect pest reported on avocado in Kenya. It is a lowland pest predominant below 1600 m asl. The notable effect of this fruit fly on avocado is loss of export value because it is a quarantine pest.</p>	
<p>Diagnosis/Identification</p>	<ul style="list-style-type: none"> • Tiny puncture marks (black spots) on the skin of fruits indicating the points of egg laying. Premature fall of fruits that start to rot also indicates presence of fruit fly. • Adult fruit flies have two wings and a characteristic T-shape along the upper abdomen. • Maggots are usually noticeable upon opening up of rotting fruits. The maggots jump on touch, which is not common feature of maggots of many other flies. 	
<p>Conditions prevailing that contribute to success</p>	<ul style="list-style-type: none"> • Low land areas below 1600 m asl • Presence of alternate hosts 	
<p>Control strategies</p>	<ol style="list-style-type: none"> 1. Bury or burn rotten fruits and fruit residues (after eating) from the following sources to reduce the fly numbers: <ol style="list-style-type: none"> a. those bought from the markets or gifts from friends b. the fallen and unattended fruits in the orchard 2. Use the following traps to monitor the Asian fruit fly presence and also control these flies: <ol style="list-style-type: none"> a. Trap kit (this is usually sold containing the attractant and insecticide) to attract and kill males as well as monitor presence of the pest. Example of the kit is Bactrolure. Place traps 1-1.5 m high following owner guidelines. b. Augmentoria is a trap that can be home prepared by digging a hole or using a container to deposit all fallen and rotting fruits. Then you cover with a mesh of small size. This allows conservation of natural enemies (they escape through the mesh) and reduction of the fruit fly (these are trapped inside). 	

	<p>c. Male annihilation blocks. These are nailed 1-1.5 m high on each tree. They contain the male attractant and insecticide and kill males upon contact.</p> <ol style="list-style-type: none"> 3. Spray <i>B. invadens</i> protein baits (containing killing agent) to attract and kill female flies. The spray may be done on vegetation around the orchard and not the trees. This is to avoid pesticide residues on Avocado 4. Wrap growing fruits with polythene paper/small sized nets to prevent access by the fruit flies. Nets can be used to cover a whole branch, batch of fruits, whole tree, a row of orchard or the whole orchard. 5. Pick ripe and mature-green fruits regularly to reduce infestation levels. 6. Keep harvested fruits in fully covered containers to prevent attack by the fruit flies. 7. Remove any unwanted fruit tree from your farm so as to reduce potential hosts of the fruit fly.
Reference Links	<ol style="list-style-type: none"> 1. <i>Bactrocera invadens</i> factsheet by Kasina M, K Mutambuki & M Mwatawala. IPDN 2. Invasive Fruit Fly Pests in Africa. http://www.africamuseum.be/fruitfly/AfroAsia.htm. Website by Marc De Meyer, Salah Mohamed & Ian M. White 3. <i>Bactrocera invadens</i> (Diptera: Tephritidae). http://www.eppo.int/QUARANTINE/Alert_List/insects/BCTRIN.htm. EPPO
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