



Leafminer on Watermelon

Liriomyza sativae

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<p>Adult leafminer (Source: Lyle J. Buss (UF/IFAS) from: Capinera JL, EENY-255, Dec 2001)</p>	<ul style="list-style-type: none"> • Rotate melon with other non host crops such as maize, legumes, carrots and onions • Mulch the plants to prevent larvae from getting to the soil to pupate • Avoid planting new crop next to a previously affected crop • Plough deep after harvesting crop • Fertilise adequately to ensure plant health with both organic and inorganic fertilisers • Remove weeds as they serve as a reservoir for leafminers 	<ul style="list-style-type: none"> • Additional relevant crops: tomatoes, courgettes, bean, eggplant, pepper, potato, squash • Look out for: <ul style="list-style-type: none"> • Stippled appearance on foliage caused by egg laying female insects • Slender white winding leaf mines (whitish blotches) on the surface of the leaves • Colourless to yellowish green larvae with black mouth • Trap adult flies by placing 3 x 5 inch yellow sticky farms in the farm. • Take action when 5% crop is affected 	<ul style="list-style-type: none"> • Placing of yellow stick traps in the farm to reduce population of adults • Use of Natural enemies- parasitic wasps like <i>Chrysocharis parksi</i> and <i>Diglyphus isaea</i> • Soil drenching with <i>metarhizium</i> 69 to kill pupae in the soil at the rate of 80mls per acre • Physically crushing the larvae once first sign of tunneling is observed • Spraying neem oil at rates of 40mls at 20l of water • Destroy infested plants to ensure field hygiene by burning or burying 	<ul style="list-style-type: none"> • When using a pesticide always wear protective gear. • Follow the instructions on the product label, such as dosage, timing of application, max number of sprays, restricted re-entry interval. • Always consult recent list of registered pesticides (PCPB). • Use insecticides Abamectin (Dynamec, Abalone, Spidermec at 10mls per 20liters of water) at 2-4 weeks after planting. • Spray bifenthrin e.g. Brigade EC at a rate of 20 ml in 20 litres of water. Non-systemic with contact stomach action. Pyrethroid; IRAC 3A. • Drench with imidacloprid e.g. Confidor 010 UL at a rate of 10ml in 20 litres of water. Neonicitinoid; IRAC 4A. Systemic insecticide with translaminar activity and with contact and stomach action. 	<ul style="list-style-type: none"> • Abamectin is not classified by WHO. PHI 3-7 days, MRL 2mg/kg, • WHO class II (Moderately hazardous), PHI 3 days. MRL 1.0 mg/Kg • WHO Class II. MRL 0.5 mg/Kg. Spray early morning or late evening to avoid harming bees.
					
<p>Mines on leaves cause by leaf miner (Source Whitney Cranshaw, Colorado State University, Bugwood.org)</p>					

Kenya

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