



Jassid leafhoppers in cotton

Amrasca spp., *Empoasca spp.*

	<p>Prevention</p> <ul style="list-style-type: none"> Destroy all stalks promptly after harvest to reduce pest populations that are dormant until next season. However, if there are no major insect pests or diseases in your crop, then leave residues to improve the soil, and reduce water loss. Rotate with maize; but not with potatoes. 	<p>Monitoring</p> <ul style="list-style-type: none"> Scout fields once per week to monitor jassid leafhoppers at young plant stages. Search for the jassid leafhoppers near the bases of leaf veins and on the underside of leaves. They can be very small (like aphids) but up to ½ a cm, and jump away when plants are shaken or when they are touched. Affected leaves curl downwards; turn yellowish then brownish before drying and shedding (called “hopper burn”). Green direct control can be done when 8 to 16 jassids and leafhoppers are seen on the majority of plants. Or 1 to 3 jassids or leaf hoppers per leaf on average. Chemical spray can be done only at the time of first appearance of yellowing and curling along margins of leaves but before leaf margins get dry. 	<p>Direct Control</p> <ul style="list-style-type: none"> Management of jassid leafhoppers should be attempted during early crop growth stage to maintain optimum plant stand. Prepare a suspension of 1/2 teaspoon of soap powder in 1 litre water, and spray onto and below leaves to reach all jassid leafhoppers. Spray 5% neem seed kernel oil extract mixed in water, and spray. 	<p>Direct Control</p> <ul style="list-style-type: none"> When using a pesticide (even a botanical home-brew), always wear protective clothing. Follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max. number of sprays, restricted re-entry interval. Do not empty into drains. WHO class II pesticides might not be allowed in local IPM schemes. Always consult recent list of registered pesticides (ZEMA). 	<p>Restrictions</p> <ul style="list-style-type: none"> Both are WHO toxicity class II (moderately acute hazardous); pre-harvest interval 30 days; restricted re-entry interval r.e.i. ½ day, max 2 sprays per season at min 7 day interval. Highly toxic to bees, thus do not spray on flowering cotton, or when weeds in cotton are flowering, and not near bee hives. Moderately acute toxic (WHO class II), Spray maximum of 2 times (once per month); r.e.i 3 days; p.h (Di.i. 30 days; Risk to bees and fish. Do not contaminate ditches and other water sources.
				<ul style="list-style-type: none"> Imidacloprid – based pesticides (AmigoPT, NgwenyaT450FS, and others) applied at 0.4 to 10 ml/litre depending on the product, but double check label. Neonicotinoid group of pesticide. Thiamethoxam –based pesticides (Renova, and others); usually applied at 0.3 to 1.5 gram/litre depending on product; but double check label. Neonicotinoid group of pesticide. Spray dimethoate – based products (Dimethoate40EC, and others). Contact and systemic organophosphate group of pesticide. 	



Zambia

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