

**F.No 3-6/2022-23/IPM/Advisory**

भारतसरकार/ Government of India

कृषि एवं किसान कल्याण मंत्रालय / Ministry of Agriculture & Farmers Welfare

कृषि एवं किसान कल्याण विभाग / Department of Agriculture & Farmers Welfare

वनस्पति संरक्षण, संगरोध एवं संग्रहनिदेशालय / Directorate of Plant Protection, Quarantine & Storage

एनएच4, फरीदाबाद(हरियाणा) – 121 001/NH-IV, Faridabad (Haryana) – 121 001

Dated: 06.10.2022

To

The Director of Agriculture
Maharashtra**Sub: Advisory on management of Cucumber Mosaic Virus in Banana crop -reg.**

Sir,

This is to bring into your kind notice that the incidence of Cucumber Mosaic Virus (CMV) has reported in the range of 50-60% from various parts of banana growing areas of Maharashtra state. Cucumber Mosaic virus (CMV) is spread either through transplanting material such as root suckers or secondary transmission may take place via vectors such as aphids. Incidences of increase in population of aphids have been observed during the survey in banana growing areas. The infection is favored by specific weather conditions such as frequent rainfalls especially during the late and post monsoon season. Keeping in view the current crop stage and prevailing weather conditions population of these aphids are expected to increase. Therefore, banana crop should be monitored regularly for pest build up and adopt Integrated Pest Management techniques. Agro Ecosystem Analysis (AESA) based IPM Package of practices of banana are available at DPPQ&S website in the link <http://ppqs.gov.in/ipm-packages>. As there is no direct control of CMV, therefore control and management of aphids is the only way to decrease the crop loss. The Important IPM practices for management of aphids are listed below:

- Regular surveillance on host crops including alternate hosts such as brinjal, cucurbits, cucumbers, long melon, Pumpkin, tomato, chilli, okra should be carried out for timely management of aphids.
- Grow flowering plants on the internal bunds inside the field
- Farmers may use disease free and healthy planting material and assured from the concerned planting material supplier that all the planting material are CMV disease free.
- Farmers may follow crop rotation to avoid the occurrence / incidence of CMV.
- Farmers may follow the planting timings as recommended by SAU to escape the incidence of disease.
- Farmers must be educated to identify, conserve and augment the natural enemies available in the banana fields parasitoides/predators like Spiders, Lady Bird beetle, green lacewing, predatory mites, *Bracon hebetor*, *Trichogramma sp.* and Hover fly.
- Set up yellow water pan/sticky traps for monitoring aphid @ 4-5 traps/acre at the height of mid canopy.
- Grow Marigold, Sunflower, Mustard, cowpea to attract the predators viz., *Coccinellids* such as *Scymnus*, *Chilomenes sexmaculatus*, and lacewings such as *Chrysoperla zastrowi sillemi*, predatory mantids, ladybird beetles and parasitic wasps.
- Remove infected plants from fields and destroy them by burning or digging deep inside soil.
- Pesticides must be used as per label claim approved by the Registration Committee. Detailed information is available on Directorate's website in the link <http://ppqs.gov.in/divisions/cib->

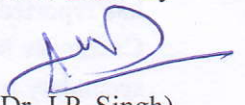
rc/major-uses-of-pesticides. A list of recommended pesticides for aphids in Banana is attached at annexure-I

Further the following strategies should be adopted for spreading awareness among farmers:

- Mobilization of extension functionaries at grass route level for regular monitoring of pests status.
- Awareness among farming community through newspapers, printing and electronic media, Kisan Gosthi, leaflet and pamphlets.
- The concerned officials at the district/ division/ block level may be advised to take the suitable plant protection measures immediately

The detailed information on pests' incidence may also be sent to the directorate through email ppa@nic.in or appa.ipm-dppqs@gov.in urgently to apprise the same to Department of Agriculture & Farmers' Welfare.

Yours faithfully



(Dr. J.P. Singh)

Plant Protection Adviser

Encl: as above

Copy for information:

1. PPS to Joint Secretary(PP), DA & FW, Krishi Bhawan, New Delhi- 110001
2. The Director of Agriculture of other Banana growing states with the request to keep close watch on pest build up & take appropriate measures as indicated above
3. PPS to PPA for information
4. Officer In-charges, all CIPMCs of banana growing states with a direction to conduct regular survey in their areas to ascertain the pest incidence level and necessary follow-up with the state authorities.

Approved Pesticides for control of Aphids in banana

Chemical	Pest	Dosage/ha			Waiting period (Days)
		a.i (gm) Formulation (gm/ml) Dilution in Water (Liter)	a.i (gm) Formulation (gm/ml) Dilution in Water (Liter)	a.i (gm) Formulation (gm/ml) Dilution in Water (Liter)	
Carbofuran 03 % CG	Aphids	50 g/ suckers 166 g/sucker	50 g/ suckers 166 g/sucker	-	-
Dimethoate 30 % EC	Aphids	0.03%	1485- 1980	1500 – 2000	At 3 months old
Oxydemeton-methyl 25 % EC	Aphids	0.05%	3000-4000	1500- 2000	-