

UNION TERRITORY OF JAMMU AND KASHMIR
JOINT DIRECTORATE OF AGRICULTURE (EXTENSION); JAMMU
(Tele/Fax: 0191-2554609, Email: jdaext@gmail.com)

To

The Director of Agriculture,
Jammu

No: JDAE/Dev./2020-21/ 2618

Dated: 26 .12. 2020

Sub: Advisory on Insect/Pest/Disease management in differ field crops

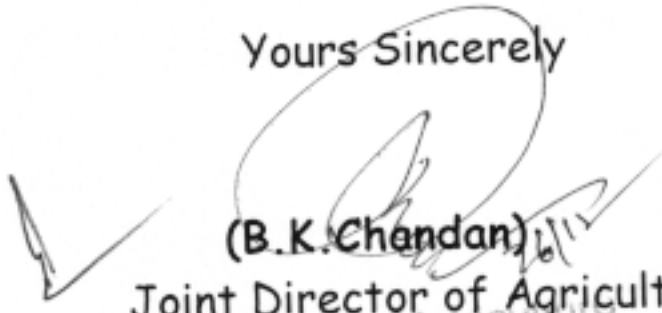
Sir,

Kindly find enclosed herewith the Advisory on the Control/Management of different insects/ pests and various diseases in field crops for the uploading the same on the Web Portal.

Your good self is requested to upload the information on the Web portal.

Encl: 03 *leaves*

Yours Sincerely


(B.K. Chandan)
Joint Director of Agriculture
(Extension), Jammu

UT of Jammu and Kashmir
Directorate of Agriculture Production and Farmer's Welfare, Talab Tillo, Jammu
ADVISORY

Fall Army Worm

FAW can affect nearly fifty crops, so it is quite imperative to take necessary measures to avoid production losses to field crop.

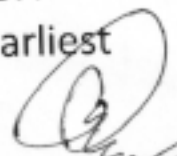
Managements measures recommended are as under:-

Cultural Methods

- Deep plough the fields to expose pupae to sun light and predatory birds
- Keep the bunds clean and grow flowering plants such as marigold, sesame, sunflower, coriander, fennel etc. to attract natural enemies.
- Follow ridge and furrow planting method instead of flat bed sowing
- Timely and uniform sowing over larger area
- Apply only the recommended dosage of NPK as basal dose
- Encourage cultivation of maize hybrids with tight husk cover to reduce ear damage by FAW
- Follow intercropping of maize with suitable pulse crops.
- Intercrop maize with legumes, viz., pigeon pea, cowpea, black gram, kidney bean etc. in 2:1 to 4:1 ratio
- Erect bird perches @10/acre to encourage natural FAW predation by birds
- Install 1-2 Solar trap /acre

Biological and Chemical Methods


- **Treat Seed** with Cyantraniliprole 19.8% + Thiamethoxam 19.8% FS @ 6 ml/kg seed.
- Collect and destroy egg mass and young larvae present in field.
- Application of dry sand in to the whorl of affected maize/ other crop plants soon after observation of FAW incidence in the field.
- Install pheromone traps @ 15/acre.
- Release egg parasitoids viz., *Telenomus remus* @4000/acre or *Trichogramma pretiosum* @ 16,000/acre at weekly intervals.
- Entomopathogenic fungi such as *Metarhizium anisopliae*, *Nomuraea rileyi*, *Beauveria bassiana* and *Verticillium lecani* may be extensively used.
- Application of Sand + lime in 9:1 ration in whorls in first thirty days of sowing.
- Spray 5% Neem Seed Kernel Extract (NSKE) or Azadiractin, 1500 ppm (1 litre/acre) @ 5ml /litre after observation of one moth/trap/day or 5% FAW infestation on trap crop or main crop
- **In case of 5-10% infestation**, whorl application of *Bacillus thuringiensis* v. *Kurstaki* formulations @ 2g/litre or *Metarhizium anisopliae* or *Beauveria bassiana* with spore count of 1×10^8 cfu/g (1 kg/acre) @ 5g/litre or SfNPV (600 ml/acre)@3ml/litre or entomopathogenic nematode (EPN) (4kg/acre) @20g/litre of water is recommended
- **If it is more than 10%**, whorl application of any one of the recommended insecticides for FAW, viz.,
 1. Chlorantraniliprole 18.5 SC (80 ml/acre) @ 0.4 ml/litre of water.
 2. Thiamethoxam 12.6 % + Lambda cyhalothrin 9.5% ZC (50ml/acre) @ 0.25 ml/litre of water
 3. Spinetoram 11.7 % SC (100ml/acre) @ 0.5 ml/litre of water.
 4. Emamectin benzoate 5% SG (80g/acre) @ 0.4g/litre of water.
- The focus may be given to suppress, contain and eradicate the pest at the earliest


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(Extn.) Jammu

Union Territory Government of Jammu and Kashmir
Department of Agriculture Production and Farmer's Welfare
Krishi Bhawan, Talab Tillo, Jammu

ADVISORY (Rabi 2020)

S.No	Crop	Disease & Pest	Advisory
1	Wheat	Loose smut	<ol style="list-style-type: none"> 1. Use resistant Varieties 2. Remove and destroy diseased crop debris and maintain field sanitation. 3. Follow crop rotation 4. Seed treatment with Carbendazim 50% WP @ 2 g/ Kg seeds or Carboxin 75% WP @ 2 -2.5 g/Kg seeds or Tebuconazole 2% DS @ 2gm/Kg seed or Carboxin 37.5% + Thiram 37.5% DS @ 3.0 g/Kg.
		Flag smut	Same in case of loose smut
		Bunts	Carboxin 75% WP @ 2 -2.5 g/Kg seeds
		Nematode	Carbofuran 3% CG @ 1.25kg/Kanal
		Termite	<ol style="list-style-type: none"> 1. Deep ploughing 3 times at 10 days interval. 2. Apply only well rotten farm yard manure. 3. Use Chlorpyrifos 20% EC@ 3 – 4 ml/Kg for seed treatment.
2	Barley	Loose smut/seed borne infection	Same in case of wheat
3	Oats	Loose smut	Same in case of wheat.
4	Mustard	Alternaria blight/ White rust/ Downy Mildew	<ol style="list-style-type: none"> 1. Use resistant varieties. 2. Treat the seed with copper oxychloride @ 3gm/kg of seed or Metalaxyl MZ 72% WP or Captan 50 % WP @ 2-3 gm/kg of seed.
5	Pulses	Seed Rot/ Fusarium wilt/ Aschochyta blight	<ol style="list-style-type: none"> 3. Use resistant varieties. 1. Remove and destroy diseased crop debris 2. Seed treatment with Azoxystrobin @ 1.5 gm /kg of seed or Carbendazim 50 % WP @ 2 gm/ kg of seed.
6	Berseem	Stem Rot	Seed treatment with Metalaxyl 8 % + mancozeb 64% WP@ 2g/kg of seed or Carbendazim 50 %WP @ 2.5g/kg of seed or Thiophenate methyl @2g/kg of seed.
		Termite	Same as in wheat.
7	Cole Crops	Damping off/ Wire Stem/ Black Leg	<ol style="list-style-type: none"> 1. Use healthy and certified seed only. 2. Treat seeds with Metalaxyl 35% WS or Carbendazim 50 % WP @ 2gm/kg seed or Carbendazim 12% + Mancozeb 63% WP@ 2 gm/kg seed or Mancozeb 75 % WP @ 2 gm/kg seed followed by <i>trichogramma spp.</i> @ 4g/kg seed.
8	Bulb crops	<i>Stemphylium</i> Blight/Downy Mildew	<ol style="list-style-type: none"> 1. Use resistant cultivars 2. Dip the seedling/cloves in Metalaxyl MZ 72 % WP 2.5 gm/kg seed.
9	Root Crops	Damping off/ Wire Stem	<ol style="list-style-type: none"> 1. Healthy and certified seed should be used . 2. Treat seeds with Metalaxyl 35% WS or Carbendazim @ 2gm/kg seed or Carbendazim 12% + Mancozeb 63% WP @ 2 gm/kg seed or Mancozeb 75 % WP @ 2 gm/kg seed followed by <i>trichogramma spp.</i> @ 4g/kg seed


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Advisory
Weed Management (Rabi-2020)

S.No.	Crop	Type of weed	Time of application	Chemical	Remarks
1	Wheat	Narrow leaf weeds	Post Emergence	Clodinafop-propargyl 15% WP @ 160 g/acre or Sulfosulfuron 75% WG 13g/acre or Fenoxaprop-p-ethyl 10% EC@ 400ml/acre in 200-240 litres of water.	After 35-40 days of sowing
		Broad leaf weeds	Post Emergence	Carfentrazone ethyl 40% DF@ 20g/acre or Metsulfuron Methyl 20% WP @ 8g/acre or Metsulfuron 20% + carfentrazone ethyl 40% DF@ 20g/acre or 2,4-D amine salt 58%SL @400 ml / acre or 2,4-D ethyl ester 38% EC 500 ml/acre in 200-240 litres of water.	After 30-35 days of sowing
		Both Narrow & Broad leaf weeds	Post Emergence	Sulfosulfuron 75% + Metsulfuron 5% WG @ 16g/acre in 200-240 litres of water.	After 25-35 days of sowing
2	Oilseeds	All	Pre Emergence	Pendimethalin 30 %EC @ 1.25-1.5 lt / acre or Oxyfluorfen 23.5%EC @ 80- 100 ml/acre in 200-240 litres of water.	The herbicide should be sprayed on the soil surface within 24 hrs of sowing of the crop.
3	Pulses	All	Pre Emergence	Pendimethalin 30 %EC @ 1.25-1.5 lt / acre integrated with one hand weeding after 60 DAS.	
			Post Emergence	Imagethapyr 10% SL@ 300ml/acre	After 45 days of sowing.

Note:- In case resistance development for any weedicide alternative chemical may be recommended.


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