ICAR-Central Institute for Cotton Research (CICR), Nagpur

Cotton Seasonal Report Series (September 2021)

Cotton pest status and advisory for October/November

Prevailing situation in Central India with special reference to Maharashtra (till September end)

Pink bollworm: Negligible infestation of pink bollworm was recorded in green bolls in Vidarbha (Nagpur, Wardha, Yavatmal Amravati, Akola), Marathwada (Nanded, Prabhani, Jalna) and Khandesh (Jalgaon), Western Maharashtra (Ahmednagar), Gujarat (Bharuch & Junagadh) and Madya Pradesh (Khandwa)

Jassid: Overall, infestation of jassid was recorded above Economic Threshold Level (ETL) (2 or more jassid per leaf) in some of the districts like Akola, Buldana, Junagadh and Khandwa while below ETL in Nagpur, Wardha, Yavatmal, Amravati, Amravati, Chandrapur, Nanded, Parbhani, Jalna, Jalgaon and Ahmednagar.

Thrips: Thrips population was above ETL in some of the places especially in Bharuch and some locations in Maharashtra (Wardha, Nagpur etc) during August. Thrips incidence below ETL in most of the places during September.

Whitefly: Overall whitefly population was below ETL in majority of the area.

Likely pest situation during October – November

Pink Bollworm

Mid -October onwards pink bollworm is likely to cross ETL in some of the places. Farmers are advised to install pheromone traps @ 2 per acre and monitor trap catches and also boll sampling @ 20 green bolls per acre. On crossing ETL (more than 8 moths / trap per night for 3 consecutive nights or more than 10 % infested bolls with live larvae) action may be initiated.

Jassid

Jassid may show its presence till second fortnight of October. Wherever jassid crosses ETL (2 nymphs per leaf or 25% plants showing infestation curly leaves) farmers may take up sprays.

Whitefly

On judicious use of recommended insecticides, whitefly population may remain below ETL (6 whitefly per leaf) however, with use of insecticides mixtures containing synthetic pyrethroid, whitefly population may cross ETL in some of the places.

Pest Management Advisory

Pests	Pests management advisory	Dose per 10 L water	Dose per acre, 200L water
Pink bollworm	**October**		
	Release parasitoid *Trichogramma bactrae* **Or**	-	60000/acre (3 egg cards)
	Spray Profenofos 50 EC **Or**	30ml	600ml
	Indoxacarb 14.5 SC **Or**	5ml	100ml
	Emamectin benzoate 5SG	5g	100g
	November		
	Spray Fenvalerate 20 EC **Or**	10 ml	200ml
	Cypermethrin 10 EC **or**	10 ml	200ml
	Lambda cyhalothrin 5EC	10 ml	200ml
Jassid	Spray Dinotefuran 20SG	3g	60g
	Flonicamid 50 WG @ /10 **Or**	4g	80g
	Imidacloprid 17.8SL **Or**	3ml	60ml
	Diafenthiuron 50%WP	12g	240g
Whitefly	Spray Dinotefuran 20SG	3g	60g
	Spiromesifen 22.9 EC **Or**	12ml	240ml
	Pyriproxyfen 10EC **Or**	20 ml	400ml
	Diafenthiuron 50%WP	12g	240g

Note: Maintain active ingredient dose prescribed per acre when power sprayer is used.

Cotton disease status and advisory for October/November

Prevailing situation with special reference to Maharashtra (till September end)

Corynespora/ Target leaf spot: Minor to moderate incidence of Corynespora/ Target leaf spot was noticed in the lower canopy and mid-matured age leaves

Internal boll rot: Minor to moderate incidence of internal boll rot of first formed green bolls were noticed during mid-August to September in early sown cotton in Vidarbha, Marathwada, North Maharashtra regions and Madhya Pradesh. Frequent rain splashes, high humidity, sucking pest infestation (Thrips & Jassids) during flowering and early boll development stages were predisposing factors.

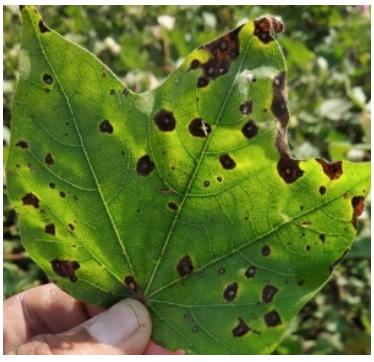
External fungal boll rot: Infection of phytopathogenic and saprophytic fungi on the surface of green bolls was noticed especially at middle-aged green bolls to mature bolls, mostly in the early sown cotton due to waterlogging in the fields, frequent rains, cloudy and warm conditions, high relative humidity in Vidarbha (Nagpur, Wardha, Yavatmal, Amravati, Akola), Marathwada (Nanded, Parbhani, Jalna) and Khandesh (Dhule, Jalgaon), Western Maharashtra (Ahmednagar), Gujarat (Bharuch & Junagadh) and Madya Pradesh (Khandwa).

Bacterial leaf blight/Black arm/Angular leaf spot: Negligible to minor incidence of bacterial blight was noticed in Vidarbha, Marathwada, North Maharashtra, western Maharashtra regions and Madhya Pradesh. Minor to moderate incidence of bacterial leaf blight reported in cotton growing belts of Gujarat (Bharuch & Junagadh). Frequent rain splashes, high relative humidity and warm weather were conducive for disease development.

Tobacco streak virus: Negligible to minor incidence of tobacco streak virus was noticed in in Vidarbha

Likely disease situation during October – November

Target leaf spot



October onwards Corynespora leaf spot is likely to increase incidence from lower canopy to upper canopy and infection on leaves, square, bracts and bolls in some cotton belts. Prophylactic spray in initial stage with Propineb 70 WP@25-30 g in 10 litres of water. Later, in case of higher incidence sprays of Carbendazim 50 WP@ 10 g or Propiconazole 25 EC @10 ml or (Pyraclostrobin 5% + Metiram 55% WG) @20 g or (azoxystrobin 18.2% w/w + difenoconazole 11.4% w/w SC) @ 10 ml or (fluxapyroxad 167 g/l + pyraclostrobin 333 g/l SC) @ 6 g in 10 litres water.

External Fungal Boll rot

Rain splashes, water logging conditions, high relative humidity and cloudy weather gave scope of initiation and development of external fungal boll rot. October onwards fungal spots are observed on developing bolls. Boll rot incidence is likely to increase due to warm weather, dense canopy and high relative humidity.

Internal Boll rot

Prevalence of rainy and windy conditions, sucking pest infestation (jassids, stink bugs, red cotton bugs) during flowering and early boll development stages pre-dispose internal boll rot of green bolls. Disease incidence may aggravate under such conditions. Farmers are advised to take up prophylactic sprays of Copper oxychloride 50 WP @25 g+ [Streptomycin sulphate IP 90% w/w+ Tetracycline hydrochloride IP 10% w/w] @1 g in 10 litres of water.

Grey Mildew

High relative humidity and lower air temperatures during October-November predispose disease incidence of grey mildew or areolate mildew incidence on *G. hirsutum* and *G. arboreum*. Farmers are advised to initiate sprays early on appearance of symptoms.

Disease Management Advisory

Disease	Disease Management Advisory (Spray)	Dose per 10 L water	Dose per acre, 200 L water
Corynespora/ Target leaf spot	Propineb 70 WP (initial stages)	25 g	500 g
	Carbendazim 50 % WP **Or**	10 g	200 g
	Propiconazole 25 % EC **Or**	10 ml	200 ml

Disease	Disease Management Advisory (Spray)	Dose per 10 L water	Dose per acre, 200 L water
	(Pyraclostrobin 5% + Metiram 55% WG) **Or**	20 g	400 g
	Azoxystrobin 18.2% w/w + difenoconazole 11.4% w/w SC **Or**	10 ml	200 ml
	Fluxapyroxad 167 g/l + pyraclostrobin 333 g/l SC **Or**	6 g	120 g
	Kresoxim-methyl 44.3% SC	10 ml	200 ml
External fungal boll rot	Propineb 70 WP (initial stages)	25 g	500 g
	Carbendazim 50 % WP **Or**	10 g	200 g
	Propiconazole 25 % EC **Or**	10 ml	200 ml
	Pyraclostrobin 5% + Metiram 55% WG **Or**	20 g	400 g
	Azoxystrobin 18.2% w/w + difenoconazole 11.4% w/w SC **Or**	10 ml	200 ml
	Fluxapyroxad 167 g/l + pyraclostrobin 333 g/l SC **Or**	6 g	120 g
	Kresoxim-methyl 44.3% SC	10 ml	200 ml
Internal boll rot	Prophylactic spray of Copper oxychloride 50 WP + Streptocycline	25 g+1 g	500 g+20 g
	Monitor infestation of green stink bugs/brown bugs/red cotton bugs incidence for their management with insecticide (Fluvalinate in case of high incidence)		
Grey mildew or Areolate Mildew	Azoxystrobin 18.2% w/w + difenoconazole 11.4% w/w SC) **Or**	10 ml	200 ml
	Kresoxim-methyl 44.3% SC	10 ml	200 ml

General precautions

1. Standard operating procedure including use of personal protective / safety equipment while applying pesticides and dispensing used pesticide bottles / empty cartons may be followed.
2. ICAR-CICR does not endorse tank mixing of insecticides/fungicides alone (other than those prescribed in the advisory) or insecticides with fungicides or growth regulators or bio-stimulants or foliar nutrients.
3. Pick and store clean *Kapas* from infested cotton bolls separately. Do not mix them.