

ICAR-Central Institute for Cotton Research, Nagpur

Report on monitoring of pests and diseases of cotton in Kalamb, Yavatmal and Babhulgaon talukas of Yavatmal districts of Maharashtra on 09th September 2022

Summary of Report

- The field visit was conducted jointly by a team of 3 Scientists, one Research Associate and one SRF from ICAR-CICR Nagpur and 16 Agriculture Department Officials, Yavatmal to know the pest and disease situation in 3 talukas of Yavatmal district.
- In total 8 fields from 3 talukas namely Yavatmal, Kalamb, Babhulgaon of Yavatmal district were visited.
- Cotton crop was about 75 days old in the squaring, flowering and boll development stage. Cotton crop growth in fields with proper drainage was satisfactory while due to prolong wet spell wherever water stagnated, stunted growth especially in low lying area of the field was observed.
- Farmers applied 1-2 sprays of insecticides against sucking pests and bollworms.
- None of the fields showed the presence of rosette flowers.
- Due to rain splashes most of the fields showed leaf blight symptoms on the lower canopy of the crop.
- Collected green boll samples from the visited fields indicated Nil pink bollworm infestation while boll rot incidence was varying from 0-15%.
- The team members interacted with about 25 farmers and suggested insecticides and fungicides to be used in the current season.

Report in Detail

The field visit was conducted jointly by a team of 3 Scientists, one Research Associate and one SRF from ICAR-CICR Nagpur and 16 Agriculture Department Officials, Yavatmal to monitor pests and diseases of Cotton in 3 talukas namely Kalamb, Yavatmal and Babhulgaon of Yavatmal districts of Maharashtra on 09th September 2022.

Team of ICAR-CICR Nagpur

1. Dr. V. S. Nagrare, Principal Scientist (Agricultural Entomology), ICAR-CICR, Nagpur.
2. Dr. Shailesh Gawande, Senior Scientist (Plant Pathology), ICAR-CICR, Nagpur.
3. Dr. Dipak Nagrale, Senior Scientist (Plant Pathology), ICAR-CICR, Nagpur
4. Dr. Akash P. Nikoshe, Research Associate (CROPSAP), ICAR-CICR, Nagpur.
5. Mr. Prabodh Pate, Senior Research Fellow (SRF) (IRM-PBW), ICAR-CICR, Nagpur.

Agriculture Department officials

1. Shri N. M. Kolapkar, District Superintending Agriculture Officer, Yavatmal.
2. Shri Anil Rathi, Agriculture Officer, District Yavatmal
3. Shri R. P. Phalke, Taluka Agriculture Officer, District Yavatmal
4. Shri S. S. Bhagat, Taluka Agriculture Officer, Kalamb. District Yavatmal
5. Shri S. S. Gawande, Taluka Agriculture Officer, Babhulgaon. District Yavatmal
6. Shri Mayur Gofane Agriculture Superviosr, Kalamb, District Yavatmal

7. Shri Suresh Aglawe, Agriculture Assistant, Kalamb, District Yavatmal
8. Shri P. M. Chandanshive, Agriculture Assistant, Kalamb, District Yavatmal
9. Shri Shyam Kalpewar, Agriculture Assistant, Kalamb, District Yavatmal
10. Shri H. P. Deogaole, Agriculture Assistant, Kalamb, District Yavatmal
11. Shri A. P. Jaiswal, Agriculture Assistant, Madkona, District Yavatmal
12. Shri S. Y. Mune, Agriculture Assistant, Yavatmal, District Yavatmal
13. Shri M. S. Mohod, Agriculture Assistant, Bhusa, District Yavatmal
14. Smt. A. B. Kali, Agriculture Assistant, Gadwa, Bbhulgaon, District Yavatmal.
15. Shri P. K. Datarkar, Agriculture Assistant, District Yavatmal.
16. Shri S. C. Patil, Agriculture Assistant, Naigaon, Ner, District Yavatmal.

Route followed: Nagpur- Kalamb - Bahulgaon - Yavatmal - Nagpur

The joint team visited in total 8 fields from these 3 talukas. The cotton crop was about 75 days old in the squaring, flowering and boll development stage. Cotton crop growth in fields with proper drainage was satisfactory while wherever water stagnated, showed stunted growth, especially in low lying areas of the field. Farmers applied 1-2 sprays of insecticides against sucking pests and bollworms prominently mixture of Monocrotophos and Acephate. Some fields were infested with jassid about grade II.

The presence of rosette flowers was not seen in any of the visited fields. Collected green boll samples from these 8 fields and brought to the laboratory. The samples indicated Nil pink bollworm infestation while boll rot incidence was varying from 0-15% (Table 1). The team members interacted with about 25 farmers and advised not to use cocktails and use recommended insecticides like Neem oil/ Neem Seed Kernel extract, Flonicamid or Dinotefuran/ Imidacloprid/ Thiomethaxam/Spinetoram against sucking pests while, Profenophos, Chlorpyrifos, Quinalphos, Emamectin benzoate etc. against pink bollworm.

For boll rot disease management, it was suggested to avoid excessive use of nitrogenous fertilizers and also Prophylactic sprays of Copper oxychloride 50 WP/WG @25 g followed by spray of Propiconazole 25% EC @10 ml or propineb 70 WP@25-30 g after 7 days in 10 litres of water during early boll developmental stages for the management of bacterial internal boll rot, if persistence cloudy weather, high relative humidity, flash and drizzle rain occurred during squaring, flowering and boll development stages (especially during 60-90 days and as per weather condition).

In two fields, spraying was in operation but without any protective gear by farm labourers. Sensitization is required by the state agriculture department to prevent pesticide poisoning cases.

Due to rain splashes most of the fields showed leaf blight symptoms on the lower canopy of the crop.

Visited Mangalam Ginning industry, Malkapur, Taluka Kalamb, found about 50 gunny bags filled with last picked cotton. Pheromone traps were installed in the premises of ginning factory but there were no moth catches of pink bollworm.

Table 1. Pest and diseases monitoring location details

Sr. No.	District	Taluka	Village	Coordinates		Crop condition	% flower infestation	Green boll sampled	Green bolls Infested by Pink Bollworm	% green boll infestation	Boll rot infected bolls	% boll rot infection
1.	Yavatmal	Kalamb	Kamathwada	20.33	77.95	Satisfactory	No rosette	20	0	0	0	0
2.		Yavatmal	Madkona	20.40	78.20	Satisfactory, herbicide drifting at border	No rosette	19	0	0	0	0
3.		Kalamb	Kalamb Khand 2	19.84	78.03	Satisfactory	No rosette	30	0	0	2	6.66
4.		Kalamb	Naigaon	20.20	77.82	Satisfactory	No rosette	20	0	0	3	15
5.		Babhulgaon	Bagapur	20.77	78.03	Gaps due to water stagnation	No rosette	15	0	0	2	13.00
6.		Kalamb	Ashti	20.48	78.26	Bacterial leaf blight infected	No rosette	20	0	0	1	5.00
7.		Kalamb	Kalamb	18.57	76.01	Jassid infestation	No rosette	30	0	0	3	10.0
8.		Babhulgaon	Wai			Weedicide affected	No rosette	-	-	-	-	-

Field visit photographs

