



Central Coffee Research Institute
Coffee Research Station (PO) – 577 117

Advisory on pre-monsoon plant protection in coffee plantations

The pre-monsoon plant protection measures are very crucial in coffee because depending on the weather conditions that are likely to prevail during monsoon, flare up of certain coffee specific diseases & pests do occur causing substantial crop losses. Therefore, by anticipating the likely flare up of some diseases & pests, it is inevitable to follow pre-emptive control measures to keep such diseases under control thereby minimizing the crop losses.

Of late, in addition to the routine problem of coffee leaf rust, the rot diseases like black rot, stalk rot & fruit rot are posing threat and the flare-ups of these diseases depend on favorable factors. Generally, high humid conditions due to heavy rains during South-West Monsoon period from June to September, hanging mist and areas endemic to these diseases with existing inoculum are the major pre-disposing factors for flare up of these diseases.

In addition, during the current year, majority of the coffee growing areas received unprecedented rains during January and February leading to multiple blossoms and subsequent uneven berry development. Further, because of unseasonal rains during harvesting period and delayed harvest of crop, substantial fruit drop was noticed during previous crop season. Therefore, in all probability, in the estates where collection of gleanings was not attended properly, the flare up of berry borer may also pose problem during the current season. The early growth & development of berries (from 1st round of blossom in January) provides ideal conditions for Coffee Berry Borer (CBB) infestation, once the bean hardening takes place.

Therefore, the following plant protection measures are recommended to take up before the monsoon intensifies. Keeping in view the constraints due to current Covid 19 lock down especially the scarcity of plantation labour, integrated crop protection measures are suggested wherever relevant.

I. Arabica:

Scenario 1: Targeting the Coffee leaf rust (CLR) and Coffee berry borer – CBB (if uneven berry development is noticed)

In certain plantations where uneven berry growth & development is seen with some enlarged berries, the berry borer adults are noticed at naval regions. In such situations, it is recommended to spray Hexaconazole 5% EC @ 400 ml and Chloropyrifos 20 EC @ 600 ml/200 lit. barrel along with 200 ml of wetting agent (WA) to target both leaf rust and CBB.

Scenario 2: Targeting the Coffee Leaf rust and rot diseases

In areas where the uneven berry development is not seen and usually endemic for rot diseases, it is advisable to spray 1% Bordeaux mixture instead of 0.5% Bordeaux mixture which is normally recommended for control of leaf rust. Spray of 1% Bordeaux mixture takes care of both leaf rust as well as monsoon rots.

Contd.....2

Scenario 3: Targeting Coffee leaf rust, rot diseases and Coffee berry borer

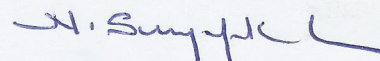
In the plantations where leaf rust and CBB infestations are noticed and also prone for monsoon rot disease, it is advised to spray combination of Pyraclostrobin+epoxiconazole (Opera) @ 200 ml and Chlorpyrifos 20 EC @ 600 ml/ 200 lit. barrel along with 200 ml of any wetting agent. In the preliminary trials conducted at CCRI, the Pyraclostrobin+epoxiconazole combination is found effective against leaf rust and also monsoon rot diseases.

II. Robusta:**Scenario 1: Targeting the Coffee berry borer**

In case, uneven berry development and berry borer incidence is noticed in Robusta plantations, it is suggested to take up the spot sprays with Chlorpyrifos 20 EC @ 600 ml/200 lit water along with 200ml of wetting agent. If the spot sprays are not practical, it is advised to install broca traps @ 25/hectare in the field before the bean hardening in enlarged berries. Usually, installation of broca traps in the field is recommended after the cessation of rains. But, due to unseasonal rains received during previous summer season, early installation of traps would help in trapping of the emerging adult beetles.

Scenario 2: Targeting the stalk rot and Coffee berry borer

In the plantations that were affected with monsoon rots, especially stalk rot during last season, the fungal inoculums exists in dormant stage in the field and disease flare-ups are seen once monsoon intensifies, leading to crop losses. Therefore, it is recommended to go for spot sprays with combination of Pyraclostrobin+epoxiconazole (Opera) @ 200 ml and Chlorpyrifos 20 EC @ 600 ml/ 200 lit. barrel along with 200ml of any wetting agent as a pre-emptive measure for control of both monsoon rot diseases and coffee berry borer.


Director of Research