

Sigatoka (Yellow) Leaf Spot (*Latek Kan*)

The earliest symptom is a light green, narrow speck about 1mm in length on the upper surface of the leaf. The speck increases in size, becoming a streak several millimeters long and about 1mm or less in width which is parallel to the leaf veins.



Symptom of Sigatoka (yellow) Leaf Spot

Panama Disease

A lethal fungal disease caused by the soil-borne fungus *Fusarium oxysporum* f. sp. *cubense* (Foc). The fungus enters the plant through the roots and colonizes the xylem vessels thereby blocking the flow of water and nutrients. Disease progression results in the collapse of leaves at the petiole, the splitting of the pseudostem base and eventually plant death.



The fusarium wilt or panama disease symptoms on banana

Banana bunchy top virus (BBTV)

One of the most serious virus diseases of banana. This is transmitted locally in a persistent, circulative manner by the banana aphid (*Pentalonia nigronervosa* Coq.). Symptoms include: plants have a rosette appearance with narrow, upright and progressively shorter leaves giving rise to the

common name "bunchy top"; stunted plant; stiff and brittle leaves; leaf edges often roll upwards and show marginal yellowing; dark green streaks are often found on midrib and petiole, extending down into the pseudostem.



Banana infected with Banana Bunchy Top Virus (BBTV) showing advance symptoms.

Anthracnose (*Lungtot (Ilok)*

Latent anthracnose on the development of disease on ripe bananas occur as peel blemishes, as black or brown, sunken or depressed spots that enlarge and eventually merge to various sizes on fruits that may bear masses of salmon-colored acervuli under conditions of high humidity. Spots may have triangular-shaped or angular edges.

References:

Asuncion L. Nagpala et.al. 2016. Diseases and Insect Pests of Banana grown in the Cordillera.

Ethan C. Kane & Ronald Ochoa. 2006. Detection & Identification of the Red Palm Mite *Raoiella indica* Hirst (Acari: Tenuipalpidae). Retrieved from www.researchgate.net/publication/237321517_Detection_Identification_of_the_Red_Palm_Mite_Raoiella_indica_Hirst_Acari_Tenuipalpidae

Lorna E. Herradura et.al. 2013. Banana production guide Production guide for Lanzones. Retrieved from bpi.da.gov.ph/bpi/images/Production_guide/pdf/

For more information, you may contact:

Department of Agriculture-Regional Field Office
Cordillera Administrative Region (DA-RFO CAR)
Regional Crop Protection Management Center (RCPMC)
BPI Compound, Guisad, Baguio City
Telefax: (074) 300-1550
Email : bombyxmori.car@gmail.com



Pests and Diseases Associated with BANANA



Introduction:

Banana is an important crop in the Philippines providing fruit for both local consumption and export. It is also considered as a 'tree of life' since it has several uses in food, industry, medicine, and decorative purposes. However, due to the presence of pests and diseases, production is affected.

Pests of Banana:

Banana Aphids (*Kuto* (Kan).

Greatest potential damage of this insect is due to transmission of Bunchy Top Virus. Because of this, the aphid is regarded as a serious pest.

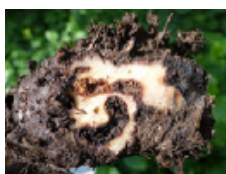


Banana Aphid

Damage symptom of Banana Aphid.

Banana corm weevil (*Bukbuk* (Kan.)

Both larva and adult are destructive. They feed in the tissues of the corm and the lower pseudostem. Presence of dark colored tunnels in the corm and lower pseudostem, withering of outer leaves, and stunted sucker growth are manifestations of infestation.



Tunneling of banana corm weevil



Tunneling of banana corm weevil

Banana Pseudostem Borer (*Bukbuk* (Kan).

The borers often confine themselves within the pseudostem and in the decomposing tissues of harvested Pseudostem. The presence of pin-sized holes on the stem, fibrous extrusions from bases of leaf petioles, and exudation of a gummy substances from the holes on the pseudostem is a symptom of early infestation.



Mature larva of Banana Pseudostem Borer



Tunneling caused by Banana Pseudostem borer



Banana stem with holes covered with gummy exudates

Banana Leaf Roller (Kan. *BegisLuklukot* (Kan), *Kolikol* (Ibal), *Luklukot* (Ilok).

After emerging larvae proceeds to the edge of the banana leaf where it starts to roll and tie the leaf.



Larva of Banana leaf roller



Leaf rolls made by Banana leaf roller

Flower thrips (*Kuto*)

A small insect having whitish-yellow larvae without distinct body region at early stage. After sometime, it becomes yellow. The adult's head and the thorax are yellow while the forewing and hindwing are light brown. This will easily enter the developing fruits which is still wrapped by the bracts.

Its oviposition sites which appear as black specks and the feeding on the young fruits are the cause of damage. The injuries coalesce as the fruits develop and as injured peels become rough and sometimes crack resulting into blemishes called corky scab.

Red Palm Mite (*Nalabaga nga Kuto* (Ilok)

It's not an insect. They belong to order Trombidiformes under class Arachnida. Resembles spider mite species in the family Tetranychidae; however, their bright red coloration and long spatulate setae are useful characters in distinguishing them from spider mites. In high densities, feeding mites cause localized yellowing of the leaves followed by tissue necrosis. It had been reported as a pest of Coconut, Areca Palm, and Date Palm in India, Sri Lanka, Pakistan, Egypt, Israel, Iran, Mauritius, Sudan, and the Philippines and, more recently, from banana species in the family Musaceae. They are serious problem during summer months.

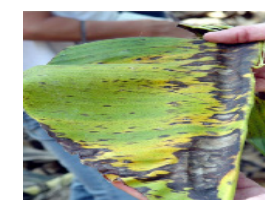
Red Palm Mite infestation on banana plants



Diseases of Banana:

Sigatoka (Black) Leaf Spot (*Latek* (Kan)

Devastating leaf diseases of bananas around the world. Infected leaves die early reducing fruit yield and causing premature ripening of bunches.



Browning and yellowing of banana leaf caused by fungal disease, black sigatoka.