Corn Pest and Management

APHIDS

Introduction:

Corn Leaf Aphids (*Rhophalosiphum maidis*) are soft-bodied and pear-shaped insects. They have piercing-sucking mouthparts which they use to suck sap from the plant. During sucking, the insect's cornicles creates'honeydew' which leaves a sticky deposit causing mold on the affected plant parts. Alternate hosts include sorghum, sugarcane, and other graminaceous plants.

The pest affects the corn's late whorl to silking stage. (*entomology.ca.uky.edu)*

Encircled in red are the adults and in yellow are the nymphal stage. (Photo credit: Merle Shepard, Gerald R.Carner & P.A.C Ooi)

Desctructive Stages:

Nymph: Stays and feeds on one part of the plant like the adult does.

Adult: Can reproduce without males.

Local Name:

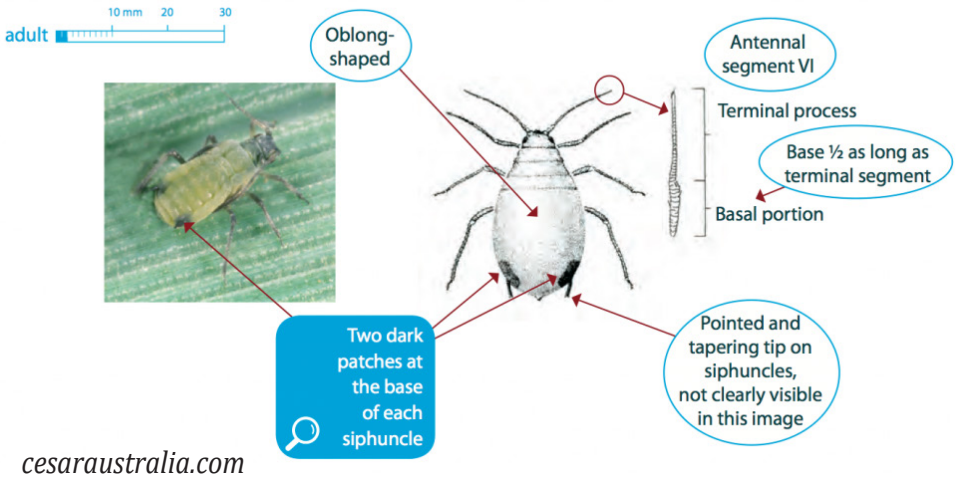
Aplat (Iloko), Dugos-dugos (Cebuano), Kuto (Kan. & Ibal.)

A corn plant heavily infested by aphids. Sooty molds have already accumulated on the leaf surfaces due to the heavy deposits of honeydew. (Photo credit: ICM-Iowa University)

Damage Characteristics:

- Stunted growth due to removal of plant sap by a cluster of insects (aphids) 2-3 weeks before tasseling.
- Corn seedlings may wither and die if infested at early growth stages.
- Sooty leaf surface caused by fungal infection due to heavy deposits of honeydew.

Distinguishing Characteristics/Description:



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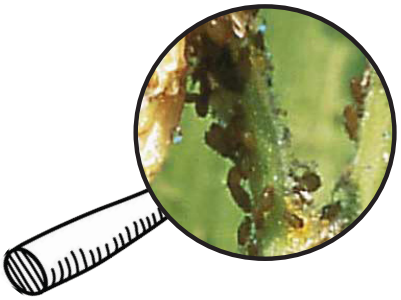

Pest Management Recommendations:

Cultural Methods:

- Crop rotation with non-graminae or grass crops.
- Elimination of weeds which serve as alternate host of pest and diseases.

Biological Control:

- Augmentation of green lacewing which is a beneficial insect.
- Application of Entomopathogenic fungi like *Metarhizium anisopiae* or *Beauveria bassiana*. These entomopathogenic fungi can be acquired at the Regional Crop Protection Center Laboratory located at BABRC, Dontogan, Green Valley, Baguio City.

Green lacewing feeding on aphids. Photo credit: Entomology-University of Kentucky

Chemical Control:

- Here are the recommended active ingredients approved by Fertilizer and Pesticide Authority (FPA) for aphids pests: **LAMBDA-CYHALOTHRIN (3A)** (e.g., Zulpac Lambda 2.5 EC, Unique 2.5 EC, FLARE 2.5 EC, Agrisolutions Polaris Lambda 2.5EC, Sumo 2.5 EC, Spectra 2.5 EC, Akchlothrin 2.5 EC, and etc..) and **MALATHION (1B)** (e.g. Ace Malathion 57 EC, Agchem Malathion 57 EC, ABC Malathion 57 EC, and Farmers Malathion 57 EC).
- Use pesticide judiciously as described in the label. The continuous use of broad-spectrum insecticides may disrupt beneficial insect populations, resulting in aphid resurgence.
- Use chemical only if 10% of ears infested (ears with more than 20 aphids are considered infested). Do not use the same active ingredient, and alternate pesticide according to Mode of Action Number to prevent insect resistance.

NOTE: In the early stages (pre-tassel) of corn development, aphid control is not usually necessary.

References:

Integrated Pest Management of Insect Pests and Diseases of Corn. Revised Edition. Department of Agriculture Bureau of Plant Industry Crop Pest Management Division 2022.

Fe M. Dela Cueva, Cecilia B. Pascual, Cristinna M. Bajet and Teresita U. Dalisay. 2015. Pests and Diseases of Economically Important Crops in the Philippines.

For more information, you may contact:

Department of Agriculture-Regional Field Office Cordillera Administrative Region

REGIONAL CROP PROTECTION CENTER (RCPC)

Contact Numbers: (074) 444-9874 / 0999-991-9150

Email: bombyxmori.car@gmail.com