

Importance

- ❑ This technical advisory is being issued in order to prevent the possible spread of the invasive coconut scale insect "*Aspidiotus rigidus*", popularly known as "Cocolisap". It is a leaf sucking insect that can cause devastating damage to coconut trees.



- ❑ Based on the recent report of the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA), Philippines is now experiencing high air temperatures this dry season and El Niño is expected to become severe in the coming months.
- ❑ Eleven provinces are experiencing meteorological drought with dry weather patterns dominating the affected area. These provinces are Ilocos Norte, Ilocos Sur, La Union, Occidental Mindoro, Oriental Mindoro, Palawan, Zambo Sur, Zambo Norte, Zambo Sibugay, Maguindanao, and Sulu.

Monitoring and Surveillance

- ❑ Research studies showed that Cocolisap pest infestation outbreak will most probably occur in areas with favorable climatological factors to Cocolisap (high temperature, relative humidity and wind direction).
- ❑ Early detection and quick response treatment protocol through regular monitoring and surveillance is one of the key strategies in the prevention and control of this pest.
- ❑ Special attention must be given to high-risk areas or areas with high coconut planting density adjacent to CSI-infested areas and the drought affected areas.

Cocolisap Pest Infestation Scenarios



Post-Outbreak areas:

- [1] Batangas, [2] Laguna, [3] Cavite, [4] Quezon, [5] Bataan



Outbreak areas:

- [6] Albay, [7] Romblon, [8] Isabela City, [9] Basilan



Recovering areas:

- [10] Zamboanga City, [11] Zamboanga del Norte, [12] Zamboanga Sibugay



Areas affected by Drought:

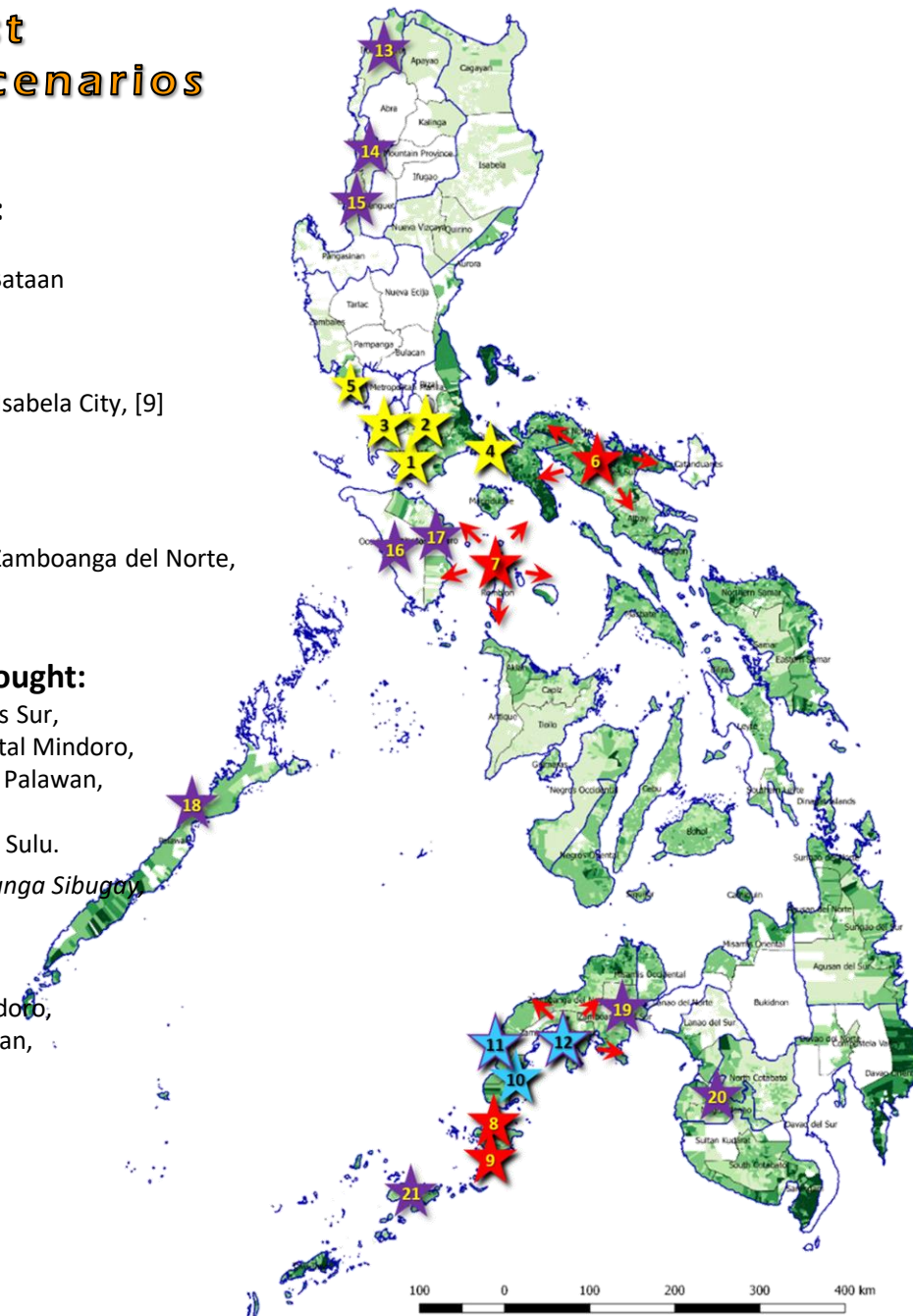
- [13] Ilocos Norte, [14] Ilocos Sur, [15] La Union, [16] Occidental Mindoro, [17] Oriental Mindoro, [18] Palawan, [19] Zamboanga Sur, [20] Maguindanao and [21] Sulu.

Zamboanga Norte, Zamboanga Sibugay



High Risk Areas:

- ✓ Quezon, Occidental Mindoro, Oriental Mindoro, Palawan, Zamboanga del Sur, Maguindanao and Sulu
- ✓ Region V
- ✓ Region VI
- ✓ Region X



Quick Response Protocol

Science-based integrated pest management (IPM) treatment protocols developed to contain and manage the Cocolisap.

- ✓ Selective coconut leaf pruning – removal of affected coconut fronds to reduce the CSI pest population.
- ✓ Trunk injection with chemical or botanical pesticides – use of systemic insecticides approved by the Fertilizer and Pesticide Authority (FPA).
- ✓ Mass production and strategic release of biological control agents (predators and parasitoids). PCA intervention is now focused on the release of the host-specific parasitoid *Comperiella calauanica*.

Adoption of Integrated Pest Management and Good Agricultural Practices

Control and Management of Cocolisap Infestation



1
Selective Coconut Leaf Pruning



2
Application of Chemical or Botanical Pesticides



3
Release of Biological Control Agents

Farm Development – Replanting, Intercropping and Fertilization



4
Replanting of High Yielding Coconut Varieties



5
Intercropping with Vegetable and Fruit Crops



6
Rehabilitation through Fertilization

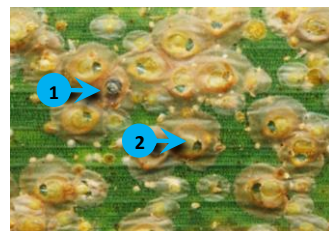
Biological Control: A Sustainable Approach

- ❑ *Comperiella calauanica* is a host specific and effective natural enemy of CSI *Aspidiotus rigidus*. First found in Calauan, Laguna by the pioneering researchers of De La Salle University - Biological Control Research (DLSU-BCR) together with scientists from the National Crop Protection Center (NCPC).



Mature *C. calauanica* ovipositing inside the body of CSI

- ❑ Introduced in PCA-Zamboanga Research Center (PCA-ZRC) by DLSU-BCR Group on November 2016 to combat the CSI pests outbreak in the Center. It significantly reduced the CSI pest population to a manageable level.



- ❑ PCA-ZRC became the source of *Comperiella* released in the severely affected coconut farms in Zamboanga.

Inundative releases of these highly effective biological control agent *Comperiella* is being done to all CSI-affected barangays of the country thru the Collect and Release Method. Immature *Comperiella* (Larvae) found on CSI-infested coconut leaves can be collected and released in severely CSI-infested coconut trees to establish parasitoid population.

- 1 Immature *Comperiella* inside the body of CSI
- 2 A hole caused by the exiting of mature *Comperiella*



Department of Agriculture
Philippine Coconut Authority
Research and Development Branch

Technical Advisory on the Management of Coconut Scale Insect "*Aspidiotus rigidus*"

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For more information and assistance, please contact:

Coconut Scale Insect Emergency Action Program