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Quarantine Hemiptera of the world on 2021: Taxonomy, referenced hosts and Quarantine zones

*Hemipteros de cuarentena en el mundo en 2021: taxonomía,
hospedadores referenciados y zonas de cuarentena*

J. L. Andrés Ares &
International Plant Quarantine Workgroup

Technical & Regulatory Review—*Revisión técnica y
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Cuarentena Vegetal Internacional



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Summary

On the present paper the author carries out an actualized checklist of the Hemiptera pest species that are considered formal quarantine pests –according to the FAO concept– in any country of the world. The paper also includes several photographs of some of these species provided by the members of the group International Plant Quarantine.

Key words: Whiteflies, aphids, mealybugs, scales, bugs.

Resumen

En el presente trabajo el autor realiza una lista actualizada de las especies de hemípteros considerados de cuarentena en cualquier país del mundo según el concepto formal de plaga de cuarentena definido por la FAO. El artículo también incluye algunas fotografías de los mismos proporcionadas por el grupo de trabajo International Plant Quarantine.

Palabras clave: Moscas blancas, áfidos, cochinillas, chinches.

1. Terminological and conceptual precisions

According to FAO a quarantine pest is “a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled”. This concept is different to the concept of regulated pest which is defined by the same organization as “a quarantine pest or a regulated non-quarantine pest” and also different from the concept of regulated non-quarantine pest defined by FAO as “a non-quarantine pest whose presence in plants for planting, affects the intended use of those plants with an economically unacceptable impact and which is therefore regulated within the territory of the importing contracting party”. Not all of the countries have formal quarantine pest lists, some have either quarantine and regulated pest lists and others have only regulated pest lists. We have only considered on this paper formal quarantine pests, included on laws published by the governments of the countries, not of regions of such countries. Regulated non-quarantine hemiptera will be matter of a different paper.

Hemiptera are one of the most important quarantine agents group due to their biological characters, they are easily dispersed large distances, are difficult to manage with conventional chemical methods, are great transmitters of virus and bacteria and are easily resistant to conventio-

nal insecticides. These are the main reasons of the importance of their quick detection before they establish on new countries.

The objective of the present paper is to present the most important quarantine hemiptera of the world in 2021, the countries where they are considered quarantine pests and their most important referenced hosts. They are classified following conventional taxonomical criteria.

2. List of quarantine hemiptera worldwide

2.1. SCALE INSECTS (*Coccoidea*)

2.1.1. FAMILY COCCIDAE (SOFT SCALES AND WAX SCALES)

1. Scientific name: *Anapulvinaria pistaceae*

Quarantine countries: Iraq

Hosts: *Pistacia khinjuk*, *Pistacia palestina*, *Pistacia terebinthus*, *Pistacia vera*, *Rhus coriaria*, *Juglans regia*, *Tamarix sp.*

2. Scientific name: *Bathycoella thalassina*

Quarantine countries: Singapore

Hosts: *Theobroma cacao*

3. Scientific name: *Cateanococcus hispidus*

Quarantine countries: Dominican Republic

Hosts: *Cocos nucifera*