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Technical and regulatory review
Revisión técnica y normativa

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Technical and regulatory review – *Revisión técnica y normativa*

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Summary

On the present paper the author carries out an actualized checklist of the powdery mildew species that are considered formal quarantine pathogens –according to the FAO concep– in any country of the world.

Key words: *Erysiphaceae*

Resumen

En el presente trabajo el autor realiza una lista actualizada de las especies de oidios consideradas de cuarentena en cualquier país del mundo según el concepto formal de plaga de cuarentena definido por la FAO.

Palabras clav: *Erysiphaceae*

1. Terminological and conceptual precisions

According to FAO a quarantine agent is “an agent 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 agent which is defined by the same organization as “a quarantine agent or a regulated non-quarantine agent” and also different from the concept of regulated non-quarantine pest defined by FAO as “a non-quarantine agent 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 agent lists, some have either quarantine and regulated agent lists and others have only regulated agent lists. We have only considered on this paper formal quarantine agents, included on laws published by the governments of the countries, not of regions of such countries. Regulated non-quarantine rusts will be matter of a different paper.

Quarantine powdery mildews are not important in number but are one of the most important quarantine agents group due to their biological characters, they have several cycles on one single host during a single productive season, they are easily dispersed large distances, are difficult to manage with conventional chemical methods

and are easily resistant to conventional fungicides. 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 powdery mildews of the world in 2021, the countries where they are considered quarantine agents and their most important referenced hosts. They are classified following conventional taxonomical criteria as specified on Index Fungorum. We have only included host genera that have species with agricultural or ornamental interest.

2. List of quarantine Powdery Mildews worldwide

ORDER ERYSIPTHALES

2.1. Family *Erysiphaceae*

1. Scientific name: *Erysiphe betae* (Vanha) Wetzien 1963

Synonyms:

– *Microsphaera betae* Vanha 1903

– *Erysiphe communis* f. *betae* (Vanha) Jacz. 1927

– *Oidium cylindricum* Sawada 1959

Quarantine countries: Nicaragua & Ecuador.

Hosts: *Beta vulgaris*, *Phaseolus vulgaris*, *Pisum sativum*, *Brassica rapa*, *Spinacea oleracea*.