



Food and Agriculture
Organization of the
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International
Plant Protection
Convention



Department
for Environment
Food & Rural Affairs

Prioritization of pests of higher phytosanitary risk in Brazil

Structured criteria to inform institutional decision-making

London, 21 – 23 September 2022

International Plant Health Conference





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*Multicriteria prioritization based on
stakeholders' nominations strengthens and
drives both regulatory and research plant
health actions and decision-making*

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Objectives:

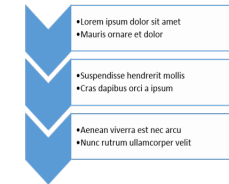
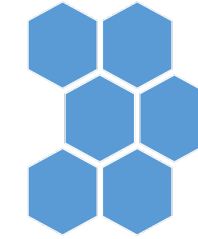
1) Identify priority/emerging threats to be managed by regulatory and research efforts at national level;

1) Provide guidance to the prioritization of requests for registration of products or pest control technologies;

Method:

Participatory identification of alternatives

Analytic Hierarchy Process (AHP)



AHP

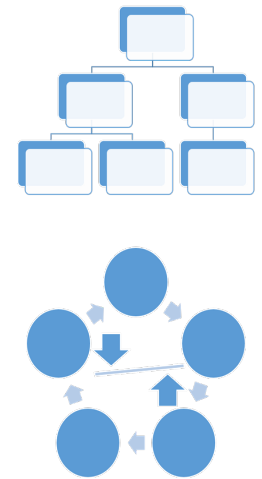


Foto: Luiz Copati - MAPA



Preliminary list:

653 pests with “risk perception” listed based on:

i) indications of sectorial chambers and private sector stakeholders;

ii) list of regulated pests (20);

iii) scientific research priorities (Embrapa);

iv) pests affecting crops without sufficient phytosanitary support (“Minor Crops”).



Foto: Dionisio Gazziero/Divulgação Embrapa

Hierarchy: 5 dimensions and 19 criteria

- 1) Pest biology**
- 2) Pest control**
- 3) Direct impacts**
- 4) Indirect impacts**
- 5) Pest regulation**

Final list:

83 pests sorted in three risk categories (Very High, High and Medium)

Risk categories defined by k-means clustering.



Foto: Paulo Lanzetta - Embrapa



Risk category
VERY HIGH

Amaranthus palmeri (weed)

Bactrocera carambolae (insect)

Bemisia tabaci (insect)

Botrytis cinerea (fungus)

Candidatus Liberibacter asiaticus (bacteria)

Ceratitis capitata (insect)

Helicoverpa armigera (insect)

Ralstonia solanacearum raça 2 (bacteria)

Schizotetranychus hindustanicus (insect)

Spodoptera frugiperda (insect)

Tetranychus urticae (insect)

Xanthomonas campestris pv. viticola (bacteria)

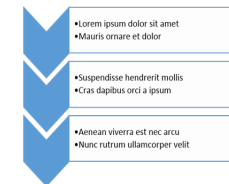
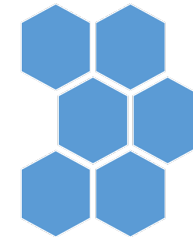
Xanthomonas citri (bacteria)



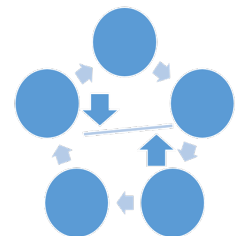
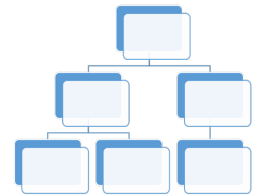
Outcomes:

1) Provides a very good result to reevaluate the list of regulated pests (adding or removing);

1) Can show the necessity of redimension the efforts applied to some regulated pests;



AHP





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Thank You

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Carlos Goulart

Director of Plant Health and Agricultural Inputs - NPPO of Brazil

