

Technical Working Party on Testing Methods and Techniques

TWM/3/3

Third Session

Beijing, China, April 28 to May 1, 2025

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THE USE OF MOLECULAR TECHNIQUES FOR ENFORCEMENT

Document prepared by an expert from Peru

Disclaimer: this document does not represent UPOV policies or guidance

The annex to this document contains a copy of a presentation “Use of DNA techniques for PBR enforcement in Peru”, to be made by an expert from Peru, at the third session of the TWM.

[Annex follows]



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Peruvian institutions in charge of PBR enforcement



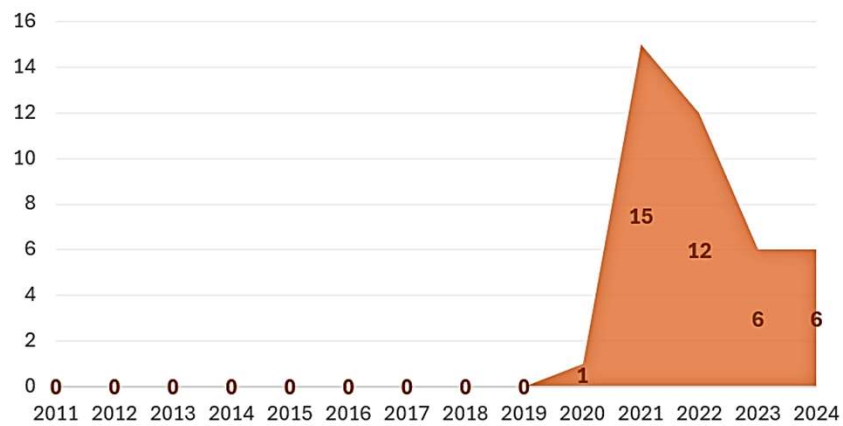
Administrative
enforcement



Technical
support

3

Inspections based on PBR performed between 2011-2024



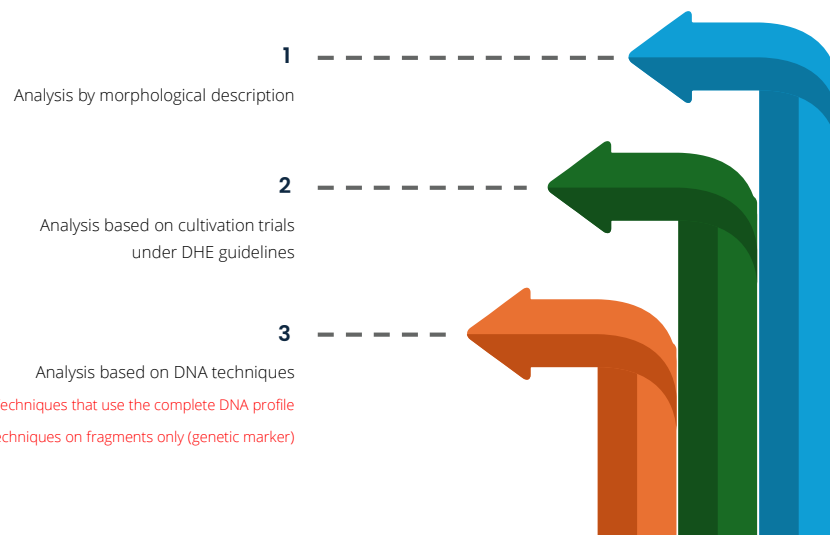
4

Issuance of Peruvian guidelines for PBR enforcement in 2022



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How can an infringement be detected?



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Sufficiency of DNA tests to prove an infringement

Constitute by themselves proof that the suspected material is infringing?



Techniques that use the complete DNA profile

YES




* Techniques on fragments only (genetic marker)

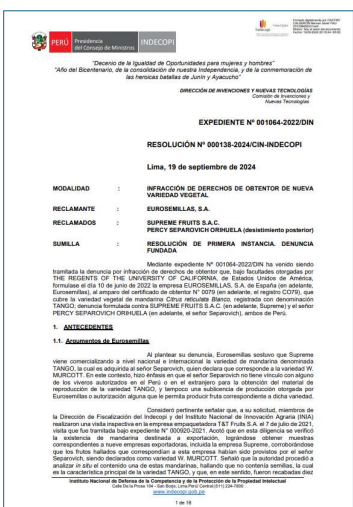
NO


additional morphological description is required

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2024: first decision in a PBR infringement case based on genetic marker testing





Protected variety:
Mandarin Citrus reticulata Blanco
registered under the name
TANGO

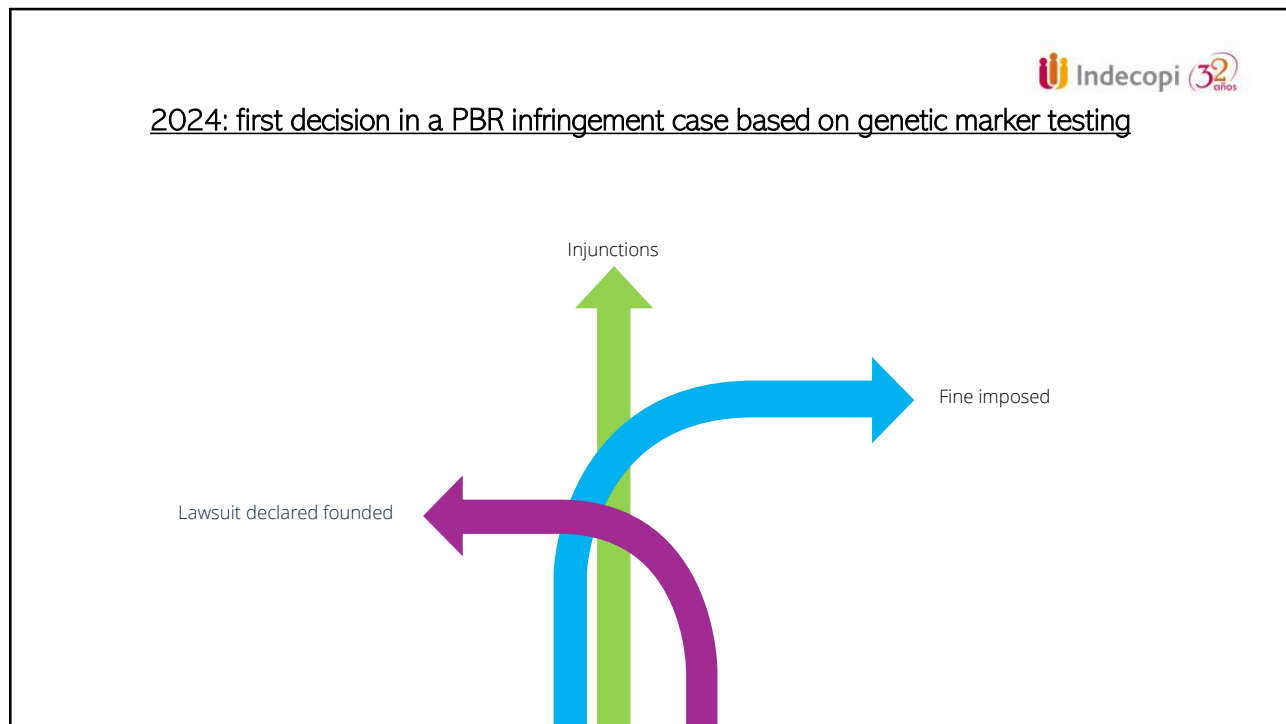
The protected variety was identified by means of a quantitative PCR and detects a variety-specific rearrangement, consisting of a translocation of a segment of chromosome 2 (TT marker).

8 out of the 9 samples were positive for the TT marker.

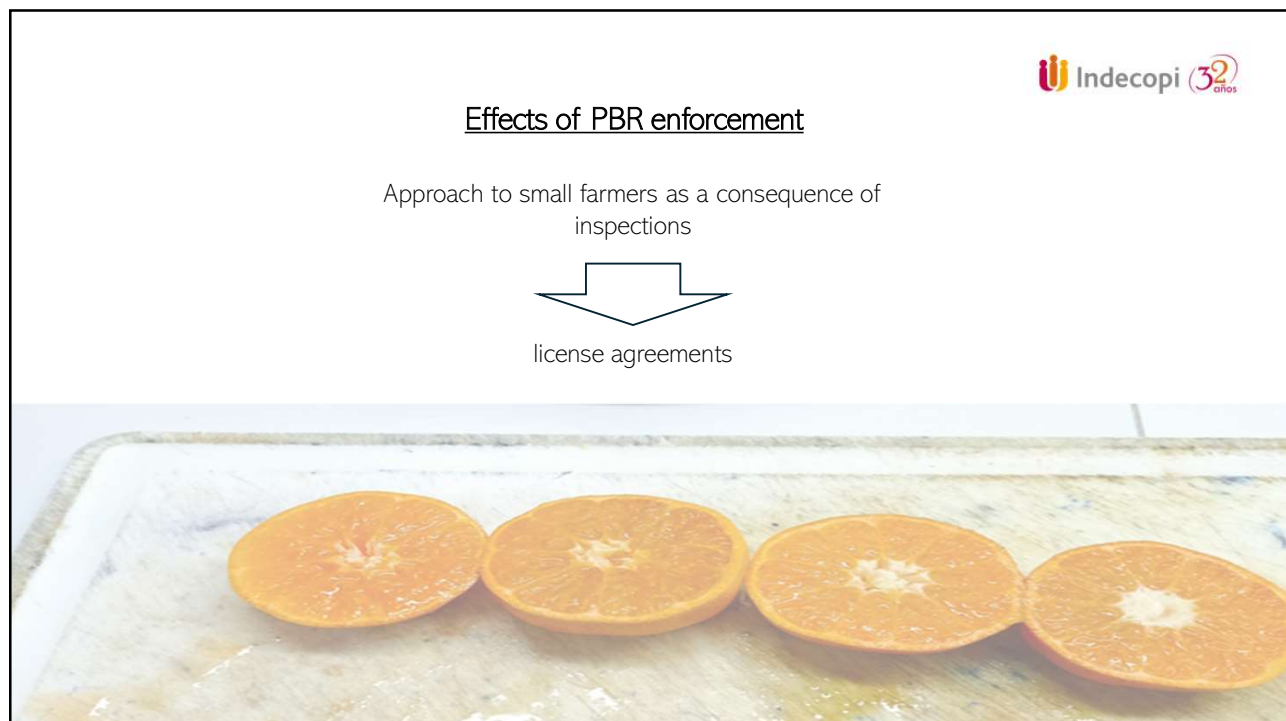
The level of expression of the characters of the sample that was analyzed coincided with that of the protected characters.

16 qualitative and pseudo qualitative characters
1 quantitative character (number of seeds)

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Challenges

- * Training on DNA analysis
- * Need to share best practices with other national agencies
- * A worldwide network for the enforcement would be helpful

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