



7th Annual Chapman Phytosanitary Irradiation Forum

New Generic Doses & International Database on Commodity Tolerance

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1957–2017



Current generic doses

Pest group	Dose (Gy)
Fruit flies	150
Insects*	400
Regulated pests*	400
A variety of insects**	250
Leafroller larvae, eggs	290

*some exceptions

**on lychee, mango, papaya

Results of multi-nation
5-yr Coordinated Res.
Project on generic PI
doses plus other
research allows for
more generic doses to
be developed.

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Development of Generic Phytosanitary Irradiation Doses for Arthropod Pests

Cover: Phytosanitary irradiation of dragon fruit enables its export to lucrative foreign markets for growers like Dong Son in Viet Nam, and is an example of ongoing successful international collaboration among many parties coordinated by the FAO/IAEA (Doan et al. in this issue).

Photo credit: ©FAO/AFP/Hoang Dinh Nam

Guest Editors:

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The International Plant Protection Convention has issued a call for treatment proposals for the international phytosanitary treatment manual (ISPM #28).



Must be submitted by country's or region's plant protection organizations.



Doses that could be proposed to the IPPC

Pest group	Dose (Gy)
Mealybugs	250
Leafroller larvae, eggs	250
Insects*	300
Weevils	150
<i>Anastrepha</i> fruit flies	70
Lepidoptera larvae, eggs	250
Lepidoptera pupae	400

Where broad generic doses could end up:



150 Gy fruit flies, aphids, whiteflies, psyllids

250 Gy for most insect pest groups

350-400 Gy for mites and pupae of borers

International Database on Commodity Tolerance

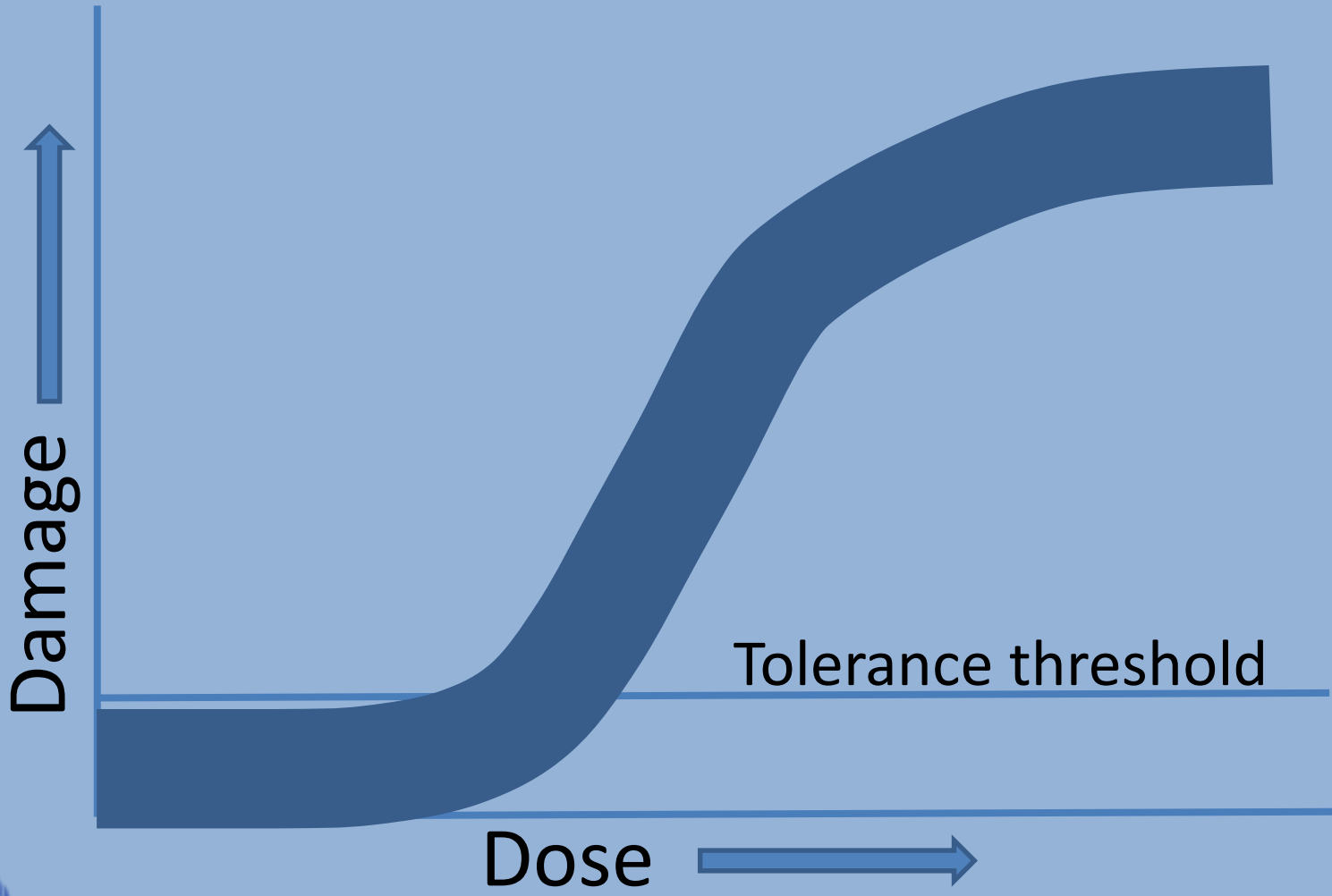
<https://nucleus.iaea.org/sites/naipc/IDCT/Pages/default.aspx>



Objectives:

- Gather and interpret the PI literature
- Identify tolerance thresholds
- Help identify optimum methods for applying PI to minimize damage potential
- Identify gaps and inconsistencies in research

Probable relationship between dose and commodity damage



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