

Role of nuclear applications in the management and control of plant pests

IAEA Scientific Forum

Nuclear
Technology
for Climate

Mitigation, Monitoring, Adaptation

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Okanagan Kootenay Sterile Insect Release Program - Canada

Sterile Insect Technique controls the “Worm in the Apple”

OKSIR Program in Western Canada :

ONLY Program in World
using SIT to control Codling Moth



94% reduction in codling moth populations

96% reduction in related pesticide use

250% return on investment for our local communities



Apples are #2 in World Fruit Production

(2008 - Apple/Pears 86.4 million tons; Watermelon 94.5 million tonnes)



Some Beneficials



Some Invasive Insects



Spotted
Wing
Drosophila



Brown
Marmorated
Stinkbug



European
Grapevine
Moth



Successful Uses of SIT to Manage Insect Pests



Pink Bollworm in USA
Eradication



False Codling Moth in South Africa
Suppression

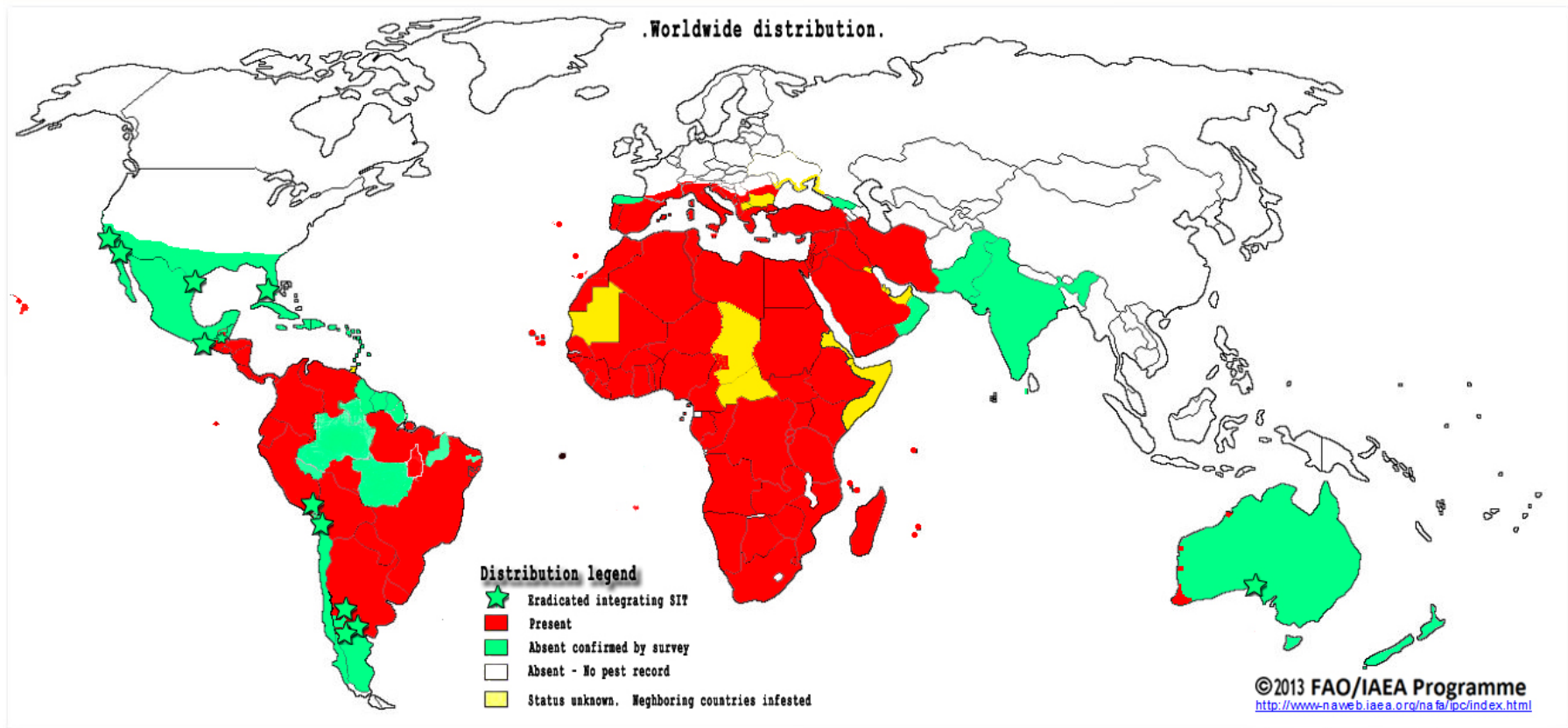


Mediterranean fruit fly in various countries
Prevention, Suppression, Eradication



Med Fly Management using Sterile Insect Technique

Mediterranean Fruit Fly - *Ceratitidis capitata* (Wiedemann)



Some Future **STERILE** Insects

~~Invasive Insects~~



Spotted
Wing
Drosophila



Brown
Marmorated
Stinkbug



European
Grapevine
Moth



Cooperation IS the Future!



Thank you.

Photo source: <https://explore.ucalgary.ca/new-world-order-biology-climate-change>

