

Addendum to Operational Work Plan for Import of Articles Intended for Irradiation in the United States from Ecuador

1. Approved Commodity:

Fresh mango fruit, *Mangifera indica*

2. Quarantine Pests and Required Mitigations:

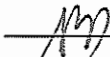
2.1 Quarantine Pests

Target Quarantine Pests (known to be mitigated by irradiation doses)	Mitigation Measure
<i>Anastrepha</i> spp. TEPHRITIDAE <i>Ceratitis capitata</i> TEPHRITIDAE (Wiedemann)	In order to mitigate the risk associated with all quarantine pests listed above, the consignment must be irradiated with a minimum absorbed dose of 150 Gy to be applied in accordance with 7 CFR 305.9 at an APHIS-certified treatment facility in the United States.

2.2 Required Mitigation Measures

Lots of mangoes from Ecuador which pass export inspection may be exported to the continental United States under the conditions listed below. Further details are specified in the Operational Work Plan:

- The fruit must be commercially produced and be part of a commercial consignment as defined in 7 CFR Section 319.56-2.
- The fruit must be irradiated with a minimum absorbed dose of **150 Gy** to be applied in accordance with 7 CFR 305.9, at an APHIS-certified irradiation treatment facility in the United States.
- Each consignment must be accompanied by a Phytosanitary Certificate (PC) issued by AGROCALIDAD.
- The PC must also include traceability codes for any lot(s) in the consignment.
- Mangoes must be packaged in APHIS-approved pest-proof packaging intact from the packinghouse until after the upon arrival treatment is complete. The pest-proof packaging must meet weight and size specifications for treatment.
- A Sample pallet must accompany each consignment. The Sample pallet must:
 - Represent 2% of the total consignment.

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- Be comprised of at least one box from each lot in the consignment;
 - Be clearly labeled as "Sample Pallet," and;
 - Be placed in the tailgate of the container or other location to facilitate unloading and physical inspection if warranted.
- Each consignment may be subject to inspection at the U.S. ports-of-entry.

3. Export Inspection Procedures


3.1 AGROCALIDAD should:

- Perform a pre-shipping inspection of the fruit to ensure the absence of quarantine pests according to inspection and sampling protocol referred to in Section 3.2.
- Ensure that quarantine pest populations in the export fields are monitored and that control measures or good agricultural practices are applied when needed to maintain a low infestation level of pests of concern. Refer to Appendix 1 for fruit fly trapping requirements.
- Provide pest identification service for plant pests listed in Section 2.1, in order that immediate decisions can be made regarding the lot in question.
- Prior to departure of consignment from Ecuador, a sample must be drawn and inspected to ensure that the articles are either free from or have a low infestation levels of pests of concern. Each sampling unit may be composed of a single lot or multiple lots.

3.2 Sampling and Inspection Protocol

Following this sampling scheme provides the following levels of detection:

- External pests: Approximately 2% infestation rate at 95% confidence
 - Internal pests: Approximately 5% infestation rate at 95% confidence
1. A minimum of 149 individual fruits must be inspected from each inspectional unit. **NOTE:** If there are less than 149 fruit total in the sampling unit, inspect 100% of the fruit.
 2. To determine the number of packages to select for inspection (sample cartons), divide 149 by the average number of fruit per carton and round up to the next whole number. A minimum of 10 cartons must be selected for inspection. If 149 divided by the average number of fruit per carton (box) is less than 10, the number of cartons to be selected for inspection is 10.
 3. The Sample cartons (10 or more as determined by step 2 above) will be selected from the sampling unit in a stratified fashion. The first carton will be selected at a

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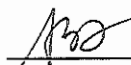
random point and subsequent cartons will be selected according to the Sampling Interval until all cartons needed for inspection have been selected.

4. To determine the Sampling Interval, divide the total number of cartons in the sampling unit by the number of Sample cartons to be selected for inspection (as determined by step 2 above).
5. Thoroughly inspect the interior and exterior of each carton in the sample for quarantine pests both targeted and those not targeted by the irradiation treatment.
6. To determine how many fruits to select from each carton for inspection, divide 149 by the number of cartons in the sample and round up to the next whole number. Select this number of fruit from each carton for inspection.
7. Visually inspect each of the 149 fruit for external pests and set aside all suspect fruit for internal inspection.
8. A minimum of 60 fruits must be subjected to internal inspection. If the total number of suspect fruits set aside is less than 60, randomly select additional fruit until a total of 60 fruit is reached. Cut and inspect all 60 fruits for internal quarantine pests.
9. The lot identity of each carton sampled must be recorded with the inspection results.

Target/Non-Target	Pest Type	Number Found	Action
Target Pest	<i>Anastrepha</i> spp. TEPHRITIDAE	1 or more	Reject consignment
	<i>Ceratitis capitata</i> TEPHRITIDAE (Wiedemann)		
Non-Target Pest	Other insect pests, excluding Lepidopteran pupae or adults	1	Certify consignment but notify APHIS of the pest
		2 or more	Reject consignment
	Snail, disease, or mite	1 or more	Reject consignment

4. Sample for Inspection at the United States Port of Entry

In order to facilitate port of entry clearance processes, a sample consisting of boxes of fruit representing all the lots in the consignment will be pre-selected and must accompany each consignment to the United States.

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The sample must be selected in the packing plant prior to departure. Randomly select 2% of the cases of the whole shipment to reach 10 cases. If the consignment is made up of less than 250 cases, select a minimum of 5 cases.

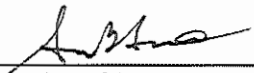
Boxes should be clearly identified (labeled) as the sample and accessible by Customs and Border Protection officers.

The shipment may be rejected for entry and application of irradiation treatment if the sample pallet of the sample does not meet the conditions above or if quarantine pests not mitigated by a **150 Gy** irradiation dose are detected.

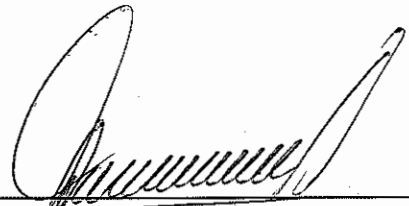
The inspection results at the port of entry will determine if the shipment can be released to the APHIS-certified irradiation facility for treatment.

5. Approval

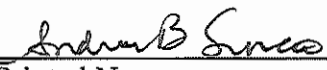
Procedures herein established are subject to revision as situations warrant; however, they will remain in effect indefinitely until revised and signed by all parties involved.



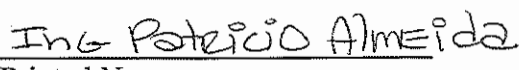
Andrea Simao
Assistant Deputy Administrator
PPQ - Phytosanitary Issues Management
(APHIS)



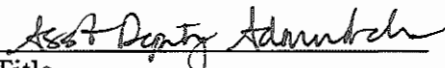
Ing. Patricio Almelda
Director Ejecutivo
Agencia de Regulacion y Control Fito y
Zoosanitario
(AGROCALIDAD)



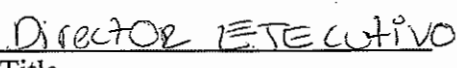
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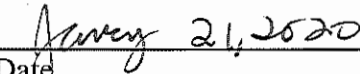
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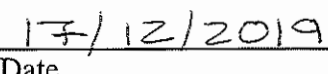
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Appendix 1: Fruit Fly Trapping Program for Irradiation Upon Arrival in the US

In order to export certain articles from Ecuador to the United States, AGROCALIDAD must maintain a fruit fly (*Ceratitis capitata* and / or *Anastrepha* spp.) trapping, management, and control program. The purpose of the fruit fly program is to maintain low fruit fly population levels in and around places of production, packinghouses, and treatment facilities to reduce approach rate prior to irradiation treatment in the United States.

1.1 The objectives of fruit fly trapping are to:

6.1.1 Detect incursions of fruit flies in places of production.

6.1.2 Maintain the fruit fly populations under control within the places of production.

6.1.3 Maintain an active surveillance program for detection of fruit flies.

1.2 AGROCALIDAD must establish a fruit fly trapping program in registered orchards using both McPhail and Jackson traps. The fruit fly trapping must follow the guidelines of the trapping protocol as established by AGROCALIDAD and conditions of this work plan.

1.3 Trapping activities must be carried out by AGROCALIDAD, or the Exporters may contract an independent entity, subject to approval by AGROCALIDAD, to carry out the fruit fly monitoring program. However, exporters may not monitor their own traps nor each other's traps.

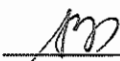
1.4 The fruit fly trapping program must be maintained at least 6 weeks before the beginning of the harvest and continue through the end of harvest.

1.5 Traps must be placed at a rate of 1 trap per hectare and must be checked weekly.


1.6 50% percent of the traps must be McPhail type and 50% of the traps must be Jackson type.

1.7 AGROCALIDAD must keep a database of all trapping records and findings per trap and orchard. The database must be updated weekly, every time the traps are serviced. Records of captures must be maintained for at least one year.

1.8 The Flies/Trap/Day (FTD) must be calculated every week.

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1.9 If more than 0.07 fruit flies per trap per day (FTD) of *C. capitata* or *Anastrepha* spp. fruit flies are trapped in mango production sites, apply bait sprays for control. Bait sprays must be applied per labelled instructions at weekly intervals until populations are below 0.07 FTD. If populations of fruit flies exceed 0.07 FTD for more than 2 weeks, fruit may not be exported until FTD levels drop below 0.07 FTD again.

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