**Objective/Outcome**

**Objective**
Plant quarantine technicians in countries infested with fruit flies acquire quarantine treatment techniques suited to their conditions.

**Outcome**
1. Participants can explain how to rear fruit flies in laboratories and how to make infested fruits for the disinfection test.
2. Participants can explain the procedures of a series of thermal disinfection test and the methods of experimental data analysis, after actually conducting these trials in the heat treatment and the cold treatment.
3. Participants can explain the procedures of a series of fruit heat or chilling injury test and the methods of experimental data analysis, after actually conducting these trials.
4. Participants can explain the fruit fly eradication program and the control of fruit flies, Japanese distribution system for imported agricultural commodities and the plant quarantine system in the participant’s countries and Japan.
5. Participants can explain about the plant quarantine problems related to fruit flies in the participant’s countries.

**Contents**
1. Morphology and Taxonomy of fruit flies, Genetic analysis, Rearing of fruit flies, Preparation of the Infested Fruit
2. Disinfection methods on plant quarantine, Techniques of disinfection test in heat and cold treatment
3. Techniques of fruit injury test (heat and cold treatment), Method of data analysis in fruit injury test
4. Plant Quarantine system in Japan, Plant protection
5. Formulation and presentation of experimental practice report and final report

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<thead>
<tr>
<th>Objective/Outcome</th>
<th>Target Organization / Group</th>
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<tr>
<td><strong>Objective</strong></td>
<td>Plant quarantine organization</td>
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<td><strong>Outcome</strong></td>
<td>1. be engineers of plant quarantine treatment, inspectors and officials of plant protection sectors</td>
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<td>2. have experience in the plant quarantine works and have sufficient knowledge about fundamental entomology such as fruit flies</td>
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<td>Course No.: 201984724-J002</td>
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<tr>
<td>Sector: Agricultural Development/Distribution, Processing, Export Promotion</td>
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<td>Sub-Sector:</td>
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<td>Language: English</td>
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**Implementing Partner**
Naha plant protection station, Japan Fumigation Technology Association

**Remarks and Website**
Naha plant protection station, ministry of agriculture, forestry and fisheries is expected to be training implementing organization

**Outline**
Japan has leading knowledge and skills on disinfection of fruit flies through experiences on establishment of vapor heat treatment, eradication of fruit flies, and implementation of measures against re-invasion. This program contains lectures on basic knowledge and practice of disinfection skills. These make them possible to participate in international trade after returning to each country.

**Course Period**
2019/5/8~2019/6/7

**Department in Charge**
Rural Development Department

**JICA Center**
JICA Okinawa (Partnership)

**Cooperation Period**
2017~2019