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# Fergana Valley Stakeholders' Conference: Enhancing Trade Opportunities through Phytosanitary Measures in Central Asia

20 April 2021





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# *Interim Results of the Pilot Project on Establishment of Pest Free Areas in Central Asia*

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*20 April 2021*

# Pilot Project Objective

- ▶ Pilot Project for the Fergana Valley was developed within USAID Competitiveness, Trade and Jobs (CTJ) activity
- ▶ The main objectives of the Pilot Project are to:
  - design a program and conduct inspections
  - collect data
  - draft a report for the recognition of a fire blight and cherry tree fly (*Rhagoletis cerasi*) free area (for export)
  - expand and implement the Project throughout the Fergana Valley

# Fire blight survey program

The Program outlines the main stages of an inspection:

1. Analysis of the available information to assess the situation in the country
2. Development of an inspection plan
3. Preparation of methodology
4. Inspection, sampling, and laboratory diagnostics
5. Data processing and analysis
6. Report on the collected and analyzed data, and explore the possibility for the establishment of pest free areas



# Inspection Plan

- ▶ Time and place of the inspection
- ▶ Visual inspection
- ▶ Commercial garden inspection
- ▶ Sampling methodology
- ▶ Sampling units with infestation symptoms
- ▶ General requirements

Virtual Training on Pest Surveillance, August 12-14, 2020

# Infestation indicators





# Inspection:

- ▶ shall be conducted by inspectors.
- ▶ shall be supervised by the chief officer.
- ▶ Samples shall be taken and prepared for delivery to the laboratory in accordance with the methodology.
- ▶ Samples shall be tested in a laboratory pursuant to ISPM 27, DP 13.



# Consumables and reagents for laboratory tests

USAID provided reagents and consumables worth USD 8,000 for laboratory tests

- ▶ DNA extraction kit
- ▶ Erwinia amylovora-Rt PhytoScreen kit
- ▶ Oligonucleotides, 5 optical units
- ▶ Disinfectant
- ▶ Microtubes
- ▶ Multisample microscope slide for enzyme immunoassay
- ▶ Cover glass for microslides
- ▶ Non-fluorescent immersion oil
- ▶ Immunofluorescence test for the detection and identification of Erwinia amylovora
- ▶ 5xScreenMix-HS amplification staining kit or similar
- ▶ Agarose for electrophoresis
- ▶ Molecular size marker up to 1000 pairs
- ▶ Ethidium bromide or equivalent
- ▶ Hydrochloric acid (HCl), Tris base
- ▶ Boric acid (H<sub>3</sub>BO<sub>3</sub>), EDTA



# Materials purchased for laboratory tests

- ▶ Barrier filter tips, 200  $\mu$ l
- ▶ Tips 10000  $\mu$ l
- ▶ Stepper tips 0.5 ml
- ▶ Lens wipes
- ▶ Paper towels, 8 sheets
- ▶ 8-10-well glass slides
- ▶ Cover glass, 24x60mm
- ▶ Eppendorf tube, 1.5 ml
- ▶ Eppendorf tube, 2 ml
- ▶ Gloves
- ▶ Autoclave bags
- ▶ Petri dishes
- ▶ Tubes, 15 ml
- ▶ Immersion oil, 100  $\mu$ l



# Inspections in Kushtepa district

	Number of farms	Area of gardens inspected	Number of samples
Planned	28	94.2	91
Conducted	28	94.2	900/120*

- For training purposes, after receiving some of the samples with non-typical infestation symptoms, the Central Quarantine Laboratory staff members conducted training and sampling together with the inspectors.



# Preparing samples for delivery to the laboratory





# Laboratory

	Метод выявления и идентификации вишневой мухи <i>Rhagoletis cerasi</i> Linnaeus	№ <i>4.1.1.1.1.1.1</i> Редкция: I Дата: <i>28.07.2020г.</i>
	Титульный лист	Утверждено: Начальником инспекции «Уточкарилантин» <i>Эргашев И.К.</i> 2020г.
Государственная инспекция по карантину растений при Кабинете Министров Республики Узбекистан «Центральная Карантинная Лаборатория»		

## Метод выявления и идентификации вишневой мухи *Rhagoletis cerasi* Linnaeus

Документ является интеллектуальной собственностью карантинной лаборатории и не может использоваться отдельно или по частям, либо перепечатываться третьими лицами, не являющимися сотрудниками карантинной лаборатории, без разрешения владельца. Любые изменения, дополнения и завершенные формы могут быть размещены на интернет-сайтах карантинной лаборатории, в распоряжении лаборатории, с обеспечением доступа только сотрудникам карантинной лаборатории.

Утверждено Научным Советом  
Протокол №6 от 28.07.2020г.



# Report / Profile

Drafting a **Profile** on the fire blight *Erwinia amylovora* (*Burr.*) *Winsl.et al.* pest free area in Uzbekistan, Fergana Valley, Kushtepa district, for submission to the importing countries and international organizations

## Contents

1. *Erwinia amylovora* fire blight host plant production
2. Potential for acclimatization of *Erwinia amylovora*
3. Legislation and inspections
4. Survey of *Erwinia amylovora*
5. Survey results

# Conclusions

- ▶ The survey of fire blight will be further extended to other areas of the Fergana Valley.
- ▶ The results of the fire blight survey prove that the organism is not widespread in the Kushtepa district (after laboratory tests).
- ▶ The Kushtepa district of the Fergana Valley can be recognized as an *Erwinia amylovora* fire blight free area if it is confirmed by two-year survey results.



**Thank you for your attention!**

