USDA-APHIS-PPQ Guidelines for Submitting Domestically Detected Suspect *Dickeya* spp. Samples from Potato for Diagnostic Testing by the Center for Plant Health Science and Technology Laboratory

Issue date: June 24, 2016.
Last Update: This document is version 2.0.
Reason for revision: Document updated to include new information on *Dickeya dianthicola*.

Purpose: The purpose of this document is to provide USDA guidance on revised procedures for submitting suspect positive *Dickeya* spp. samples from potato for confirmatory diagnostic testing by the Center for Plant Health Science and Technology (CPHST) Beltsville, MD Laboratory.

Background

In September 2015, PPQ launched an effort in cooperation with the potato industry, academia, the states, and potato certification agencies to determine if *Dickeya* spp. are present on potatoes in the United States, and, if so, what species are present. Only *D. dianthicola* was positively confirmed from the samples submitted to the CPHST Beltsville, MD Lab (hereafter referred to as the Beltsville Lab). No other species, including *D. solani,* were detected.

Effective May 17, 2016, the Animal and Plant Health Inspection Service (APHIS) classified the potato blackleg pathogen *Dickeya dianthicola* as a non-reportable/non-actionable pathogen. APHIS' decision to classify *D. dianthicola* is based on the results of recent confirmatory diagnostic testing and historic reports in the literature of *D. dianthicola* detections that show the pathogen is likely established in the United States. If *D. dianthicola* is detected at a port of entry, no action will be taken. Should *D. dianthicola* be detected in the United States, APHIS will not conduct survey, regulatory, or control activities. The potato industry and research community may choose to implement management practices, and seed potato certification agencies may choose to implement certification requirements for *D. dianthicola* as part of their overall best management practices.

Revised Confirmatory Testing Scheme

Because APHIS' primary mission is focused on quarantine pests, we have revised our confirmatory testing scheme for *Dickeya dianthicola*, since this pathogen is now considered non-reportable/non-actionable. As a service to stakeholders, APHIS will continue to confirm the identification of first-time reports of *D. dianthicola* samples from states that have not already submitted positive-testing samples to PPQ. Effectively immediately, APHIS will only be testing suspect *Dickeya* spp. samples that are believed to be new state records, unusually virulent, or highly unusual in some other way.

Information for States

Ideally, samples should be freshly collected field samples. USDA would prefer to isolate the cultures at Beltsville. Isolated, plated cultures, in addition to the field samples, can also be submitted. Send field samples that are as freshly collected as possible; they have a limited shelf life and deteriorate quickly. If blackened stems are collected, wash and dry them, and try to include some green tissue as well as the necrotic part of the stem. Symptomatic tubers can be

submitted for testing as long as they are not completely decayed. Tubers should be soil free; this can be accomplished by washing them (do not use soap) first, and then thoroughly blotting them dry. A mix of rotting potatoes and mud should not be submitted. If the samples are field collected, but the bacteria were not isolated from the samples onto culture plates, keep them as dry and cool as possible. Tubers and stems can be enclosed in paper lunch bags and then the bags can be wrapped in crumpled paper towels. Tubers can also be packed in dry crumpled newspaper. In all cases, keep the sample from a single plant in its own bag.

Sample Submission

- Complete and enclose a hardcopy of PPQ Form 391 with each sample. Enclose the completed form in a plastic zip lock bag to prevent the paper from being soiled.
- Do not comingle samples from separate plants.
- Send the samples via overnight carrier (e.g. FedEx). It is important that the transit time is kept to a minimum.
- Do not send samples so that they will arrive at the lab on a weekend or federal holiday; no one will be there to receive the samples.
- Once packaged and sent, please send an e-mail message to the two group e-mail addresses listed below along with a pdf of the completed PPQ Form 391 and the overnight carrier tracking number.
  APHIS-PPQCPHSTBeltsvilleSampleDiagnostics@aphis.usda.gov
  PPQ.NIS.Urgents@aphis.usda.gov
- Be sure to ship samples in a sturdy padded container and send to the following address:

  Sample Diagnostics
  ATTN: John Rascoe, PhD.
  USDA-APHIS-PPQ-CPHST
  BARC-East, Bldg. 580
  Powder Mill Road
  Beltsville, MD 20705-2350

  Phone: (301) 313-9343; (Fax) (301) 313-9232 [Rascoe]
  Phone: (301) 504-7100; VOIP: (301) 313-9200 [Beltsville Building]

Results Reporting

Results will be reported by the Beltsville Lab through the PPQ National Identification Services, Domestic Diagnostics Coordinator to the PPQ National Survey Coordinator, who will then issue the results via the established PPQ notification process.

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