



# 2022 User Manual

## *Trace Surveys*



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**Program: Citrus Canker (CC)**

**Application: ArcGIS Survey123**

**Host: USDA-MRP Enterprise GIS portal**

**CHECK URL!** <https://maps.mrp.usda.gov/arcgis/>

**Survey Title: PPQ CC [ST] Trace Forward Surveys 2022**

**\*\* Refer to the “[Mobile Data Collection Tools](#)” public webpage for all training documentation and videos.**

2022 Disclaimer: Training techniques or workflows held within are designed as basic job aids. Mobile collection tools and technology used are constantly being improved upon. End users should consult with management for current workflows and standards.

# CONTENTS

Overview.....	3
Pre-requisite Training Recommendations.....	3
Install ArcGIS Survey123 .....	4
Mobile Device (Android or iOS).....	4
Desktop (PC).....	5
Sign In to USDA-MRP Enterprise GIS portal (All devices).....	6
Download Survey (All devices).....	9
Delete Survey (if desired).....	10
Complete a Survey (All devices).....	10
Inbox .....	11
The Data Form.....	14
Contact Attempts.....	15
Edit a Survey.....	15
Send or Save Completed Surveys.....	16
Outbox.....	17
Getting Help.....	18
APHIS PPQ.....	18
Cooperators & Other Nonfederal Users .....	18
All Training Resources.....	18

End User Tools Request links: [Support Request \(End User Tools\)](#) [Mobile Device Request](#) [Training Request](#)  
Contact: [WebGIS.Connect@usda.gov](mailto:WebGIS.Connect@usda.gov)

## Overview

This document provides guidelines for conducting electronic data collection for the Citrus Canker (CC) program using the [ArcGIS Survey123](#) application on mobile devices. The application was developed to reflect program specifics and is intended to replace paper surveys.



*ArcGIS Survey123  
Mobile Application*

Individual surveys have been configured for participating states indicated in the title of the survey itself by the two-letter state abbreviation.

## Pre-requisite Training Recommendations

End User Tools *strongly* suggests the following pre-requisite training prior to performing field data collection using the “PPQ CC [ST] Trace Forward Surveys 2022”/ “TRAINING PPQ CC Trace Forward Surveys 2022” data collection tools:

Topic	Location/Resource
Pest Program Survey Protocol	Pest Program National Operations Manager
Pest Program Data Collection Requirements	Pest Program National Operations Manager
Introduction to ArcGIS Survey123 Playlist (self-paced video training and user guide)	<a href="#">Mobile Data Collection Tools</a> webpage <a href="#">Introduction to ArcGIS Survey123</a> playlist
If applicable: iPad Basics	<a href="#">Mobile Data Collection Tools</a> webpage
Optional: “Field Data Collection” Playlist	<a href="#">APHIS YouTube</a> <a href="#">Mobile Data Collection Tools</a> webpage

# Install ArcGIS Survey123

## Mobile Device (Android or iOS)

### Be Prepared

You will need to confirm the following in place:

- A phone or tablet that runs Android or iOS (Apple)
- A reliable Wi-Fi connection
- eAuthentication ID/Password
- APHIS ESRI Enterprise (Portal) account

\*\*If you already have the ArcGIS Survey123 application, skip to [Sign In to ArcGIS Enterprise](#)\*\*

### App Store

ArcGIS Survey123 is available through the App Store for both Android and iOS devices for free. Search by name (ArcGIS Survey123) and select install or get.

### Apps@Work

APHIS PPQ devices have automatic installation of ArcGIS Survey123 application. If not installed, the app can be found within the Apps@Work application.

Open the “Apps@Work” application on your main screen (Figure 1).



Figure 1. Apps@Work icon

Tap Uncategorized and locate “ArcGIS Survey123”. (Figure 2)

Select by tapping ArcGIS Survey123 from the list and select “Install” to install.

If you still need help, open a ticket with CEC IT. ([CECHelpDesk@usda.gov](mailto:CECHelpDesk@usda.gov) or 877-873-0783)

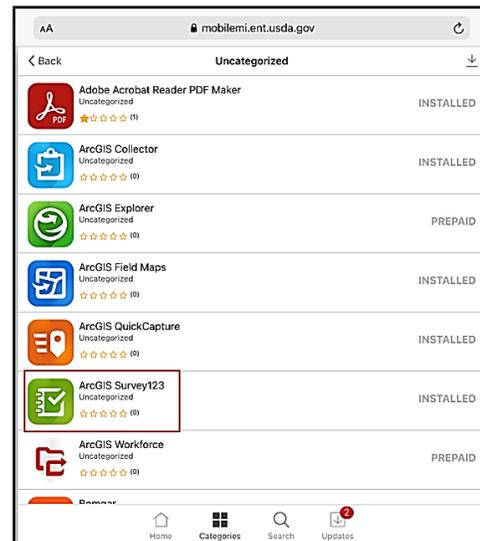


Figure 2. Apps@Work “Uncategorized” list view

## Desktop (PC)

### Be Prepared

You will need to confirm the following in place:

1. A laptop or PC
2. A reliable Wi-Fi connection
3. eAuthentication ID/Password
4. APHIS ESRI Enterprise account

For Desktop installation, go to this URL:

<https://www.esri.com/en-us/arcgis/products/survey123/resources>

Scroll down a little and locate the heading “ArcGIS Survey123 field app” in the middle column of options.

Select the link to download/install the appropriate version for your Operating System.

For APHIS users, this is normally “Windows x64”. (Figure 3)

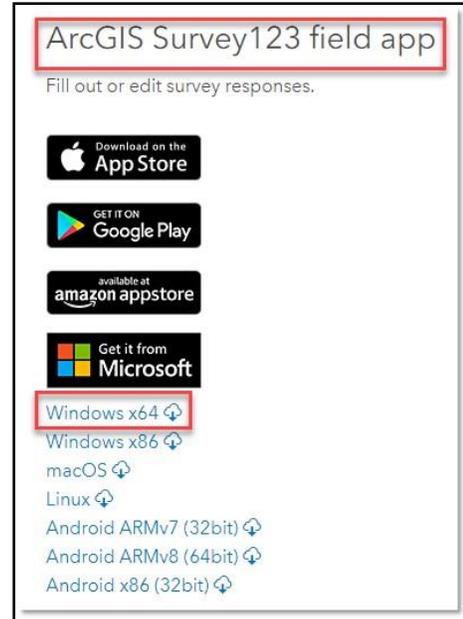


Figure 3. ArcGIS Survey123 desktop download

The file should only take 1-2 minutes to download. Once the download is complete, click on the caret (See Figure 4) and choose “Open”.

Select “Next” and “I accept the license.” and “Next” as the install wizard prompts you. Finally, select “Finish” to complete the install.

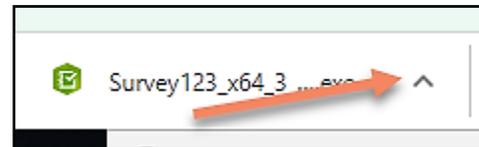


Figure 4. Open download

## Sign In to USDA-MRP Enterprise GIS portal (All devices)

Once the application is installed, locate the **Survey123 App** icon and tap to open it. (Figure 5)

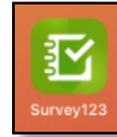


Figure 5. ArcGIS Survey123 icon

\*\*You will need to sign into USDA-MRP Enterprise GIS portal to find surveys shared with your user account. See details below.

Once opened, ArcGIS Survey123 presents a landing screen with sign-in options (Figure 6).

On first opening the application, you will have to add the ArcGIS Enterprise Portal. Once established, your device saves this as a sign in option.

Choose the option “Manage ArcGIS Connections” (Figure 6) and then + Add connection (Figure 7) located in the bottom left.



Figure 6. Manage ArcGIS connections



Figure 7. Add connection

Manually type in the URL for the APHIS ArcGIS Enterprise Portal. (Figure 8)

<https://maps.mrp.usda.gov/arcgis>

And select “Add”.

It may take a moment or two for the connection to be established.

\*\*If you have done this previously, tapping Settings (gear in the top right corner) will show you a list of ArcGIS connections. Be sure the above URL is selected.

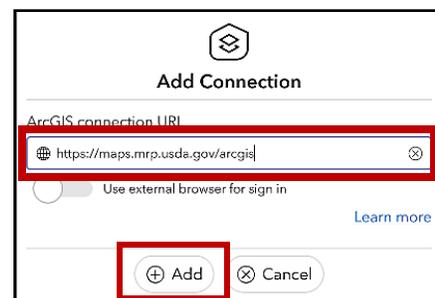


Figure 8. Type in URL

ArcGIS Enterprise (<https://maps.mrp.usda.gov/arcgis>) should now be listed with a check mark on the left. **(Figure 9)**

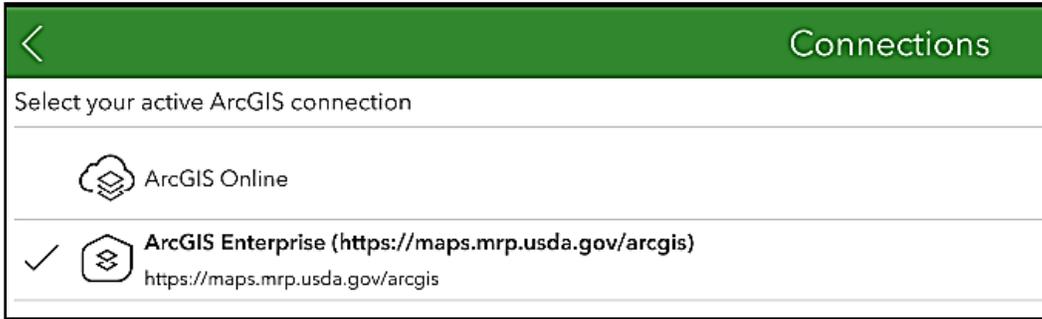


Figure 9. ArcGIS managed connections list

Tap the back arrow in the upper left and choose Sign in with ArcGIS Enterprise (<https://maps.mrp.usda.gov/arcgis>) **Figure 9 and 10**



Figure 10. Sign in options

Tap the blue "eAuth Account" button. **(Figure 11)**

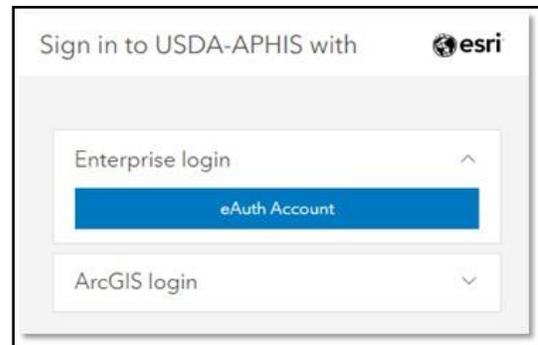


Figure 11. APHIS Enterprise login option

You will be presented with the USDA eAuthentication Log In.

Complete the form with your User ID and Password and tap “Log In with Password”.

Links are also provided on this screen to recover forgotten User Id and Password if needed. (Figure 12)

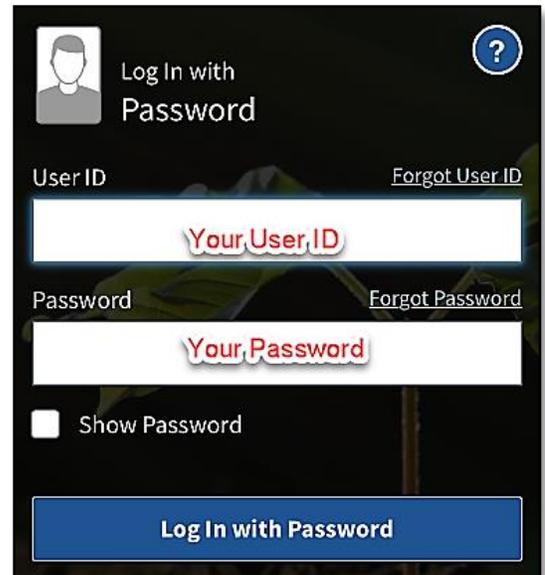


Figure 12. USDA eAuth Log In

## Download Survey (All devices)

To locate and download surveys. You can find the options to “Download Surveys” either by tapping the profile icon in the top right corner or the button offering the same along the bottom middle of the screen. (Figure 13) Either option is acceptable.

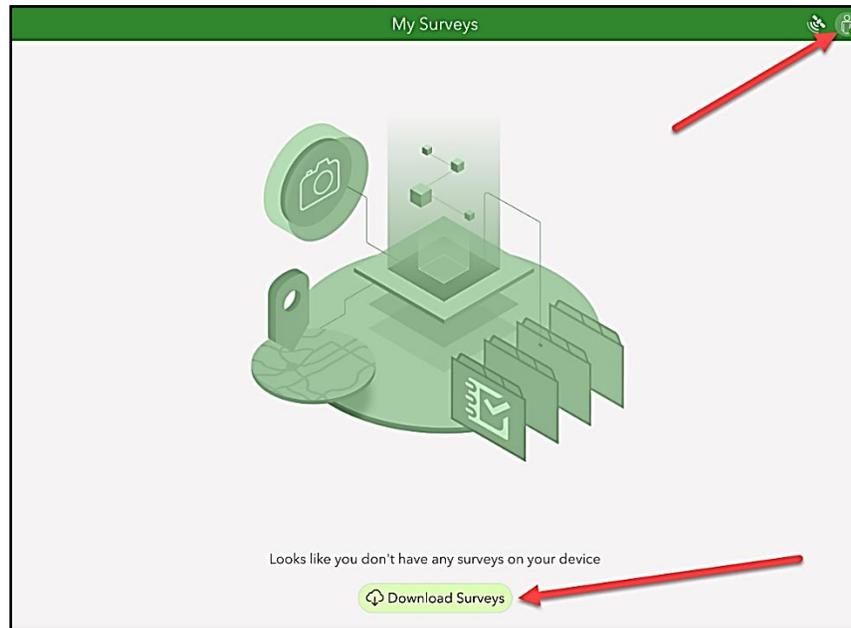


Figure 13. Download Surveys options

All surveys shared with you will be listed for download. Choose the cloud icon to the right of the title “PPQ CC [ST] Trace Forward Surveys 2022”/ “TRAINING PPQ CC Trace Forward Surveys 2022” and the survey download will start. (Figure 14)

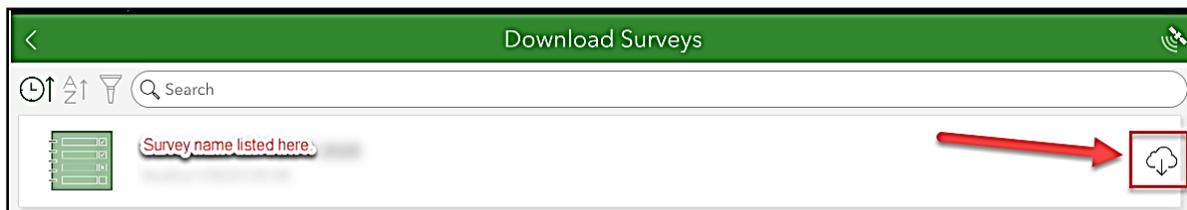


Figure 14. Download - Cloud icon

Once downloaded, click the back button (arrow in the upper left corner in Figure 14) to return to your list of “My Surveys”.

Open the survey by clicking on its icon. (Figure 15)

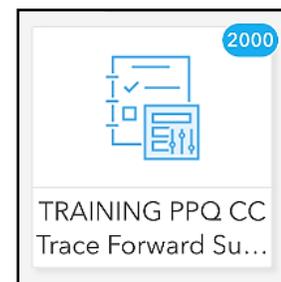


Figure 15. Downloaded survey icon

Follow steps to complete a survey as described in the [Complete a Survey](#) section of this document.

## Delete Survey (if desired)

You may need to free memory on your device or simply clean out old unused surveys. These can be deleted easily.

Tap the survey icon to open it and then tap the menu at the top right. Then select “Delete Survey”. You will be asked to confirm your choice and the survey is deleted. (Figure 16)

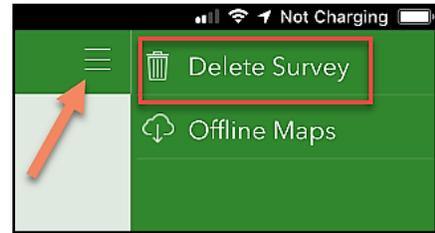


Figure 16. Delete Survey

## Complete a Survey (All devices)

Follow directions previously outlined under the [Install ArcGIS Survey123](#) section to install Survey123 and [Download Survey \(All devices\)](#) to download “PPQ CC [ST] Trace Forward Surveys 2022”/ “TRAINING PPQ CC Trace Forward Surveys 2022”.

### Be Prepared

You will need the following:

1. Device – mobile or desktop
2. Fully charged battery or access to a power supply
3. Wi-Fi **ON** to Refresh Inbox before and after collecting survey data.
4. GPS enabled (iPad HINT: Settings app > Privacy > Location Services **ON**)
5. Wi-Fi **OFF** while surveying (for mobile devices)
6. Keep your eAuthentication username/password handy. You may need to sign in on return to Wi-Fi connection.

Citrus Canker uses the Survey123 Inbox to access prepopulated surveys and add new information about contact attempts or plant collection activities. (Figure 17)

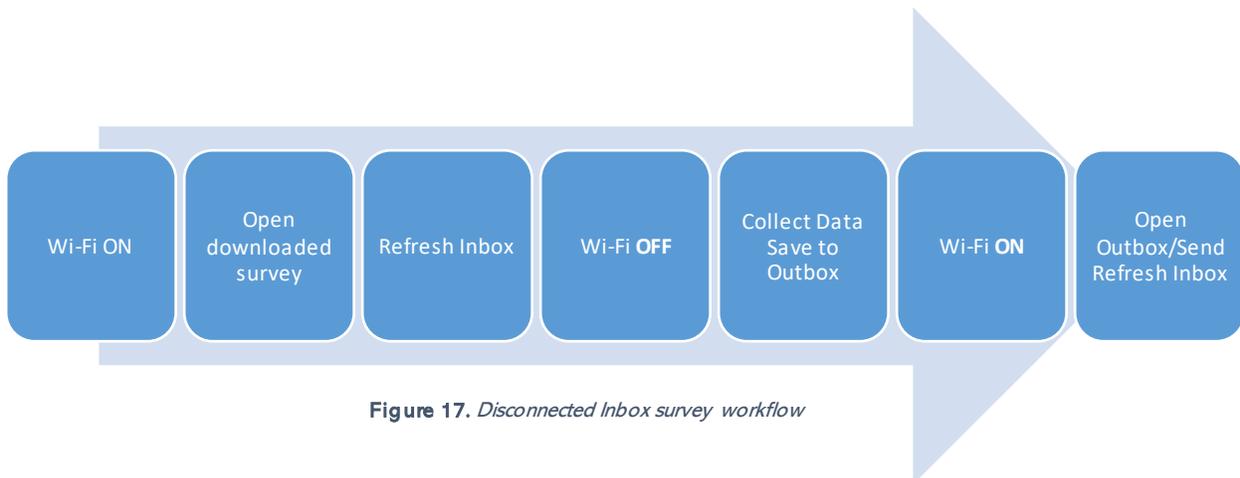


Figure 17. Disconnected Inbox survey workflow

## Inbox

**IMPORTANT:** CC Trace Surveys contain pre-loaded location data (*Shipping Information* section).

To edit surveys, you must first load them into the Inbox, while connected to Wi-Fi.

1. Inbox: Tap the Inbox bar. (Figure 18)



Figure 18. Inbox bar

If you wish to limit the surveys you load to a certain map extent, tap the Map button. Zoom and pan the map to your desired map extent. Then tap the "Refresh" button to see survey sites within that area displayed on the map. See example for Washington state in Figure 19. Next, click the "List" button to see a list of the shipping names and addresses for that map area.

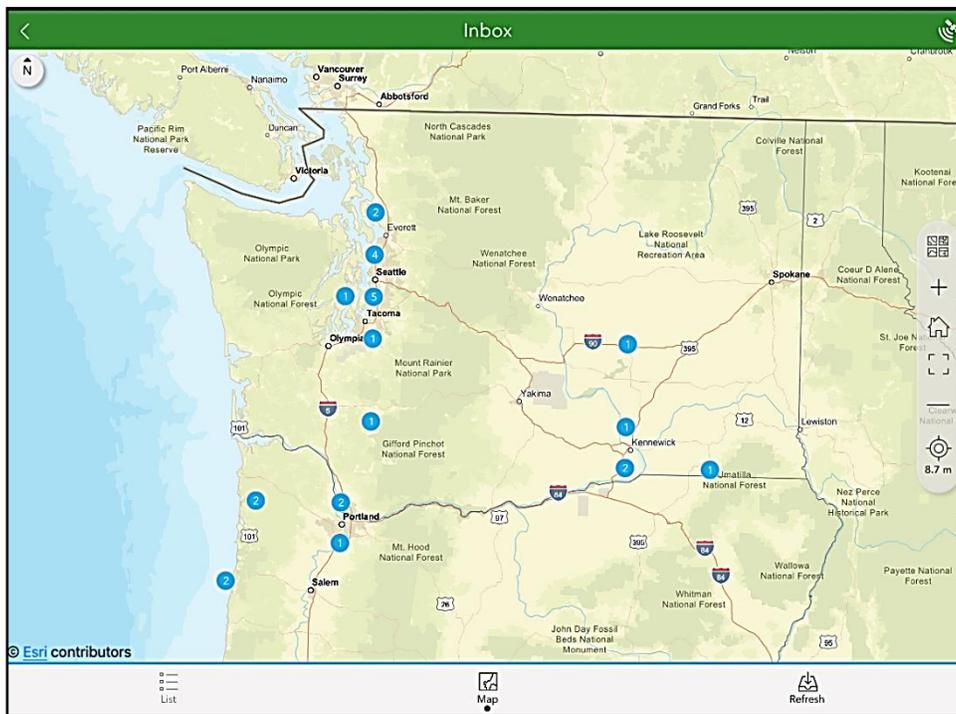


Figure 19. Example pre-loaded location extent to Washington state.

2. Refresh: If you wish to review all surveys, regardless of their locations, tap the "Refresh" button, then view the "List". (Figure 20)



Figure 20. Refresh button in the Inbox

Once the inbox is updated, you may disconnect from Wi-Fi and leave to collect data in disconnected mode, if going to the field. If working from the office, you can stay connected.

- Pre-loaded Location: Locate and tap to open the survey to update from the list. (Figure 21)  
The survey to update can also be located and chosen from the map view by tapping on the symbol.  
Use the Search box at the top of the screen, if needed, to search by name, address, or coordinates.

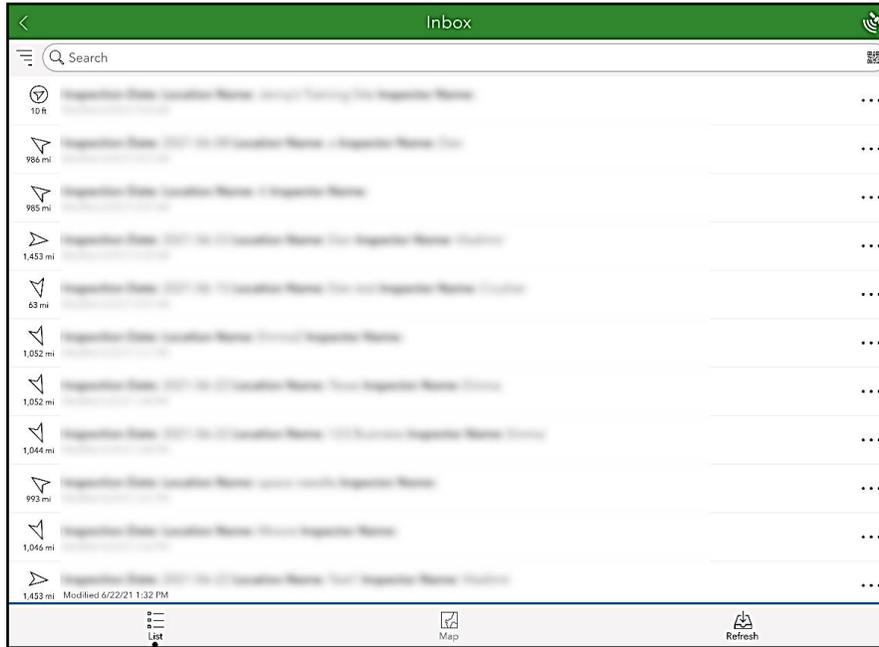


Figure 21. Pre-loaded location list view within the Inbox

- Choose View to view only and choose Edit to edit. (Figure 22)
- Once opened, always confirm the *Shipping Information* section contains autopopulated location information.

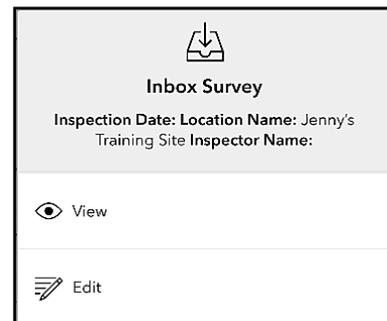


Figure 22. View or Edit Inbox survey

- Tap the group needed (Contact Attempts or Plant Collection) to open the group of questions associated.
- Answer the questions in the data form carefully.
- Be sure that you understand the input required by reading the “hints”. For instance, *Contact By* asks the user to “Enter your name” according to the hint given. (Figure 23)



Figure 23. Example of a required field and hint

9. Once complete, review your data entries and tap the check mark in the lower right corner to complete your survey and proceed to the [Send or Save Completed Surveys](#) section (Figure 24)

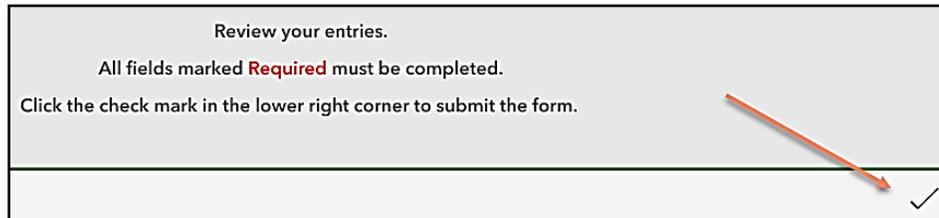


Figure 24. Tap check mark to submit your survey

**HINT:** If you are interrupted or must leave the survey at any point, select the “X” at the upper left corner and choose Save in Drafts. (Figure 25)

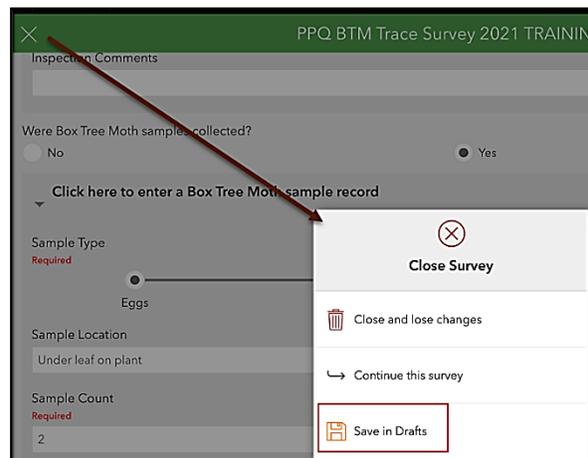


Figure 25. Close Survey and Save in Drafts

The Drafts option then appears along with the Collect and Inbox bars. Choose the Draft bar to return to the incomplete survey. (Figure 26)



Figure 26. Collect, Inbox, and Draft bars

## The Data Form

1. Carefully review and complete the Shipping Information section before moving onto the Contact Attempts section. If not correct, explain needed corrections in the Contact Notes section.
2. Tap the data entry group needed (Shipping Information, Contact Attempts, or Plant Collection) to open the group of questions associated. See [Contact Attempts](#) for details on recording multiple contact attempts made.
3. Answer the questions in the data form carefully.

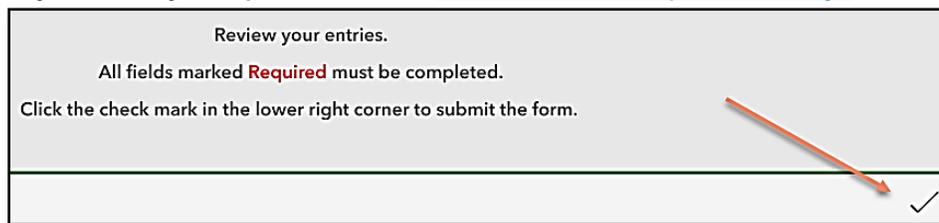
Be sure that you understand the input required by reading the “hints”. For instance, *Contact By* asks the user to “Enter your name” according to the hint given. (Figure 27)



Contact By  
Enter your name

Figure 27. Example of a required field and hint

4. Once complete, review your data entries and tap the check mark in the lower right corner to complete your survey and proceed to the [Send or Save Completed Surveys](#) section. (Figure 28)



Review your entries.  
All fields marked **Required** must be completed.  
Click the check mark in the lower right corner to submit the form.

✓

Figure 28. Tap check mark to submit your survey

This entry will appear in the Inbox list but must be refreshed once connected to Wi-Fi.

## Contact Attempts

To enter information on multiple attempts to contact, select the “+” button to open another contact entry form.

The bar at the end of the table provides the option to delete, toggle through to review multiple entries, add another entry, or complete the survey entirely. (Figure 29)

Once finished with all entries, select the check mark in the lower right corner to complete your survey and proceed to the [Send or Save Completed Surveys](#) section on next page.

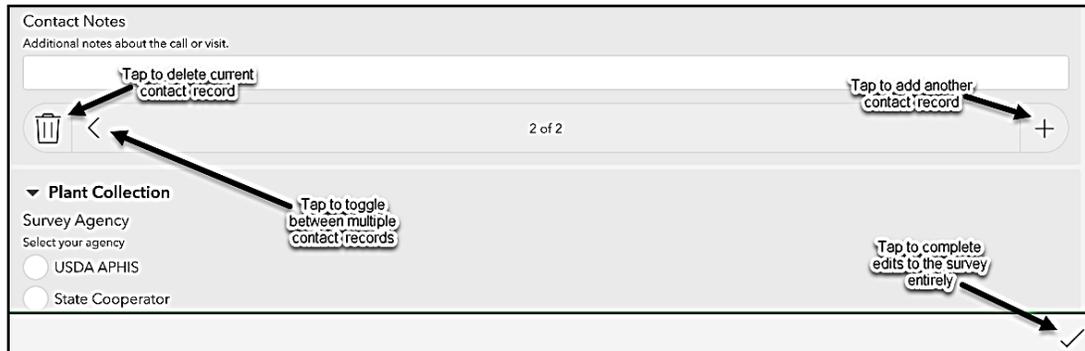


Figure 29. Options to enter information on multiple contact attempts or complete the survey

## Edit a Survey

Since location records are pre-loaded with Shipping Information prepopulated, all data entries to these records are considered “edits”.

If edits are needed to an existing survey, follow the steps under the [Inbox](#) section to edit that data form and resubmit.

\*\*Always be sure to [refresh the Inbox](#) to update data entries.

## Send or Save Completed Surveys

If you have completed data form and all applicable tables, select the check mark at the bottom right. (Figure 30)



Figure 30. Survey complete checkmark

The “Survey Completed” box that appears next offers a few options (Figure 31):

- *Send now* – If Wi-Fi is connected, choose “Send Now”.
- *Continue this survey* – If the check mark was pressed in error or you realize there is something more to add to the survey, choose this option to return to the survey.
- *Save this survey in the Outbox* – If not connected to Wi-Fi, choose this option and refer to the section to follow on the [Outbox](#). This saves the survey to your device until Wi-Fi connection is obtained and you are ready to submit the survey to the online database.

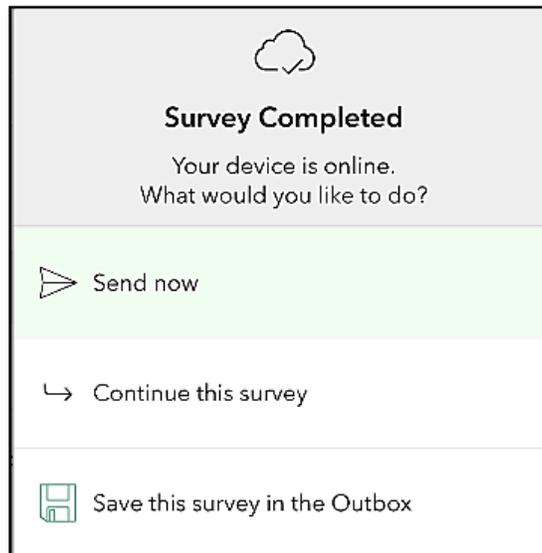


Figure 31. Survey Completed options

## Outbox

If you collected data while offline or disconnected from Wi-Fi, your surveys were saved to the Outbox (on your device waiting for upload).

When surveys are being held in the Outbox, it appears just under the Inbox with a number indicating how many surveys are waiting to be submitted. (Figure 32)



Figure 32. Outbox bar

Once returned to a strong Wi-Fi connection, tap the Outbox bar. All collected surveys will be listed and the option to “Send” is located at the bottom right corner. (red box in Figure 33)

In the List view, each survey can be reviewed and edited by selection, if desired. To edit a survey, select it and choose “Yes” when asked if you want to “edit this survey”.

You can also choose to view all your surveys in a map view by tapping “Map” along the bottom.

When ready, select “Send” (red box in Figure 33) to submit all surveys waiting in the Outbox to the USDA-MRP Enterprise GIS portal.

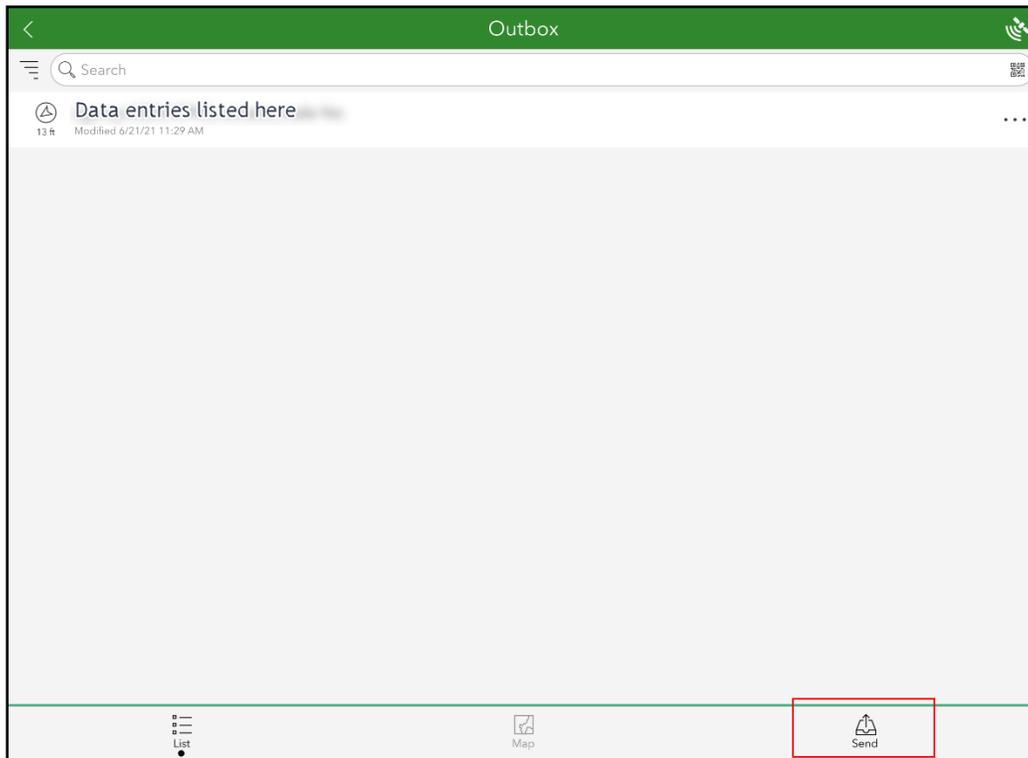


Figure 33. Outbox with surveys saved to send

## Getting Help

### APHIS PPQ

Be as specific as possible. Include screenshots, error messaging, any troubleshooting you have performed, and indicate the type of device (i.e. iPad, laptop, phone, etc.).

For APHIS PPQ users, if you are having issues with the iPad, laptop, Wi-Fi settings, or issues dealing with installing software, open a ticket with CEC IT. [CECHelpDesk@usda.gov](mailto:CECHelpDesk@usda.gov) or **877-873-0783**

If you need *technical support* or help using the ESRI Survey123 application, follow this hierarchy:

1. Your supervisor
2. Local GIS Specialist that supports your area
3. Email [WebGIS.Connect@usda.gov](mailto:WebGIS.Connect@usda.gov)

### Cooperators & Other Nonfederal Users

Contact your State Plant Health Director's office for assistance.

### All Training Resources

As new applications and programs are supported, newly created training documents and self-paced training videos are shared on the APHIS public facing website:

#### [Mobile Data Collection Tools](#)

Bookmark this site. Visit often. Provide feedback and ideas freely.