![USDA logo]

2022 User Manual
Visual Surveys

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Program: Japanese Beetle (JB)

Application: ArcGIS Survey123

Host: APHIS GIS Enterprise (portal)
CHECK URL! https://maps.mrp.usda.gov/arcgis/

Survey Title: PPQ JB Visual Surveys 2022

**** Refer to the "Mobile Data Collection Tools" public webpage for all training documentation and videos.**

CONTENTS

End User Tools Request links: Support Request (End User Tools)   Mobile Device Request   Training Request
Contact: WebGIS.Connect@usda.gov

Last Updated: 6 April 2022 16:16   2

Overview

This document provides guidelines for conducting electronic data collection for the **Japanese Beetle (JB)** program using the ArcGIS Survey123 application on mobile devices. The application was developed to reflect program specifics and is intended to replace paper surveys.
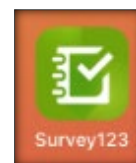
ArcGIS Survey123 Mobile Application

CHECK YOUR PORTAL URL!! Sign out of the "OLD"

In the fall of 2021, the APHIS GIS Enterprise (portal) migrated from Esri management to MRP management. The "old" Esri managed Enterprise portal URL should no longer be used.

For detailed steps to sign into the "new" MRP GIS Enterprise (portal), see Sign in to ArcGIS Enterprise.

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.

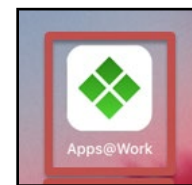Open the "Apps@Work" application on your main screen (Figure 1).

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 or 877-873-0783)
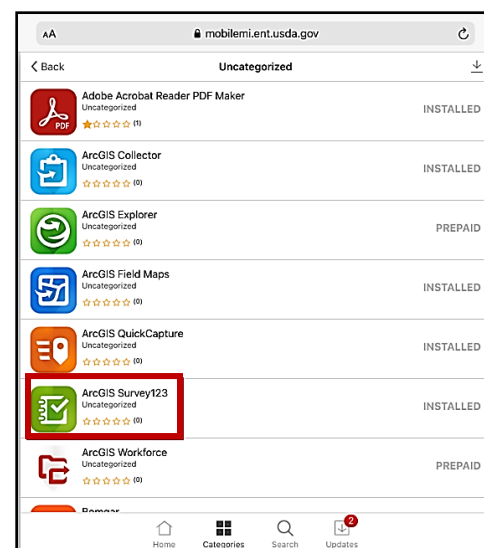

Figure 2. *Apps@Work "Uncategorized" list view*

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**)
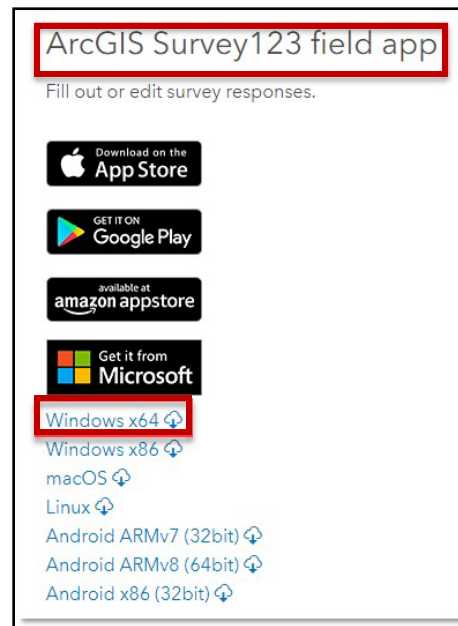

Figure 3. *ArcGIS Survey123 desktop download*

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.
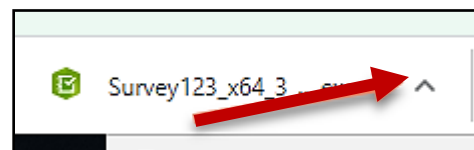

Figure 4. *Open download*

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**)
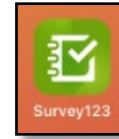

**You will need to sign into USDA-MRP Enterprise GIS portal to find surveys shared with your user account. See details below.

Figure 5. ArcGIS Survey123 icon

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.
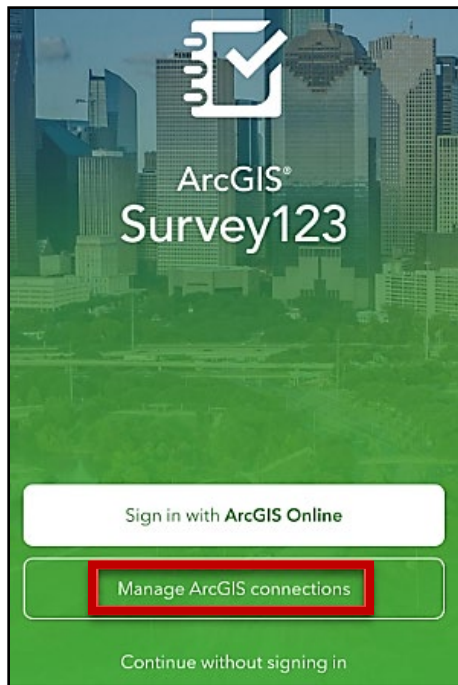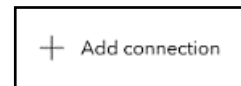

Figure 7. Add connection

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.

Figure 6. Manage ArcGIS connections

Figure 8. Type in URL

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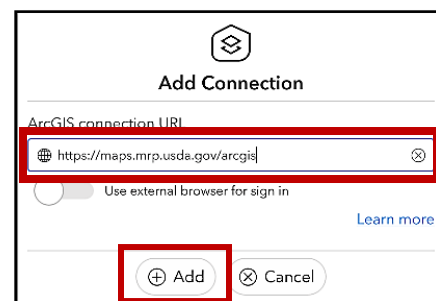
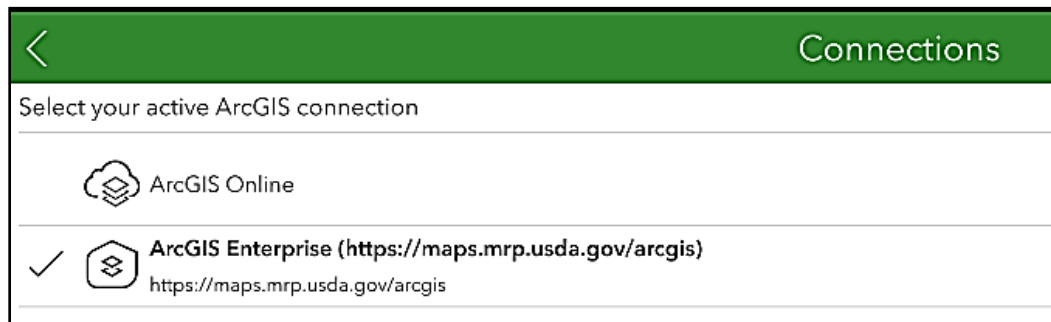ArcGIS Enterprise (https://maps.mrp.usda.gov/arcgis) should now be listed with a check mark on the left. (**Figure 9**)

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*

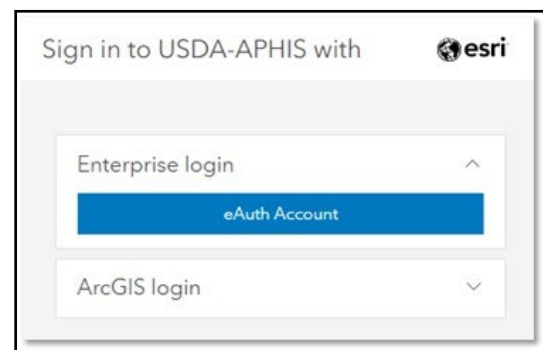Tap the blue "eAuth Account" button. (**Figure 11**)

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)**
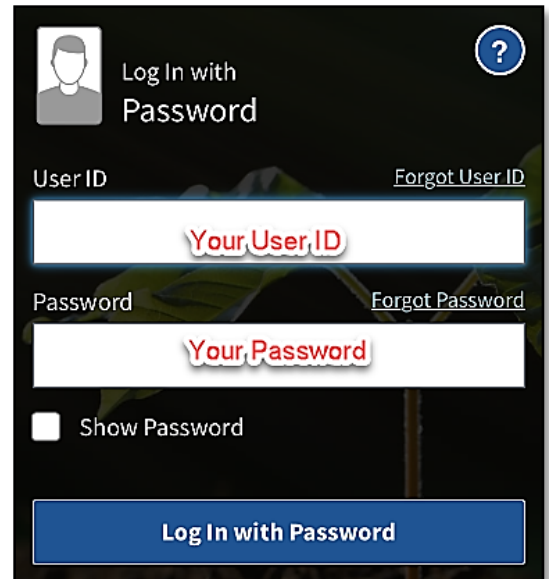

Figure 12. *USDA eAuth Log In*

Disconnected Mode

While many use the ArcGIS Survey123 application from the desktop, the application is specifically designed to operate in **disconnected** mode for field data collection. A survey is downloaded to your device while connected to a network. Then the device is disconnected from the internet and field data collection is performed. Once a reliable network connection is regained, the data is synchronized with the online database using the Outbox to Send surveys. The steps are described in the sections that follow.

The diagram below **(Figure 13)** represents the workflow of the disconnected mode concept.
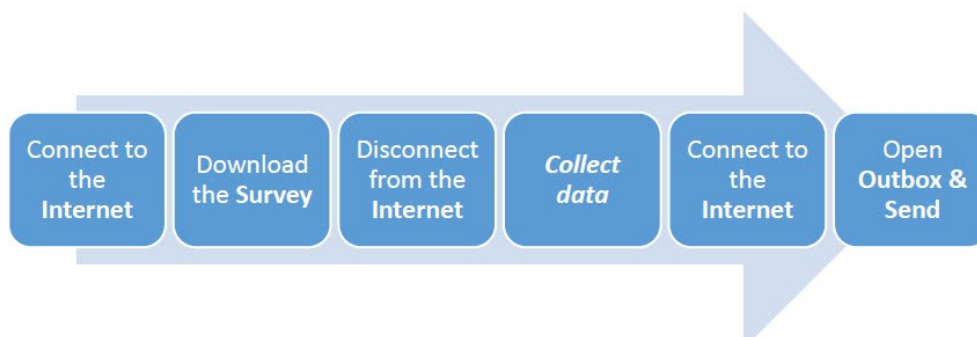

Figure 13. *Offline data collection workflow*

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 14**) Either option is acceptable.
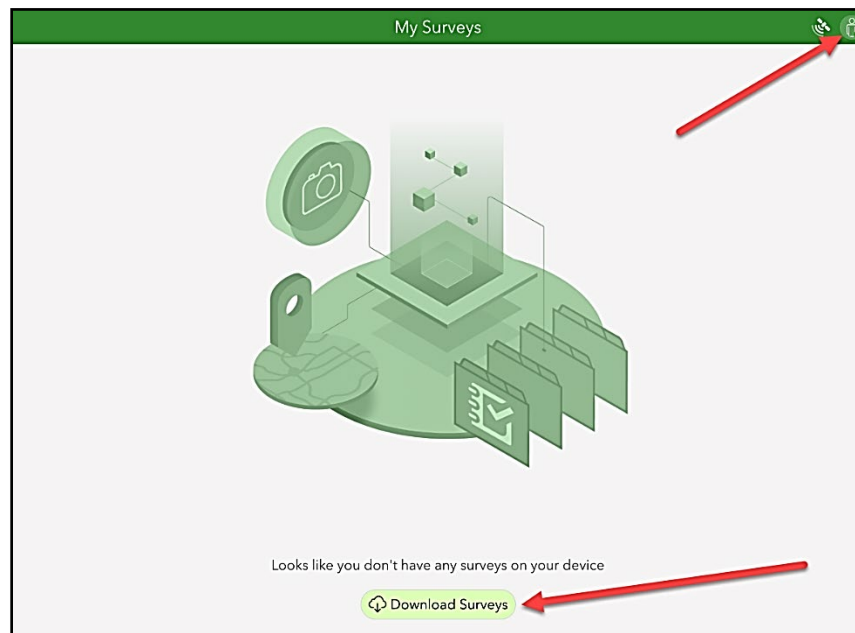
Figure 14. *Download Surveys options*

All surveys shared with you will be listed for download. Choose the cloud icon to the right of the title "**PPQ JB Visual Surveys 2022**" and the survey download will start. (**Figure 15**)

Figure 15. *Download - Cloud icon*

Once downloaded, click the back button (arrow in the upper left corner in **Figure 15**) to return to your list of "**My Surveys**".

Open the survey by clicking on its icon. (**Figure 16**)

Figure 16. *Downloaded survey icon*

Follow steps to complete a survey as described in the Complete a Survey section of this document.

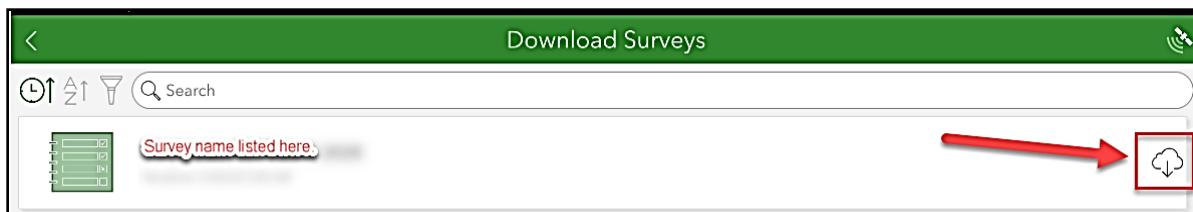## Delete Survey (if desired)

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 17**)
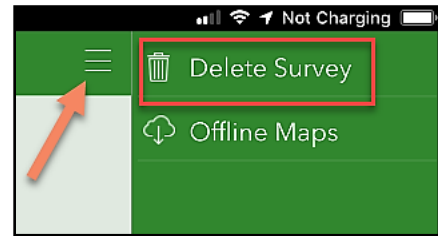

Figure 17. *Delete Survey*

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 JB Visual 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.

The Data Form

1. Tap the icon to open the previously downloaded survey: "**PPQ JB Visual Surveys 2022**"

2. To begin a survey, tap the Collect bar. (**Figure 18**)

Figure 18. *Collect bar*

3. Answer the questions in the data form carefully.

Be sure that you understand the input required by reading the "hints". For instance, Agency refers to the "Surveying agency:" according to the hint given. (**Figure 17**)

Figure 17. *Example of a required field and hint*

The Map

The map at the very top shows your GPS location (found by your device's internal GPS receiver).
If connected to Wi-Fi: Confirm the airport location on the map. **Be sure this is correct!**
If not connected to Wi-Fi, this map view is not visible.

If entering data from a desktop, you must enter the location manually.
If the location is not correct in the map view, it can be updated manually as well.

To enter or change the mapped location:
1. Tap or click on the map to review and/or change this location.
2. Enter airport code, address, or latitude/longitude manually.
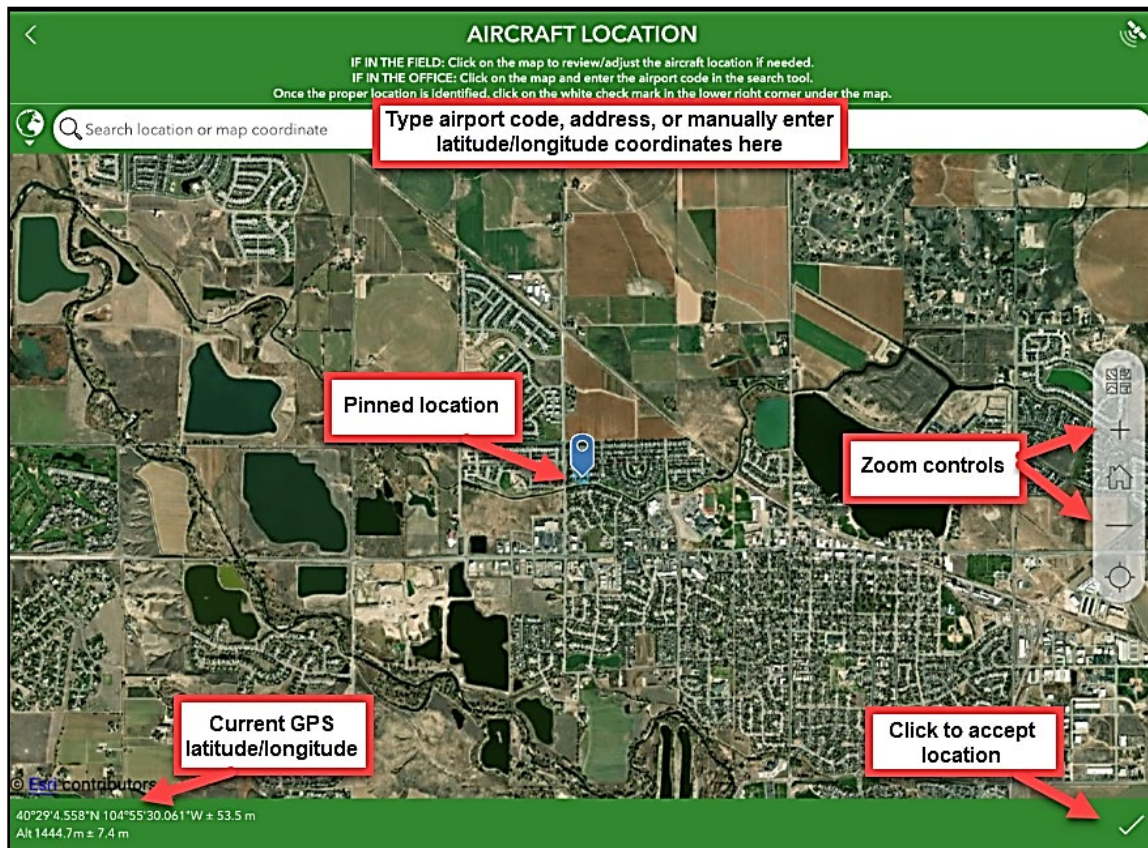3. Select the white check mark to accept the location.

Figure 18. *Mapped location*

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 19**)
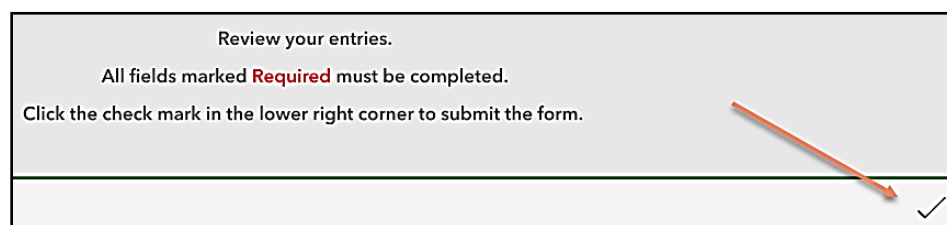

Figure 19. *Tap check mark to submit your survey*

Save to Drafts

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 20**)
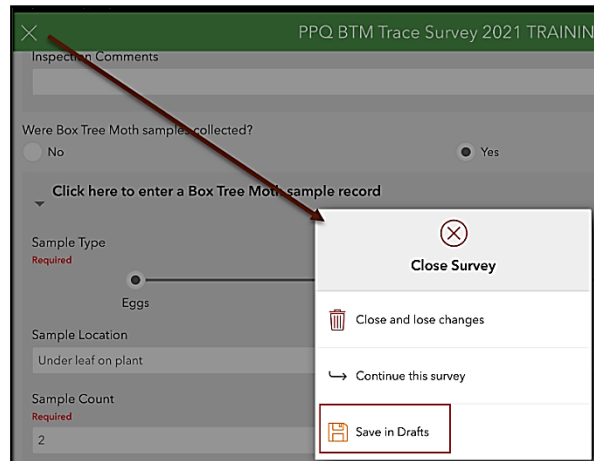

Figure 20. *Close Survey and Save in Drafts*

The Drafts option then appears along with the Collect and Inbox bars. Choose the Draft bar to return to the incomplete survey. (**Figure 21**)

Figure 21. *Collect, Inbox, and Draft bars*

Send or Save Completed Surveys

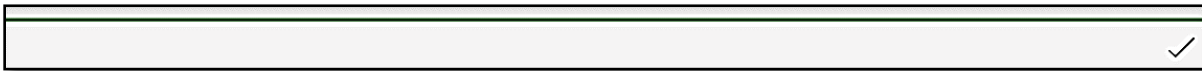If you have completed data form and all applicable tables, select the check mark at the bottom right. (**Figure 22**)

Figure 22. *Survey complete checkmark*

The "Survey Completed" box that appears next offers a few options (**Figure 23**):

- *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.

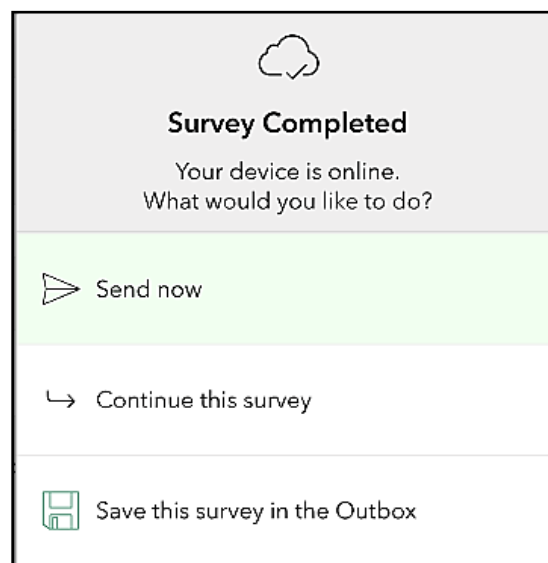**Figure 23.** *Survey Completed options*

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 Collect bar with a number indicating how many surveys are waiting to be submitted. (**Figure 24**)

Figure 24. *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 25**)

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 25**) to submit all surveys waiting in the Outbox to the USDA-MRP Enterprise GIS portal.
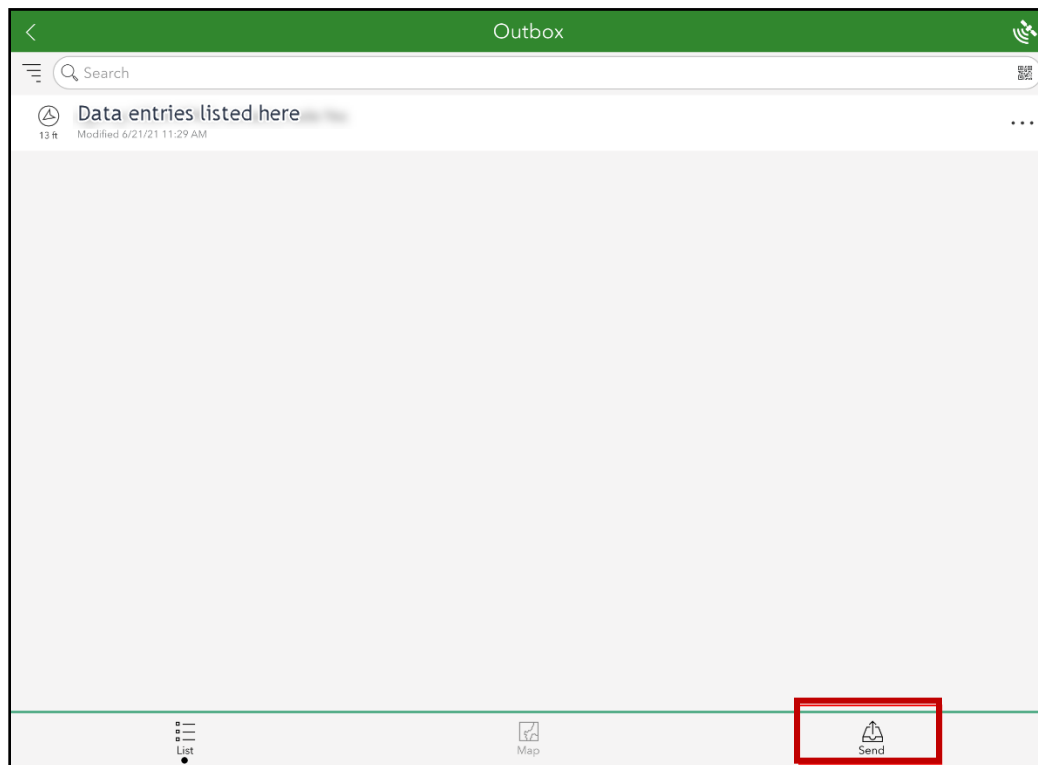

Figure 25. *Outbox with surveys saved to send*

Sent

Once the survey is sent, you are presented with the option to start another survey (Collect) or review your sent surveys (Sent). (**Figure 26**)
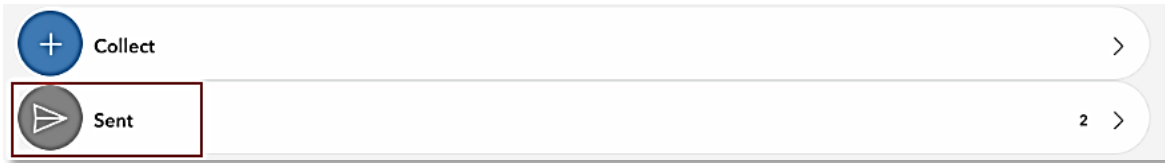

Figure 26. *Collect and Sent bars*

Selecting the "Sent" bar presents options to view your sent surveys in a **list**, on a **map**, or to **delete** the contents of this folder altogether. The list or map view allow the user to select individual surveys, perform edits, and resend, if desired. (**Figure 27**)

Figure 27. *Sent folder options*

Getting Help
APHIS PPQ

Be as specific as possible. Include screenshots, error messaging, any troubleshooting you have performed, and indicate the type of <u>device</u> (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 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

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:

<p align="center">Mobile Data Collection Tools</p>

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