2025 Black Fig Fly
Annual Accomplishment Report
FAIN: AP25PPQFO000C079

Year:	2025
State:	California
Cooperative Agreement Name:	Black Fig Fly Survey
FAIN:	AP25PPQFO000C079
Project Funding Period:	July 1, 2025 – June 30, 2026
Project Report:	**Survey Report**
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Cooperators Project Coordinator:	Joanna Fisher
Name:	Joanna Fisher
Agency:	California Department of Food and Agriculture
Address:	1220 N Street
City/ Address/ Zip:	Sacramento, CA 95814
Telephone:	(916) 202-0879
E-mail:	Joanna.fisher@cdfa.ca.gov

Quarterly Report	☐
Semi-Annual Accomplishment Report	☐
Annual Accomplishment Report	☒

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A. Purpose

The Black Fig Fly (BFF) *Silba adipata* (Diptera: Lonchaeidae), is a new invasive pest. It was first reported in 2021 in fig orchards in southern California. BFF is native to the Mediterranean region and is a serious pest of figs The insect pest exclusively attacks figs and prefers unripe fruit. The adult female lays eggs inside the fig. Damage is caused by the larvae which hatch and feed inside the fruit, leading to premature fruit drop. Last instar larvae will either make their way out of the fruit and drop to the soil where they will pupate, or they may pupate inside the fig. In the spring, adult flies emerge, mate, and begin to attack figs. The BFF has between four to six generations per year and can reduce crop yield by up to 80% and can also increase production costs due to the need to apply pesticides to control the pest.

Recent research conducted by the University of California indicates that the BFF can survive and become established in the Central Valley of California which poses a significant threat to the California fig industry. The Central Valley produces 80% of the nation's figs, and California produces 100% of the dried figs and 98% of the fresh figs grown commercially in the U.S. More than 100 producers, marketers, farm managers, and processors, cultivate approximately 9,300 acres of California figs, primarily around the counties of Madera, Fresno, and Merced. In 2024, U.S. fig exports were valued at more than $10 million and California produces 100% of the U.S. fig exports.

The establishment of BFF in the primary fig production counties of Madera, Fresno and Merced will likely lead to crop loss, increased pesticide usage and production costs. To address these risks, the California Department of Food and Agriculture (CDFA) conducted a targeted trapping and visual survey across these three primary fig producing counties. This BFF survey is important for safeguarding California's agriculture by preventing the widespread use of pesticides, ensuring pest free areas, and retaining and expanding export markets. Demonstrating the absence of the BFF in these key agricultural areas is essential for maintaining current fig import regulations and requirements.

B. Activities

1. Monthly activities:

July-September 2025 – Made initial contacts to arrange for survey activities. Conducted survey site selection. Trained personnel. Obtained supplies needed for field activities. Trapped for BFF. Conducted BFF visual surveys, support was provided to counties as needed. Screened and processed trap samples and curated specimens. Completed identifications.

October-February 2026 – Prepared semiannual report. Processed county invoices. Cleaned and repaired equipment, furloughed seasonal personnel, and provided support to county staff as needed.

March-June 2026- Prepared annual report, cleaned and repaired equipment, processed county invoices and provided support to county staff as needed.

2. Survey methodology

This survey targeted areas at high risk of crop loss, particularly where the majority of U.S. fig production occurs and where no BFF finds have been confirmed. Prior to the start of this survey, BFF infestations had been confirmed in the southern and central coast California counties of Alameda, Contra Costa, Los Angeles, Orange, Merced, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, and Santa Cruz. There had been no reports of BFF finds in the Central Valley, which is why this survey focused on the three major fig production counties in California: Merced, Madera, and Fresno. Given the rapid spread of BFF since it was first reported in 2021, it is crucial that these important fig producing counties are closely monitored. BFF can spread rapidly through the movement of infested fruit or soil, as well as through agricultural trade, shipping, and tourism. Additionally, adult BFFs can be carried by wind to nearby fig orchards.

McPhail traps baited with torula yeast were deployed in commercial fig orchards over a two-month period between July and August, aligning with the typical peak season for BFF activity. Traps were relocated after the first month of the survey to improve spatial coverage across the orchards. In addition to trapping, visual inspections were conducted. Inspectors randomly selected trees, prioritizing those with dropped or unripe fruit and examined fruit for external signs of infestation such as color changes or exit holes. When symptoms were observed, fruit was cut open to check for internal larval feeding. Additional asymptomatic fruit was also collected to detect early-stage infestations. Suspect fruits were placed in plastic bags and held at a warm temperature to allow larvae to develop and emerge. Any larvae recovered, were preserved in ethanol and submitted for identification.

C. Benefits and results of survey

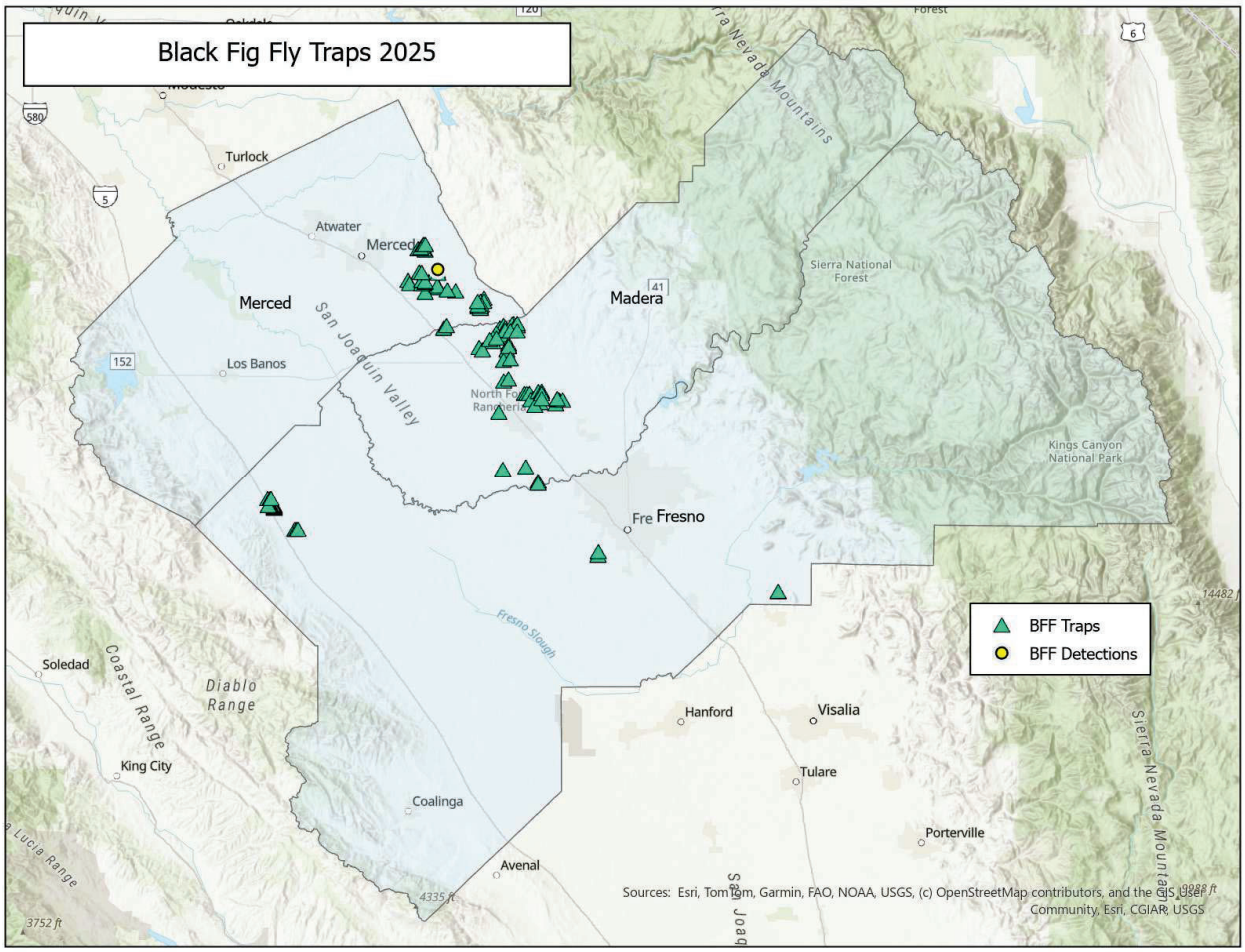
From July through August 2025, the BFF Survey was conducted in Fresno, Merced, and Madera counties using both traps and visual inspections. A total of 118 traps were deployed across the three counties, and a total of 592 sites were visually surveyed during the survey period (Table 1). One adult female BFF was detected in a McPhail trap baited with torula yeast in an orchard in Merced County on July 16, 2025. No BFF were detected in Fresno or Madera counties during the survey. In Fresno County, 30 traps were deployed and 240 sites were visually surveyed, while 40 traps and 160 visual surveys were completed in Merced County. In Madera County, 48 traps were deployed and 192 sites were visually surveyed. Two fewer traps were deployed in Madera County than originally planned because an insufficient number of suitable trees which were large enough to support the weight of the traps were found (Figure 1).

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Table 1: Survey Information by County

Target Pest	County	# Traps	# Sites visually surveyed	# Positive Samples	Dates Surveyed
BFF	Fresno	30	240	0	July-August
	Merced	40	160	1	July-August
	Madera	48	192	0	July-August
	Totals	**118**	**592**	**1**	

Figure 1: BFF Trap Locations



D. Training

Survey staff were trained in trapping, visual survey procedures, identification of BFF infested figs, proper cutting and examination of suspect fruit, and correct sample submission protocols. Staff who screened McPhail trap contents were trained on how to screen for BFF.

E. Database submissions

One suspect specimen was submitted to the CDFA's PPDC for identification which was identified as BFF. All positive and negative data obtained during this survey will be entered into the National Agricultural Pest Information System prior to the submission of the final accomplishment report by October 28, 2026.

Approved and signed by:

Victoria Hornbaker
Digitally signed by Victoria Hornbaker
Date: 2026.10.09 11:18:47 -07'00'

Victoria Hornbaker, ROAR Date
California Department of Food & Agriculture
Plant Health & Pest Prevention Services

BETH STONE SMITH
Digitally signed by BETH STONE SMITH
Date: 2026.10.14 09:05:30 -07'00'

Beth Stone-Smith, ADODR Date
United States Department of Agriculture
AHPIS, Plant Protection & Quarantine