

Health & Safety *Report*

Worker Health and Safety Branch

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An Observation Study of Crop Advisors' Activities, Project 0202

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Abstract

The Worker Health and Safety Branch (WH&S) profiled 30 crop advisors to characterize work practices that contribute to pesticide residue exposure. Exposure data are lacking for crop advisors, who are employed to survey insect, weed, and disease pressures in crop fields and to evaluate the efficacy of pesticide treatments. Study components included discussions with crop advisors, observing crop advisors during their normal workday activities, and evaluating dislodgeable foliar residues (DFR) on treated crops. Observations conducted in 43 crops and 351 field sites in 15 California counties found that crop advisors had foliar contact with 36 crops in 190 fields. Overall, crop advisors spent an average workday of 9.16 ± 1.15 hours, with 2.39 ± 1.16 hours per day spent in inspection activities, 2.13 ± 1.25 hours spent in crop fields and 1.66 ± 1.35 hours spent in foliar contact. Crop advisors in this survey were found to rarely enter fields during the REI. Observations in this study suggest that crop advisor exposure is low compared to harvesters. A total of 289 DFR analyses were conducted for 46 pesticides; 150 positive results were found for 31 pesticides on 74 of 96 samples. Positive results were found on 13 of the 17 crops sampled. Thirteen pesticide analytes were detected for the first time in a WH&S study.

Introduction

The US EPA Worker Protection Standard (WPS) and Title 3, California Code of Regulations (3CCR) consider crop advisors to be persons employed to survey insect, weed, and disease pressures in crop fields and to evaluate the efficacy of pesticide treatments^{1,2}. Unlike fieldworkers, crop advisors may enter a field during a pesticide application or during a restricted-entry interval (REI) provided they are trained as pesticide handlers, given other pesticide-handler protections, and they wear the appropriate personal protective equipment (PPE). In California, two distinct groups perform crop advisor tasks, agricultural pest control advisors (PCAs) and agricultural field scouts (scouts). Only PCAs can make recommendations on agricultural uses of pesticide products, hold himself/herself as an authority on any agricultural pesticide use, or solicit services or sales for any agricultural pesticide use. In addition, the California Department of Pesticide Regulation (DPR) requires PCAs to be licensed³. Basic PCA qualifications include completion of a college degree with a 2.0 average in the required core classes, 24 months' technical experience (which can include work as a scout), passing a biannual examination, and completing 40 hours of approved continuing education every two years. In contrast, scouts are not required to meet any criteria for licensing, education or experience.

Studies of fieldworker and human volunteer exposure to pesticide residues in cotton and sweet corn are available in the literature⁴⁻⁹. Unpublished studies on scouts' exposure in a variety of crops have been submitted to DPR in support of pesticide registration¹⁰⁻¹⁷. These previous studies were structured, empirical evaluations of scouts' exposure during defined time periods at specific intervals post-application. The studies varied in how activities were performed, how long study subjects spent in treated fields, and in geographic location. Most studies were not conducted in California but in areas where different climate conditions and pests might be anticipated to affect pesticide dissipation as well as cultural and scouting practices. WH&S has estimated exposure to cotton scouts for several pesticides¹⁸⁻²⁴, but lacks crop advisor exposure information for other crops and pesticides. When exposure data are lacking, DPR Worker Health and Safety Branch (WH&S) toxicologists make health-protective assumptions in developing exposure estimates for crop advisors and other agricultural workers.

This study profiled workers employed as crop advisors to characterize work practices that contribute to pesticide residue exposure. Study components included discussions with crop advisors and/or their employers, observing crop advisors during their normal workday activities,

and evaluating dislodgeable foliar residues (DFR) on treated crops. WH&S staff gathered data on work tasks, crops inspected, the nature and degree of foliar contact by type and height of crop, the time spent in fields per day and per year, the frequency of field entry during REIs, typical work clothing, and other aspects of routine crop advisor activities. The study was conducted in 15 counties, representing California's major agricultural areas, including the Sacramento, San Joaquin, Salinas and Napa Valleys, and the Central Coast.

Materials and Methods

Project Duration - WH&S Project 0202, Scout Activities Observation Study, was initiated on August 22, 2002. WH&S staff conducted interviews, observations and dislodgeable foliar residue sampling between August 28, 2002 and September 26, 2003.

Soliciting Cooperators for the Study - PCAs are employed in a variety of ways. Many work as independent consultants. Others work for agricultural chemical or agricultural service companies, pest management businesses, grower/packer/shippers, farms, and cooperatives. Scouts may be employed by independent PCAs or by any of the companies who employ PCAs. With the assistance of county agricultural commissioners, WH&S staff solicited cooperation from crop advisors throughout California. WH&S staff interviewed 36 crop advisors to gather background information about occupational parameters. We collected data on crop advisor activities by observing 30 crop advisors for one full workday each.

In discussions with potential cooperators, WH&S found that the majority of crop advisors are PCAs and that scouts represent a small segment of the crop advisor work force. In addition to the relative scarcity of scouts, PCAs were generally more available to participate in the study than scouts because they had greater flexibility and independence in setting their work schedules. Generally, this document addresses exposure parameters for the overall category of crop advisor. However, where appropriate, differences between scouts and PCAs are examined.

Crop Advisor Discussions – The information compiled from discussions provided an overview of the variation among crop advisors' tasks by season, crop, geographic region, type of crop advisor business, and type of crop advisor work (PCA vs. scout). WH&S gathered information about a variety of parameters, including:

- crop advisors' work and educational experience,
- number of full-time vs. seasonal, and male vs. female crop advisor staff
- activities performed during the typical field season
- type and distribution of crop advisor activities among staff,
- type of crops inspected,
- crop inspection tasks,
- frequency that crop advisors enter fields during REIs, and
- method for informing crop advisors of pesticides applied to the fields they inspect.

Crop Advisor Observations – Observations were conducted to provide data on the duration of crop advisor tasks, the frequency and duration of contact with treated foliage, and the frequency and duration of field entry during REIs. Throughout the workday, a study scientist followed a crop advisor and recorded the start and stop times for each discrete activity, in one-minute increments. The activity and circumstance categories are defined below and summarized in Table 1.

- For each activity/time interval, field activities were recorded as one or more of the following:
 - check fields – conducting field inspections while walking or driving by the field or by physically entering the field.
 - check traps – any activity involving trap inspection and handling, including visual inspection, (e.g., pheromone traps in orange trees), collection and replacement of bait/media, cleaning dead insects from traps, etc.
 - sweep – using a sweep net to collect insects while walking through a field.
- For every activity entry, WH&S staff recorded one or more circumstances: walk, drive, in field, field edge, out of field, foliar contact. Foliar contact was noted when crop advisors had protected or unprotected body contact with the plants. Much of the foliar contact was restricted to the hands, but crop advisors also had arm, leg or full body contact with the foliage in some crops. Where noted, foliar contact was generally intermittent during the applicable time interval. However, because it was virtually impossible to track the duration of each foliar contact event, foliar contact was considered to be continuous throughout the applicable time interval during which contact occurred.
- Non-field activities were mutually exclusive and were recorded as office, transit, lunch/break, or other. Activities designated as “other” included recording data, phone calls, meetings, donning/removing clothing or PPE, microscopy, mapping, warehouse stocking, lab work, and greenhouse/nursery work.
- Other data recorded
 - Worker data: ID number, gender, clothing and PPE worn
 - Field data: If workers entered a field, WH&S staff recorded the field identification number, crop, and any field postings.
 - Field sampling data: crop attributes, pesticide application history (if available)

Table 1. Activity, Activity Circumstances, and Other Data Recorded During Crop Advisor Observations

Activity	Circumstances¹	Other Data Recorded
<i>Field Activities²</i>	Drive	<i>Worker Data</i>
Check Field	Walk	ID Number, Gender, Clothing/PPE Worn
Check Traps	In Field	<i>Field Data for each Field Entered</i>
Sweep	Field Edge	Field ID number, Crop, Field postings
<i>Non-field Activities³</i>	Out of Field	<i>Additional Data for each Field Sampled</i>
Office	Foliar Contact	Sample ID Number
Transit		Crop Attributes
Lunch/Break		Pesticide application history, if available
Other ⁴		

1 For each activity, one or more circumstances were recorded.

2 Field activities - one or more activities were recorded for each time interval when the crop advisor was actually in the field.

3 Non-field activities were mutually exclusive and took place away from the crop field environment.

4 Activities designated as "other" included recording data, phone calls, meetings, donning/removing clothing or PPE, microscopy, mapping, warehouse stocking, lab work, and greenhouse/field trial work.

Dislodgeable Foliar Residue (DFR) Sampling – Study staff sampled treated crop foliage when pesticides were known to have been applied within the prior three weeks, and when the time required to collect samples did not delay the crop advisor in completing his/her scheduled work tasks. One or two samples were collected per field, from rows immediately adjacent to where the crop advisor was conducting inspection activities. Each sample consisted of 40 1-inch leaf discs. Samples were collected, labeled, stored and transported to the laboratory in accordance with WH&S standard operating procedures and sampling guidelines²⁵. The California Department of Food and Agriculture, Center for Analytical Chemistry conducted dislodgeable foliar residue analyses. On-going analytical quality control (QC) consisted of matrix spikes, matrix blanks, reagent spikes and reagent blanks. Results were reported as µg pesticide/sample.

Data Analysis – Information gathered from discussions was compiled and summarized to provide an overview of crop advisors' education and work experience, their typical work tasks and schedules, and the number and types of crops they inspect. Activity observation and DFR sample data were entered into a Microsoft[®] Access database and analyzed by query.

For the observation data, summary statistics are reported overall and by worker for crops inspected, time spent on each crop advisor task, inspection time by crop, duration and extent of foliar contact, time spent in fields during REIs, and clothing and PPE worn. Foliar contact, where noted, was generally intermittent during the applicable time interval. However, because it was virtually impossible to track the duration of each foliar contact event, foliar contact was presumed to be continuous throughout the applicable time interval. Thus, foliar contact times are inherently conservative estimates of the time crop advisors actually spent contacting crop foliage.

In accordance with WH&S guidance, DFR sample results were calculated as $\mu\text{g pesticide}/\text{cm}^2$ leaf surface area, as follows:

$$(\mu\text{g pesticide}/\text{sample})/(400 \text{ cm}^2 \text{ leaf surface area}/\text{sample}) = \mu\text{g pesticide}/\text{cm}^2$$

DFR summary data are reported by crop and pesticide. DFR QC data are reported, by pesticide, as mean percent recovery.

Results

In all, twenty-seven PCAs and nine scouts participated in interviews, while 20 PCAs and 10 scouts participated in the observations. Due to factors such as logistics, language barriers, and the goal of representing a wide array of crop scenarios throughout California's major growing regions, not every crop advisor who was interviewed was a participant in the observation study. Conversely, some crop advisors participated in the observation study but were not interviewed.

Crop Advisor Interviews - WH&S staff interviewed thirty-six crop advisors to characterize their work and educational experience, work season and schedules, work tasks, frequency of entering fields under REIs, and any differences in these attributes between PCAs and scouts.

- *Distribution by Gender* – Twenty-six of the 27 PCAs interviewed were male, as were seven of the nine scouts interviewed.
- *Work and Educational Experience* – All PCAs had 4-year college degrees or master's degrees. PCAs worked full-time, year-round and had between 2 and 40 years experience; the majority had 5 to 15 years' experience. Scouts' work varied among the following: seasonal part-time; seasonal full-time; year-round part-time; and year-round full-time. Scouts who worked seasonally worked between 3 and 9 months per year, had either completed some college or held a college degree, and had between two and ten years' experience. Scouts who worked only three months worked from June through August, were typically college students and generally had two years' experience or less. Scouts who worked year-round, full-time, generally had more work experience, ranging from 4-15 years. Among this group, half had completed either a 4-year college degree or a master's degree, and half had no college experience.
- *Work Season and Schedules* - In the slower season, which was typically mid-October through early April, PCAs averaged 45-60 hours' work per week, including some Saturdays. As the summer approached, PCAs' workdays increased commensurately with crop maturity. During the busiest three months of the year, which varied slightly depending on the crop, PCAs typically worked 10-12 hours on weekdays and 6-8 hours on Saturdays. PCAs who inspected row crops had the longest workweeks and routinely worked 15-hour days, 5.5 - 6 days a week, during the busiest three months of the year.

Scouts worked between 3 and 12 months per year, depending on the crop. Typically, a business employed one or two scouts year-round and hired seasonal scouts for the busiest 3-6 months. Scouts generally had shorter workweeks than did PCAs, varying between 40 and 60 hours. Scouts who inspected row crops worked the longest, averaging 50-60 hours per week, including work on Saturdays. Strawberry scouts worked the shortest workweeks, 40 hours per week, Monday through Friday. The workweek for other scouts was between 40 and 50 hours, with Saturday work only during the busiest three months of the year.

- *Work Tasks* – Independent PCAs and PCAs employed by agricultural chemical or service businesses were generally responsible for recruiting their own clients. PCAs employed by grower/packer/shippers, cooperatives, farms, and pest management companies were typically assigned specific territories or clients; management was responsible for recruiting clients. Scouts working for agricultural chemical or service businesses were assigned to work for one or more PCAs, while scouts working for farms, cooperatives, pest management companies and grower/packer/shippers generally reported directly to management.

PCAs evaluated crop vigor and maturity, insect, fungus, disease and weed pressures, the efficacy of pesticide treatments, collected fruit, foliage, petiole and soil samples, wrote recommendations for pesticide applications, coordinated pesticide application, planting, irrigation, cultivation, and harvest schedules, met with growers, supervised scouts, participated in various types of research trials and wrote reports. Scouts inspected crops for percent maturity, insect, fungus, disease and weed pressures, checked pheromone traps, collected fruit, foliage, petiole, and soil samples, released beneficial insects, performed technical work such as microscopy, mapping and mite brushing, wrote reports, and participated in various types of research trials. When scouts identified a significant pest pressure, their PCA generally re-inspected the field before writing a recommendation for treatment.

Crop inspections primarily involve evaluating crops visually with occasional hand inspection and/or sampling of leaves, fruit, or petioles. During the height of the season, crop advisors inspected most fields every 3-10 days, depending on the crop and its maturity. Low-value crops, such as alfalfa and field corn, and permanent crops that had already been harvested, such as fruit trees, were inspected both less frequently and less thoroughly than high value crops. Field inspections were conducted in a variety of ways: walking the entire field, walking several sections, making a quick "in and out" inspection of a few rows, evaluating while walking the edge of the field, or evaluating while driving slowly by the field. Seasonal scouts worked as the PCAs' extra set of eyes and were thus the most likely to spend longer times in each field and to walk a field completely. With the exception of strawberry scouts who inspected a single ranch each day, most crop advisors spent a considerable portion of their day in transit between field sites.

- *Crops Inspected* - The number and type of crops inspected varied depending on the type of crop advisor business, the region, and time of year. Some PCAs specialized in single crops such as grapes, artichokes, cotton, strawberries, citrus, or processing tomatoes. Others inspected as many as six crops, ranging from alfalfa to leafy row crops/cole crops, tree fruits, nuts, row crops, cotton, and grapes. Since scouts' expertise and experience was limited, they generally were responsible for inspecting either one crop, or a few crops with similar pest problems.
- *Pesticide Application Field History and Field Entry During REIs* – One of the most crucial differences between PCAs and scouts centers on PCAs' authority to make pesticide recommendations vs. scouts' being prohibited from doing so. Most PCAs routinely make recommendations and schedule pesticide treatments and are thus aware of the pesticides that have been applied and the applicable REIs. However, unless informed by a PCA, scouts are generally unaware of field application histories and REIs. Twenty-five of the 27 PCAs interviewed made pesticide recommendations. Some of the independent PCAs provided only

consultation for irrigation and cultivation practices, or specialized in non-pesticidal integrated pest management practices. As is the case for scouts, unless the field was posted, these PCAs would not necessarily be aware of whether the field was treated and they could potentially enter a field under an REI.

With the exception of sweet corn, PCAs reported that they scheduled inspections to avoid field entry during REIs. In the weeks before harvest, sweet corn is inspected twice a week and treated every 3-4 days with pesticides having REIs of up to 18 days. All of the PCAs who made pesticide recommendations reported that they scheduled scouts' inspections around REIs and informed scouts which fields were under an REI. Table 2 of the Appendix contains field posting information and notes whether field application histories were known.

Crop Advisor Observations - WH&S observed twenty PCAs and 10 scouts for one full workday each. The crop advisors inspected 43 crops at 351 field sites in 15 California counties. Table 1 in the Appendix contains individual time, task, crop, and inspection attribute data for each crop advisor.

- *Work Clothing and PPE* - At a minimum, all crop advisors wore long pants, socks, pull-on or laced work boots, and a short-sleeved shirt. Depending on time of day, weather, and personal preference, crop advisors wore hats and sunglasses or additional short-sleeved or long-sleeved shirts, vests, and/or jackets. Overall, 13 crop advisors wore a single short-sleeved shirt, four wore two short-sleeved shirts, five wore a single long-sleeved shirt, five wore a long-sleeved garment over a short-sleeved shirt, and three wore three long-sleeved garments. With the following exceptions, crop advisors wore PPE only as required by pesticide label to enter fields under an REI:
 - One PCA wore a long-sleeved denim shirt, straw hat, N-95 type paper respirator, and goggles every time he entered treated sweet corn fields, whether or not an REI was in effect,
 - One PCA in row crops in the Salinas Valley wore waterproof chaps and boots for approximately 5 hours during the morning to protect his clothing from dew,
 - Three crop advisors wore leather gloves for hand protection when inspecting artichokes, and
 - Three strawberry scouts wore vinyl gloves for the entire workday. These scouts also wore the most clothing layers of all the crop advisors observed. Each woman routinely wore three head scarves, tied to cover the head, chin, mouth, forehead, neck and upper back and shoulders. They each wore a hat or cap over the bandanas; three shirts, the outer most of which was a fleece or sweatshirt, and, for modesty's sake, tied a fourth shirt over their jeans to cover their buttocks region.
- *Workday and Activities* - Table 2 summarizes the descriptive statistics (mean, standard deviation, number of observations) for time spent on workday activities for the 30 crop advisors, with detail for PCAs and scouts. Since the overall workday of 9.16 ± 1.15 hours includes an average of one hour for lunch and breaks, crop advisors' average workday is about eight hours. The number of observations for each activity varied because no crop advisor conducted every activity during a single workday.

Table 2. Mean Hours and Number of Observations (n) by Activity for All Crop Advisors

Activity	All Crop Advisors			Pest Control Advisors			Scouts		
	Mean hrs	SD ¹ hrs	n	Mean hrs	SD hrs	n	Mean hrs	SD hrs	n
Workday ²	9.16	1.15	30	9.22	0.97	20	9.04	1.50	10
Inspection Activities									
Check Fields ³	2.39	1.16	29	1.97	0.83	19	3.23	1.30	10
Check Traps ³	0.43	0.48	8	0.59	0.54	5	0.17	0.25	3
Sweep ³	0.48	0.58	4	0.48	0.58	4	---	---	0
Sum of Hours Spent on Inspection Activities	(3.30)			(3.04)			(3.40)		
Transit ³	2.49	1.32	30	2.84	1.27	20	1.78	1.16	10
Lunch/break ³	0.97	0.41	25	1.09	0.38	18	0.68	0.38	7
Office ³	2.75	1.21	22	2.79	1.27	17	2.62	1.10	5
Other ^{3,4}	1.57	2.04	26	1.10	1.63	18	2.64	2.57	8
Total Mean Hours ⁵	(11.08)			(10.86)			(11.12)		

1 SD – Standard deviation

2 Workday - Mean elapsed hours from beginning to end of workday.

3 Work Activity: Mean hrs accrue for every activity conducted. n varies; no crop advisor performed every listed activity during a single workday. The sum of mean hours by activity exceeds actual mean workday hours.

4 Activities designated as "other" included recording data, phone calls, meetings, donning/removing clothing or PPE, microscopy, mapping, warehouse stocking, lab work, and greenhouse/field trial work.

5 Exceeds actual workday hours; presented for comparing relative portions of the workday devoted to each crop advisor task.

The sum of mean hours per activity exceeds mean workday hours and represents a “pseudo-workday” in that no crop advisor performed all listed activities in a single day. However, the pseudo-workday is useful to examine the relative hours devoted to each activity. Transit was the most frequent activity (n = 30), followed by field inspections (n = 29; the exception was a PCA who conducted only trap checks during the day he was observed). Office activities, transit, and field inspections accounted for the largest segments of time; each comprised approximately equal portions of the workday (range was about 16-31% of the workday for all crop advisors, all PCAs and all scouts). Activities noted as “other” (phone calls, meetings, lab work, data recording, warehouse stocking, and nursery/greenhouse work) accounted for about 14% of the workday. These four activities (transit, field inspections, office and other) together comprised more than 80% of the workday. The average time spent on each of these tasks varied among crop advisors by about 40-50%, indicating the data represent a reasonable estimate of time spent on core activities across California growing regions and crops.

Few crop advisors conducted sweeping and trap checks (8 and 4, respectively) and the time spent on these two activities averaged just 20% of the time crop advisors spent inspecting fields (0.48 and 0.43 hours, respectively, vs. 2.37 hours for field inspections). The time spent on trap checks (coefficient of variation (CV; [(SD/mean) x 100]) = 1), sweeping tasks (CV = 1.2) and “other” tasks (CV = 1.3), was also more variable than for the core activities,

with these three activities together comprising approximately 20% of the representative workday.

As expected, scouts spent somewhat more time in field activities than did PCAs (29% vs. 18% of their workdays, respectively). Approximately 75% of the scouts' workday was devoted to field activities, office activities and activities designated as "other". PCAs spent more time in transit than did scouts (26% vs. 16%, respectively) and less time on "other" activities (about 10% of their workday vs. 24% for scouts). Office time was approximately equal for PCAs and scouts. PCAs spent somewhat more time on lunch/breaks than did scouts (about 65 minutes vs. 40 minutes, respectively). On average, time spent on each activity varied between 50%-100%, with less variation noted for checking fields, transit, lunch and office activities.

- *Crops and Foliar Contact* – Crop advisors inspected 43 crops in 351 fields and had foliar contact with 36 crops in 190 fields (see Appendix, Table 1). Field inspections simultaneously evaluated the status of insect, disease, and weed pressures, efficacy of recent treatments, plant maturity and vigor, and irrigation status. Crop advisors sometimes entered fields at one or more locations to make their evaluations and other times conducted evaluations partially or entirely from the field edge or from their vehicle. When they entered fields for inspection activities (field evaluations, sweeping and/or checking traps), crop advisors sometimes had foliar contact either intermittently or throughout the inspection period, and sometimes had no foliar contact. Table 3 summarizes the total time each crop advisor spent on inspection activities both in and out of fields, the time spent inspecting crops in fields, and the time spent contacting foliage while inspecting crops in fields. Table 3 provides summaries for PCAs (n = 20) vs. scouts (n = 10) and includes the number of crops inspected and the crop type(s). Overall, crop advisors averaged 2.39 hours/workday (range 0.45 to 4.73 hours/workday) in inspection activities (CV ~ 0.50). Scouts averaged 65% more time in inspection activities than did PCAs (3.23 vs. 1.97 hours, respectively), while PCAs inspected twice the number of crops as did scouts (3.8 vs. 1.8, respectively). PCAs were more apt to inspect a variety of crop types (9 of 20 PCAs) than were scouts, who generally inspected a single crop type (9 of 10 scouts).

Approximately 89% of inspection activities took place in crop fields (PCAs = 83%, scouts = 96%). Nine of the ten scouts had foliar contact during 80% or more of their "in field" inspection time, while only 6 of the 20 PCAs had virtually continuous foliar contact. Overall, PCAs spent about 57% time of their inspection time in foliar contact activities with 20% having no foliar contact. For PCAs, the longest time spent in foliar contact activities was about 4 hours; for scouts, it was approximately five hours.

Scouts who spent their entire day in citrus, grapes or strawberries had the greatest foliar contact times overall (2.07 – 4.73 hours, worker IDs 6, 7, 8, 17, 27, 29). While foliar contact time for all crop advisors observed ranged from 0 to 4.73 hours and averaged 1.66 hours/workday (78% of crop advisors' "in field" time and 69% of overall inspection activity time), ten crop advisors (9 PCAs and 1 scout) spent an hour or less per workday in foliar contact activities. Scouts and PCAs spent an average of 88% and 68%, respectively, of their "in field" inspection time in foliar contact activities.

Table 3. Hours Crop Advisors¹ (CAs) Spent Inspecting Fields², Hours Spent In Fields³ and Hours Spent Contacting Foliage⁴ During a Single Workday

CA Group	ID	Gender	Work Status ⁵	Total Hours per Day Inspecting Fields ²	Hours In Fields, With or Without Foliar Contact ³	Hours In Fields, with Foliar Contact ⁴	Number of Fields Inspected	Number of Crops Inspected	Crop Type ⁶ (s) Inspected
Pest Control Advisors (PCAs)	2	M	FT	1.85	1.85	1.35	7	5	Alfalfa/Grapes/ Orchard/Row
	3	M	FT	3.98	3.98	3.90	10	5	Grapes/Orchard/Row
	5	M	FT	1.25	0.73	0.23	5	1	Strawberries
	9	M	FT	2.17	1.17	1.17	13	6	Row
	10	M	FT	1.92	1.23	0.32	7	5	Row
	11	M	FT	2.02	1.83	1.13	10	5	Row
	12	M	FT	2.28	1.18	1.08	15	3	Row
	13	M	FT	3.78	3.57	2.93	11	4	Row
	14	M	FT	1.88	0.73	0	57	2	Row
	15	M	FT	1.27	0.83	0	9	1	Grapes
	16	M	FT	1.25	1.25	1.25	8	1	Grapes
	18	M	FT	1.38	1.38	0.93	21	5	Orchard/Row
	20	M	FT	2.50	2.38	0.95	15	5	Row
	21	M	FT	2.05	1.72	1.33	26	6	Orchard/Row
	22	M	FT	2.67	2.42	2.18	11	3	Alfalfa/Row
	24	M	FT	2.15	2.03	1.42	14	3	Grapes/Row
	25	M	FT	0.45	0.45	0.45	5	3	Alfalfa/Orchard/Row
	26	M	FT	1.38	1.00	0.08	12	5	Alfalfa/Grapes/ Orchard/Row
	28	M	FT	1.47	1.47	0.10	15	4	Citrus/Orchard
	30	M		1.62	1.62	1.62	7	4	Citrus/Orchard
20 PCAs	Mean± SD			1.97±0.83	1.64±1.62	1.12±1.00	13.9±11.4	3.8±1.6	
Scouts	1	M	PT	1.58	1.58	1.47	9	2	Row
	4	M	PT	2.25	1.85	1.77	7	1	Grapes
	6	F	PT	4.43	4.43	4.43	1	1	Strawberries
	7	F	PT	4.73	4.73	4.73	1	1	Strawberries
	8	F	PT	3.93	3.93	3.93	1	1	Strawberries
	17	F	PT	2.98	2.98	2.43	4	1	Grapes
	19	M	FT	2.88	2.52	2.00	35	7	Row
	23	M	PT	1.07	1.00	0.88	14	2	Row/Orchard
	27	F	PT	3.70	3.70	3.70	9	2	Citrus
	29	M	PT	4.72	4.35	2.07	4	1	Citrus
10 Scouts	Mean± SD			3.23±1.30	3.11±1.32	2.74±1.34	8.5± 10.2	1.8±1.6	
30 CAs	Mean± SD			2.39±1.16	2.13±1.25	1.66±1.35	12.1±11.2	3.1±1.8	

1 Crop Advisors (CAs) consisted of two groups, 20 pest control advisors (PCAs) and 10 scouts

2 Total hours spent checking fields, checking traps and sweeping. Inspections took place in and out of fields, with and without foliar contact. Field inspections simultaneously evaluated the status of insect, disease, and weed pressures, efficacy of recent treatments, plant maturity and vigor, and irrigation status.

3 Inspections took place in crop fields, with or without foliar contact

4 Inspections took place in crop fields, with foliar contact

5 Work Status: FT = year-round employment; PT = seasonal employment

6 Crop Type (study-specific crop groups): Alfalfa - uniformly planted across entire field, not in rows or beds; Citrus - mineola, mandarin, nursery citrus, orange, and/or grapefruit; Grapes - dried, fresh or wine grapes; Orchard - almond, olive, peach, pluot, and walnut; Row - all other fruit, fiber, vegetable and root crops grown in rows; Strawberries - inspected strawberries only

Inspection times were longest for the three scouts who inspected strawberries (IDs 6, 7, 8). These workers walked every row of approximately 50 acres daily, spending the entire inspection period (3.93 - 4.73 hours) in continuous foliar contact. In contrast, PCA ID 5 also inspected only strawberries. However, he visited multiple fields briefly, spending 1.25 hours inspecting fields, and spent less than 10% of the time in foliar contact (0.23 hours) as did the strawberry scouts.

Table 4 provides summaries by crop for the total time spent in inspection activities/field vs. the time spent in foliar contact/field. Overall, crop advisors had foliar contact in approximately 54% of the fields they inspected. Where foliar contact took place, it accounted for approximately 76% of the inspection period (mean inspection hours/field = 0.25; mean foliar contact hours/field = 0.19). CVs for inspection times varied more (0.5 to >1.0) where the number of fields inspected was large. The greatest variation was observed for artichokes (CV = 1.18 for overall inspection hours/field in 63 fields) and oranges (CV = 1.18 and 1.25, respectively, for overall inspection hours/field in 18 fields, and inspection hours/field with foliar contact in 12 fields).

Table 4. Crop Advisor Summary Statistics, by Crop: Inspection Hours/Field, Foliar Contact Hours/Field

Crop Type	Crop	Number of Fields Inspected	Inspection Hours/Field				Number of Foliar Contact Fields	Hours of Foliar Contact/Field			
			Mean	SD ¹	Min	Max		Mean	SD	Min	Max
Alfalfa	Alfalfa	8	0.14	0.06	0.03	0.23	4	0.11	0.07	0.03	0.22
Orchard	Almond	17	0.13	0.11	0.02	0.50	1	0.50	--	--	--
Row	Artichoke	63	0.12	0.20	0.02	0.88	8	0.36	0.26	0.10	0.85
Row	Asparagus	2	0.04	0.01	0.02	0.05	1	0.02	--	--	--
Row	Beans - Dry	6	0.06	0.02	0.03	0.07	4	0.06	0.01	0.03	0.07
	- Green	2	0.67	0.29	0.33	0.83	2	0.67	0.29	0.33	0.83
Row	Broccoli	14	0.22	0.12	0.03	0.37	8	0.16	0.08	0.03	0.32
Row	Cabbage - Green	1	0.12	--	--	--	0	0.07	--	--	--
	- Red	1	0.13	--	--	--	1	0.13	--	--	--
Row	Cauliflower	7	0.18	0.12	0.02	0.33	4	0.11	0.08	0.02	0.22
Row	Celery	16	0.16	0.15	0.02	0.67	9	0.19	0.18	0.05	0.67
Citrus	Citrus - Grapefruit	1	0.10	--	--	--	0	--	--	--	--
	- Mandarin	2	0.12	--	0.12	0.12	1	0.12	--	--	--
	- Mineola	3	0.24	0.13	0.07	0.33	3	0.24	0.13	0.07	0.33
	- Nursery	1	0.32	--	--	--	1	0.32	--	--	--
	- Orange	18	0.67	0.79	0.05	2.77	12	0.72	0.93	0.05	2.77
Row	Corn - Field	2	0.13	0.06	0.08	0.17	0	--	--	--	--
	- Sweet	5	0.41	0.15	0.08	0.57	5	0.41	0.15	0.08	0.57
Row	Cotton	31	0.17	0.14	0.02	0.67	28	0.16	0.13	0.03	0.67
Row	Fennel	1	0.15	--	--	--	1	0.15	0.15	--	--
Grapes	Grapes - Dried	1	0.13	--	--	--	0	--	--	--	--
Grapes	- Table	2	0.04	0.01	0.03	0.05	1	0.05	--	--	--
Grapes	- Wine	30	0.35	0.25	0.03	0.97	19	0.34	0.27	0.03	0.97
Row	Lettuce - Baby Greens	5	0.14	0.09	0.03	0.23	0	--	--	--	--
	Butter	1	0.05	--	--	--	0	--	--	--	--
	- Head	29	0.16	0.11	0.03	0.47	19	0.13	0.11	0.03	0.47
	- Leaf	1	0.58	--	--	--	0	--	--	--	--
	- Romaine	8	0.14	0.07	0.03	0.22	6	0.11	0.08	0.03	0.22

Table 4. Crop Advisor Summary Statistics, by Crop: Inspection Hours/Field, Foliar Contact Hours/Field, cont.

Crop Type	Crop	Number of Fields Inspected	Inspection Hours/Field				Number of Foliar Contact Fields	Hours of Foliar Contact/Field			
			Mean	SD ¹	Min	Max		Mean	SD	Min	Max
Row	Melons - Cantaloupe	12	0.07	0.03	0.02	0.12	11	0.07	0.02	0.03	0.10
	- Honeydew	6	0.12	0.05	0.03	0.18	6	0.12	0.05	0.03	0.18
	- Watermelon	3	0.18	0.04	0.13	0.22	3	0.18	0.04	0.13	0.22
Row	Mustard	1	0.02	--	--	--	1	0.02	--	--	--
Orchard	Olive	1	0.27	--	--	--	1	0.27	--	--	--
Row	Parsley	1	0.13	--	--	--	1	0.13	--	--	--
Orchard	Peach	2	0.15	0.02	0.13	0.17	1	0.13	--	--	--
Orchard	Pluot	1	0.17	--	--	--	1	0.17	--	--	--
Row	Pumpkin	1	0.42	--	--	--	1	0.42	--	--	--
Row	Radicchio	2	0.14	0.08	0.08	0.20	0	--	--	--	--
Row	Spinach	7	0.31	0.19	0.12	0.62	1	0.03	--	--	--
Strawberries	Strawberries	8	2.60	2.13	0.20	4.73	4	3.53	1.77	0.23	4.73
Row	Sugarbeets	2	0.09	0.01	0.08	0.10	1	0.08	--	--	--
Row	Tomatoes - Processing	23	0.11	0.09	0.02	0.38	18	0.09	0.07	0.03	0.37
Orchard	Walnut	3	0.15	0.09	0.08	0.28	2	0.16	0.07	0.08	0.20
Total		351			--	--	190			--	--
Grand Mean			0.25	0.40				0.19	0.23		
Crop Type¹											
Alfalfa		8	0.14	0.07	0.03	0.23	4	0.13	0.08	0.03	0.22
Citrus		25	0.43	0.65	0.05	2.77	17	0.42	0.70	0.05	2.77
Grapes		33	0.27	0.24	0.03	0.97	20	0.30	0.27	0.03	0.97
Orchard		24	0.15	0.11	0.02	0.50	6	0.23	0.15	0.08	0.50
Row Crops		253	0.13	0.14	0.02	0.88	139	0.15	0.15	0.02	0.85
Strawberries		8	1.79	2.14	0.20	4.73	4	3.33	2.09	0.23	4.73

¹ Crop Type

Alfalfa - uniformly planted across entire field; not planted in rows or beds

Citrus - mineola, mandarin, nursery citrus, orange, and/or grapefruit

Grapes - dried, fresh and/or wine grapes

Orchard - almond, olive, peach, pluot, and/or walnut

Row - All other fruit, fiber, vegetable and/or root crops grown in rows on raised beds

Strawberries - inspected strawberries only

Table 3 examined individual crop advisor foliar contact times for crops overall but did not summarize these data by crop type. Table 5 presents statistics, by crop type, for hours that crop advisors spent in three inspection activity scenarios: overall inspection times (in or out of fields, with or without foliar contact); inspection times in fields (with or without foliar contact); and inspection times in fields with foliar contact. WH&S observed more crop advisors inspecting row crops (18) as compared to the other crop types. About half that number of crop advisors inspected grapes and orchards (eight each), and four or fewer crop advisors were observed inspecting alfalfa, citrus, and strawberries. Strawberries and citrus had the greatest mean times for all three inspection scenarios. Row crops and grapes were intermediate, and orchards and alfalfa had the lowest mean inspection times. For alfalfa, citrus, row crops and strawberries, all or nearly all of the inspections involved some foliar contact. Foliar contact was more limited in grapes and orchard crops, where it was observed for approximately 50% of crop advisors inspecting these two crop types.

Table 5. Statistics by Crop Type for Crop Advisor Inspection Times: Total Hours, Hours In Fields, Hours of Foliar Contact

Crop Type	Alfalfa	Citrus	Grapes	Orchard	Row	Strawberries
Total Hours Spent Inspecting Fields (In or Out of Fields, With or Without Foliar Contact)						
Mean Hours \pm Standard Deviation	0.29 \pm 0.17	2.68 \pm 1.83	1.10 \pm 1.06	0.45 \pm 0.24	1.84 \pm 0.95	3.59 \pm 1.59
Number of Crop Advisors Inspecting Each Crop Type	4	4	8	8	18	4
Hours Spent in Fields (With or Without Foliar Contact)						
Mean Hours \pm Standard Deviation	0.26 \pm 0.14	2.58 \pm 1.69	1.00 \pm 1.00	0.41 \pm 0.25	1.62 \pm 0.89	3.46 \pm 1.85
Number of Crop Advisors Inspecting Each Crop Type	4	4	8	8	17	4
Hours Spent in Fields (With Foliar Contact)						
Mean Hours \pm Standard Deviation	0.13 \pm 0.08	1.80 \pm 1.50	1.20 \pm 0.96	0.45 \pm 0.24	1.34 \pm 0.81	3.33 \pm 2.09
Number of Crop Advisors Inspecting Each Crop Type	4	4	5	3	16	4

1 Crop Type

Alfalfa - uniformly planted across entire field; not planted in rows or beds

Citrus - mineola, mandarin, nursery citrus, orange, and/or grapefruit

Grapes - dried, fresh and/or wine grapes

Orchard - almond, olive, peach, pluot, and/or walnut

Row - all other fruit, fiber, vegetable and/or root crops grown in rows on raised beds

Strawberries - inspected strawberries only

Table 6 describes the nature and extent of inspection activities and foliar contact for each crop, grouped by crop height. The extent of foliar contact depended on type of crop, crop maturity and inspection task. Mature cotton and sweet corn, and dense citrus involved continuous whole body contact. Hand and arm contact were intermittent or negligible in other crops, except for crop advisors using beat trays in strawberries. These workers, who wore gloves and several long-sleeved shirts, had continuous foliar contact with the hands and forearms. Thus, their actual exposure is presumed less than in crops in which unprotected hand and arm contact was intermittent.

Table 6. Crop Advisor Inspection Activities and Extent of Body Contact with Foliage, by Crop

Crop	Crop Height	Nature and Extent of Inspection Activities	Nature and Extent of Foliar Contact
Low Crops (≤ 24 inches)			
Alfalfa	2-15 inches	Sweep, walk extensive portions	Continuous, lower leg
Baby Greens	1-4 inches	Visually inspect from field edge or enter selected rows to briefly inspect visually; rare foliar contact	Negligible, hands
Beans	12-18 inches	Sweep, walk extensive portions, hand inspect	Intermittent hands, forearms, lower legs
Head Lettuce, Cabbage	4-12 inches	Visually inspect from field edge or walk sections to hand inspect, cut and examine heads	Intermittent, hands
Leafy crops: lettuces, radicchio, spinach, mustard, parsley	4-24 inches	Visually inspect from field edge or walk sections to hand inspect, cut and examine heads	Intermittent hands, forearms, lower legs
Strawberries	12-18 inches	Hand inspect: Walk sections to hand inspect Beat tray: Walk entire field using beat tray every 3-5 plants, occasionally pull leaves and flowers	Hand inspect: intermittent hands, forearms Beat tray – continuous hands, forearms; intermittent lower legs
Vine type row crops: melons, pumpkin, tomatoes	12-24 inches	Sweep, walk extensive portions, hand inspect, lift and shake vines	Continuous lower legs; intermittent hands, upper and lower arms
Medium Height Crops (2 – 6 feet)			
Broccoli, Cauliflower Celery, Fennel	1-3 feet	Walk selected rows, hand inspect, cut and examine crowns	Continuous upper and/or lower legs. Intermittent hands, forearms
Corn - Sweet	4-8 feet	Hand inspect ears in selected rows	Continuous full body contact
Sugarbeets	2-3 feet	Sweep, visual inspection	Continuous, lower legs
Cotton	3-6 feet	Visually inspect from field edge or sweep, hand inspect leaves, bolls	Crop at 3-4 feet, exposure continuous below waist, intermittent hands, upper and lower arms. Above 4 feet, continuous full body contact
Artichoke	2-6 feet	Walk several sections to hand inspect foliage and fruit; spread fronds to the ground, cut and inspect artichokes	Intermittent hands, upper and lower arms
Grapes	4-6 feet	Enter selected rows, hand inspect fruit, leaves; pull several leaves, examine by hand lens	Intermittent hands, forearms
Tall Crops (> 6 feet)			
Citrus	6-30 feet	Walk extensive portions of grove, cross between rows, visually inspect trees, pull occasional leaves	In less dense foliage, hands and forearms; in dense foliage, full body contact
Nut, olive, stone fruit	10-40 feet	Visually inspect from field edge or walk several sections to visually inspect; limited leaf, fruit/hull sampling	Limited, hands

- *Dislodgeable Foliar Residues (DFR)* - Ninety-six DFR samples were collected during 19 of the 30 study days. Each sample was evaluated for up to seven pesticides (consisting of up to nine pesticide analytes) known to have been applied within the previous three weeks. A total of 289 analyses were conducted for 46 pesticides; 150 positive results were found for 31 pesticides on 74 samples. Positive results were found on 13 of the 17 crops sampled. Table 7 summarizes positive results by pesticide. Table 8 summarizes positive results by pesticide within crop. Thirteen pesticide analytes (indicated in the table by check mark) were detected for the first time in a WH&S study.

While DFRs typically varied by no more than 10-fold within pesticide, there were notable exceptions. Within the same crop, DFRs varied as much as 160-fold (tebuconazole on wine grapes) while variations of 40-50-fold were seen both within crop and between crops (captan on strawberries, oxamyl on cotton; methomyl on head lettuce vs. sweet corn, tebufenozide on processing tomatoes vs. head lettuce). These variations were generally attributable to differences in application rates and/or days post-application (see Appendix, Table 3).

Laboratory QC data are available in Table 4 of the Appendix. Samples were analyzed primarily to identify the pesticide and, secondarily, to evaluate the concentration of the pesticide. Thus, results were not adjusted for laboratory QC recoveries. Acceptable recoveries (70 – 120%) were found for the majority of the pesticides. QC recoveries outside control limits were found for three of four abamectin samples (63.7 ± 4.5), two of three bifenazate samples ($61 \pm 0\%$), two of five bifenthrin samples ($61 \pm 2.26\%$), one of two captan samples (125%), two of two cyromazine samples ($37.90 \pm 22.06\%$, no positive sample detections), one of two diflubenzuron samples (69%), one of two fenhexamid samples (124%), two of three oxamyl samples ($41.1 \pm 0.85\%$), one of three oxydemeton-methyl (63.1%), two of two samples each of spinosad A, B, and D (all recoveries less than 5%), and one of four triflumazole samples (63.1%).

Crop advisors inspected seven posted fields during the study, two from the field edge and five from within the field. One crop advisor had 66 minutes' protected foliar contact in three sweet corn fields posted for a bifenthrin product. Another crop advisor entered two wine grape vineyards, posted for a methomyl product, and had three minutes' unprotected foliar contact in one of the vineyards.

Table 7. Dislodgeable Foliar Pesticide Residues (DFR) by Pesticide Analyte on Crops Inspected by California Crop Advisors, 2002-2003

New Detections ¹	Pesticide	DFR ($\mu\text{g}/\text{cm}^2$)				Number of Detections
		Mean	Standard Deviation	Maximum	Minimum	
✓	Acetamiprid	0.0067	0.0036	0.0113	0.0028	4
✓	Azoxystrobin	0.0800	--	--	--	1
	Benomyl	0.5119	0.4959	0.8625	0.1612	2
✓	Bifenazate ²	0.0616	0.0238	0.0968	0.0445	4
	Bifenthrin ²	0.0383	0.0219	0.0658	0.0128	9
	Captan ²	1.0111	0.9433	3.445	0.0660	10
	Chlorpyrifos	0.0029	0.0009	0.0036	0.0023	2
	Cyfluthrin	0.0734	0.0746	0.1850	0.0180	5
	Diazinon	0.0052	--	--	--	1
✓	Diflubenzuron	0.0328	--	--	--	1
	Dimethoate	0.0063	0.0022	0.0087	0.0044	3
	Esfenvalerate	0.0030	--	--	--	1
✓	Fenhexamid ²	0.4275	0.0919	0.4925	0.3625	2
	Imidacloprid	0.0008	0.0002	0.0010	0.0007	2
✓	Indoxacarb	0.0871	0.0634	0.1655	0.0136	4
	Malathion	0.9038	0.2952	1.1125	0.6950	2
	Methomyl	0.5328	0.4345	1.220	0.0232	10
	Myclobutanil	0.0469	0.0226	0.0783	0.0142	6
	Oxamyl ³	1.3186	1.4488	2.720	0.0653	4
	Oxydemeton-Methyl ²	0.0048	0.0009	0.0059	0.0040	3
	Permethrin	0.0637	0.0403	0.1048	0.0067	7
	Propargite	0.2000	0.0233	0.2165	0.1835	2
✓	Pyraclostrobin	0.0684	0.0548	0.1560	0.0185	10
✓	Spinosad A ³	0.0030	0.0016	0.0063	0.0014	7
✓	Spinosad B ³	0.0003	0.0002	0.0005	0.0001	7
✓	Spinosad D ³	0.0010	0.0006	0.0019	0.0004	7
	Sulfur ³	2.6564	2.4889	9.1925	0.0425	18
✓	Tebuconazole	0.2510	0.4530	0.9300	0.0058	4
✓	Tebufozide	0.0728	0.0827	0.2170	0.0050	7
✓	Triflumazole	0.0032	0.0005	0.0036	0.0028	2
✓	zeta-Cypermethrin	0.0146	0.0060	0.0203	0.0083	3

1 New detections; pesticides not previously detected in WH&S studies

2 Recoveries outside 70-120%

Table 8. Dislodgeable Foliar Pesticide Residues (DFR, Mean \pm SD $\mu\text{g}/\text{cm}^2$) on Crops Inspected by California Crop Advisors, 2002-2003

Crop	Pesticide	DFR ($\mu\text{g}/\text{cm}^2$)				No. of Samples
		Mean	Standard Deviation	Maximum	Minimum	
Artichoke	Diﬂubenzuron	0.0328	--	--	--	1
	Permethrin	0.0136	--	--	--	1
Broccoli	Dimethoate	0.0051	0.0011	0.1159	0.0044	2
	Oxydemeton-Methyl ¹	0.0048	0.0009	0.0059	0.0040	3
Celery	Permethrin	0.0976	0.0002	0.0978	0.0975	2
	Tebuﬂenozide	0.1545	--	--	--	1
Corn - Sweet	Bifenthrin ¹	0.0441	0.0229	0.0658	0.0128	6
	Cyﬂuthrin	0.1505	0.0488	0.1850	0.1160	2
	Methomyl	0.7988	0.3442	1.220	0.4125	6
	Propargite	0.2000	0.0233	0.2165	0.1835	2
Cotton	Acetamiprid	0.0051	0.0022	0.0072	0.0028	3
	Chlorpyrifos	0.0029	0.0009	0.0036	0.0023	2
	Cyﬂuthrin	0.0220	0.0058	0.0288	0.0180	3
	Imidacloprid	0.0008	0.0002	0.0010	0.0007	2
	Indoxacarb	0.1116	0.0494	0.1655	0.0685	3
	Oxamyl ¹	1.3186	1.4488	2.720	0.0685	4
Grapes - Table	Malathion	0.9038	0.2952	1.1125	0.6950	2
	Methomyl	0.2408	0.0085	0.2465	0.2348	2
Grapes - Wine	Myclobutanil	0.0469	0.0226	0.0783	0.0142	6
	Sulfur ¹	2.4188	2.7967	9.1925	0.0425	14
	Tebuconazole	0.2510	0.4530	0.9300	0.0058	4
Lettuce - Head	Acetamiprid	0.0113	--	--	--	1
	Diazinon	0.0052	--	--	--	1
	Dimethoate	0.0087	--	--	--	1
	Methomyl	0.0271	0.0055	0.0310	0.0232	2
	Permethrin	0.0629	0.0043	0.0660	0.0599	2
	Tebuﬂenozide	0.1454	0.1013	0.2170	0.0734	2
	zeta-Cypermethrin	0.0152	--	--	0.0152	1
Lettuce - Romaine	Tebuﬂenozide	0.0265	0.0166	0.0383	0.0148	2
	zeta-Cypermethrin	0.0143	0.0085	0.0203	0.0083	2
Radicchio	Permethrin	0.1048	--	--	--	1
	Spinosad A ¹	0.0019	--	--	--	1
	Spinosad B ¹	0.0002	--	--	--	1
	Spinosad D ¹	0.0005	--	--	--	1
Spinach	Permethrin	0.0067	--	--	--	1

¹ Recoveries outside 70 – 120%

Table 8. Dislodgeable Foliar Pesticide Residues (DFR, Mean \pm SD $\mu\text{g}/\text{cm}^2$) on Crops Inspected by California Crop Advisors, 2002-2003, continued

Crop	Pesticide	DFR ($\mu\text{g}/\text{cm}^2$)				No. of Samples
		Mean	Standard Deviation	Maximum	Minimum	
Strawberries	Benomyl	0.5119	0.4959	0.8625	0.1612	2
	Bifenazate ¹	0.0616	0.0238	0.0968	0.0445	4
	Bifenthrin ¹	0.0266	0.0172	0.0463	0.0147	3
	Captan ¹	1.0111	0.9433	3.445	0.0660	10
	Fenhexamid ¹	0.4275	0.0919	0.4925	0.3625	2
	Pyraclostrobin	0.0684	0.0548	0.1560	0.0185	10
	Spinosad A ¹	0.0031	0.0017	0.0063	0.0014	6
	Spinosad B ¹	0.0011	0.0002	0.0005	0.0001	6
	Spinosad D ¹	0.0032	0.0006	0.0019	0.0004	6
	Triflumazole	0.0441	0.0005	0.0036	0.0028	2
Tomatoes - Processing	Azoxystrobin	0.0800	--	--	--	1
	Esfenvalerate	0.0030	--	--	--	1
	Indoxacarb	0.0136	--	--	--	1
	Sulfur ¹	3.4881	0.1544	3.663	3.320	4
	Tebufozide	0.0058	0.0011	0.0066	0.0050	2

1 Recoveries outside 70 – 120%

Discussion

This study was undertaken to provide empirical data on California crop advisors' work tasks, particularly on the time spent on inspection tasks involving field entry and foliar contact. Exposure data guide WH&S risk assessment and regulatory decision-making processes. Historically, crop advisor exposure studies have focused primarily on reentry scenarios for cotton acouts⁴⁻⁷. In 1990, WH&S estimated that crop advisors spend up to six hours per day, 40 days a year, walking in potentially treated fields and derived a transfer factor ($[\mu\text{g dermal exposure}/\text{hour}]/[\mu\text{g}/\text{cm}^2 \text{ DFR}]$) of 11,610 cm^2/hour for cotton scouts²⁰. WH&S used this transfer factor in estimating cotton scout exposure to amitraz, bifenthrin, fenpropathrin and tralomethrin²⁰⁻²³.

Observation data in this study indicate that crop advisors spend far less than six hours walking in potentially treated fields. Crop advisors spent approximately equal portions of their workday in each of three primary activities: inspecting fields, office tasks, and transit (Table 2). Each of these activities averaged between 2 - 3.5 hours, or about 21 - 25% of their average workday. The remaining time (1.57 ± 2.04 hrs) was spent in tasks categorized as "other" (recording data, phone calls, meetings, donning/removing clothing or PPE, microscopy, mapping, warehouse stocking, lab work, and greenhouse/field trial work) and on lunch and/or breaks (0.97 ± 0.41).

Inspecting fields included checking fields, checking traps, and sweeping (Table 3, column 2; mean for 30 crop advisors = 2.39 ± 1.16 hrs). Checking fields involved approximately 64 – 95% of the time spent on inspection activities ($CV \approx 0.5$). Checking traps and/or sweeping involved approximately 5 – 36% of overall inspection activity time ($CV \approx 1.0$). Sweeping always required field entry, but field inspections and trap checks were sometimes conducted in the crop field and other times conducted from the field edge, from the roadway, or from the crop advisor's vehicle.

Crop advisors spent an average of 2.13 ± 1.25 hrs in fields and 1.66 ± 1.35 hrs in foliar contact activities (Table 3). The upper bound for foliar contact times for the 10 scouts was about 4 hrs/workday (2.74 ± 1.34 hrs) and, for the 20 PCAs, just over 2 hrs/workday (1.12 ± 1.00 hrs). Crop advisors had foliar contact in approximately 54% of the fields they inspected (190 of 351 fields; Table 4). As discussed earlier, foliar contact estimates are inherently conservative because individual contact events were not timed. Rather, contact was presumed to be continuous for the inspection interval during which at least one foliar contact event occurred.

We examined the variability in foliar contact times by individual crop ($n = 36$) and by crop type ($n = 6$; alfalfa, citrus, grapes, orchard, row crop, and strawberries; Table 5) to determine which crops or crop types most frequently involved foliar contact. For the six crop types, foliar contact times in strawberries (3.33 ± 2.09 hrs) and citrus (1.80 ± 1.50 hrs) exceeded the mean of 1.38 ± 1.29 hrs (Table 4). Study data thus indicate that 4 hours may be an appropriate upper bound estimate for the time crop advisors spend contacting potentially treated foliage. Observations in this study support the presumption that crop advisor exposure is low compared to harvesters, who may have continuous contact with foliage for eight hours per day²⁶⁻²⁸.

Inspection scenarios involving the longest foliar contact times (strawberries; 3.33 ± 2.09 hrs; Table 4) or extensive body contact with the foliage (sweet corn and cotton; Table 6) were then compared to observations from previous WH&S field studies. Captan DFR on strawberries in the current study averaged 1.1 ± 0.94 ug/cm² (Table 8). A previous WH&S study found that strawberry harvesters working 8-hour days had continuous foliar contact with captan DFRs which were approximately two-fold greater, 2.4 ± 0.6 ug/cm²⁹. The prior study evaluated harvesters' exposure to captan via urinary monitoring of tetrahydrophthalimide (THPI). The median THPI concentration for 72-hour composite post-exposure samples was 0.005 ppm, which was deemed a fairly low exposure. Harvesters thus had foliar contact with strawberries for more than twice the time as did crop advisors, and were exposed to captan DFR approximately twice the level as the crop advisors were exposed to in the current study.

These data along with the other observations in this study lend support to the presumption that the typical crop advisor is significantly less exposed to pesticide residues than are harvesters. However, we found oxamyl DFR on cotton (1.32 ± 1.45 ug/cm²; $n = 4$; Table 8) was fifty-fold greater than the level the oxamyl DFR at one day post-application (mean DFR = 0.025 ug/cm²; $n = 3$) in a study of oxamyl foliar dissipation on tomatoes³⁰, following application at one-half the maximum label rate. Similarly, methomyl DFR on

sweet corn in the current study ($0.80 \text{ ug/cm}^2 \pm 0.34$; $n = 6$; Table 8) was significantly higher than that noted previously for grape girdlers who became ill following exposure to methomyl DFR of 0.27 ug/cm^2 ³¹. While the crop advisors observed in the current study spent far less time in cotton and sweet corn than do harvesters, further study of crop advisors in these crops may be warranted.

Standard work clothing for harvesters vs. crop advisors should also be considered in evaluating exposure scenarios. Harvesters wear long-sleeved shirts as standard clothing, yet short-sleeved shirts are the most common work clothing for crop advisors (17 of 30 crop advisors). This practice could increase crop advisor exposure, as foliar residues would be transferred directly to the skin and be immediately available for absorption. In contrast, three female strawberry scouts wore three long-sleeved shirts, and three bandanas to protect their head, neck and shoulders. Out of concerns for personal modesty, they wore a fourth long-sleeved shirt with the sleeves tied to the front around their waist and the torso section draped apron-style, to cover their buttocks. These three crop advisors were thus more protected than are typical harvesters.

WH&S also examined the frequency that crop advisors entered fields during an REI. Only two crop advisors, both PCAs, entered fields under an REI. One had about three minutes' unprotected hand contact with treated grape foliage, while the other experienced about 70 minutes' protected whole body exposure to treated sweet corn. No scouts were observed to enter fields early, and the PCAs supervising them were conscientious about both scheduling scouts' work around REIs and informing scouts to stay out of fields under REIs. Observations supported crop advisor interview statements that they rarely enter fields prior to the expiration of REIs.

While the primary focus of study was characterizing crop advisor activities, WH&S hoped to identify pesticide/task scenarios among crop advisors working in single crops that we could evaluate in future worker exposure monitoring studies. We thus looked more closely at the four crop advisors who worked only in strawberries and three others who worked primarily or exclusively in cotton. Within crop, inspection tasks were similar, but pesticide use varied widely. In strawberries, of the fifteen pesticides applied to nine fields (see Table 3 of the Appendix), only three fields were treated with the same pesticide, captan. The situation in cotton was similar: nine pesticides were applied to 13 of 26 fields, and no more than three fields were treated with the same pesticide. The lack of homogeneity in pesticide use in single crops suggests that developing meaningful worker exposure monitoring study designs for crop advisors would be difficult. However, the variety of pesticides and the low residues for most pesticides (about half the DFR analyses were negative) indicate that crop advisors do not experience long seasonal exposures to single pesticides.

WH&S hoped to conduct limited correlation testing among attributes such as task type, task duration, crop, foliar contact, and pesticide³². Because crop advisors simultaneously evaluate pest and disease pressures, crop maturity, vigor, and the efficacy of recent pesticide treatments during their inspections, attributes of discrete inspection tasks could not be evaluated. Comparisons of pesticide residues were similarly constrained: while

some fields had recently been treated with up to five pesticides (see Table 3 of the Appendix), other fields either had no pesticides applied or unknown application histories. For those fields with known application histories, residue comparisons were not feasible because pesticides and/or post-application sampling intervals differed within crop.

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Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
WF01	1	7:00 AM	7:30 AM	None	None	Office	No	No	No
WF01	1	7:30 AM	8:12 AM	None	None	Transit	No	No	Yes
WF01	1	8:12 AM	8:34 AM	WF01-01	Proc. Tomatoes	Check Field	Yes	Yes	No
WF01	1	8:34 AM	8:38 AM	WF01-01	Proc. Tomatoes	Transit	No	No	No
WF01	1	8:38 AM	8:52 AM	None	None	Transit	No	No	Yes
WF01	1	8:52 AM	9:05 AM	None	None	Break	No	No	No
WF01	1	9:05 AM	9:21 AM	None	None	Transit	No	No	Yes
WF01	1	9:21 AM	9:34 AM	WF01-02	Watermelon	Check Field	Yes	Yes	No
WF01	1	9:34 AM	9:38 AM	None	None	Other	No	No	No
WF01	1	9:38 AM	9:58 AM	None	None	Transit	No	No	Yes
WF01	1	9:58 AM	10:10 AM	WF01-03	Watermelon	Check Field	Yes	Yes	No
WF01	1	10:10 AM	10:20 AM	None	None	Transit	No	No	Yes
WF01	1	10:20 AM	10:28 AM	WF01-04	Watermelon	Check Field	Yes	Yes	No
WF01	1	10:28 AM	10:34 AM	None	None	Other	No	No	No
WF01	1	10:34 AM	10:50 AM	None	None	Transit	No	No	Yes
WF01	1	10:50 AM	11:02 AM	WF01-05	Proc. Tomatoes	Check Field	Yes	Yes	No
WF01	1	11:02 AM	11:08 AM	None	None	Other	No	No	No
WF01	1	11:08 AM	11:10 AM	None	None	Transit	No	No	Yes
WF01	1	11:10 AM	11:25 AM	WF01-06	Proc. Tomatoes	Check Field	Yes	Yes	No
WF01	1	11:25 AM	11:31 AM	None	None	Other	No	No	No
WF01	1	11:31 AM	11:44 AM	None	None	Transit	No	No	Yes
WF01	1	11:44 AM	11:50 AM	WF01-07	Proc. Tomatoes	Check Field	Yes	Yes	No
WF01	1	11:50 AM	11:53 AM	None	None	Transit	No	No	Yes
WF01	1	11:53 AM	11:56 AM	WF01-08	Proc. Tomatoes	Check Field	Yes	No	No
WF01	1	11:56 AM	12:07 PM	None	None	Transit	No	No	Yes
WF01	1	12:07 PM	12:11 PM	WF01-09	Proc. Tomatoes	Check Field	Yes	No	No
WF01	1	12:11 PM	12:28 PM	None	None	Transit	No	No	Yes
WF01	1	12:28 PM	12:58 PM	None	None	Lunch	No	No	No
WF01	1	12:58 PM	1:15 PM	None	None	Transit	No	No	Yes
WF01	1	1:15 PM	4:30 PM	None	None	Office	No	No	No
HC02	2	7:55 AM	9:55 AM	None	None	Office	No	No	No
HC02	2	9:55 AM	10:15 AM	None	None	Transit	No	No	Yes
HC02	2	10:15 AM	10:40 AM	HC02-01	Pumpkin	Check Field	Yes	Yes	No
HC02	2	10:40 AM	10:45 AM	None	None	Transit	No	No	Yes
HC02	2	10:45 AM	10:50 AM	HC02-02	Walnut	Check Field	Yes	Yes	No
HC02	2	10:50 AM	11:00 AM	HC02-03	Peach	Check Field	Yes	No	No
HC02	2	11:00 AM	11:07 AM	None	None	Transit	No	No	Yes
HC02	2	11:07 AM	11:15 AM	HC02-04	Peach	Check Field	Yes	Yes	No
HC02	2	11:15 AM	11:20 AM	None	None	Transit	No	No	Yes
HC02	2	11:20 AM	11:40 AM	HC02-05	Wine Grapes	Check Field	Yes	No	No
HC02	2	11:40 AM	11:45 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
HC02	2	11:45 AM	11:58 AM	HC02-06	Alfalfa	Check Field	Yes	Yes	No
HC02	2	11:58 AM	12:05 PM	None	None	Transit	No	No	Yes
HC02	2	12:05 PM	12:35 PM	HC02-07	Almond	Check Field	Yes	Yes	No
HC02	2	12:35 PM	12:44 PM	None	None	Transit	No	No	Yes
HC02	2	12:44 PM	4:30 PM	None	None	Office	No	No	No
JT03	3	7:32 AM	7:35 AM	None	None	Transit	No	No	Yes
JT03	3	7:35 AM	8:02 AM	None	None	Other	No	No	No
JT03	3	8:02 AM	8:05 AM	None	None	Transit	No	No	Yes
JT03	3	8:05 AM	8:17 AM	JT03-01	Walnut	Check Field	Yes	Yes	No
JT03	3	8:17 AM	8:20 AM	None	None	Other	No	No	No
JT03	3	8:20 AM	8:25 AM	JT03-01	Walnut	Check Field	Yes	No	Yes
JT03	3	8:25 AM	8:35 AM	JT03-02	Pluot	Check Field	Yes	Yes	No
JT03	3	8:35 AM	8:43 AM	None	None	Transit	No	No	Yes
JT03	3	8:43 AM	9:10 AM	JT03-03	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	9:10 AM	9:17 AM	None	None	Transit	No	No	Yes
JT03	3	9:17 AM	9:38 AM	JT03-04	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	9:38 AM	9:41 AM	None	None	Transit	No	No	Yes
JT03	3	9:41 AM	9:54 AM	JT03-04	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	9:54 AM	10:00 AM	None	None	Other	No	No	No
JT03	3	10:00 AM	10:02 AM	None	None	Transit	No	No	Yes
JT03	3	10:02 AM	10:07 AM	JT03-05	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	10:07 AM	10:10 AM	None	None	Other	No	No	No
JT03	3	10:10 AM	10:15 AM	None	None	Transit	No	No	Yes
JT03	3	10:15 AM	10:25 AM	JT03-06	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	10:25 AM	10:28 AM	None	None	Transit	No	No	Yes
JT03	3	10:28 AM	10:40 AM	JT03-06	None	Check Field	Yes	Yes	No
JT03	3	10:40 AM	10:42 AM	None	None	Transit	No	No	Yes
JT03	3	10:42 AM	10:47 AM	JT03-06	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	10:47 AM	10:49 AM	None	None	Other	No	No	No
JT03	3	10:49 AM	10:55 AM	None	None	Transit	No	No	Yes
JT03	3	10:55 AM	11:00 AM	Unknown	None	Check Traps	No	No	No
JT03	3	11:00 AM	11:10 AM	None	None	Transit	No	No	Yes
JT03	3	11:10 AM	11:24 AM	JT03-07	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	11:24 AM	11:27 AM	None	None	Other	No	No	No
JT03	3	11:27 AM	11:32 AM	JT03-07	Sweet Corn	Check Field	Yes	Yes	No
JT03	3	11:32 AM	11:36 AM	None	None	Other	No	No	No
JT03	3	11:36 AM	11:50 AM	None	None	Transit	No	No	Yes
JT03	3	11:50 AM	1:15 PM	None	None	Lunch	No	No	No
JT03	3	1:15 PM	1:25 PM	None	None	Transit	No	No	Yes
JT03	3	1:25 PM	1:45 PM	JT03-08	Green Beans	Check Field	Yes	Yes	No
JT03	3	1:45 PM	2:02 PM	JT03-09	Green Beans	Check Field	Yes	Yes	No
JT03	3	2:02 PM	2:05 PM	None	None	Transit	No	No	Yes
JT03	3	2:05 PM	2:38 PM	JT03-09	Green Beans	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
JT03	3	2:38 PM	2:50 PM	None	None	Transit	No	No	Yes
JT03	3	2:50 PM	3:20 PM	JT03-10	Wine Grapes	Check Field	Yes	Yes	No
JT03	3	3:20 PM	3:40 PM	None	None	Transit	No	No	Yes
JT03	3	3:40 PM	6:30 PM	None	None	Other	No	No	No
WF04	4	12:03 PM	12:04 PM	None	None	Transit	No	No	Yes
WF04	4	12:04 PM	12:07 PM	None	None	Other	No	No	No
WF04	4	12:07 PM	1:04 PM	None	None	Transit	No	No	Yes
WF04	4	1:04 PM	1:09 PM	WF04-01	Wine Grapes	Check Field	Yes	No	No
WF04	4	1:09 PM	1:13 PM	WF04-01	Wine Grapes	Check Field	No	No	Yes
WF04	4	1:13 PM	1:20 PM	WF04-01	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	1:20 PM	1:23 PM	WF04-02	Wine Grapes	Check Field	No	No	Yes
WF04	4	1:23 PM	1:28 PM	WF04-02	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	1:28 PM	1:33 PM	None	None	Other	No	No	No
WF04	4	1:33 PM	1:37 PM	WF04-02	Wine Grapes	Check Field	No	No	Yes
WF04	4	1:37 PM	1:45 PM	WF04-02	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	1:45 PM	1:47 PM	WF04-02	Wine Grapes	Check Field	No	No	Yes
WF04	4	1:47 PM	1:51 PM	WF04-03	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	1:51 PM	1:53 PM	WF04-03	Wine Grapes	Check Field	No	No	Yes
WF04	4	1:53 PM	2:02 PM	WF04-03	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	2:02 PM	2:03 PM	None	None	Other	No	No	No
WF04	4	2:03 PM	2:07 PM	WF04-03	Wine Grapes	Check Field	No	No	Yes
WF04	4	2:07 PM	2:14 PM	WF04-03	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	2:14 PM	2:17 PM	None	None	Transit	No	No	Yes
WF04	4	2:17 PM	2:19 PM	WF04-03	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	2:19 PM	2:21 PM	None	None	Other	No	No	No
WF04	4	2:21 PM	2:50 PM	None	None	Transit	No	No	Yes
WF04	4	2:50 PM	3:05 PM	WF04-04	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	3:05 PM	3:06 PM	None	None	Transit	No	No	No
WF04	4	3:06 PM	3:13 PM	WF04-05	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	3:13 PM	3:15 PM	None	None	Transit	No	No	Yes
WF04	4	3:15 PM	3:27 PM	WF04-05	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	3:27 PM	3:29 PM	None	None	Other	No	No	No
WF04	4	3:29 PM	3:32 PM	None	None	Transit	No	No	Yes
WF04	4	3:32 PM	3:40 PM	WF04-04	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	3:40 PM	3:57 PM	None	None	Transit	No	No	Yes
WF04	4	3:57 PM	4:03 PM	None	None	Transit	No	No	Yes
WF04	4	4:03 PM	4:10 PM	WF04-06	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	4:10 PM	4:12 PM	None	None	Transit	No	No	Yes
WF04	4	4:12 PM	4:14 PM	WF04-07	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	4:14 PM	4:16 PM	None	None	Transit	No	No	Yes
WF04	4	4:16 PM	4:22 PM	WF04-07	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	4:22 PM	4:26 PM	WF04-07	Wine Grapes	Check Field	No	No	Yes
WF04	4	4:26 PM	4:29 PM	WF04-07	Wine Grapes	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
WF04	4	4:29 PM	4:30 PM	WF04-07	Wine Grapes	Check Field	No	No	Yes
WF04	4	4:30 PM	4:34 PM	WF04-06	Wine Grapes	Check Field	Yes	Yes	No
WF04	4	4:34 PM	4:40 PM	None	None	Transit	No	No	Yes
WF04	4	4:40 PM	5:10 PM	None	None	Transit	No	No	Yes
AC05	5	8:50 AM	9:50 AM	None	None	Break	No	No	No
AC05	5	9:50 AM	10:02 AM	None	None	Transit	No	No	No
AC05	5	10:02 AM	10:12 AM	AC05-01	Strawberries	Check Field	Yes	Yes	No
AC05	5	10:12 AM	10:28 AM	None	None	Other	No	No	No
AC05	5	10:28 AM	10:32 AM	AC05-01	Strawberries	Check Field	Yes	Yes	No
AC05	5	10:32 AM	10:40 AM	None	None	Transit	No	No	Yes
AC05	5	10:40 AM	10:53 AM	AC05-02	Strawberries	Check Field	No	No	No
AC05	5	10:53 AM	11:10 AM	None	None	Transit	No	No	Yes
AC05	5	11:10 AM	11:28 AM	AC05-03	Strawberries	Check Field	No	No	No
AC05	5	11:28 AM	11:42 AM	None	None	Other	No	No	No
AC05	5	11:42 AM	11:58 AM	None	None	Transit	No	No	Yes
AC05	5	11:58 AM	12:48 PM	None	None	Lunch	No	No	No
AC05	5	12:48 PM	1:03 PM	None	None	Transit	No	No	Yes
AC05	5	1:03 PM	1:21 PM	AC05-04	Strawberries	Check Field	Yes	No	No
AC05	5	1:21 PM	1:29 PM	AC05-04	Strawberries	Other	No	No	No
AC05	5	1:29 PM	1:50 PM	None	None	Transit	No	No	Yes
AC05	5	1:50 PM	2:02 PM	AC05-05	Strawberries	Check Field	Yes	No	No
AC05	5	2:02 PM	2:06 PM	None	None	Other	No	No	No
AC05	5	2:06 PM	2:22 PM	None	None	Transit	No	No	Yes
AC05	5	2:22 PM	7:00 PM	None	None	Office	No	No	No
CB06	6	6:53 AM	6:58 AM	None	None	Transit	No	No	Yes
CB06	6	6:58 AM	7:00 AM	None	None	Other	No	No	No
CB06	6	7:00 AM	7:05 AM	None	None	Other	No	No	No
CB06	6	7:05 AM	8:58 AM	Hol	Strawberries	Check Field	Yes	Yes	No
CB06	6	8:58 AM	9:15 AM	None	None	Break	No	No	No
CB06	6	9:15 AM	9:20 AM	None	None	Other	No	No	No
CB06	6	9:20 AM	11:53 AM	Hol	Strawberries	Check Field	Yes	Yes	No
CB06	6	11:53 AM	11:56 AM	None	None	Other	No	No	No
CB06	6	11:56 AM	12:02 PM	None	None	Transit	No	No	Yes
CB06	6	12:02 PM	12:10 PM	None	None	Other	No	No	No
CB06	6	12:10 PM	12:22 PM	None	None	Lunch	No	No	No
CB06	6	12:22 PM	4:00 PM	None	None	Office	No	No	No
CB07	7	7:00 AM	7:53 AM	Fer	Strawberries	Check Field	Yes	Yes	No
CB07	7	7:53 AM	7:55 AM	None	None	Other	No	No	No
CB07	7	7:55 AM	7:58 AM	None	None	Transit	No	No	No
CB07	7	7:58 AM	10:16 AM	Fer	Strawberries	Check Field	Yes	Yes	No
CB07	7	10:16 AM	10:23 AM	None	None	Transit	No	No	No
CB07	7	10:23 AM	11:56 AM	Fer	Strawberries	Check Field	Yes	Yes	No
CB07	7	11:56 AM	12:10 PM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
CB07	7	12:10 PM	12:22 PM	None	None	Lunch	No	No	No
CB07	7	12:22 PM	4:00 PM	None	None	Other	No	No	No
CB08	8	6:54 AM	7:07 AM	None	None	Transit	No	No	Yes
CB08	8	7:07 AM	7:09 AM	None	None	Other	No	No	No
CB08	8	7:09 AM	7:12 AM	None	None	Transit	No	No	No
CB08	8	7:12 AM	8:48 AM	Jen	Strawberries	Check Field	Yes	Yes	No
CB08	8	8:48 AM	9:02 AM	None	None	Break	No	No	No
CB08	8	9:02 AM	9:10 AM	None	None	Other	No	No	No
CB08	8	9:10 AM	10:15 AM	Jen	Strawberries	Check Field	Yes	Yes	No
CB08	8	10:15 AM	10:20 AM	None	None	Transit	No	No	No
CB08	8	10:20 AM	11:35 AM	Jen	Strawberries	Check Field	Yes	Yes	No
CB08	8	11:35 AM	11:40 AM	None	None	Transit	No	No	No
CB08	8	11:40 AM	11:53 AM	None	None	Transit	No	No	Yes
CB08	8	11:53 AM	12:15 PM	None	None	Lunch	No	No	No
CB08	8	12:15 PM	4:00 PM	None	None	Other	No	No	No
TF09	9	7:03 AM	7:20 AM	None	None	Other	No	No	No
TF09	9	7:20 AM	7:38 AM	None	None	Transit	No	No	Yes
TF09	9	7:38 AM	7:54 AM	18-15	Head Lettuce	Check Field	Yes	Yes	No
TF09	9	7:54 AM	7:56 AM	None	None	Transit	No	No	Yes
TF09	9	7:56 AM	8:01 AM	18-16	Romaine	Check Field	Yes	Yes	No
TF09	9	8:01 AM	8:12 AM	15-3	Celery	Check Field	No	No	Yes
TF09	9	8:12 AM	8:14 AM	None	None	Transit	No	No	Yes
TF09	9	8:14 AM	8:20 AM	5-3	Head Lettuce	Check Field	No	No	Yes
TF09	9	8:20 AM	8:22 AM	None	None	Transit	No	No	Yes
TF09	9	8:22 AM	8:26 AM	5-3	Head Lettuce	Check Field	No	No	Yes
TF09	9	8:26 AM	8:32 AM	15-35	Broccoli	Check Field	Yes	Yes	No
TF09	9	8:32 AM	8:41 AM	15-35	Broccoli	Check Field	No	No	Yes
TF09	9	8:41 AM	8:44 AM	15-27	Broccoli	Check Field	No	No	Yes
TF09	9	8:44 AM	8:47 AM	15-26	Broccoli	Check Field	No	No	Yes
TF09	9	8:47 AM	8:50 AM	15-35	Broccoli	Check Field	No	No	Yes
TF09	9	8:50 AM	8:52 AM	15-35	Broccoli	Check Field	Yes	Yes	No
TF09	9	8:52 AM	9:02 AM	15-14	Broccoli	Check Field	No	No	Yes
TF09	9	9:02 AM	9:06 AM	None	None	Transit	No	No	Yes
TF09	9	9:06 AM	9:17 AM	15-4	Celery	Check Field	Yes	Yes	No
TF09	9	9:17 AM	9:25 AM	None	None	Transit	No	No	Yes
TF09	9	9:25 AM	9:35 AM	None	None	Break	No	No	No
TF09	9	9:35 AM	9:43 AM	None	None	Transit	No	No	Yes
TF09	9	9:43 AM	9:52 AM	18-14	Head Lettuce	Check Field	Yes	Yes	No
TF09	9	9:52 AM	10:02 AM	None	None	Transit	No	No	Yes
TF09	9	10:02 AM	10:05 AM	18-17S	Romaine	Check Field	Yes	Yes	No
TF09	9	10:05 AM	10:07 AM	None	None	Other	No	No	No
TF09	9	10:07 AM	10:11 AM	None	None	Transit	No	No	Yes
TF09	9	10:11 AM	10:12 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
TF09	9	10:12 AM	10:20 AM	7-6	Red Cabbage	Check Field	Yes	Yes	No
TF09	9	10:20 AM	10:27 AM	7-3	Cabbage	Check Field	No	No	Yes
TF09	9	10:27 AM	10:38 AM	None	None	Transit	No	No	Yes
TF09	9	10:38 AM	10:48 AM	15-26	Broccoli	Check Field	Yes	Yes	No
TF09	9	10:48 AM	10:55 AM	None	None	Other	No	No	No
TF09	9	10:55 AM	11:04 AM	None	None	Transit	No	No	Yes
TF09	9	11:04 AM	11:05 AM	15-4	Celery	Check Field	No	No	Yes
TF09	9	11:05 AM	11:14 AM	None	None	Transit	No	No	Yes
TF09	9	11:14 AM	11:21 AM	None	None	Transit	No	No	Yes
TF09	9	11:21 AM	11:24 AM	18-17	Romaine	Check Field	No	No	Yes
TF09	9	11:24 AM	11:28 AM	None	None	Transit	No	No	Yes
TF09	9	11:28 AM	11:33 AM	None	None	Other	No	No	No
TF09	9	11:33 AM	11:39 AM	None	None	Transit	No	No	Yes
TF09	9	11:39 AM	1:07 PM	None	None	Lunch	No	No	No
TF09	9	1:07 PM	1:22 PM	None	None	Transit	No	No	Yes
TF09	9	1:22 PM	1:45 PM	None	None	Other	No	No	No
TF09	9	1:45 PM	1:47 PM	None	None	Transit	No	No	Yes
TF09	9	1:47 PM	3:25 PM	None	None	Office	No	No	No
TF10	10	7:34 AM	8:04 AM	None	None	Transit	No	No	Yes
TF10	10	8:04 AM	8:10 AM	None	None	Office	No	No	No
TF10	10	8:10 AM	8:27 AM	None	None	Transit	No	No	Yes
TF10	10	8:27 AM	8:30 AM	None	None	Transit	No	No	Yes
TF10	10	8:30 AM	8:32 AM	None	None	Check Field	No	No	Yes
TF10	10	8:32 AM	8:35 AM	None	None	Transit	No	No	Yes
TF10	10	8:35 AM	8:37 AM	None	None	Transit	No	No	Yes
TF10	10	8:37 AM	8:40 AM	None	None	Other	No	No	No
TF10	10	8:40 AM	8:43 AM	None	None	Transit	No	No	Yes
TF10	10	8:43 AM	8:44 AM	None	None	Transit	No	No	Yes
TF10	10	8:44 AM	8:45 AM	9-3	Celery	Check Field	No	No	Yes
TF10	10	8:45 AM	8:46 AM	9-3	Celery	Transit	No	No	Yes
TF10	10	8:46 AM	8:48 AM	9-3	Celery	Other	No	No	Yes
TF10	10	8:48 AM	8:53 AM	None	None	Transit	No	No	Yes
TF10	10	8:53 AM	9:12 AM	20-37	Broccoli	Check Field	Yes	Yes	No
TF10	10	9:12 AM	9:15 AM	20-37	Broccoli	Other	No	No	No
TF10	10	9:15 AM	9:18 AM	20-37	Broccoli	Check Field	No	No	Yes
TF10	10	9:18 AM	9:19 AM	None	None	Transit	No	No	Yes
TF10	10	9:19 AM	9:24 AM	None	None	Other	No	No	No
TF10	10	9:24 AM	9:26 AM	20-27	Cauliflower	Other	No	No	No
TF10	10	9:26 AM	9:44 AM	20-27	Cauliflower	Check Field	Yes	No	No
TF10	10	9:44 AM	9:46 AM	20-27	Cauliflower	Check Field	No	No	No
TF10	10	9:46 AM	9:47 AM	20-27	Cauliflower	Transit	No	No	Yes
TF10	10	9:47 AM	9:48 AM	20-02	Cauliflower	Transit	No	No	Yes
TF10	10	9:48 AM	9:50 AM	20-02	Cauliflower	Other	No	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
TF10	10	9:50 AM	10:07 AM	20-02	Cauliflower	Check Field	Yes	No	No
TF10	10	10:07 AM	10:21 AM	20-02	Cauliflower	Other	No	No	No
TF10	10	10:21 AM	10:22 AM	None	None	Transit	No	No	Yes
TF10	10	10:22 AM	10:25 AM	None	None	Transit	No	No	Yes
TF10	10	10:25 AM	10:27 AM	None	None	Transit	No	No	Yes
TF10	10	10:27 AM	10:35 AM	None	None	Other	No	No	No
TF10	10	10:35 AM	10:40 AM	None	None	Transit	No	No	Yes
TF10	10	10:40 AM	10:41 AM	Unknown	None	Check Field	Yes	No	No
TF10	10	10:41 AM	10:46 AM	12-7	Celery	Check Field	Yes	No	No
TF10	10	10:46 AM	10:48 AM	12-7	Celery	Other	No	No	No
TF10	10	10:48 AM	10:49 AM	None	None	Transit	No	No	Yes
TF10	10	10:49 AM	10:53 AM	None	None	Other	No	No	No
TF10	10	10:53 AM	10:54 AM	None	None	Transit	No	No	Yes
TF10	10	10:54 AM	10:55 AM	Unknown	None	Check Field	No	No	Yes
TF10	10	10:55 AM	11:10 AM	11-3	Head Lettuce	Check Field	Yes	No	No
TF10	10	11:10 AM	11:23 AM	11-3	Head Lettuce	Transit	No	No	Yes
TF10	10	11:23 AM	11:28 AM	None	None	Transit	No	No	Yes
TF10	10	11:28 AM	11:35 AM	None	None	Other	Yes	No	No
TF10	10	11:35 AM	11:38 AM	None	None	Transit	No	No	Yes
TF10	10	11:38 AM	11:44 AM	None	None	Transit	No	No	Yes
TF10	10	11:44 AM	1:05 PM	None	None	Lunch	No	No	No
TF10	10	1:05 PM	1:40 PM	2-2	Leaf Lettuce	Check Field	No	No	No
TF10	10	1:40 PM	1:52 PM	None	None	Transit	No	No	Yes
TF10	10	1:52 PM	2:01 PM	None	None	Other	No	No	No
TF10	10	2:01 PM	2:02 PM	None	None	Transit	No	No	Yes
TF10	10	2:02 PM	2:13 PM	None	None	Transit	No	No	Yes
TF10	10	2:13 PM	3:20 PM	None	None	Office	No	No	No
KG11	11	7:53 AM	8:28 AM	None	None	Office	No	No	No
KG11	11	8:28 AM	8:47 AM	None	None	Transit	No	No	Yes
KG11	11	8:47 AM	8:55 AM	SJ-6A	Artichoke	Check Field	Yes	No	No
KG11	11	8:55 AM	8:56 AM	SJ-6A	Artichoke	Transit	No	No	No
KG11	11	8:56 AM	8:57 AM	None	None	Transit	No	No	Yes
KG11	11	8:57 AM	8:59 AM	SJ-6B	Romaine	Check Field	No	No	No
KG11	11	8:59 AM	9:09 AM	SJ-6B	Romaine	Check Field	Yes	No	No
KG11	11	9:09 AM	9:10 AM	None	None	Transit	No	No	Yes
KG11	11	9:10 AM	9:13 AM	None	None	Transit	No	No	No
KG11	11	9:13 AM	9:25 AM	SJ-6D	Romaine	Check Field	Yes	Yes	No
KG11	11	9:25 AM	9:26 AM	SJ-6D	Romaine	Check Field	No	No	No
KG11	11	9:26 AM	9:29 AM	SJ-6D	Romaine	Transit	No	No	Yes
KG11	11	9:29 AM	9:37 AM	None	None	Transit	No	No	Yes
KG11	11	9:37 AM	9:38 AM	N-5	Artichoke	Check Field	No	No	No
KG11	11	9:38 AM	9:51 AM	N-5	Artichoke	Check Field	Yes	Yes	No
KG11	11	9:51 AM	9:52 AM	N-5	Artichoke	Other	No	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG11	11	9:52 AM	9:56 AM	N-6	Artichoke	Check Field	No	No	Yes
KG11	11	9:56 AM	10:12 AM	N-6	Artichoke	Check Field	Yes	Yes	No
KG11	11	10:12 AM	10:13 AM	Unknown	None	Check Field	No	No	No
KG11	11	10:13 AM	10:40 AM	None	None	Transit	No	No	Yes
KG11	11	10:40 AM	10:42 AM	Esp-9	Artichoke	Check Field	No	No	Yes
KG11	11	10:42 AM	10:45 AM	None	None	Transit	No	No	Yes
KG11	11	10:45 AM	10:46 AM	Esp-5	Artichoke	Other	No	No	Yes
KG11	11	10:46 AM	10:52 AM	Esp-5	Artichoke	Check Field	Yes	Yes	No
KG11	11	10:52 AM	10:53 AM	Esp-5	Artichoke	Transit	No	No	Yes
KG11	11	10:53 AM	11:02 AM	Esp-5	Artichoke	Check Field	Yes	No	Yes
KG11	11	11:02 AM	11:06 AM	None	None	Transit	No	No	Yes
KG11	11	11:06 AM	11:08 AM	Esp-11	Artichoke	Check Field	Yes	No	No
KG11	11	11:08 AM	11:11 AM	None	None	Transit	No	No	Yes
KG11	11	11:11 AM	11:20 AM	GuI-7A	Fennel	Check Field	Yes	Yes	No
KG11	11	11:20 AM	11:30 AM	None	None	Transit	No	No	Yes
KG11	11	11:30 AM	11:44 AM	None	None	Transit	No	No	Yes
KG11	11	11:44 AM	12:49 PM	None	None	Lunch	No	No	No
KG11	11	12:49 PM	1:13 PM	None	None	Transit	No	No	Yes
KG11	11	1:13 PM	1:15 PM	Unknown	None	Check Field	No	No	Yes
KG11	11	1:15 PM	1:16 PM	None	None	Transit	No	No	Yes
KG11	11	1:16 PM	1:28 PM	GuI-8B	Artichoke	Check Field	Yes	Yes	No
KG11	11	1:28 PM	1:33 PM	None	None	Transit	No	No	Yes
KG11	11	1:33 PM	1:37 PM	None	None	Transit	No	No	Yes
KG11	11	1:37 PM	1:50 PM	Str-1A	Celery	Check Field	Yes	No	No
KG11	11	1:50 PM	1:52 PM	Str-1A	Celery	Check Field	No	No	Yes
KG11	11	1:52 PM	2:02 PM	Artichoke 1	Artichoke	Transit	No	No	Yes
KG11	11	2:02 PM	2:25 PM	None	None	Transit	No	No	Yes
KG11	11	2:25 PM	4:30 PM	None	None	Office	No	No	No
KG12	12	7:53 AM	8:28 AM	None	None	Office	No	No	No
KG12	12	8:28 AM	8:30 AM	None	None	Transit	No	No	Yes
KG12	12	8:30 AM	8:35 AM	None	None	Other	No	No	No
KG12	12	8:35 AM	8:40 AM	None	None	Transit	No	No	Yes
KG12	12	8:40 AM	8:44 AM	Boc-2	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	8:44 AM	8:49 AM	None	None	Transit	No	No	Yes
KG12	12	8:49 AM	8:52 AM	Boc-9	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	8:52 AM	9:00 AM	None	None	Transit	No	No	Yes
KG12	12	9:00 AM	9:08 AM	Roy-15	Head Lettuce	Check Field	No	No	Yes
KG12	12	9:08 AM	9:12 AM	Roy-15	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	9:12 AM	9:17 AM	Roy-15	Head Lettuce	Check Field	No	No	Yes
KG12	12	9:17 AM	9:28 AM	Roy-22	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	9:28 AM	9:30 AM	Roy-22	Head Lettuce	Check Field	No	No	Yes
KG12	12	9:30 AM	9:37 AM	Roy-2	Head Lettuce	Check Field	Yes	No	Yes
KG12	12	9:37 AM	9:40 AM	Roy-1	Head Lettuce	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG12	12	9:40 AM	9:43 AM	None	None	Transit	No	No	Yes
KG12	12	9:43 AM	9:52 AM	Mid-11	None	Check Field	No	No	Yes
KG12	12	9:52 AM	9:55 AM	None	None	Transit	No	No	Yes
KG12	12	9:55 AM	10:05 AM	Mid-11	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	10:05 AM	10:11 AM	Unknown	None	Check Field	No	No	Yes
KG12	12	10:11 AM	10:15 AM	None	None	Transit	No	No	Yes
KG12	12	10:15 AM	10:30 AM	None	None	Break	No	No	No
KG12	12	10:30 AM	10:37 AM	None	None	Transit	No	No	Yes
KG12	12	10:37 AM	10:44 AM	Hu	Head Lettuce	Check Field	No	No	Yes
KG12	12	10:44 AM	10:50 AM	None	None	Transit	No	No	Yes
KG12	12	10:50 AM	10:59 AM	Bog-19A	Spinach	Check Field	Yes	No	No
KG12	12	10:59 AM	11:02 AM	None	None	Transit	No	No	Yes
KG12	12	11:02 AM	11:12 AM	None	None	Office	No	No	No
KG12	12	11:12 AM	11:17 AM	None	None	Transit	No	No	Yes
KG12	12	11:17 AM	11:23 AM	Bog	Spinach	Check Field	No	No	Yes
KG12	12	11:23 AM	11:30 AM	Bog-10	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	11:30 AM	11:32 AM	None	None	Transit	Yes	No	Yes
KG12	12	11:32 AM	11:35 AM	Bog-6	Head Lettuce	Check Field	Yes	Yes	No
KG12	12	11:35 AM	11:50 AM	None	None	Transit	No	No	Yes
KG12	12	11:50 AM	12:45 PM	None	None	Lunch	No	No	No
KG12	12	12:45 PM	1:04 PM	None	None	Transit	No	No	Yes
KG12	12	1:04 PM	1:08 PM	Ocean	Head Lettuce	Check Field	No	No	Yes
KG12	12	1:08 PM	1:22 PM	None	None	Transit	No	No	No
KG12	12	1:22 PM	1:40 PM	Arm-3	Artichoke	Check Field	No	Yes	No
KG12	12	1:40 PM	1:50 PM	None	None	Transit	No	No	Yes
KG12	12	1:50 PM	1:58 PM	V-1	Artichoke	Check Field	Yes	No	No
KG12	12	1:58 PM	2:01 PM	None	None	Transit	No	No	Yes
KG12	12	2:01 PM	2:07 PM	None	None	Break	No	No	No
KG12	12	2:07 PM	2:18 PM	None	None	Transit	No	No	Yes
KG12	12	2:18 PM	2:21 PM	Bog	Spinach	Check Field	No	No	Yes
KG12	12	2:21 PM	2:22 PM	Bog	Spinach	Check Field	Yes	Yes	No
KG12	12	2:22 PM	2:23 PM	Bog	Spinach	Transit	No	No	Yes
KG12	12	2:23 PM	2:24 PM	Bog	Spinach	Check Field	Yes	Yes	No
KG12	12	2:24 PM	2:28 PM	Bog	Spinach	Check Field	No	No	Yes
KG12	12	2:28 PM	2:30 PM	None	None	Transit	No	No	Yes
KG12	12	2:30 PM	4:30 PM	None	None	Office	No	No	No
KG13	13	7:45 AM	8:18 AM	None	None	Office	No	No	No
KG13	13	8:18 AM	8:28 AM	None	None	Transit	No	No	Yes
KG13	13	8:28 AM	8:30 AM	Mull-2	None	Check Field	No	No	Yes
KG13	13	8:30 AM	8:55 AM	Mull-2	Artichoke	Check Field	Yes	Yes	No
KG13	13	8:55 AM	8:58 AM	Mull-2	Artichoke	Other	No	No	No
KG13	13	8:58 AM	9:09 AM	Mull-2	Artichoke	Transit	No	No	Yes
KG13	13	9:09 AM	9:35 AM	Mull-2	Artichoke	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG13	13	9:35 AM	9:37 AM	None	None	Other	No	No	No
KG13	13	9:37 AM	9:40 AM	None	None	Transit	No	No	Yes
KG13	13	9:40 AM	10:01 AM	Mull-E	Head Lettuce	Check Field	Yes	Yes	No
KG13	13	10:01 AM	10:03 AM	None	None	Other	No	No	No
KG13	13	10:03 AM	10:05 AM	None	None	Transit	No	No	Yes
KG13	13	10:05 AM	10:13 AM	Mull-F	Head Lettuce	Check Field	Yes	Yes	No
KG13	13	10:13 AM	10:32 AM	None	None	Transit	No	No	Yes
KG13	13	10:32 AM	10:45 AM	None	None	Office	No	No	No
KG13	13	10:45 AM	10:54 AM	None	None	Transit	No	No	Yes
KG13	13	10:54 AM	11:28 AM	P-2	Artichoke	Check Field	Yes	Yes	No
KG13	13	11:28 AM	11:30 AM	None	None	Other	No	No	No
KG13	13	11:30 AM	11:33 AM	None	None	Transit	No	No	Yes
KG13	13	11:33 AM	11:48 AM	P-1	Artichoke	Check Field	Yes	Yes	No
KG13	13	11:48 AM	11:51 AM	None	None	Other	No	No	No
KG13	13	11:51 AM	12:10 PM	None	None	Transit	No	No	Yes
KG13	13	12:10 PM	1:20 PM	None	None	Lunch	No	No	No
KG13	13	1:20 PM	1:30 PM	None	None	Transit	No	No	Yes
KG13	13	1:30 PM	1:58 PM	Ber-3	None	Check Field	Yes	Yes	No
KG13	13	1:58 PM	2:02 PM	None	None	Other	No	No	No
KG13	13	2:02 PM	2:06 PM	None	None	Transit	No	No	Yes
KG13	13	2:06 PM	2:18 PM	Ber-1H	Broccoli	Check Field	Yes	Yes	No
KG13	13	2:18 PM	2:36 PM	None	None	Transit	No	No	Yes
KG13	13	2:36 PM	2:44 PM	Mar-36	Broccoli	Check Field	Yes	No	No
KG13	13	2:44 PM	2:55 PM	Mar-36	Broccoli	Check Field	No	No	Yes
KG13	13	2:55 PM	3:02 PM	Mar-1	Broccoli	Check Field	Yes	Yes	No
KG13	13	3:02 PM	3:20 PM	Mar-6	Broccoli	Check Field	Yes	No	No
KG13	13	3:20 PM	3:23 PM	None	None	Other	No	No	No
KG13	13	3:23 PM	3:48 PM	None	None	Transit	No	No	Yes
KG13	13	3:48 PM	4:00 PM	Se-1B	Spinach	Check Traps	Yes	No	No
KG13	13	4:00 PM	4:15 PM	Unknown	None	Check Field	No	No	No
KG13	13	4:15 PM	4:27 PM	None	None	Transit	No	No	Yes
KG13	13	4:27 PM	6:00 PM	None	None	Office	No	No	No
KG14	14	8:00 AM	8:20 AM	None	None	Office	No	No	No
KG14	14	8:20 AM	8:35 AM	None	None	Transit	No	No	Yes
KG14	14	8:35 AM	8:37 AM	Ki-10	Artichoke	Check Traps	No	No	No
KG14	14	8:37 AM	8:38 AM	None	None	Transit	No	No	Yes
KG14	14	8:38 AM	8:39 AM	Ki-8	Artichoke	Check Traps	No	No	No
KG14	14	8:39 AM	8:42 AM	None	None	Transit	No	No	Yes
KG14	14	8:42 AM	8:43 AM	Ki-7	Artichoke	Check Traps	No	No	No
KG14	14	8:43 AM	8:48 AM	None	None	Transit	No	No	Yes
KG14	14	8:48 AM	8:49 AM	Ki-4	Artichoke	Check Traps	No	No	No
KG14	14	8:49 AM	8:56 AM	None	None	Transit	No	No	Yes
KG14	14	8:56 AM	8:57 AM	Ki-1	Artichoke	Check Traps	No	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG14	14	8:57 AM	9:01 AM	None	None	Transit	No	No	Yes
KG14	14	9:01 AM	9:02 AM	Ki-3	Artichoke	Check Traps	No	No	No
KG14	14	9:02 AM	9:06 AM	None	None	Transit	No	No	Yes
KG14	14	9:06 AM	9:07 AM	B-5	Artichoke	Check Traps	No	No	No
KG14	14	9:07 AM	9:09 AM	None	None	Transit	No	No	Yes
KG14	14	9:09 AM	9:10 AM	B-3	Artichoke	Check Traps	Yes	No	No
KG14	14	9:10 AM	9:11 AM	None	None	Transit	No	No	Yes
KG14	14	9:11 AM	9:12 AM	B-4	Artichoke	Check Traps	No	No	No
KG14	14	9:12 AM	9:14 AM	None	None	Transit	No	No	Yes
KG14	14	9:14 AM	9:15 AM	B-4	Artichoke	Check Traps	Yes	No	No
KG14	14	9:15 AM	9:21 AM	None	None	Transit	No	No	Yes
KG14	14	9:21 AM	9:22 AM	Mar-4	Artichoke	Check Traps	No	No	No
KG14	14	9:22 AM	9:25 AM	None	None	Transit	No	No	Yes
KG14	14	9:25 AM	9:26 AM	Mar-3	Artichoke	Check Traps	No	No	No
KG14	14	9:26 AM	9:28 AM	None	None	Transit	No	No	Yes
KG14	14	9:28 AM	9:29 AM	O-3	Artichoke	Check Traps	Yes	No	No
KG14	14	9:29 AM	9:32 AM	None	None	Transit	No	No	Yes
KG14	14	9:32 AM	9:33 AM	O-2	Artichoke	Check Traps	No	No	No
KG14	14	9:33 AM	9:34 AM	None	None	Transit	No	No	Yes
KG14	14	9:34 AM	9:36 AM	O-1	Artichoke	Check Traps	No	No	No
KG14	14	9:36 AM	9:37 AM	None	None	Transit	No	No	Yes
KG14	14	9:37 AM	9:43 AM	Arm-1	Artichoke	Check Traps	No	No	No
KG14	14	9:43 AM	9:46 AM	None	None	Transit	No	No	Yes
KG14	14	9:46 AM	9:47 AM	Arm-4	Artichoke	Check Traps	No	No	No
KG14	14	9:47 AM	9:58 AM	None	None	Transit	No	No	Yes
KG14	14	9:58 AM	9:59 AM	N-1	Artichoke	Check Traps	No	No	No
KG14	14	9:59 AM	10:01 AM	None	None	Transit	No	No	Yes
KG14	14	10:01 AM	10:02 AM	Nielsen 9	Artichoke	Check Traps	No	No	No
KG14	14	10:02 AM	10:03 AM	None	None	Transit	No	No	Yes
KG14	14	10:03 AM	10:04 AM	N-8	Artichoke	Check Traps	No	No	No
KG14	14	10:04 AM	10:05 AM	None	None	Transit	No	No	Yes
KG14	14	10:05 AM	10:07 AM	N-6	Artichoke	Check Traps	No	No	No
KG14	14	10:07 AM	10:08 AM	None	None	Transit	No	No	Yes
KG14	14	10:08 AM	10:09 AM	N-7E	Artichoke	Check Traps	No	No	No
KG14	14	10:09 AM	10:10 AM	None	None	Transit	No	No	Yes
KG14	14	10:10 AM	10:11 AM	N-7 West	Artichoke	Check Traps	No	No	No
KG14	14	10:11 AM	10:13 AM	None	None	Transit	No	No	Yes
KG14	14	10:13 AM	10:15 AM	N-2 South	Artichoke	Check Traps	No	No	No
KG14	14	10:15 AM	10:17 AM	None	None	Transit	No	No	Yes
KG14	14	10:17 AM	10:18 AM	N-2 North	Artichoke	Check Traps	No	No	No
KG14	14	10:18 AM	10:21 AM	None	None	Transit	No	No	Yes
KG14	14	10:21 AM	10:22 AM	N-4	Artichoke	Check Traps	No	No	No
KG14	14	10:22 AM	10:23 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG14	14	10:23 AM	10:24 AM	N-3 West	Artichoke	Check Traps	No	No	No
KG14	14	10:24 AM	10:25 AM	N-3 East	Artichoke	Check Traps	No	No	No
KG14	14	10:25 AM	10:27 AM	None	None	Transit	No	No	Yes
KG14	14	10:27 AM	10:28 AM	N-5	Artichoke	Check Traps	No	No	No
KG14	14	10:28 AM	10:30 AM	None	None	Transit	No	No	Yes
KG14	14	10:30 AM	10:31 AM	G&T -1	Artichoke	Check Traps	No	No	No
KG14	14	10:31 AM	10:39 AM	None	None	Transit	No	No	Yes
KG14	14	10:39 AM	10:40 AM	G&T-8W	Artichoke	Check Traps	No	No	No
KG14	14	10:40 AM	10:43 AM	None	None	Transit	No	No	Yes
KG14	14	10:43 AM	10:44 AM	G&T-8E	Artichoke	Check Traps	No	No	No
KG14	14	10:44 AM	10:45 AM	None	None	Transit	No	No	Yes
KG14	14	10:45 AM	10:46 AM	G&T-10	Artichoke	Check Traps	No	No	No
KG14	14	10:46 AM	10:51 AM	None	None	Transit	No	No	Yes
KG14	14	10:51 AM	10:52 AM	Hay-1A	Artichoke	Check Traps	No	No	No
KG14	14	10:52 AM	10:53 AM	None	None	Transit	No	No	Yes
KG14	14	10:53 AM	10:54 AM	Hay-1B	Artichoke	Check Traps	No	No	No
KG14	14	10:54 AM	10:56 AM	None	None	Transit	No	No	Yes
KG14	14	10:56 AM	10:57 AM	Hay-2	Artichoke	Check Traps	No	No	No
KG14	14	10:57 AM	11:04 AM	None	None	Transit	No	No	Yes
KG14	14	11:04 AM	11:06 AM	Q&B 1	Artichoke	Check Traps	No	No	No
KG14	14	11:06 AM	11:09 AM	None	None	Transit	No	No	Yes
KG14	14	11:09 AM	11:10 AM	Q&B 4	Artichoke	Check Traps	No	No	No
KG14	14	11:10 AM	11:12 AM	None	None	Transit	No	No	Yes
KG14	14	11:12 AM	11:13 AM	Hill-7	Artichoke	Check Traps	No	No	No
KG14	14	11:13 AM	11:14 AM	Hill-4	Artichoke	Check Traps	No	No	No
KG14	14	11:14 AM	11:16 AM	None	None	Transit	No	No	Yes
KG14	14	11:16 AM	11:17 AM	Str-2	Artichoke	Check Traps	No	No	No
KG14	14	11:17 AM	11:18 AM	Str-7	Artichoke	Check Traps	No	No	No
KG14	14	11:18 AM	11:20 AM	None	None	Transit	No	No	Yes
KG14	14	11:20 AM	11:21 AM	Str-4	Artichoke	Check Traps	No	No	No
KG14	14	11:21 AM	11:22 AM	None	None	Transit	No	No	Yes
KG14	14	11:22 AM	11:23 AM	Str-5	Artichoke	Check Traps	No	No	No
KG14	14	11:23 AM	11:26 AM	None	None	Transit	No	No	Yes
KG14	14	11:26 AM	11:28 AM	Str-6	Artichoke	Check Traps	No	No	No
KG14	14	11:28 AM	11:34 AM	None	None	Other	No	No	No
KG14	14	11:34 AM	11:37 AM	None	None	Transit	No	No	Yes
KG14	14	11:37 AM	11:38 AM	Hur-3	Artichoke	Check Traps	No	No	No
KG14	14	11:38 AM	11:43 AM	None	None	Transit	No	No	Yes
KG14	14	11:43 AM	11:44 AM	Hur-2	Artichoke	Check Traps	No	No	No
KG14	14	11:44 AM	11:45 AM	None	None	Transit	No	No	Yes
KG14	14	11:45 AM	11:46 AM	Hur-1	Artichoke	Check Traps	No	No	No
KG14	14	11:46 AM	11:48 AM	None	None	Transit	No	No	Yes
KG14	14	11:48 AM	11:49 AM	STJ-1	Artichoke	Check Traps	No	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
KG14	14	11:49 AM	11:50 AM	None	None	Other	No	No	No
KG14	14	11:50 AM	11:51 AM	STJ-2	Artichoke	Check Traps	No	No	No
KG14	14	11:51 AM	11:52 AM	None	None	Transit	No	No	Yes
KG14	14	11:52 AM	11:53 AM	STJ-10	Artichoke	Check Traps	No	No	No
KG14	14	11:53 AM	11:59 AM	None	None	Transit	No	No	Yes
KG14	14	11:59 AM	12:00 PM	STJ-7	Artichoke	Check Traps	No	No	No
KG14	14	12:00 PM	12:01 PM	None	None	Transit	No	No	Yes
KG14	14	12:01 PM	12:02 PM	STJ-4	Artichoke	Check Traps	No	No	No
KG14	14	12:02 PM	12:11 PM	None	None	Transit	No	No	Yes
KG14	14	12:11 PM	1:15 PM	None	None	Lunch	No	No	No
KG14	14	1:15 PM	1:54 PM	None	None	Office	No	No	No
KG14	14	1:54 PM	2:05 PM	None	None	Transit	No	No	Yes
KG14	14	2:05 PM	2:10 PM	Spinach 1	Spinach	Other	No	No	No
KG14	14	2:10 PM	2:12 PM	Spinach 1	Spinach	Transit	No	No	Yes
KG14	14	2:12 PM	2:20 PM	Spinach 1	Spinach	Check Field	Yes	No	No
KG14	14	2:20 PM	2:21 PM	Spinach 1	Spinach	Transit	No	No	No
KG14	14	2:21 PM	2:27 PM	Spinach 1	Spinach	Check Field	Yes	No	No
KG14	14	2:27 PM	2:29 PM	Spinach 1	Spinach	Transit	No	No	No
KG14	14	2:29 PM	2:42 PM	Spinach 1	Spinach	Transit	No	No	Yes
KG14	14	2:42 PM	2:53 PM	Spinach 1	Spinach	Check Field	Yes	No	No
KG14	14	2:53 PM	3:13 PM	None	None	Transit	No	No	Yes
KG14	14	3:13 PM	3:29 PM	Bl-1	Artichoke	Check Field	Yes	No	No
KG14	14	3:29 PM	3:34 PM	None	None	Other	No	No	No
KG14	14	3:34 PM	3:41 PM	Spinach 2	Spinach	Check Field	No	No	Yes
KG14	14	3:41 PM	3:42 PM	Spinach 2	Spinach	Other	No	No	No
KG14	14	3:42 PM	3:43 PM	Spinach 2	Spinach	Check Field	No	No	No
KG14	14	3:43 PM	3:44 PM	Spinach 2	Spinach	Other	Yes	No	No
KG14	14	3:44 PM	3:48 PM	Spinach 2	Spinach	Transit	No	No	Yes
KG14	14	3:48 PM	4:15 PM	Spinach 2	Spinach	Other	No	No	No
KG14	14	4:15 PM	4:20 PM	None	None	Transit	No	No	Yes
KG14	14	4:20 PM	5:00 PM	None	None	Office	No	No	No
SC15	15	7:00 AM	8:25 AM	None	None	Office	No	No	No
SC15	15	8:25 AM	8:34 AM	None	None	Transit	No	No	Yes
SC15	15	8:34 AM	8:37 AM	203	Wine Grapes	Check Traps	Yes	No	No
SC15	15	8:37 AM	8:42 AM	None	None	Transit	No	No	Yes
SC15	15	8:42 AM	8:46 AM	202	Wine Grapes	Check Traps	Yes	No	No
SC15	15	8:46 AM	8:51 AM	None	None	Transit	No	No	Yes
SC15	15	8:51 AM	8:56 AM	205	Wine Grapes	Check Traps	No	No	No
SC15	15	8:56 AM	9:11 AM	None	None	Transit	No	No	Yes
SC15	15	9:11 AM	9:31 AM	47B	Wine Grapes	Check Traps	No	No	No
SC15	15	9:31 AM	9:38 AM	47B	Wine Grapes	Check Traps	Yes	No	No
SC15	15	9:38 AM	9:45 AM	None	None	Transit	No	No	Yes
SC15	15	9:45 AM	9:51 AM	106	Wine Grapes	Check Traps	Yes	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
SC15	15	9:51 AM	10:02 AM	None	None	Transit	No	No	Yes
SC15	15	10:02 AM	10:03 AM	74B	Wine Grapes	Check Traps	No	No	No
SC15	15	10:03 AM	10:09 AM	None	None	Transit	Yes	No	Yes
SC15	15	10:09 AM	10:13 AM	74B	Wine Grapes	Check Traps	Yes	No	No
SC15	15	10:13 AM	10:17 AM	None	None	Transit	Yes	No	Yes
SC15	15	10:17 AM	10:26 AM	76	Wine Grapes	Check Traps	Yes	No	No
SC15	15	10:26 AM	10:32 AM	None	None	Transit	Yes	No	Yes
SC15	15	10:32 AM	10:50 AM	None	None	Transit	No	No	Yes
SC15	15	10:50 AM	10:55 AM	None	None	Transit	Yes	No	Yes
SC15	15	10:55 AM	11:03 AM	102	Wine Grapes	Check Traps	Yes	No	No
SC15	15	11:03 AM	11:07 AM	None	None	Transit	Yes	No	Yes
SC15	15	11:07 AM	11:11 AM	None	None	Transit	No	No	Yes
SC15	15	11:11 AM	11:12 AM	None	None	Transit	Yes	No	Yes
SC15	15	11:12 AM	11:21 AM	65B	Wine Grapes	Check Traps	Yes	No	No
SC15	15	11:21 AM	11:22 AM	None	None	Transit	Yes	No	Yes
SC15	15	11:22 AM	11:31 AM	None	None	Transit	No	No	Yes
SC15	15	11:31 AM	12:15 PM	None	None	Office	No	No	No
SC15	15	12:15 PM	1:30 PM	None	None	Lunch	No	No	No
SC15	15	1:30 PM	3:00 PM	None	None	Office	No	No	No
DR16	16	6:45 AM	6:50 AM	None	None	Other	No	No	No
DR16	16	6:50 AM	6:58 AM	None	None	Transit	No	No	Yes
DR16	16	6:58 AM	7:03 AM	FD1	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	7:03 AM	7:06 AM	None	None	Other	No	No	No
DR16	16	7:06 AM	7:07 AM	None	None	Transit	No	No	Yes
DR16	16	7:07 AM	7:09 AM	None	None	Other	No	No	No
DR16	16	7:09 AM	7:14 AM	FD2	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	7:14 AM	7:16 AM	None	None	Other	No	No	No
DR16	16	7:16 AM	7:19 AM	FD1	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	7:19 AM	7:22 AM	None	None	Other	No	No	No
DR16	16	7:22 AM	7:28 AM	FD2	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	7:28 AM	7:32 AM	None	None	Other	No	No	No
DR16	16	7:32 AM	7:36 AM	FD3	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	7:36 AM	8:52 AM	None	None	Other	No	No	No
DR16	16	8:52 AM	9:12 AM	None	None	Transit	No	No	Yes
DR16	16	9:12 AM	9:38 AM	FD4	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	9:38 AM	9:58 AM	None	None	Transit	No	No	Yes
DR16	16	9:58 AM	11:30 AM	None	None	Other	No	No	No
DR16	16	11:30 AM	11:43 AM	None	None	Transit	No	No	Yes
DR16	16	11:43 AM	12:03 PM	None	None	Other	No	No	No
DR16	16	12:03 PM	12:17 PM	None	None	Transit	No	No	Yes
DR16	16	12:17 PM	1:05 PM	None	None	Lunch	No	No	No
DR16	16	1:05 PM	1:14 PM	None	None	Transit	No	No	Yes
DR16	16	1:14 PM	1:32 PM	FD5	Wine Grapes	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
DR16	16	1:32 PM	2:05 PM	None	None	Transit	No	No	Yes
DR16	16	2:05 PM	2:25 PM	None	None	Transit	No	No	Yes
DR16	16	2:25 PM	2:28 PM	FD6	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	2:28 PM	2:30 PM	FD7	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	2:30 PM	2:33 PM	FD8	Wine Grapes	Check Field	Yes	Yes	No
DR16	16	2:33 PM	3:00 PM	None	None	Other	No	No	No
DR16	16	3:00 PM	3:17 PM	None	None	Transit	No	No	Yes
DR16	16	3:17 PM	6:00 PM	None	None	Other	No	No	No
VV17	17	8:00 AM	9:30 AM	None	None	Office	No	No	No
VV17	17	9:30 AM	9:44 AM	None	None	Transit	No	No	Yes
VV17	17	9:44 AM	9:49 AM	Ca1-6	Wine Grapes	Transit	No	No	Yes
VV17	17	9:49 AM	10:24 AM	Ca1-6	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	10:24 AM	10:26 AM	Ca1-6	Wine Grapes	Transit	No	No	No
VV17	17	10:26 AM	10:30 AM	Ca1-07	Wine Grapes	Check Field	Yes	No	No
VV17	17	10:30 AM	10:32 AM	Ca1-07	Wine Grapes	Transit	No	No	No
VV17	17	10:32 AM	11:01 AM	Ca1-07	Wine Grapes	Check Field	Yes	No	No
VV17	17	11:01 AM	11:03 AM	Ca1-07	Wine Grapes	Transit	No	No	No
VV17	17	11:03 AM	11:20 AM	Ca1-8	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	11:20 AM	11:22 AM	None	None	Transit	No	No	No
VV17	17	11:22 AM	11:58 AM	Ca1-8	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	11:58 AM	12:10 PM	None	None	Transit	No	No	No
VV17	17	12:10 PM	12:30 PM	None	None	Transit	No	No	Yes
VV17	17	12:30 PM	1:42 PM	None	None	Lunch	No	No	No
VV17	17	1:42 PM	1:50 PM	None	None	Transit	No	No	Yes
VV17	17	1:50 PM	1:54 PM	None	None	Transit	No	No	No
VV17	17	1:54 PM	1:57 PM	None	None	Transit	No	No	No
VV17	17	1:57 PM	2:20 PM	Ca1-10	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	2:20 PM	2:22 PM	Ca1-10	Wine Grapes	Transit	No	No	No
VV17	17	2:22 PM	2:32 PM	Ca1-10	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	2:32 PM	2:38 PM	Ca1-10	Wine Grapes	Transit	No	No	No
VV17	17	2:38 PM	2:49 PM	Ca1-10	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	2:49 PM	2:52 PM	Ca1-10	Wine Grapes	Transit	No	No	No
VV17	17	2:52 PM	3:06 PM	Ca1-10	Wine Grapes	Check Field	Yes	Yes	No
VV17	17	3:06 PM	3:16 PM	None	None	Transit	No	No	No
VV17	17	3:16 PM	3:21 PM	None	None	Transit	No	No	Yes
VV17	17	3:21 PM	3:38 PM	None	None	Transit	No	No	Yes
VV17	17	3:38 PM	4:45 PM	None	None	Office	No	No	No
PR18	18	8:00 AM	8:40 AM	None	None	Transit	No	No	Yes
PR18	18	8:40 AM	8:41 AM	Beans1	Beans	Sweep	Yes	No	No
PR18	18	8:41 AM	8:44 AM	Beans1	Beans	Transit	No	No	Yes
PR18	18	8:44 AM	8:45 AM	Beans1	Beans	Check Field	Yes	No	No
PR18	18	8:45 AM	8:51 AM	None	None	Transit	No	No	Yes
PR18	18	8:51 AM	8:53 AM	Per-224	Proc. Tomatoes	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PR18	18	8:53 AM	8:57 AM	None	None	Transit	No	No	Yes
PR18	18	8:57 AM	8:59 AM	Per-224	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	8:59 AM	9:02 AM	None	None	Transit	No	No	Yes
PR18	18	9:02 AM	9:04 AM	Per-224	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:04 AM	9:12 AM	None	None	Transit	No	No	Yes
PR18	18	9:12 AM	9:14 AM	Go-2	None	Check Field	Yes	Yes	No
PR18	18	9:14 AM	9:15 AM	None	None	Transit	No	No	Yes
PR18	18	9:15 AM	9:16 AM	Go-2	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:16 AM	9:17 AM	None	None	Transit	No	No	Yes
PR18	18	9:17 AM	9:18 AM	Go-2	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:18 AM	9:21 AM	Yam-18	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:21 AM	9:23 AM	None	None	Transit	No	No	Yes
PR18	18	9:23 AM	9:24 AM	Yam-18	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:24 AM	9:31 AM	None	None	Transit	No	No	Yes
PR18	18	9:31 AM	9:33 AM	Y & L 6	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:33 AM	9:50 AM	None	None	Transit	No	No	Yes
PR18	18	9:50 AM	9:51 AM	Y & L 7	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:51 AM	9:53 AM	None	None	Transit	No	No	Yes
PR18	18	9:53 AM	9:54 AM	Y & L 7	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:54 AM	9:56 AM	None	None	Transit	No	No	Yes
PR18	18	9:56 AM	9:58 AM	Y & L 7	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	9:58 AM	10:00 AM	None	None	Transit	No	No	Yes
PR18	18	10:00 AM	10:01 AM	Y & L 7	Proc. Tomatoes	Check Field	Yes	No	No
PR18	18	10:01 AM	10:03 AM	None	None	Transit	No	No	Yes
PR18	18	10:03 AM	10:05 AM	Y & L 7	Proc. Tomatoes	Check Field	Yes	No	No
PR18	18	10:05 AM	10:11 AM	None	None	Transit	No	No	Yes
PR18	18	10:11 AM	10:13 AM	Y & L 9	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	10:13 AM	10:14 AM	None	None	Transit	No	No	Yes
PR18	18	10:14 AM	10:16 AM	Y & L 9	Proc. Tomatoes	Check Field	Yes	No	No
PR18	18	10:16 AM	10:32 AM	None	None	Transit	No	No	Yes
PR18	18	10:32 AM	10:37 AM	Yam	Almond	Check Field	Yes	No	No
PR18	18	10:37 AM	10:42 AM	None	None	Transit	No	No	Yes
PR18	18	10:42 AM	10:44 AM	Yam-4	Beans	Sweep	Yes	No	No
PR18	18	10:44 AM	10:45 AM	None	None	Transit	No	No	Yes
PR18	18	10:45 AM	10:46 AM	Yam-4	Beans	Sweep	Yes	No	No
PR18	18	10:46 AM	10:47 AM	None	None	Transit	No	No	Yes
PR18	18	10:47 AM	10:48 AM	Yam-4	Beans	Sweep	Yes	No	No
PR18	18	10:48 AM	11:30 AM	None	None	Transit	No	No	Yes
PR18	18	11:30 AM	12:00 PM	None	None	Lunch	No	No	No
PR18	18	12:00 PM	12:05 PM	None	None	Transit	No	No	Yes
PR18	18	12:05 PM	12:07 PM	Tri-H664	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:07 PM	12:08 PM	None	None	Transit	No	No	Yes
PR18	18	12:08 PM	12:09 PM	Tri-H66	Proc. Tomatoes	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PR18	18	12:09 PM	12:12 PM	None	None	Transit	No	No	Yes
PR18	18	12:12 PM	12:13 PM	Tri-H66	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:13 PM	12:14 PM	None	None	Transit	No	No	Yes
PR18	18	12:14 PM	12:16 PM	Tri-15	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:16 PM	12:19 PM	None	None	Transit	No	No	Yes
PR18	18	12:19 PM	12:20 PM	Trina 3	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:20 PM	12:22 PM	None	None	Transit	No	No	Yes
PR18	18	12:22 PM	12:23 PM	Tri-3	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:23 PM	12:25 PM	None	None	Transit	No	No	Yes
PR18	18	12:25 PM	12:27 PM	Tri-3	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:27 PM	12:28 PM	None	None	Transit	No	No	Yes
PR18	18	12:28 PM	12:30 PM	Tri	Proc. Tomatoes	Check Field	Yes	Yes	No
PR18	18	12:30 PM	12:41 PM	None	None	Transit	No	No	Yes
PR18	18	12:41 PM	12:43 PM	DP-LX1	Walnut	Check Field	Yes	No	No
PR18	18	12:43 PM	12:44 PM	None	None	Transit	No	No	Yes
PR18	18	12:44 PM	12:46 PM	DP-LX1	Walnut	Check Field	Yes	No	No
PR18	18	12:46 PM	12:49 PM	DP-LX1	Walnut	Other	No	No	No
PR18	18	12:49 PM	12:51 PM	DP-LX1	Walnut	Transit	Yes	No	Yes
PR18	18	12:51 PM	12:52 PM	DP-LX1	Walnut	Check Field	Yes	No	No
PR18	18	12:52 PM	12:57 PM	None	None	Transit	No	No	Yes
PR18	18	12:57 PM	12:58 PM	DP-LX1	Walnut	Check Field	Yes	No	No
PR18	18	12:58 PM	12:59 PM	None	None	Other	No	No	No
PR18	18	12:59 PM	1:02 PM	None	None	Transit	No	No	Yes
PR18	18	1:02 PM	1:05 PM	DeP-LX3	Beans	Sweep	Yes	Yes	No
PR18	18	1:05 PM	1:07 PM	DeP-LX3	Beans	Transit	No	No	Yes
PR18	18	1:07 PM	1:08 PM	DeP-LX3	Beans	Sweep	Yes	Yes	No
PR18	18	1:08 PM	1:10 PM	None	None	Transit	No	No	Yes
PR18	18	1:10 PM	1:12 PM	DeP-MG9	Beans	Sweep	Yes	Yes	No
PR18	18	1:12 PM	1:13 PM	DeP-MG9	Beans	Transit	No	No	Yes
PR18	18	1:13 PM	1:15 PM	DeP-MG9	Beans	Sweep	Yes	Yes	No
PR18	18	1:15 PM	1:17 PM	None	None	Transit	No	No	Yes
PR18	18	1:17 PM	1:19 PM	DeP	Beans	Sweep	Yes	Yes	No
PR18	18	1:19 PM	1:22 PM	None	None	Transit	No	No	Yes
PR18	18	1:22 PM	1:24 PM	DeP-M67	Beans	Sweep	Yes	Yes	No
PR18	18	1:24 PM	1:28 PM	None	None	Other	No	No	No
PR18	18	1:28 PM	1:30 PM	None	None	Transit	No	No	Yes
PR18	18	1:30 PM	1:34 PM	DeP-M67	Beans	Other	No	No	No
PR18	18	1:34 PM	1:36 PM	DeP-M67	Beans	Sweep	Yes	Yes	No
PR18	18	1:36 PM	1:51 PM	None	None	Transit	No	No	Yes
PR18	18	1:51 PM	1:56 PM	Del Mar 63	Cauliflower	Check Field	Yes	No	No
PR18	18	1:56 PM	2:01 PM	None	None	Transit	No	No	Yes
PR18	18	2:01 PM	2:02 PM	Del Mar L695	Parsley	Check Field	Yes	Yes	No
PR18	18	2:02 PM	2:07 PM	Del Mar L695	Parsley	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PR18	18	2:07 PM	2:14 PM	Del Mar L695	Parsley	Check Field	Yes	Yes	No
PR18	18	2:14 PM	2:35 PM	None	None	Transit	No	No	Yes
PR18	18	2:35 PM	3:40 PM	None	None	Office	No	No	No
TA19	19	6:32 AM	6:41 AM	None	None	Transit	No	No	Yes
TA19	19	6:41 AM	6:45 AM	Sal-1	Head Lettuce	Other	No	No	No
TA19	19	6:45 AM	6:50 AM	Sal-1	Head Lettuce	Check Field	Yes	No	No
TA19	19	6:50 AM	6:52 AM	None	None	Transit	No	No	Yes
TA19	19	6:52 AM	6:57 AM	Sal-3	Head Lettuce	Check Field	Yes	No	No
TA19	19	6:57 AM	7:00 AM	None	None	Transit	No	No	Yes
TA19	19	7:00 AM	7:03 AM	Sal-10	Head Lettuce	Check Field	Yes	No	No
TA19	19	7:03 AM	7:12 AM	Sal-5	Head Lettuce	Check Field	No	No	Yes
TA19	19	7:12 AM	7:17 AM	None	None	Transit	No	No	Yes
TA19	19	7:17 AM	7:19 AM	Po-1	Broccoli	Check Field	Yes	Yes	No
TA19	19	7:19 AM	7:22 AM	None	None	Other	No	No	No
TA19	19	7:22 AM	7:23 AM	Po-2	Cauliflower	Check Field	Yes	Yes	No
TA19	19	7:23 AM	7:27 AM	None	None	Transit	No	No	Yes
TA19	19	7:27 AM	7:30 AM	Or-3	Broccoli	Check Field	Yes	No	No
TA19	19	7:30 AM	7:35 AM	Or-6	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	7:35 AM	7:40 AM	Or-7	Head Lettuce	Check Field	No	No	Yes
TA19	19	7:40 AM	7:47 AM	Or-11	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	7:47 AM	7:50 AM	Or-12	Head Lettuce	Check Field	No	No	Yes
TA19	19	7:50 AM	7:55 AM	Or-15	Romaine	Check Field	No	Yes	No
TA19	19	7:55 AM	8:03 AM	None	None	Transit	No	No	Yes
TA19	19	8:03 AM	8:10 AM	W-1	Cauliflower	Check Field	Yes	Yes	No
TA19	19	8:10 AM	8:15 AM	W-2	Cauliflower	Check Field	Yes	Yes	No
TA19	19	8:15 AM	8:20 AM	W-10	Broccoli	Check Field	Yes	Yes	No
TA19	19	8:20 AM	8:27 AM	W-14	Celery	Check Field	Yes	Yes	No
TA19	19	8:27 AM	8:38 AM	None	None	Check Field	No	No	Yes
TA19	19	8:38 AM	8:42 AM	W-18	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	8:42 AM	8:45 AM	W-15	Butter Lettuce	Check Field	Yes	No	No
TA19	19	8:45 AM	8:58 AM	W-11/12	Cauliflower	Check Field	Yes	Yes	No
TA19	19	8:58 AM	9:07 AM	W-13	Broccoflower	Transit	No	No	Yes
TA19	19	9:07 AM	9:09 AM	W-21	Celery	Check Field	Yes	No	No
TA19	19	9:09 AM	9:12 AM	W-6	Romaine	Check Field	Yes	No	No
TA19	19	9:12 AM	9:14 AM	W-5	Romaine	Check Field	Yes	Yes	No
TA19	19	9:14 AM	9:22 AM	None	None	Other	No	No	No
TA19	19	9:22 AM	9:26 AM	None	None	Transit	No	No	Yes
TA19	19	9:26 AM	9:32 AM	C-6	Celery	Check Field	Yes	Yes	No
TA19	19	9:32 AM	9:35 AM	None	None	Transit	No	No	Yes
TA19	19	9:35 AM	9:42 AM	None	None	Other	No	No	No
TA19	19	9:42 AM	9:55 AM	C-8	Romaine	Check Field	Yes	Yes	No
TA19	19	9:55 AM	10:00 AM	C-11	Celery	Check Field	Yes	No	No
TA19	19	10:00 AM	10:05 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
TA19	19	10:05 AM	10:12 AM	C-14	Broccoli	Check Field	Yes	No	No
TA19	19	10:12 AM	10:16 AM	None	None	Transit	No	No	Yes
TA19	19	10:16 AM	10:20 AM	MoCo-5A	Celery	Check Field	Yes	Yes	No
TA19	19	10:20 AM	10:27 AM	MoCo-6B	Celery	Check Field	Yes	Yes	No
TA19	19	10:27 AM	10:32 AM	MoCo-8	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	10:32 AM	10:37 AM	None	None	Transit	No	No	Yes
TA19	19	10:37 AM	10:39 AM	MoCo-3B	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	10:39 AM	10:45 AM	MoCo-2B	Broccoli	Check Field	Yes	Yes	No
TA19	19	10:45 AM	10:50 AM	None	None	Transit	No	No	Yes
TA19	19	10:50 AM	10:55 AM	None	None	Other	No	No	No
TA19	19	10:55 AM	10:58 AM	Various	None	Check Field	No	No	Yes
TA19	19	10:58 AM	11:02 AM	Bl-3	Head Lettuce	Check Field	Yes	Yes	No
TA19	19	11:02 AM	11:12 AM	Bl-4	Celery	Check Field	Yes	Yes	No
TA19	19	11:12 AM	11:32 AM	None	None	Other	No	No	No
TA19	19	11:32 AM	11:48 AM	None	None	Transit	No	No	Yes
TA19	19	11:48 AM	1:00 PM	None	None	Lunch	No	No	No
TA19	19	1:00 PM	4:30 PM	None	None	Other	No	No	No
TA20	20	6:42 AM	7:08 AM	None	None	Transit	No	No	Yes
TA20	20	7:08 AM	7:10 AM	None	None	Other	No	No	No
TA20	20	7:10 AM	7:13 AM	TA20-1	Celery	Check Field	Yes	Yes	No
TA20	20	7:13 AM	7:17 AM	TA20-2	Spinach	Check Field	Yes	No	No
TA20	20	7:17 AM	7:19 AM	None	None	Other	No	No	No
TA20	20	7:19 AM	7:20 AM	None	None	Transit	No	No	Yes
TA20	20	7:20 AM	7:32 AM	TA20-2	Spinach	Check Field	Yes	No	No
TA20	20	7:32 AM	7:45 AM	TA20-3	Baby Greens	Check Field	Yes	No	No
TA20	20	7:45 AM	8:02 AM	None	None	Transit	No	No	Yes
TA20	20	8:02 AM	8:15 AM	TA20-4	Celery	Check Field	Yes	Yes	No
TA20	20	8:15 AM	8:55 AM	TA20-19/5/6	Celery	Check Field	Yes	Yes	No
TA20	20	8:55 AM	9:02 AM	TA20-7	Baby Greens	Check Field	No	No	Yes
TA20	20	9:02 AM	9:07 AM	TA20-8	Baby Greens	Check Field	Yes	No	No
TA20	20	9:07 AM	9:27 AM	None	None	Other	No	No	No
TA20	20	9:27 AM	10:00 AM	None	None	Other	No	No	No
TA20	20	10:00 AM	10:20 AM	None	None	Transit	No	No	Yes
TA20	20	10:20 AM	11:12 AM	None	None	Other	No	No	No
TA20	20	11:12 AM	11:26 AM	TA20-9	Baby Greens	Check Field	Yes	No	No
TA20	20	11:26 AM	11:38 AM	TA20-10	Radicchio	Check Field	Yes	No	No
TA20	20	11:38 AM	11:40 AM	TA20-11	Baby Greens	Check Field	Yes	No	No
TA20	20	11:40 AM	11:43 AM	None	None	Transit	No	No	Yes
TA20	20	11:43 AM	11:44 AM	TA20-12	Mustard	Check Field	Yes	Yes	No
TA20	20	11:44 AM	11:50 AM	None	None	Transit	No	No	Yes
TA20	20	11:50 AM	11:55 AM	TA20-13	Radicchio	Check Field	Yes	No	No
TA20	20	11:55 AM	12:08 PM	Various	None	Check Field	No	No	Yes
TA20	20	12:08 PM	12:20 PM	TA20-14	Spinach	Check Field	Yes	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
TA20	20	12:20 PM	12:32 PM	Various	None	Check Field	No	No	Yes
TA20	20	12:32 PM	12:41 PM	None	None	Transit	No	No	Yes
TA20	20	12:41 PM	12:48 PM	TA20-15	Spinach	Check Field	Yes	No	No
TA20	20	12:48 PM	12:55 PM	None	None	Other	No	No	No
TA20	20	12:55 PM	1:15 PM	None	None	Transit	No	No	Yes
TA20	20	1:15 PM	4:30 PM	None	None	Office	No	No	No
PR21	21	6:30 AM	7:20 AM	None	None	Transit	No	No	Yes
PR21	21	7:20 AM	7:21 AM	PR203	Melons	Sweep	Yes	Yes	No
PR21	21	7:21 AM	7:28 AM	None	None	Other	No	No	No
PR21	21	7:28 AM	7:31 AM	PR203	Melons	Sweep	Yes	Yes	No
PR21	21	7:31 AM	7:40 AM	None	None	Other	No	No	No
PR21	21	7:40 AM	7:41 AM	None	None	Transit	No	No	Yes
PR21	21	7:41 AM	7:43 AM	PR202	Melons	Sweep	Yes	Yes	No
PR21	21	7:43 AM	7:46 AM	None	None	Transit	No	No	Yes
PR21	21	7:46 AM	7:48 AM	PR201	Head Lettuce	Sweep	Yes	Yes	No
PR21	21	7:48 AM	7:52 AM	None	None	Transit	No	No	Yes
PR21	21	7:52 AM	7:53 AM	PR201	Head Lettuce	Transit	No	No	No
PR21	21	7:53 AM	7:57 AM	PR201	Head Lettuce	Sweep	Yes	Yes	No
PR21	21	7:57 AM	7:59 AM	None	None	Transit	No	No	Yes
PR21	21	7:59 AM	8:02 AM	Tex61	Honeydew	Sweep	Yes	Yes	No
PR21	21	8:02 AM	8:04 AM	None	None	Transit	No	No	Yes
PR21	21	8:04 AM	8:06 AM	Tex62	Honeydew	Sweep	Yes	Yes	No
PR21	21	8:06 AM	8:07 AM	None	None	Other	No	No	No
PR21	21	8:07 AM	8:11 AM	None	None	Transit	No	No	Yes
PR21	21	8:11 AM	8:15 AM	Tex62	Honeydew	Sweep	Yes	Yes	No
PR21	21	8:15 AM	8:28 AM	None	None	Transit	No	No	Yes
PR21	21	8:28 AM	8:29 AM	Tom1	Proc. Tomatoes	Check Field	No	No	No
PR21	21	8:29 AM	8:36 AM	None	None	Transit	No	No	Yes
PR21	21	8:36 AM	8:37 AM	TFC1903	Melons	Sweep	Yes	Yes	No
PR21	21	8:37 AM	8:40 AM	None	None	Transit	No	No	Yes
PR21	21	8:40 AM	8:42 AM	TFC1903	Melons	Sweep	Yes	Yes	No
PR21	21	8:42 AM	8:47 AM	None	None	Transit	No	No	Yes
PR21	21	8:47 AM	8:48 AM	TFC1501	Melons	Sweep	Yes	Yes	No
PR21	21	8:48 AM	8:50 AM	None	None	Transit	No	No	Yes
PR21	21	8:50 AM	8:51 AM	TFC1501	Melons	Sweep	Yes	Yes	No
PR21	21	8:51 AM	8:54 AM	None	None	Other	No	No	No
PR21	21	8:54 AM	8:57 AM	None	None	Transit	No	No	Yes
PR21	21	8:57 AM	8:59 AM	GD416	Honeydew	Sweep	Yes	Yes	No
PR21	21	8:59 AM	9:04 AM	None	None	Transit	No	No	Yes
PR21	21	9:04 AM	9:10 AM	None	Cotton	Break	No	No	No
PR21	21	9:10 AM	9:12 AM	13COTF32	None	Check Field	Yes	Yes	No
PR21	21	9:12 AM	9:13 AM	None	None	Other	No	No	No
PR21	21	9:13 AM	9:23 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PR21	21	9:23 AM	9:26 AM	DMF	Almond	Check Field	Yes	No	No
PR21	21	9:26 AM	9:27 AM	None	None	Other	No	No	No
PR21	21	9:27 AM	9:33 AM	None	None	Transit	No	No	Yes
PR21	21	9:37 AM	9:39 AM	None	None	Transit	No	No	Yes
PR21	21	9:39 AM	9:48 AM	PRA1	Almond	Check Field	No	No	No
PR21	21	9:48 AM	10:10 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:10 AM	10:13 AM	PRM1	Melons	Sweep	No	Yes	No
PR21	21	10:13 AM	10:16 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:16 AM	10:19 AM	PRM1	Melons	Sweep	No	Yes	No
PR21	21	10:19 AM	10:20 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:20 AM	10:22 AM	PRM2	Melons	Sweep	No	Yes	No
PR21	21	10:22 AM	10:23 AM	None	None	Other	Yes	No	No
PR21	21	10:23 AM	10:26 AM	None	None	Transit	No	No	Yes
PR21	21	10:26 AM	10:30 AM	PRM2	Melons	Sweep	No	Yes	No
PR21	21	10:30 AM	10:33 AM	None	None	Other	Yes	No	No
PR21	21	10:33 AM	10:35 AM	None	None	Transit	No	No	Yes
PR21	21	10:35 AM	10:38 AM	TFC1274	Melons	Sweep	No	Yes	No
PR21	21	10:38 AM	10:42 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:42 AM	10:44 AM	TFC1274	Melons	Sweep	No	Yes	No
PR21	21	10:44 AM	10:45 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:45 AM	10:46 AM	TFC1275	Melons	Sweep	No	Yes	No
PR21	21	10:46 AM	10:54 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:54 AM	10:55 AM	TFC1275	Melons	Sweep	No	Yes	No
PR21	21	10:55 AM	10:58 AM	None	None	Transit	Yes	No	Yes
PR21	21	10:58 AM	10:59 AM	TFC1275	Melons	Sweep	No	No	No
PR21	21	10:59 AM	11:08 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:08 AM	11:10 AM	TFC1322A	Melons	Sweep	No	No	No
PR21	21	11:10 AM	11:13 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:13 AM	11:16 AM	TFC1322A	Melons	Sweep	No	Yes	No
PR21	21	11:16 AM	11:17 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:17 AM	11:19 AM	TFC1322B	Melons	Sweep	No	Yes	No
PR21	21	11:19 AM	11:21 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:21 AM	11:23 AM	TFC1322A	Melons	Sweep	No	Yes	No
PR21	21	11:23 AM	11:24 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:24 AM	11:26 AM	TFC1322B	Melons	Sweep	No	Yes	No
PR21	21	11:26 AM	11:46 AM	None	None	Transit	Yes	No	Yes
PR21	21	11:46 AM	12:25 PM	None	None	Lunch	No	No	No
PR21	21	12:25 PM	12:35 PM	None	None	Transit	No	No	Yes
PR21	21	12:35 PM	12:37 PM	TFCM3	Melons	Sweep	No	Yes	No
PR21	21	12:37 PM	12:40 PM	None	None	Transit	Yes	No	Yes
PR21	21	12:40 PM	12:43 PM	TFCM3	Melons	Sweep	No	Yes	No
PR21	21	12:43 PM	12:44 PM	None	None	Transit	Yes	No	Yes
PR21	21	12:44 PM	12:46 PM	TFC1088	Honeydew	Sweep	No	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PR21	21	12:46 PM	12:48 PM	None	None	Transit	Yes	No	Yes
PR21	21	12:48 PM	12:51 PM	TFC1088	Honeydew	Sweep	No	Yes	No
PR21	21	12:51 PM	12:54 PM	None	None	Transit	Yes	No	Yes
PR21	21	12:54 PM	12:56 PM	TFCM4	Honeydew	Sweep	No	Yes	No
PR21	21	12:56 PM	1:00 PM	TFCM4	Honeydew	Sweep	Yes	Yes	No
PR21	21	1:08 PM	1:11 PM	None	None	Transit	Yes	No	Yes
PR21	21	1:11 PM	1:13 PM	TFCM4	Honeydew	Sweep	No	Yes	No
PR21	21	1:13 PM	1:37 PM	None	None	Transit	Yes	No	Yes
PR21	21	1:37 PM	1:55 PM	PRA2	Almond	Check Field	No	No	Yes
PR21	21	1:55 PM	2:01 PM	None	None	Transit	Yes	No	Yes
PR21	21	2:01 PM	2:05 PM	1292B	Proc. Tomatoes	Check Field	No	No	No
PR21	21	2:05 PM	2:08 PM	None	None	Transit	No	No	Yes
PR21	21	2:08 PM	2:10 PM	1402	Asparagus	Check Field	No	No	No
PR21	21	2:10 PM	2:11 PM	None	None	Transit	Yes	No	Yes
PR21	21	2:11 PM	2:13 PM	JDB	Asparagus	Check Field	No	No	No
PR21	21	2:13 PM	2:15 PM	None	None	Transit	Yes	No	Yes
PR21	21	2:15 PM	2:16 PM	JDB	Asparagus	Check Field	No	Yes	No
PR21	21	2:16 PM	2:30 PM	None	None	Transit	Yes	No	Yes
PR21	21	2:30 PM	2:45 PM	None	None	Other	No	No	No
PR21	21	2:45 PM	2:54 PM	None	None	Transit	Yes	No	Yes
PR21	21	2:54 PM	2:55 PM	TFCM5	Melons	Check Field	No	No	Yes
PR21	21	2:55 PM	2:59 PM	None	None	Transit	No	No	Yes
PR21	21	9:33 AM	9:37 AM	None	None	Transit	No	No	No
PR21	21	1:00 PM	1:05 PM	None	None	Transit	No	No	Yes
PR21	21	1:05 PM	1:08 PM	TFCM4	Honeydew	Sweep	No	Yes	No
PR21	21	2:59 PM	4:10 PM	None	None	Transit	No	No	Yes
BF22	22	8:00 AM	9:07 AM	None	None	Office	No	No	No
BF22	22	9:07 AM	9:18 AM	None	None	Transit	No	No	Yes
BF22	22	9:18 AM	9:32 AM	14-2	Alfalfa	Check Field	Yes	No	No
BF22	22	9:32 AM	9:43 AM	Various	None	Check Field	No	No	Yes
BF22	22	9:43 AM	9:50 AM	None	None	Other	No	No	No
BF22	22	9:50 AM	9:58 AM	Various	None	Check Field	No	No	Yes
BF22	22	9:58 AM	10:01 AM	None	None	Transit	No	No	Yes
BF22	22	10:01 AM	10:07 AM	Various	None	Check Field	No	No	Yes
BF22	22	10:07 AM	10:10 AM	None	None	Other	No	No	No
BF22	22	10:10 AM	10:50 AM	26-5	Cotton	Check Field	Yes	Yes	No
BF22	22	10:50 AM	10:53 AM	None	None	Transit	No	No	Yes
BF22	22	10:53 AM	11:03 AM	34-1	Cotton	Check Field	Yes	Yes	No
BF22	22	11:03 AM	11:06 AM	None	None	Other	No	No	No
BF22	22	11:06 AM	11:14 AM	34-1	Cotton	Check Field	Yes	Yes	No
BF22	22	11:14 AM	11:26 AM	28-2	Cotton	Check Field	No	No	Yes
BF22	22	11:26 AM	11:30 AM	34-1	Cotton	Check Field	Yes	Yes	No
BF22	22	11:30 AM	11:37 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
BF22	22	11:37 AM	11:41 AM	2-5	Cotton	Check Field	Yes	Yes	No
BF22	22	11:41 AM	11:44 AM	None	None	Transit	No	No	No
BF22	22	11:44 AM	11:55 AM	None	None	Other	No	No	No
BF22	22	11:55 AM	12:06 PM	2-6	Cotton	Check Field	Yes	Yes	No
BF22	22	12:06 PM	12:32 PM	None	None	Transit	No	No	Yes
BF22	22	12:32 PM	1:00 PM	None	None	Lunch	No	No	No
BF22	22	1:00 PM	1:58 PM	None	None	Office	No	No	No
BF22	22	1:58 PM	2:12 PM	None	None	Transit	No	No	Yes
BF22	22	2:12 PM	2:22 PM	31-7	Alfalfa	Sweep	Yes	Yes	No
BF22	22	2:22 PM	2:26 PM	None	None	Transit	No	No	Yes
BF22	22	2:26 PM	2:32 PM	31-2	Cotton	Check Field	Yes	Yes	No
BF22	22	2:32 PM	2:35 PM	None	None	Transit	No	No	Yes
BF22	22	2:35 PM	2:40 PM	31-2	Cotton	Check Field	Yes	Yes	No
BF22	22	2:40 PM	2:57 PM	None	None	Transit	No	No	Yes
BF22	22	2:57 PM	3:05 PM	13-6	Cotton	Check Field	Yes	Yes	No
BF22	22	3:05 PM	3:07 PM	None	None	Transit	No	No	Yes
BF22	22	3:07 PM	3:22 PM	13-6	Cotton	Check Field	Yes	Yes	No
BF22	22	3:22 PM	3:25 PM	None	None	Transit	No	No	Yes
BF22	22	3:25 PM	3:31 PM	13-4	Proc. Tomatoes	Check Field	Yes	Yes	No
BF22	22	3:31 PM	3:34 PM	13-4	Proc. Tomatoes	Check Field	No	No	Yes
BF22	22	3:34 PM	3:38 PM	13-4	Proc. Tomatoes	Check Field	Yes	Yes	No
BF22	22	3:38 PM	3:54 PM	None	None	Transit	No	No	Yes
BF22	22	3:54 PM	3:56 PM	None	None	Other	Yes	No	No
BF22	22	3:56 PM	4:18 PM	None	None	Transit	No	No	Yes
BF22	22	4:18 PM	5:30 PM	None	None	Office	No	No	No
AS23	23	7:10 AM	7:15 AM	None	None	Transit	No	No	Yes
AS23	23	7:15 AM	7:50 AM	None	None	Other	No	No	No
AS23	23	7:50 AM	7:55 AM	Cotton1	Cotton	Check Field	Yes	Yes	No
AS23	23	7:55 AM	8:10 AM	None	None	Transit	No	No	Yes
AS23	23	8:10 AM	8:15 AM	Cotton1	Cotton	Check Field	Yes	Yes	No
AS23	23	8:15 AM	8:30 AM	None	None	Transit	No	No	Yes
AS23	23	8:30 AM	8:32 AM	Cotton2	Cotton	Check Field	Yes	Yes	No
AS23	23	8:32 AM	9:00 AM	None	None	Transit	No	No	Yes
AS23	23	9:00 AM	9:03 AM	Pima3	Cotton	Check Field	Yes	Yes	No
AS23	23	9:03 AM	9:05 AM	None	None	Transit	No	No	Yes
AS23	23	9:05 AM	9:07 AM	Pima3	Cotton	Check Field	Yes	Yes	No
AS23	23	9:07 AM	9:10 AM	Alcala4	Cotton	Check Field	Yes	Yes	No
AS23	23	9:10 AM	9:12 AM	None	None	Transit	No	No	No
AS23	23	9:12 AM	9:13 AM	Alcala4	Cotton	Check Field	Yes	Yes	No
AS23	23	9:13 AM	9:18 AM	None	None	Transit	No	No	Yes
AS23	23	9:18 AM	9:28 AM	Almonds5	Almond	Check Field	Yes	No	No
AS23	23	9:28 AM	9:37 AM	Various	None	Check Field	No	No	Yes
AS23	23	9:37 AM	9:43 AM	Pima6	Cotton	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
AS23	23	9:43 AM	9:48 AM	Various	None	Check Field	No	No	Yes
AS23	23	9:48 AM	9:51 AM	Pima7	Cotton	Check Field	Yes	Yes	No
AS23	23	9:51 AM	9:52 AM	None	None	Transit	No	No	Yes
AS23	23	9:52 AM	9:54 AM	Pima7	None	Check Field	Yes	Yes	No
AS23	23	9:54 AM	10:00 AM	None	None	Transit	No	No	Yes
AS23	23	10:00 AM	10:05 AM	Pima8	Cotton	Check Field	Yes	Yes	No
AS23	23	10:05 AM	10:11 AM	Pima9	Cotton	Check Field	Yes	Yes	No
AS23	23	10:11 AM	10:15 AM	Pima10	Cotton	Check Field	No	Yes	No
AS23	23	10:15 AM	10:22 AM	None	None	Transit	No	No	Yes
AS23	23	10:22 AM	10:23 AM	Alcala11	Cotton	Check Field	Yes	Yes	No
AS23	23	10:23 AM	10:24 AM	None	None	Transit	No	No	Yes
AS23	23	10:24 AM	10:25 AM	Alcala11	Cotton	Check Field	Yes	Yes	No
AS23	23	10:25 AM	10:32 AM	Various	None	Transit	Yes	No	Yes
AS23	23	10:32 AM	10:35 AM	Alcala12	Cotton	Check Field	Yes	Yes	No
AS23	23	10:35 AM	10:36 AM	Alcala12	Cotton	Check Field	Yes	No	Yes
AS23	23	10:36 AM	10:37 AM	Alcala12	Cotton	Check Field	Yes	Yes	No
AS23	23	10:37 AM	10:50 AM	None	None	Transit	No	No	Yes
AS23	23	10:50 AM	11:07 AM	Fallow13	None	Check Field	Yes	No	Yes
AS23	23	11:07 AM	11:15 AM	None	None	Transit	No	No	Yes
AS23	23	11:15 AM	6:00 PM	None	None	Other	No	No	No
SF24	24	8:00 AM	8:12 AM	None	None	Office	No	No	No
SF24	24	8:12 AM	8:58 AM	None	None	Transit	No	No	Yes
SF24	24	8:58 AM	9:05 AM	3W	Cotton	Check Field	Yes	Yes	No
SF24	24	9:05 AM	9:07 AM	3W	Cotton	Transit	Yes	No	Yes
SF24	24	9:07 AM	9:15 AM	3W	Cotton	Check Field	Yes	Yes	No
SF24	24	9:15 AM	9:17 AM	None	None	Transit	No	No	Yes
SF24	24	9:17 AM	9:21 AM	3E	Cotton	Check Field	Yes	Yes	No
SF24	24	9:21 AM	9:31 AM	None	None	Transit	No	No	Yes
SF24	24	9:31 AM	9:40 AM	34-3	Cotton	Check Field	Yes	Yes	No
SF24	24	9:40 AM	9:44 AM	None	None	Other	No	No	No
SF24	24	9:44 AM	9:50 AM	None	None	Transit	No	No	Yes
SF24	24	9:50 AM	9:52 AM	17-1	Cotton	Check Field	No	No	Yes
SF24	24	9:52 AM	9:58 AM	None	None	Transit	No	No	Yes
SF24	24	9:58 AM	10:05 AM	210B	Cotton	Check Field	Yes	Yes	No
SF24	24	10:05 AM	10:10 AM	None	None	Transit	No	No	Yes
SF24	24	10:10 AM	10:22 AM	209	Cotton	Check Field	Yes	Yes	No
SF24	24	10:22 AM	10:28 AM	SF205	Sugarbeets	Sweep	Yes	No	No
SF24	24	10:28 AM	10:37 AM	None	None	Transit	No	No	Yes
SF24	24	10:37 AM	10:47 AM	SF202	Cotton	Check Field	Yes	Yes	No
SF24	24	10:47 AM	10:52 AM	SF202	Cotton	Check Field	No	No	No
SF24	24	10:52 AM	11:00 AM	SF202	Cotton	Check Field	Yes	Yes	No
SF24	24	11:00 AM	11:13 AM	None	None	Transit	No	No	Yes
SF24	24	11:13 AM	11:21 AM	26-3	Cotton	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
SF24	24	11:21 AM	11:26 AM	None	None	Other	No	No	No
SF24	24	11:26 AM	11:45 AM	None	None	Transit	No	No	Yes
SF24	24	11:45 AM	12:45 PM	None	None	Lunch	No	No	No
SF24	24	12:45 PM	1:10 PM	None	None	Transit	No	No	Yes
SF24	24	1:10 PM	1:18 PM	103	Raisins	Check Field	Yes	No	No
SF24	24	1:18 PM	1:28 PM	None	None	Transit	No	No	Yes
SF24	24	1:28 PM	1:32 PM	None	None	Transit	No	No	Yes
SF24	24	1:32 PM	1:35 PM	Various	None	Check Field	Yes	No	Yes
SF24	24	1:35 PM	1:57 PM	None	None	Transit	No	No	Yes
SF24	24	1:57 PM	2:07 PM	14-1	Proc. Tomatoes	Check Field	Yes	Yes	No
SF24	24	2:07 PM	2:10 PM	None	None	Transit	No	No	Yes
SF24	24	2:10 PM	2:12 PM	SF14-2	Proc. Tomatoes	Check Field	Yes	Yes	No
SF24	24	2:12 PM	2:14 PM	None	None	Transit	No	No	Yes
SF24	24	2:14 PM	2:37 PM	14-4	Proc. Tomatoes	Check Field	Yes	No	No
SF24	24	2:37 PM	2:55 PM	None	None	Transit	No	No	Yes
SF24	24	2:55 PM	5:30 PM	None	None	Office	No	No	No
WE25	25	8:00 AM	8:45 AM	None	None	Other	No	No	No
WE25	25	8:45 AM	9:15 AM	None	None	Transit	No	No	Yes
WE25	25	9:15 AM	9:17 AM	None	None	Other	No	No	No
WE25	25	9:17 AM	9:20 AM	None	None	Transit	No	No	Yes
WE25	25	9:20 AM	9:39 AM	None	None	Other	Yes	No	No
WE25	25	9:39 AM	9:41 AM	None	None	Transit	Yes	No	Yes
WE25	25	9:41 AM	10:00 AM	Unknown	None	Check Field	Yes	No	No
WE25	25	10:00 AM	10:05 AM	None	None	Other	No	No	No
WE25	25	10:05 AM	10:22 AM	None	None	Transit	No	No	Yes
WE25	25	10:22 AM	10:27 AM	25-01	Sugarbeets	Check Field	Yes	Yes	No
WE25	25	10:27 AM	10:34 AM	None	None	Transit	No	No	Yes
WE25	25	10:34 AM	10:37 AM	25-02	Cotton	Check Field	Yes	Yes	No
WE25	25	10:37 AM	10:44 AM	None	None	Transit	No	No	Yes
WE25	25	10:44 AM	10:50 AM	25-02	Cotton	Check Field	Yes	Yes	No
WE25	25	10:50 AM	10:55 AM	None	None	Transit	No	No	Yes
WE25	25	10:55 AM	10:57 AM	25-02	Cotton	Check Field	Yes	Yes	No
WE25	25	10:57 AM	11:02 AM	None	None	Transit	No	No	Yes
WE25	25	11:02 AM	11:05 AM	25-03	Cotton	Check Field	Yes	Yes	No
WE25	25	11:05 AM	11:07 AM	None	None	Transit	No	No	Yes
WE25	25	11:07 AM	11:08 AM	25-03	Cotton	Check Field	Yes	Yes	No
WE25	25	11:08 AM	11:12 AM	None	None	Transit	No	No	Yes
WE25	25	11:12 AM	11:14 AM	25-04	Cotton	Check Field	Yes	Yes	No
WE25	25	11:14 AM	11:24 AM	None	None	Transit	No	No	Yes
WE25	25	11:24 AM	11:37 AM	None	None	Transit	No	No	Yes
WE25	25	11:37 AM	11:40 AM	25-05	Alfalfa	Check Field	Yes	Yes	No
WE25	25	11:40 AM	11:43 AM	None	None	Transit	No	No	Yes
WE25	25	11:43 AM	11:44 AM	25-05	Alfalfa	Check Field	Yes	Yes	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
WE25	25	11:44 AM	11:45 AM	None	None	Transit	No	No	Yes
WE25	25	11:45 AM	11:46 AM	25-05	Alfalfa	Check Field	Yes	Yes	No
WE25	25	11:46 AM	12:25 PM	None	None	Transit	No	No	Yes
WE25	25	12:25 PM	1:30 PM	None	None	Lunch	No	No	No
WE25	25	1:30 PM	5:00 PM	None	None	Office	No	No	No
WE26	26	8:00 AM	8:40 AM	None	None	Break	No	No	No
WE26	26	8:40 AM	10:08 AM	None	None	Transit	No	No	Yes
WE26	26	10:08 AM	10:09 AM	None	None	Transit	No	No	Yes
WE26	26	10:09 AM	10:11 AM	26-01	Alfalfa	Check Field	Yes	Yes	No
WE26	26	10:11 AM	10:16 AM	None	None	Transit	No	No	Yes
WE26	26	10:16 AM	10:21 AM	26-02	Corn	Check Field	No	No	No
WE26	26	10:21 AM	10:30 AM	None	None	Transit	No	No	Yes
WE26	26	10:30 AM	10:31 AM	None	None	Transit	No	No	Yes
WE26	26	10:31 AM	10:37 AM	26-03	Almond	Check Field	Yes	No	No
WE26	26	10:37 AM	10:40 AM	26-03	Almond	Transit	Yes	No	Yes
WE26	26	10:40 AM	11:00 AM	None	None	Transit	No	No	Yes
WE26	26	11:00 AM	11:07 AM	26-04	Alfalfa	Check Field	No	No	Yes
WE26	26	11:07 AM	11:14 AM	26-05	Alfalfa	Check Field	Yes	No	No
WE26	26	11:14 AM	11:18 AM	None	None	Transit	No	No	Yes
WE26	26	11:18 AM	11:22 AM	26-05	Alfalfa	Check Field	Yes	No	No
WE26	26	11:22 AM	11:41 AM	None	None	Transit	No	No	Yes
WE26	26	11:41 AM	11:48 AM	26-06	Alfalfa	Check Field	Yes	No	No
WE26	26	11:48 AM	11:50 AM	None	None	Transit	No	No	Yes
WE26	26	11:50 AM	12:00 PM	26-07	Corn	Check Field	No	No	Yes
WE26	26	12:00 PM	12:30 PM	None	None	Other	No	No	No
WE26	26	12:30 PM	12:45 PM	None	None	Transit	No	No	Yes
WE26	26	12:45 PM	1:30 PM	None	None	Lunch	No	No	No
WE26	26	1:30 PM	1:45 PM	None	None	Transit	No	No	Yes
WE26	26	1:45 PM	2:52 PM	None	None	Office	No	No	No
WE26	26	2:52 PM	3:10 PM	None	None	Transit	No	No	Yes
WE26	26	3:10 PM	3:12 PM	26-08	Table Grapes	Check Field	Yes	No	No
WE26	26	3:12 PM	3:15 PM	26-09	Table Grapes	Check Field	Yes	Yes	No
WE26	26	3:15 PM	3:35 PM	None	None	Other	No	No	No
WE26	26	3:35 PM	3:50 PM	None	None	Transit	No	No	Yes
WE26	26	3:50 PM	3:51 PM	26-10	Cotton	Check Field	No	No	No
WE26	26	3:51 PM	3:55 PM	None	None	Transit	No	No	Yes
WE26	26	3:55 PM	4:12 PM	26-11	Almond	Check Field	Yes	No	No
WE26	26	4:12 PM	4:21 PM	None	None	Transit	No	No	Yes
WE26	26	4:21 PM	4:33 PM	26-12	Almond	Check Field	Yes	No	No
WE26	26	4:33 PM	4:55 PM	None	None	Transit	No	No	Yes
PA27	27	7:00 AM	7:10 AM	None	None	Office	No	No	No
PA27	27	7:10 AM	7:30 AM	None	None	Transit	No	No	Yes
PA27	27	7:30 AM	8:14 AM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PA27	27	8:14 AM	8:20 AM	27-01	Orange	Check Traps	Yes	Yes	No
PA27	27	8:20 AM	8:25 AM	None	None	Transit	Yes	No	Yes
PA27	27	8:25 AM	8:29 AM	27-02	Mineola	Check Traps	Yes	Yes	No
PA27	27	8:29 AM	8:30 AM	None	None	Transit	No	No	Yes
PA27	27	8:30 AM	8:35 AM	27-03	Orange	Check Traps	Yes	Yes	No
PA27	27	8:35 AM	8:40 AM	None	None	Transit	No	No	Yes
PA27	27	8:40 AM	8:45 AM	None	None	Transit	No	No	Yes
PA27	27	8:45 AM	8:54 AM	None	None	Transit	No	No	Yes
PA27	27	8:54 AM	9:17 AM	27-04	Mineola	Other	Yes	No	No
PA27	27	9:17 AM	9:28 AM	27-05	Mineola	Check Field	Yes	Yes	No
PA27	27	9:28 AM	9:32 AM	None	None	Check Field	No	Yes	No
PA27	27	9:32 AM	9:37 AM	None	None	Transit	Yes	No	Yes
PA27	27	9:37 AM	10:07 AM	27-06	Orange	Other	Yes	No	No
PA27	27	10:07 AM	10:08 AM	None	None	Transit	No	No	Yes
PA27	27	10:08 AM	10:15 AM	27-07	Mineola	Check Traps	Yes	Yes	No
PA27	27	10:15 AM	10:22 AM	None	None	Transit	No	No	Yes
PA27	27	10:22 AM	10:30 AM	27-08	Orange	Check Field	Yes	Yes	No
PA27	27	10:30 AM	10:37 AM	None	None	Transit	No	No	No
PA27	27	10:37 AM	10:43 AM	27-06	Orange	Check Field	Yes	Yes	No
PA27	27	10:43 AM	10:53 AM	None	None	Transit	No	No	Yes
PA27	27	10:53 AM	11:58 AM	27-09	Orange	Check Field	Yes	Yes	No
PA27	27	11:58 AM	12:15 PM	None	None	Lunch	No	No	No
PA27	27	12:15 PM	1:56 PM	27-09	Orange	Check Field	Yes	Yes	No
PA27	27	1:56 PM	2:07 PM	None	None	Transit	No	No	Yes
PA27	27	2:07 PM	2:12 PM	27-05	Mineola	Check Traps	Yes	Yes	No
PA27	27	2:12 PM	3:25 PM	None	None	Transit	No	No	Yes
PA27	27	3:25 PM	4:30 PM	None	None	Office	No	No	No
PA28	28	7:00 AM	7:50 AM	None	None	Office	No	No	No
PA28	28	7:50 AM	9:22 AM	None	None	Transit	No	No	Yes
PA28	28	9:22 AM	9:24 AM	28-01	Almond	Check Traps	Yes	No	No
PA28	28	9:24 AM	9:32 AM	None	None	Transit	No	No	Yes
PA28	28	9:32 AM	9:33 AM	28-01	Almond	Check Traps	Yes	No	No
PA28	28	9:33 AM	9:38 AM	None	None	Transit	No	No	Yes
PA28	28	9:38 AM	9:42 AM	28-02	Orange	Check Field	Yes	No	No
PA28	28	9:42 AM	9:51 AM	None	None	Transit	No	No	Yes
PA28	28	9:51 AM	9:56 AM	28-03	Orange	Check Field	Yes	No	No
PA28	28	9:56 AM	10:01 AM	None	None	Transit	No	No	Yes
PA28	28	10:01 AM	10:08 AM	28-04	Mandarins	Check Field	Yes	No	No
PA28	28	10:08 AM	10:12 AM	None	None	Transit	No	No	Yes
PA28	28	10:12 AM	10:15 AM	28-05	Almond	Check Traps	Yes	No	No
PA28	28	10:15 AM	10:18 AM	None	None	Other	No	No	No
PA28	28	10:18 AM	10:19 AM	None	None	Transit	No	No	Yes
PA28	28	10:19 AM	10:30 AM	28-06	Almond	Check Field	Yes	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PA28	28	10:30 AM	10:31 AM	None	None	Transit	No	No	Yes
PA28	28	10:31 AM	10:32 AM	28-07	Almond	Check Traps	Yes	No	No
PA28	28	10:32 AM	10:34 AM	None	None	Transit	No	No	Yes
PA28	28	10:34 AM	10:36 AM	28-08	Almond	Check Traps	Yes	No	No
PA28	28	10:36 AM	10:40 AM	None	None	Transit	No	No	Yes
PA28	28	10:40 AM	10:42 AM	28-09	Almond	Check Traps	Yes	No	No
PA28	28	10:42 AM	10:44 AM	None	None	Transit	No	No	Yes
PA28	28	10:44 AM	10:45 AM	28-10	Almond	Check Traps	Yes	No	No
PA28	28	10:45 AM	10:47 AM	None	None	Transit	No	No	Yes
PA28	28	10:47 AM	10:48 AM	28-10	Almond	Check Traps	Yes	No	No
PA28	28	10:48 AM	10:49 AM	None	None	Transit	No	No	Yes
PA28	28	10:49 AM	10:51 AM	28-11	Almond	Check Traps	Yes	No	No
PA28	28	10:51 AM	10:53 AM	None	None	Transit	No	No	Yes
PA28	28	10:53 AM	10:54 AM	28-11	Almond	Check Traps	Yes	No	No
PA28	28	10:54 AM	10:55 AM	None	None	Transit	No	No	Yes
PA28	28	10:55 AM	10:57 AM	28-11	Almond	Check Traps	Yes	No	No
PA28	28	10:57 AM	10:58 AM	None	None	Transit	No	No	Yes
PA28	28	10:58 AM	11:00 AM	28-11	Almond	Check Traps	Yes	No	No
PA28	28	11:00 AM	11:01 AM	None	None	Transit	No	No	Yes
PA28	28	11:01 AM	11:02 AM	28-11	Almond	Check Traps	Yes	No	No
PA28	28	11:02 AM	11:07 AM	None	None	Transit	No	No	Yes
PA28	28	11:07 AM	11:13 AM	28-12	Orange	Check Field	Yes	Yes	No
PA28	28	11:13 AM	11:28 AM	None	None	Transit	No	No	Yes
PA28	28	11:28 AM	11:34 AM	28-13	Grapefruit	Check Field	Yes	No	No
PA28	28	11:34 AM	11:36 AM	None	None	Transit	No	No	Yes
PA28	28	11:36 AM	11:43 AM	28-14	Orange	Check Field	Yes	No	No
PA28	28	11:43 AM	11:45 AM	None	None	Transit	No	No	Yes
PA28	28	11:45 AM	11:47 AM	28-14	Orange	Check Field	Yes	No	No
PA28	28	11:47 AM	11:50 AM	None	None	Transit	No	No	Yes
PA28	28	11:50 AM	11:55 AM	28-14	Orange	Check Field	Yes	No	No
PA28	28	11:55 AM	12:10 PM	None	None	Transit	No	No	Yes
PA28	28	12:10 PM	12:55 PM	None	None	Lunch	No	No	No
PA28	28	12:55 PM	1:03 PM	None	None	Transit	No	No	Yes
PA28	28	1:03 PM	1:11 PM	28-15	Orange	Check Field	Yes	No	No
PA28	28	1:11 PM	1:16 PM	None	None	Transit	No	No	Yes
PA28	28	1:16 PM	1:22 PM	28-15	Orange	Check Field	Yes	No	No
PA28	28	1:22 PM	2:51 PM	None	None	Transit	No	No	Yes
PA28	28	2:51 PM	4:30 PM	None	None	Office	No	No	No
PA29	29	7:02 AM	7:37 AM	None	None	Office	No	No	No
PA29	29	7:37 AM	8:17 AM	None	None	Transit	No	No	Yes
PA29	29	8:17 AM	9:37 AM	29-01	Orange	Check Field	Yes	No	No
PA29	29	9:37 AM	9:42 AM	None	None	Transit	No	No	Yes
PA29	29	9:42 AM	9:50 AM	Unknown	None	Check Field	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PA29	29	9:50 AM	10:05 AM	None	None	Transit	No	No	Yes
PA29	29	10:05 AM	10:52 AM	29-02	Orange	Check Field	Yes	No	No
PA29	29	10:52 AM	11:00 AM	None	None	Transit	No	No	Yes
PA29	29	11:00 AM	11:22 AM	29-02	Orange	Check Field	No	No	Yes
PA29	29	11:22 AM	11:30 AM	29-02	Orange	Check Field	Yes	No	Yes
PA29	29	11:30 AM	11:35 AM	None	None	Transit	No	No	Yes
PA29	29	11:35 AM	11:55 AM	None	None	Transit	No	No	Yes
PA29	29	11:55 AM	1:28 PM	29-03	Orange	Check Field	Yes	Yes	No
PA29	29	1:28 PM	1:32 PM	None	None	Check Traps	Yes	No	Yes
PA29	29	1:32 PM	1:42 PM	None	None	Transit	No	No	Yes
PA29	29	1:42 PM	1:52 PM	None	None	Lunch	No	No	No
PA29	29	1:52 PM	2:00 PM	None	None	Transit	No	No	Yes
PA29	29	2:00 PM	2:02 PM	29-03	Orange	Check Traps	Yes	No	No
PA29	29	2:02 PM	2:10 PM	None	None	Lunch	No	No	No
PA29	29	2:10 PM	2:30 PM	29-04	Orange	Check Field	Yes	Yes	No
PA29	29	2:30 PM	2:32 PM	None	None	Transit	Yes	No	Yes
PA29	29	2:32 PM	2:43 PM	29-04	Orange	Check Field	Yes	Yes	No
PA29	29	2:43 PM	3:15 PM	None	None	Transit	No	No	Yes
PA29	29	3:15 PM	4:30 PM	None	None	Office	No	No	No
PA30	30	7:10 AM	7:50 AM	None	None	Office	No	No	No
PA30	30	7:50 AM	7:54 AM	None	None	Transit	No	No	Yes
PA30	30	7:54 AM	8:03 AM	160-11	Orange	Check Field	Yes	Yes	No
PA30	30	8:03 AM	8:12 AM	None	None	Transit	No	No	Yes
PA30	30	8:12 AM	8:28 AM	30-02	Olive	Check Field	Yes	Yes	No
PA30	30	8:28 AM	8:59 AM	None	None	Transit	No	No	Yes
PA30	30	8:59 AM	9:12 AM	None	None	Other	No	No	No
PA30	30	9:12 AM	9:14 AM	None	None	Transit	No	No	Yes
PA30	30	9:14 AM	9:36 AM	30-03	Orange	Check Field	Yes	Yes	No
PA30	30	9:36 AM	10:20 AM	None	None	Transit	No	No	Yes
PA30	30	10:20 AM	10:35 AM	None	None	Office	No	No	No
PA30	30	10:35 AM	10:38 AM	None	None	Transit	No	No	Yes
PA30	30	10:38 AM	11:20 AM	None	None	Lunch	No	No	No
PA30	30	11:20 AM	11:46 AM	None	None	Transit	No	No	Yes
PA30	30	11:46 AM	12:05 PM	30-04	Citrus Nursery	Check Field	Yes	Yes	No
PA30	30	12:05 PM	12:15 PM	None	None	Transit	No	No	Yes
PA30	30	12:15 PM	12:19 PM	None	None	Office	No	No	No
PA30	30	12:19 PM	12:29 PM	None	None	Transit	No	No	Yes
PA30	30	12:29 PM	12:32 PM	Tu-20	Orange	Check Field	Yes	Yes	No
PA30	30	12:32 PM	12:39 PM	None	None	Transit	No	No	Yes
PA30	30	12:39 PM	12:51 PM	Ho-6	Orange	Check Field	Yes	Yes	No
PA30	30	12:51 PM	12:52 PM	None	None	Transit	No	No	Yes
PA30	30	12:52 PM	1:01 PM	Ho-6	Orange	Check Field	Yes	Yes	No
PA30	30	1:01 PM	1:19 PM	None	None	Transit	No	No	Yes

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202

Table 1. Worker Activities, Times, and Activity Attributes

StudyID	WorkerID	Start Time	End Time	Field ID	Crop	Activity	In Field?	Foliar Contact?	Drive?
PA30	30	1:19 PM	1:26 PM	Arm-7	Mandarins	Check Field	Yes	Yes	No
PA30	30	1:26 PM	1:54 PM	None	None	Transit	No	No	Yes
PA30	30	1:54 PM	4:30 PM	None	None	Office	No	No	No

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
14-2	BF22	Alfalfa	False	True
25-05	WE25	Alfalfa	False	True
26-01	WE26	Alfalfa	False	True
26-04	WE26	Alfalfa	False	False
26-05	WE26	Alfalfa	False	False
26-06	WE26	Alfalfa	False	False
31-7	BF22	Alfalfa	False	False
HC02-06	HC02	Alfalfa	False	False
26-03	WE26	Almond	False	True
26-11	WE26	Almond	False	False
26-12	WE26	Almond	False	False
28-01	PA28	Almond	False	True
28-05	PA28	Almond	False	True
28-06	PA28	Almond	False	True
28-07	PA28	Almond	False	True
28-08	PA28	Almond	False	True
28-09	PA28	Almond	False	True
28-10	PA28	Almond	False	True
28-11	PA28	Almond	False	True
Almonds5	AS23	Almond	False	False
DMF	PR21	Almond	False	False
HC02-07	HC02	Almond	False	False
PRA1	PR21	Almond	False	False
PRA2	PR21	Almond	False	False
Y-1	PR18	Almond	False	False
A-1	KG14	Artichoke	False	False
A-3	KG12	Artichoke	False	True
A-3	KG14	Artichoke	False	False
A-4	KG14	Artichoke	False	False
Artichoke 1	KG11	Artichoke	False	False
B-1	KG14	Artichoke	False	False
B-3	KG14	Artichoke	False	False
B-4	KG14	Artichoke	False	False
B-5	KG14	Artichoke	False	False
Bl-1	KG14	Artichoke	False	True
Esp-11	KG11	Artichoke	False	True
Esp-5	KG11	Artichoke	False	True
G&T -1	KG14	Artichoke	False	False
G&T-10	KG14	Artichoke	False	False
G&T-8E	KG14	Artichoke	False	False
G&T-8W	KG14	Artichoke	False	False
GuI-8B	KG11	Artichoke	False	True

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
Hay-1A	KG14	Artichoke	False	False
Hay-1B	KG14	Artichoke	False	False
Hay-2	KG14	Artichoke	False	False
Hill-4	KG14	Artichoke	False	False
Hill-7	KG14	Artichoke	False	False
Hu-1	KG14	Artichoke	False	False
Hu-2	KG14	Artichoke	False	False
Hu-3	KG14	Artichoke	False	False
Ki-1	KG14	Artichoke	False	False
Ki-10	KG14	Artichoke	False	False
Ki-3	KG14	Artichoke	False	False
Ki-4	KG14	Artichoke	False	False
Ki-7	KG14	Artichoke	False	False
Ki-8	KG14	Artichoke	False	False
Mar-3	KG14	Artichoke	False	False
Mar-4	KG13	Artichoke	False	False
Mar-4	KG14	Artichoke	False	False
Mull-2	KG13	Artichoke	False	True
N-2 North	KG14	Artichoke	False	False
N-2 South	KG14	Artichoke	False	False
N-3 East	KG14	Artichoke	False	False
N-3 West	KG14	Artichoke	False	False
N-4	KG14	Artichoke	False	False
N-7 West	KG14	Artichoke	False	False
N-1	KG14	Artichoke	False	False
N-5	KG11	Artichoke	False	False
N-5	KG14	Artichoke	False	False
N-6	KG11	Artichoke	False	True
N-6	KG14	Artichoke	False	False
N-7E	KG14	Artichoke	False	False
N-8	KG14	Artichoke	False	False
N-9	KG14	Artichoke	False	False
O-1	KG14	Artichoke	False	False
O-2	KG14	Artichoke	False	False
O-3	KG14	Artichoke	False	False
P-1	KG13	Artichoke	False	True
P-2	KG13	Artichoke	False	True
Q&B 1	KG14	Artichoke	False	False
Q&B 4	KG14	Artichoke	False	False
SJ-6A	KG11	Artichoke	False	True
STJ-1	KG14	Artichoke	False	False
STJ-10	KG14	Artichoke	False	False
STJ-2	KG14	Artichoke	False	False

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
STJ-4	KG14	Artichoke	False	False
STJ-7	KG14	Artichoke	False	False
Str-2	KG14	Artichoke	False	False
Str-4	KG14	Artichoke	False	False
Str-5	KG14	Artichoke	False	False
Str-6	KG14	Artichoke	False	False
Str-7	KG14	Artichoke	False	False
V-1	KG12	Artichoke	False	True
1402	PR21	Asparagus	False	False
JDB	PR21	Asparagus	False	False
TA20-11	TA20	Baby Greens	False	False
TA20-3	TA20	Baby Greens	False	False
TA20-7	TA20	Baby Greens	False	False
TA20-8	TA20	Baby Greens	False	False
TA20-9	TA20	Baby Greens	False	False
Beans1	PR18	Beans	False	False
DeP	PR18	Beans	False	False
DeP-LX3	PR18	Beans	False	False
DeP-M67	PR18	Beans	False	False
DeP-MG9	PR18	Beans	False	False
Y-4	PR18	Beans	False	False
W-13	TA19	Broccoflower	False	True
15-14	TF09	Broccoli	False	False
15-26	TF09	Broccoli	False	True
15-27	TF09	Broccoli	False	True
15-28	TF09	Broccoli	False	True
15-35	TF09	Broccoli	False	True
20-37	TF10	Broccoli	False	False
B-1H	KG13	Broccoli	False	True
C-14	TA19	Broccoli	False	True
Mar-1	KG13	Broccoli	False	False
Mar-36	KG13	Broccoli	False	True
Mar-6	KG13	Broccoli	False	True
MoCo-2B	TA19	Broccoli	False	False
Or-3	TA19	Broccoli	False	False
Po-1	TA19	Broccoli	False	False
W-10	TA19	Broccoli	False	True
W-15	TA19	Butter Lettuce	False	True
7-3	TF09	Cabbage	False	False
7-5	TF09	Cabbage	False	True
20-02	TF10	Cauliflower	False	True
20-27	TF10	Cauliflower	False	False
DM-63	PR18	Cauliflower	False	False

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
Po-2	TA19	Cauliflower	False	True
W-1	TA19	Cauliflower	False	True
W-11/12	TA19	Cauliflower	False	True
W-2	TA19	Cauliflower	False	True
12-7	TF10	Celery	False	False
15-3	TF09	Celery	True	True
15-4	TF09	Celery	False	True
9-3	TF10	Celery	False	False
Bl-4	TA19	Celery	False	True
Con-11	TA19	Celery	False	True
Con-6	TA19	Celery	False	True
MoCo-5A	TA19	Celery	False	True
MoCo-6B	TA19	Celery	False	True
Sal-3	TA19	Celery	False	True
Str-1A	KG11	Celery	False	False
TA20-1	TA20	Celery	False	False
TA20-19/5/6	TA20	Celery	False	False
TA20-4	TA20	Celery	False	True
W-14	TA19	Celery	False	True
W-21	TA19	Celery	False	True
30-04	PA30	Citrus Nursery	False	True
26-02	WE26	Corn	False	False
26-07	WE26	Corn	False	False
13-6	BF22	Cotton	False	True
13COTF32	PR21	Cotton	False	True
17-1	SF24	Cotton	False	False
209	SF24	Cotton	False	True
210B	SF24	Cotton	False	False
2-5	BF22	Cotton	False	True
25-02	WE25	Cotton	False	True
25-03	WE25	Cotton	False	True
25-04	WE25	Cotton	False	True
2-6	BF22	Cotton	False	True
26-10	WE26	Cotton	False	False
26-3	SF24	Cotton	False	True
26-5	BF22	Cotton	False	True
28-2	BF22	Cotton	False	True
31-2	BF22	Cotton	False	True
34-1	BF22	Cotton	False	True
34-3	SF24	Cotton	False	True
3E	SF24	Cotton	False	True
3W	SF24	Cotton	False	True
Alcala11	AS23	Cotton	False	False

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
Alcala12	AS23	Cotton	False	False
Alcala4	AS23	Cotton	False	False
Cotton1	AS23	Cotton	False	False
Cotton2	AS23	Cotton	False	False
Pima10	AS23	Cotton	False	False
Pima3	AS23	Cotton	False	False
Pima6	AS23	Cotton	False	False
Pima7	AS23	Cotton	False	False
Pima8	AS23	Cotton	False	False
Pima9	AS23	Cotton	False	False
SF202	SF24	Cotton	False	True
Gu-7A	KG11	Fennel	False	True
28-13	PA28	Grapefruit	False	True
JT03-08	JT03	Green Beans	False	True
JT03-09	JT03	Green Beans	False	True
11-3	TF10	Head Lettuce	False	True
11-4	TF10	Head Lettuce	False	True
14-2	TF10	Head Lettuce	False	True
18-14	TF09	Head Lettuce	False	False
18-15	TF09	Head Lettuce	False	True
5-3	TF09	Head Lettuce	False	True
Ber-3	KG13	Head Lettuce	False	True
Bl-3	TA19	Head Lettuce	False	True
Boc-2	KG12	Head Lettuce	False	True
Boc-9	KG12	Head Lettuce	False	True
Bog-10	KG12	Head Lettuce	False	False
Bog-6	KG12	Head Lettuce	False	False
Hu-	KG12	Head Lettuce	False	False
Mid-11	KG12	Head Lettuce	False	True
Mid	KG12	Head Lettuce	False	False
MoCo-3B	TA19	Head Lettuce	False	False
MoCo-8	TA19	Head Lettuce	False	True
Mull-E	KG13	Head Lettuce	False	True
Mull-F	KG13	Head Lettuce	False	True
Ocean	KG12	Head Lettuce	False	False
Orc-11	TA19	Head Lettuce	False	True
Orc-12	TA19	Head Lettuce	False	True
Orc-6	TA19	Head Lettuce	False	False
Orc-7	TA19	Head Lettuce	False	True
Roy-1	KG12	Head Lettuce	False	False
Roy-15	KG12	Head Lettuce	False	True
Roy-2	KG12	Head Lettuce	False	False
Roy-22	KG12	Head Lettuce	False	True

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities Project 0202
Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
Sal-1	TA19	Head Lettuce	False	True
Sal-10	TA19	Head Lettuce	False	True
Sal-5	TA19	Head Lettuce	True	False
W-18	TA19	Head Lettuce	False	True
GD416	PR21	Honeydew	False	True
PR201	PR21	Honeydew	False	False
Tex61	PR21	Honeydew	False	False
Tex62	PR21	Honeydew	False	False
TFC1088	PR21	Honeydew	False	False
TFCM4	PR21	Honeydew	False	False
2-2	TF10	Leaf Lettuce	False	False
2-3	TF10	Leaf Lettuce	False	False
28-04	PA28	Mandarins	False	True
Arm-7	PA30	Mandarins	False	True
PR202	PR21	Melons	False	False
PR203	PR21	Melons	False	False
PRM1	PR21	Melons	False	False
PRM2	PR21	Melons	False	False
TFC1274	PR21	Melons	False	False
TFC1275	PR21	Melons	False	True
TFC1322A	PR21	Melons	False	False
TFC1322B	PR21	Melons	False	False
TFC1501	PR21	Melons	False	False
TFC1903	PR21	Melons	False	False
TFCM3	PR21	Melons	False	False
TFCM5	PR21	Melons	False	False
27-02	PA27	Mineola	False	True
27-04	PA27	Mineola	False	True
27-05	PA27	Mineola	False	True
27-07	PA27	Mineola	False	True
TA20-12	TA20	Mustard	False	True
Fallow13	AS23	None	False	False
30-02	PA30	Olive	False	True
160-11	PA30	Orange	False	True
27-01	PA27	Orange	False	True
27-03	PA27	Orange	False	True
27-06	PA27	Orange	False	True
27-08	PA27	Orange	False	True
27-09	PA27	Orange	False	True
28-02	PA28	Orange	False	True
28-03	PA28	Orange	False	True
28-12	PA28	Orange	False	True
28-14	PA28	Orange	False	True

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Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field Posted	Application History Known
28-15	PA28	Orange	False	True
29-01	PA29	Orange	False	True
29-02	PA29	Orange	False	True
29-03	PA29	Orange	False	True
29-04	PA29	Orange	False	True
30-03	PA30	Orange	False	True
Ho-6	PA30	Orange	False	True
Tu-20	PA30	Orange	False	True
DM-L695	PR18	Parlsey	False	True
HC02-03	HC02	Peach	False	False
HC02-04	HC02	Peach	False	False
JT03-02	JT03	Pluot	False	True
1292B	PR21	Proc. Tomatoes	False	True
13-4	BF22	Proc. Tomatoes	False	False
14-1	SF24	Proc. Tomatoes	False	True
14-4	SF24	Proc. Tomatoes	False	True
Go-2	PR18	Proc. Tomatoes	False	True
Per-224	PR18	Proc. Tomatoes	False	True
SF14-2	SF24	Proc. Tomatoes	False	True
Tom1	PR21	Proc. Tomatoes	False	False
Tri	PR18	Proc. Tomatoes	False	False
Tri-15	PR18	Proc. Tomatoes	False	False
Tri-3	PR18	Proc. Tomatoes	False	False
Tri-H66	PR18	Proc. Tomatoes	False	False
Tri-H664	PR18	Proc. Tomatoes	False	False
WF01-01	WF01	Proc. Tomatoes	False	True
WF01-05	WF01	Proc. Tomatoes	False	False
WF01-06	WF01	Proc. Tomatoes	False	False
WF01-07	WF01	Proc. Tomatoes	False	False
WF01-08	WF01	Proc. Tomatoes	False	False
WF01-09	WF01	Proc. Tomatoes	False	False
Y & L 6	PR18	Proc. Tomatoes	False	False
Y & L 7	PR18	Proc. Tomatoes	False	False
Y & L 9	PR18	Proc. Tomatoes	False	False
Y-18	PR18	Proc. Tomatoes	False	False
HC02-01	HC02	Pumpkin	False	False
TA20-10	TA20	Radicchio	False	True
TA20-13	TA20	Radicchio	False	True
103	SF24	Raisins	False	True
7-6	TF09	Red Cabbage	False	True
18-16	TF09	Romaine	False	True
18-17	TF09	Romaine	False	False
Con-8	TA19	Romaine	False	True

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Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field is Posted	Application History Known
Orc-15	TA19	Romaine	False	True
SJ-6B	KG11	Romaine	False	True
SJ-6D	KG11	Romaine	False	True
W-5	TA19	Romaine	False	True
W-6	TA19	Romaine	False	True
Bog-19A	KG12	Spinach	False	False
Bog-19A	KG12	Spinach	False	True
Esp-9	KG11	Spinach	False	False
Se-1B	KG13	Spinach	False	True
Se-1B	KG14	Spinach	False	True
Spinach 1	KG14	Spinach	False	False
Spinach 2	KG14	Spinach	False	False
TA20-14	TA20	Spinach	False	False
TA20-15	TA20	Spinach	False	False
TA20-2	TA20	Spinach	False	False
AC05-01	AC05	Strawberries	False	True
AC05-02	AC05	Strawberries	False	True
AC05-03	AC05	Strawberries	False	True
AC05-04	AC05	Strawberries	False	True
AC05-05	AC05	Strawberries	False	False
Fer	CB07	Strawberries	False	True
Hol	CB06	Strawberries	False	True
Jen	CB08	Strawberries	False	False
25-01	WE25	Sugarbeets	False	False
SF205	SF24	Sugarbeets	False	True
JT03-03	JT03	Sweet Corn	True	True
JT03-04	JT03	Sweet Corn	True	True
JT03-05	JT03	Sweet Corn	True	True
JT03-06	JT03	Sweet Corn	False	True
JT03-07	JT03	Sweet Corn	False	True
26-08	WE26	Table Grapes	True	True
26-09	WE26	Table Grapes	True	True
DP-LX1	PR18	Walnut	False	False
HC02-02	HC02	Walnut	False	False
JT03-01	JT03	Walnut	False	False
WF01-02	WF01	Watermelon	False	True
WF01-03	WF01	Watermelon	False	True
WF01-04	WF01	Watermelon	False	True
102	SC15	Wine Grapes	False	True
106	SC15	Wine Grapes	False	False
202	SC15	Wine Grapes	False	True
203	SC15	Wine Grapes	False	False
205	SC15	Wine Grapes	False	True

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Table 2. Field ID Number, Study ID Number, Field Posting and Application History, by Crop

FieldID	StudyID	Crop	Field is Posted	Application History Known
47B	SC15	Wine Grapes	False	False
65B	SC15	Wine Grapes	False	True
74B	SC15	Wine Grapes	False	True
76	SC15	Wine Grapes	False	False
Cal-07	VV17	Wine Grapes	False	True
Cal-10	VV17	Wine Grapes	False	True
Cal-6	VV17	Wine Grapes	False	True
Cal-8	VV17	Wine Grapes	False	False
FD1	DR16	Wine Grapes	False	False
FD2	DR16	Wine Grapes	False	False
FD3	DR16	Wine Grapes	False	False
FD4	DR16	Wine Grapes	False	False
FD5	DR16	Wine Grapes	False	True
FD6	DR16	Wine Grapes	False	False
FD7	DR16	Wine Grapes	False	False
FD8	DR16	Wine Grapes	False	True
HC02-05	HC02	Wine Grapes	False	False
JT03-10	JT03	Wine Grapes	False	True
WF04-01	WF04	Wine Grapes	False	True
WF04-02	WF04	Wine Grapes	False	True
WF04-03	WF04	Wine Grapes	False	True
WF04-04	WF04	Wine Grapes	False	True
WF04-05	WF04	Wine Grapes	False	True
WF04-06	WF04	Wine Grapes	False	True
WF04-07	WF04	Wine Grapes	False	True

Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result ¹ (µg/400 cm ²)	LOD ² (µg)	LOQ ³ (µg)	Date Collected	Date Extracted	Date Analyzed
TA19-1004	Abamectin	Celery	ND	0.2	0.5	7/22/2003	7/23/2003	11/18/2003
TA20-1002	Abamectin	Radicchio	ND	0.2	0.5	7/23/2003	7/24/2003	11/18/2003
WF01-1001	Abamectin	Watermelon	ND	0.3	1	8/28/2002	8/28/2002	9/18/2002
WF01-1002	Abamectin	Watermelon	ND	0.3	1	8/28/2002	8/28/2002	9/18/2002
WF01-1003	Abamectin	Watermelon	ND	0.3	1	8/28/2002	8/28/2002	9/18/2002
WF01-1004	Abamectin	Watermelon	ND	0.3	1	8/28/2002	8/28/2002	9/18/2002
TA19-1003	Acephate	Head Lettuce	NA	NE	NE	7/22/2003	--	--
TA19-1004	Acephate	Celery	NA	NE	NE	7/22/2003	--	--
SF24-1001	Acetamiprid	Cotton	2.88	1	3	8/26/2003	8/27/2003	8/28/2003
SF24-1002	Acetamiprid	Cotton	1.11	1	3	8/26/2003	8/27/2003	8/28/2003
SF24-1003	Acetamiprid	Cotton	2.17	1	3	8/26/2003	8/27/2003	8/28/2003
TA19-1003	Acetamiprid	Cotton	4.5	1	3	7/22/2003	7/23/2003	8/14/2003
TF09-1001	Acibenzolar-S-Methyl	Head Lettuce	ND	2	5	6/12/2003	6/13/2003	10/8/2003
TF10-1003	Acibenzolar-S-Methyl	Head Lettuce	ND	2	5	6/12/2003	6/13/2003	10/8/2003
TF10-1004	Acibenzolar-S-Methyl	Head Lettuce	ND	2	5	6/12/2003	6/13/2003	10/8/2003
SF24-1006	Azoxystrobin	Proc. Tomatoes	32	0.1	0.3	8/26/2003	8/27/2003	9/4/2003
AC05-1001	Benomyl	Strawberries	64.5	0.3	1	5/20/2003	5/21/2003	9/30/2003
AC05-1002	Benomyl	Strawberries	345	0.3	1	5/20/2003	5/21/2003	9/30/2003
CB07-1001	Bifenazate	Strawberries	38.7	1	3	6/10/2003	6/11/2003	8/15/2003
CB07-1002	Bifenazate	Strawberries	17.8	1	3	6/10/2003	6/11/2003	8/15/2003
CB07-1003	Bifenazate	Strawberries	22	1	3	6/10/2003	6/11/2003	8/15/2003
CB07-1004	Bifenazate	Strawberries	20	1	3	6/10/2003	6/11/2003	8/15/2003
AC05-1001	Bifenthrin	Strawberries	5.89	1	3	5/20/2003	5/21/2003	7/9/2003
AC05-1002	Bifenthrin	Strawberries	18.5	1	3	5/20/2003	5/21/2003	7/9/2003
CB07-1001	Bifenthrin	Strawberries	ND	3	10	6/10/2003	6/11/2003	7/9/2003

1 ND = None detected

2 LOD = Limit of detection. Entries in italics are calculated fields (LOQ = 3.33 x LOD). NE = Not evaluated. NA = Not available.

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
CB07-1002	Bifenthrin	Strawberries	7.5	<i>1</i>	3	6/10/2003	6/11/2003	7/9/2003
CB07-1003	Bifenthrin	Strawberries	ND	<i>1</i>	3	6/10/2003	6/11/2003	7/9/2003
CB07-1004	Bifenthrin	Strawberries	ND	<i>1</i>	3	6/10/2003	6/11/2003	7/9/2003
JT03-1009	Bifenthrin	Sweet Corn	23.5	2	7	9/4/2002	9/5/2002	10/26/2002
JT03-1010	Bifenthrin	Sweet Corn	21.5	2	7	9/4/2002	9/5/2002	10/26/2002
JT03-1011	Bifenthrin	Sweet Corn	22.5	2	7	9/4/2002	9/5/2002	10/26/2002
JT03-1012	Bifenthrin	Sweet Corn	26.3	2	7	9/4/2002	9/5/2002	10/26/2002
JT03-1013	Bifenthrin	Sweet Corn	5.10	2	7	9/4/2002	9/5/2002	10/26/2002
JT03-1014	Bifenthrin	Sweet Corn	6.96	2	7	9/4/2002	9/5/2002	10/26/2002
AC05-1001	Captan	Strawberries	372	3.5	10	5/20/2003	5/21/2003	7/28/2003
AC05-1002	Captan	Strawberries	1378	3.5	10	5/20/2003	5/21/2003	7/28/2003
AC05-1005	Captan	Strawberries	26.4	3.5	10	5/20/2003	5/21/2003	7/28/2003
AC05-1006	Captan	Strawberries	33.1	3.5	10	5/20/2003	5/21/2003	7/28/2003
CB06-1001	Captan	Strawberries	431	3.5	10	6/10/2003	6/11/2003	7/28/2003
CB06-1002	Captan	Strawberries	361	3.5	10	6/10/2003	6/11/2003	7/28/2003
CB06-1003	Captan	Strawberries	265	3.5	10	6/10/2003	6/11/2003	7/28/2003
CB06-1004	Captan	Strawberries	507	3.5	10	6/10/2003	6/11/2003	7/28/2003
CB06-1005	Captan	Strawberries	266	3.5	10	6/10/2003	6/11/2003	7/28/2003
CB06-1006	Captan	Strawberries	405	3.5	10	6/10/2003	6/11/2003	7/28/2003
BF22-1007	Chlorpyrifos	Cotton	1.09	1	3	8/18/2003	8/19/2003	10/16/2003
BF22-1008	Chlorpyrifos	Cotton	1.43	1	3	8/18/2003	8/19/2003	10/16/2003
SF24-1005	Chlorpyrifos	Cotton	ND	1	3	8/26/2003	8/27/2003	8/29/2003
BF22-1007	Cyfluthrin	Cotton	7.21	1	3	8/18/2003	8/19/2003	9/4/2003
BF22-1008	Cyfluthrin	Cotton	11.5	1	3	8/18/2003	8/19/2003	9/4/2003
JT03-1013	Cyfluthrin	Sweet Corn	74	1	3	9/4/2002	9/5/2002	9/11/2002
JT03-1014	Cyfluthrin	Sweet Corn	46.4	1	3	9/4/2002	9/5/2002	9/11/2002

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
SF24-1005	Cyfluthrin	Cotton	7.74	1	3	8/26/2003	8/27/2003	9/4/2003
KG14-1001	Cyromazine	Spinach	ND	1	3	6/18/2003	6/19/2003	8/19/2003
TA19-1004	Cyromazine	Celery	ND	1	3	7/22/2003	7/23/2003	8/19/2003
TA20-1002	Cyromazine	Radicchio	ND	1	3	7/23/2003	7/24/2003	8/19/2003
KG11-1001	Diazinon	Romaine	ND	0.45	1.5	6/17/2003	6/18/2003	7/7/2003
KG12-1001	Diazinon	Head Lettuce	2.09	0.45	1.5	6/17/2003	6/18/2003	7/7/2003
TA19-1001	Diazinon	Romaine	ND	1	3	7/22/2003	7/23/2003	7/28/2003
KG12-1005	Diiflubenzuron	Artichoke	13.1	1	3	6/17/2003	6/18/2003	8/7/2003
TA19-1002	Dimethoate	Broccoli	2.36	1	3	7/22/2003	7/23/2003	7/28/2003
TA19-1003	Dimethoate	Head Lettuce	3.48	1	3	7/22/2003	7/23/2003	7/28/2003
TF09-1004	Dimethoate	Broccoli	1.74	0.45	1.5	6/12/2003	6/13/2003	7/7/2003
TF10-1003	Dimethoate	Head Lettuce	ND	0.45	1.5	6/12/2003	6/13/2003	7/7/2003
TF10-1004	Dimethoate	Head Lettuce	ND	0.45	1.5	6/12/2003	6/13/2003	7/7/2003
KG11-1004	Esfenvalerate	Artichoke	ND	1	3	6/17/2003	6/18/2003	7/9/2003
KG12-1005	Esfenvalerate	Artichoke	ND	1	3	6/17/2003	6/18/2003	7/9/2003
KG13-1001	Esfenvalerate	Artichoke	ND	1	3	6/18/2003	6/19/2003	7/9/2003
KG13-1003	Esfenvalerate	Artichoke	ND	1	3	6/18/2003	6/19/2003	7/9/2003
KG14-1002	Esfenvalerate	Artichoke	ND	1	3	6/18/2003	6/19/2003	7/9/2003
SF24-1006	Esfenvalerate	Proc. Tomatoes	1.21	1	3	8/26/2003	8/27/2003	9/4/2003
AC05-1003	Fenhexamid	Strawberries	145	0.2	0.6	5/20/2003	5/21/2003	8/14/2003
AC05-1004	Fenhexamid	Strawberries	197	0.2	0.6	5/20/2003	5/21/2003	8/14/2003
AC05-1004	Fosetyl-Al	Strawberries	NA	NE	NE	5/20/2003	--	--
AC05-1006	Fosetyl-Al	Strawberries	NA	NE	NE	5/20/2003	--	--
BF22-1007	Imidacloprid	Cotton	0.27	0.1	0.3	8/18/2003	8/19/2003	9/4/2003
BF22-1008	Imidacloprid	Cotton	0.39	0.1	0.3	8/18/2003	8/19/2003	9/4/2003
SF24-1005	Imidacloprid	Cotton	ND	0.1	0.3	8/26/2003	8/27/2003	9/4/2003

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
TA19-1001	Imidacloprid	Romine	ND	1	3	7/22/2003	7/23/2003	7/28/2003
TA20-1001	Imidacloprid	Celery	ND	1	3	7/23/2003	7/24/2003	8/27/2003
TF09-1001	Imidacloprid	Head Lettuce	ND	1	3	6/12/2003	6/13/2003	7/28/2003
TF09-1002	Imidacloprid	Celery	ND	1	3	6/12/2003	6/13/2003	7/28/2003
TF09-1003	Imidacloprid	Red Cabbage	ND	1	3	6/12/2003	6/13/2003	7/28/2003
WF04-1019	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1020	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1021	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1022	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1023	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1024	Imidacloprid	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
BF22-1004	Indoxacarb	Cotton	40.3	0.3	1	8/18/2003	8/19/2003	12/30/2003
SF24-1002	Indoxacarb	Cotton	27.4	0.3	1	8/26/2003	8/27/2003	12/30/2003
SF24-1003	Indoxacarb	Cotton	66.2	0.3	1	8/26/2003	8/27/2003	12/30/2003
SF24-1006	Indoxacarb	Proc. Tomatoes	5.45	0.3	1	8/26/2003	8/27/2003	12/30/2003
TF09-1003	Indoxacarb	Red Cabbage	ND	0.3	1	6/12/2003	6/13/2003	12/30/2003
TF09-1004	Indoxacarb	Broccoli	ND	0.3	1	6/12/2003	6/13/2003	12/30/2003
JT03-1017	Kresoxim-Methyl	Wine Grapes	ND	1	3	9/4/2002	9/5/2002	10/18/2002
JT03-1018	Kresoxim-Methyl	Wine Grapes	ND	1	3	9/4/2002	9/5/2002	10/18/2002
KG13-1004	lambda-Cyhalothrin	Broccoli	ND	1	3	6/18/2003	6/19/2003	8/28/2003
KG12-1002	Malathion	Head Lettuce	ND	0.45	1.5	6/17/2003	6/18/2003	7/7/2003
WE26-1001	Malathion	Table Grapes	278	0.4	1	9/11/2003	9/12/2003	9/22/2003
WE26-1002	Malathion	Table Grapes	445	0.4	1	9/11/2003	9/12/2003	9/22/2003
SF24-1001	Mepiquat Chloride	Cotton	NA	NE	NE	8/26/2003	--	--
KG11-1004	Methidathion	Artichoke	ND	0.45	1.5	6/17/2003	6/18/2003	7/7/2003
CB07-1001	Methomyl	Strawberries	ND	2	5	6/10/2003	6/11/2003	7/7/2003

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
CB07-1002	Methomyl	Strawberries	ND	2	5	6/10/2003	6/11/2003	7/7/2003
CB07-1003	Methomyl	Strawberries	ND	2	5	6/10/2003	6/11/2003	7/7/2003
CB07-1004	Methomyl	Strawberries	ND	2	5	6/10/2003	6/11/2003	7/7/2003
JT03-1009	Methomyl	Sweet Corn	165	0.3	1	9/4/2002	9/5/2002	10/15/2002
JT03-1010	Methomyl	Sweet Corn	201	0.3	1	9/4/2002	9/5/2002	10/15/2002
JT03-1011	Methomyl	Sweet Corn	434	0.3	1	9/4/2002	9/5/2002	10/15/2002
JT03-1012	Methomyl	Sweet Corn	488	0.3	1	9/4/2002	9/5/2002	10/15/2002
JT03-1013	Methomyl	Sweet Corn	402	0.3	1	9/4/2002	9/5/2002	10/15/2002
JT03-1014	Methomyl	Sweet Corn	227	0.3	1	9/4/2002	9/5/2002	10/15/2002
TA20-1002	Methomyl	Radicchio	NA	1	3	7/23/2003	--	--
TF09-1001	Methomyl	Head Lettuce	ND	2	5	6/12/2003	6/13/2003	7/7/2003
TF10-1003	Methomyl	Head Lettuce	9.29	2	5	6/12/2003	6/13/2003	7/7/2003
TF10-1004	Methomyl	Head Lettuce	12.4	2	5	6/12/2003	6/13/2003	7/7/2003
WE26-1003	Methomyl	Table Grapes	98.7	1	3	9/5/2002	9/12/2003	9/24/2003
WE26-1004	Methomyl	Table Grapes	93.9	1	3	9/5/2002	9/12/2003	9/24/2003
CB07-1001	Myclobutanil	Strawberries	ND	1	3	6/10/2003	6/11/2003	7/17/2003
CB07-1002	Myclobutanil	Strawberries	ND	0.1	3	6/10/2003	6/11/2003	7/17/2003
CB07-1003	Myclobutanil	Strawberries	ND	0.1	3	6/10/2003	6/11/2003	7/17/2003
CB07-1004	Myclobutanil	Strawberries	ND	0.1	3	6/10/2003	6/11/2003	7/17/2003
JT03-1017	Myclobutanil	Wine Grapes	25.1	1	3	9/4/2002	9/5/2002	9/9/2002
JT03-1018	Myclobutanil	Wine Grapes	5.66	1	3	9/4/2002	9/5/2002	9/9/2002
KG11-1004	Myclobutanil	Artichoke	ND	1	3	6/17/2003	6/18/2003	7/17/2003
VV17-1001	Myclobutanil	Wine Grapes	31.3	1	3	7/1/2003	7/2/2003	7/17/2003
VV17-1002	Myclobutanil	Wine Grapes	21.3	1	3	7/1/2003	7/2/2003	7/17/2003
VV17-1003	Myclobutanil	Wine Grapes	14.8	1	3	7/1/2003	7/2/2003	7/17/2003
VV17-1004	Myclobutanil	Wine Grapes	14.5	1	3	7/1/2003	7/2/2003	7/17/2003

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Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
WF01-1005	Myclobutanil	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1006	Myclobutanil	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1007	Myclobutanil	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1008	Myclobutanil	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
AC05-1003	Naled	Strawberries	ND	1	3	5/20/2003	5/21/2003	8/18/2003
AC05-1004	Naled	Strawberries	ND	1	3	5/20/2003	5/21/2003	8/18/2003
JT03-1013	Naled	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	9/10/2002
JT03-1014	Naled	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	9/10/2002
JT03-1015	Naled	Green Beans	ND	1	3	9/4/2002	9/5/2002	9/10/2002
JT03-1016	Naled	Green Beans	ND	1	3	9/4/2002	9/5/2002	9/10/2002
SF24-1005	Naled	Cotton	ND	1	3	8/26/2003	8/27/2003	8/29/2003
KG11-1003	None	Artichoke	ND	NE	NE	6/17/2003	--	--
KG13-1005	None	Artichoke	ND	NE	NE	6/18/2003	--	--
BF22-1001	Oxamyl	Broccoli	28.7	0.3	1	8/18/2003	8/19/2003	8/28/2003
BF22-1002	Oxamyl	Cotton	26.1	0.3	1	8/18/2003	8/19/2003	8/28/2003
BF22-1005	Oxamyl	Cotton	ND	0.3	1	8/18/2003	8/19/2003	8/28/2003
BF22-1006	Oxamyl	Cotton	ND	0.3	1	8/18/2003	8/19/2003	8/28/2003
BF22-1009	Oxamyl	Cotton	967	0.3	1	8/18/2003	8/19/2003	9/8/2003
BF22-1010	Oxamyl	Cotton	1088	0.3	1	8/18/2003	8/19/2003	9/8/2003
TA20-1002	Oxamyl	Cotton	ND	0.3	1	7/23/2003	7/23/2003	8/28/2003
KG13-1004	Oxydemeton-Methyl	Broccoli	1.84	0.3	1	6/18/2003	6/19/2003	11/13/2003
TA19-1002	Oxydemeton-Methyl	Broccoli	1.6	0.3	1	7/22/2003	7/23/2003	11/13/2003
TA19-1003	Oxydemeton-Methyl	Head Lettuce	ND	0.3	1	7/22/2003	7/23/2003	11/13/2003
TF09-1004	Oxydemeton-Methyl	Broccoli	2.34	0.3	1	6/12/2003	6/13/2003	11/13/2003
JT03-1009	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002
JT03-1010	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002

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Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
JT03-1011	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002
JT03-1012	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002
JT03-1013	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002
JT03-1014	Parathion	Sweet Corn	ND	1	3	9/4/2002	9/5/2002	10/26/2002
KG11-1001	Permethrin	Romaine	ND	0.45	1.5	6/17/2003	6/18/2003	6/30/2003
KG11-1004	Permethrin	Artichoke	ND	0.45	1.5	6/17/2003	6/18/2003	6/30/2003
KG12-1001	Permethrin	Head Lettuce	ND	0.45	1.5	6/17/2003	6/18/2003	6/30/2003
KG12-1003	Permethrin	Spinach	2.68	0.45	1.5	6/17/2003	6/18/2003	6/30/2003
KG12-1005	Permethrin	Artichoke	ND	0.45	1.5	6/17/2003	6/18/2003	6/30/2003
KG13-1001	Permethrin	Artichoke	5.44	0.45	1.5	6/18/2003	6/19/2003	6/30/2003
KG13-1003	Permethrin	Artichoke	ND	0.45	1.5	6/18/2003	6/19/2003	6/30/2003
TA20-1001	Permethrin	Celery	39.1	0.55	2	7/23/2003	7/24/2003	10/23/2003
TA20-1002	Permethrin	Radicchio	41.9	0.3	1	7/23/2003	7/24/2003	10/23/2003
TF09-1002	Permethrin	Celery	39.01	0.45	1.5	8/26/2003	6/13/2003	6/30/2003
TF10-1003	Permethrin	Head Lettuce	23.95	0.45	1.5	6/12/2003	6/13/2003	6/30/2003
TF10-1004	Permethrin	Head Lettuce	26.38	0.45	1.5	6/12/2003	6/13/2003	6/30/2003
JT03-1013	Propargite	Sweet Corn	86.6	1	3	9/4/2002	9/5/2002	9/11/2002
JT03-1014	Propargite	Sweet Corn	73.4	1	3	9/4/2002	9/5/2002	9/11/2002
CB06-1001	Pyraclostrobin	Strawberries	12.8	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1002	Pyraclostrobin	Strawberries	14.3	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1003	Pyraclostrobin	Strawberries	7.5	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1004	Pyraclostrobin	Strawberries	12.6	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1005	Pyraclostrobin	Strawberries	7.39	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1006	Pyraclostrobin	Strawberries	12.9	1	3	6/10/2003	6/11/2003	11/20/2003
CB07-1001	Pyraclostrobin	Strawberries	47.9	1	3	6/10/2003	6/11/2003	11/20/2003
CB07-1002	Pyraclostrobin	Strawberries	62.4	1	3	6/10/2003	6/11/2003	11/20/2003

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result ($\mu\text{g}/400\text{ cm}^2$)	LOD (μg)	LOQ (μg)	Date Collected	Date Extracted	Date Analyzed
CB07-1003	Pyraclostrobin	Strawberries	37.5	1	3	6/10/2003	6/11/2003	11/20/2003
CB07-1004	Pyraclostrobin	Strawberries	58.5	1	3	6/10/2003	6/11/2003	11/20/2003
CB06-1001	Spinosad A	Strawberries	0.57	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1002	Spinosad A	Strawberries	0.92	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1003	Spinosad A	Strawberries	1.35	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1004	Spinosad A	Strawberries	2.53	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1005	Spinosad A	Strawberries	1.23	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1006	Spinosad A	Strawberries	0.95	NE	NE	6/10/2003	6/11/2003	7/29/2003
KG11-1001	Spinosad A	Romaine	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1002	Spinosad A	Head Lettuce	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1003	Spinosad A	Spinach	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1004	Spinosad A	Artichoke	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
TA20-1001	Spinosad A	Celery	ND	NE	NE	7/23/2003	7/24/2003	7/29/2003
TA20-1002	Spinosad A	Radicchio	0.74	NE	NE	7/23/2003	7/24/2003	7/29/2003
TF10-1001	Spinosad A	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1002	Spinosad A	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1003	Spinosad A	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1004	Spinosad A	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
CB06-1001	Spinosad B	Strawberries	0.04	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1002	Spinosad B	Strawberries	0.05	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1003	Spinosad B	Strawberries	0.19	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1004	Spinosad B	Strawberries	0.19	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1005	Spinosad B	Strawberries	0.10	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1006	Spinosad B	Strawberries	0.10	NE	NE	6/10/2003	6/11/2003	7/29/2003
KG11-1001	Spinosad B	Romaine	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1002	Spinosad B	Head Lettuce	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003

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Appendix I, HS-1858 An Observation Study of Crop Advisors' Activities, Project 0202
Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
KG12-1003	Spinosad B	Spinach	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1004	Spinosad B	Artichoke	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
TA20-1001	Spinosad B	Celery	ND	NE	NE	7/23/2003	7/24/2003	7/29/2003
TA20-1002	Spinosad B	Radicchio	0.07	NE	NE	7/23/2003	7/24/2003	7/29/2003
TF10-1001	Spinosad B	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1002	Spinosad B	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1003	Spinosad B	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1004	Spinosad B	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
CB06-1001	Spinosad D	Strawberries	0.17	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1002	Spinosad D	Strawberries	0.28	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1003	Spinosad D	Strawberries	0.75	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1004	Spinosad D	Strawberries	0.70	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1005	Spinosad D	Strawberries	0.45	NE	NE	6/10/2003	6/11/2003	7/29/2003
CB06-1006	Spinosad D	Strawberries	0.30	NE	NE	6/10/2003	6/11/2003	7/29/2003
KG11-1001	Spinosad D	Romaine	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1002	Spinosad D	Head Lettuce	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1003	Spinosad D	Spinach	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
KG12-1004	Spinosad D	Artichoke	ND	NE	NE	6/17/2003	6/18/2003	7/29/2003
TA20-1001	Spinosad D	Celery	ND	NE	NE	7/23/2003	7/24/2003	7/29/2003
TA20-1002	Spinosad D	Radicchio	0.20	NE	NE	7/23/2003	7/24/2003	7/29/2003
TF10-1001	Spinosad D	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1002	Spinosad D	Cauliflower	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1003	Spinosad D	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
TF10-1004	Spinosad D	Head Lettuce	ND	NE	NE	6/12/2003	6/13/2003	7/29/2003
DR16-1001	Sulfur	Wine Grapes	205	3	10	6/19/2003	6/20/2003	9/18/2003
DR16-1002	Sulfur	Wine Grapes	624	3	10	6/19/2003	6/20/2003	9/17/2003

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Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
JT03-1017	sulfur	Wine Grapes	106	5	<i>17</i>	9/4/2002	9/5/2002	10/17/2002
JT03-1018	sulfur	Wine Grapes	28.4	5	<i>17</i>	9/4/2002	9/5/2002	10/17/2002
TA20-1001	sulfur	Celery	ND	3	10	7/23/2003	7/24/2003	9/17/2003
VV17-1001	sulfur	Wine Grapes	843	3	10	7/1/2003	7/2/2003	9/17/2003
VV17-1002	sulfur	Wine Grapes	595	3	10	7/1/2003	7/2/2003	9/17/2003
VV17-1003	sulfur	Wine Grapes	709	3	10	7/1/2003	7/2/2003	9/17/2003
VV17-1004	sulfur	Wine Grapes	701	3	10	7/1/2003	7/2/2003	9/17/2003
WF01-1005	sulfur	Proc. Tomatoes	1426	5	<i>17</i>	8/28/2002	8/29/2002	9/13/2002
WF01-1006	sulfur	Proc. Tomatoes	1328	5	<i>17</i>	8/28/2002	8/29/2002	9/13/2002
WF01-1007	sulfur	Proc. Tomatoes	1465	5	<i>17</i>	8/28/2002	8/29/2002	9/13/2002
WF01-1008	sulfur	Proc. Tomatoes	1362	5	<i>17</i>	8/28/2002	8/29/2002	9/13/2002
WF04-1019	sulfur	Wine Grapes	3004	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
WF04-1020	sulfur	Wine Grapes	1420	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
WF04-1021	sulfur	Wine Grapes	3677	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
WF04-1022	sulfur	Wine Grapes	1517	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
WF04-1023	sulfur	Wine Grapes	17	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
WF04-1024	sulfur	Wine Grapes	99	5	<i>17</i>	9/5/2002	9/6/2002	9/13/2002
DR16-1002	tebuconazole	Wine Grapes	372	0.8	2.4	6/19/2003	6/20/2003	7/29/2003
WF04-1019	tebuconazole	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1020	tebuconazole	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1021	tebuconazole	Wine Grapes	ND	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1022	tebuconazole	Wine Grapes	2.32	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1023	tebuconazole	Wine Grapes	10.1	1	3	9/5/2002	9/6/2002	10/11/2002
WF04-1024	tebuconazole	Wine Grapes	17.1	1	3	9/5/2002	9/6/2002	10/11/2002
KG11-1001	tebufenozide	Romaine	15.3	1	3	6/17/2003	6/18/2003	7/28/2003
KG11-1002	tebufenozide	Romaine	ND	1	3	6/17/2003	6/18/2003	7/28/2003

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Sample Number	Analyte	Crop	Result (µg/400 cm ²)	LOD (µg)	LOQ (µg)	Date Collected	Date Extracted	Date Analyzed
KG12-1001	Tebufenozide	Head Lettuce	29.5	1	3	6/17/2003	6/18/2003	7/28/2003
TA19-1001	Tebufenozide	Romaine	5.92	1	3	7/22/2003	7/23/2003	7/28/2003
TA19-1003	Tebufenozide	Head Lettuce	86.8	1	3	7/22/2003	7/23/2003	7/28/2003
TA19-1004	Tebufenozide	Celery	61.8	1	3	7/22/2003	7/23/2003	7/28/2003
WF01-1005	Tebufenozide	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1006	Tebufenozide	Proc. Tomatoes	ND	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1007	Tebufenozide	Proc. Tomatoes	2.65	1	3	8/28/2002	8/29/2002	9/9/2002
WF01-1008	Tebufenozide	Proc. Tomatoes	2	1	3	8/28/2002	8/29/2002	9/9/2002
BF22-1003	Thiamethoxam	Cotton	ND	0.1	3	8/18/2003	8/19/2003	10/14/2003
BF22-1004	Thiamethoxam	Cotton	ND	0.1	3	8/18/2003	8/19/2003	10/14/2003
SF24-1004	Thiamethoxam	Cotton	ND	0.1	3	8/26/2003	8/27/2003	10/14/2003
CB07-1001	Thiram	Strawberries	NA	NE	NE	6/10/2003	--	--
CB07-1002	Thiram	Strawberries	NA	NE	NE	6/10/2003	--	--
CB07-1003	Thiram	Strawberries	NA	NE	NE	6/10/2003	--	--
CB07-1004	Thiram	Strawberries	NA	NE	NE	6/10/2003	--	--
AC05-1003	Triflumazole	Strawberries	1.13	1	3	5/20/2003	5/21/2003	7/28/2003
AC05-1004	Triflumazole	Strawberries	1.44	1	3	5/20/2003	5/21/2003	7/28/2003
AC05-1005	Triflumazole	Strawberries	ND	1	3	5/20/2003	5/21/2003	7/28/2003
AC05-1006	Triflumazole	Strawberries	ND	1	3	5/20/2003	5/21/2003	7/28/2003
JT03-1017	Triflumazole	Wine Grapes	ND	1	3	9/4/2002	9/5/2002	10/18/2002
JT03-1018	Triflumazole	Wine Grapes	ND	1	3	9/4/2002	9/5/2002	10/18/2002
TF10-1003	Vinclozolin	Head Lettuce	ND	1	3	6/12/2003	6/13/2003	8/11/2003
TF10-1004	Vinclozolin	Head Lettuce	ND	1	3	6/12/2003	6/13/2003	8/11/2003
KG11-1001	zeta-Cypermethrin	Romaine	3.31	1	3	6/17/2003	6/18/2003	7/9/2003
KG11-1002	zeta-Cypermethrin	Romaine	8.10	1	3	6/17/2003	6/18/2003	7/9/2003
KG12-1002	zeta-Cypermethrin	Head Lettuce	ND	1	3	6/17/2003	6/18/2003	7/9/2003

1 ND = None detected

2 LOD = Limit of detection. Entries in italics are calculated fields (LOQ = 3.33 x LOD). NE = Not evaluated. NA = Not available.

3 LOQ = Limit of quantitation. Entries in italics are calculated fields (LOQ = 3.33 x LOD). NE = Not evaluated.

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Table 3. Dislodgeable Foliar Residue (DFR) Samples

Sample Number	Analyte	Crop	Result ($\mu\text{g}/400\text{ cm}^2$)	LOD (μg)	LOQ (μg)	Date Collected	Date Extracted	Date Analyzed
KG13-1002	zeta-Cypermethrin	Head Lettuce	6.08	<i>1</i>	3	6/18/2003	6/19/2003	7/9/2003
TA20-1002	zeta-Cypermethrin	Radicchio	ND	1	3	7/23/2003	7/24/2003	8/28/2003
TF10-1003	zeta-Cypermethrin	Head Lettuce	ND	<i>1</i>	3	6/12/2003	6/13/2003	7/9/2003
TF10-1004	zeta-Cypermethrin	Head Lettuce	ND	<i>1</i>	3	6/12/2003	6/13/2003	7/9/2003

1 ND = None detected

2 LOD = Limit of detection. Entries in italics are calculated fields ($\text{LOQ} = 3.33 \times \text{LOD}$). NE = Not evaluated. NA = Not available.

3 LOQ = Limit of quantitation. Entries in italics are calculated fields ($\text{LOQ} = 3.33 \times \text{LOD}$). NE = Not evaluated.

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Abamectin	DFR Matrix Spike	02-0113	1287-00232C	1	4.73	95	8/28/2002	9/18/2002
Abamectin	DFR Matrix Spike	02-0110	1287-10232C	1	11.8	59	8/28/2002	9/18/2002
Abamectin	DFR Matrix Spike	02-0111	1287-10232C	1	12.7	64	8/28/2002	9/18/2002
Abamectin	DFR Matrix Spike	02-0112	1287-10232C	1	3.4	68	8/28/2002	9/18/2002
Abamectin	DFR Reagent Blank	VQ102003RB	None	0	0	NA	10/20/2003	11/17/2003
Abamectin	DFR Matrix Blank	VQ102003MB	None	0	0	NA	10/20/2003	11/17/2003
Abamectin	DFR Reagent Spike	VQ102003RS-10	Vq101703-10.0	10 ng/µL	7.06	71	10/20/2003	11/19/2003
Abamectin	DFR Reagent Spike	VQ102003RS-20	Vq101703-10.0	20 ng/µL	16.2	81	10/20/2003	11/19/2003
Abamectin	DFR Matrix Spike	VQ102003MS-10	Vq101703-10.0	10 ng/µL	9.3	93	10/20/2003	11/19/2003
Abamectin	DFR Matrix Spike	VQ102003MS-20	Vq101703-10.0	20 ng/µL	19.2	96	10/20/2003	11/19/2003
Acetamiprid	DFR Matrix Spike	8/13/03 QA A	1397-10391A	0.9999	20	100	8/13/2003	8/14/2003
Acetamiprid	DFR Matrix Spike	8/13/03 QA B	1397-10391A	0.9999	19.2	96	8/13/2003	8/14/2003
Acetamiprid	0301 Cotton Blank extract	8/27/03 QA A SF	1397-10391A	1	18.7	93.5	8/27/2003	8/28/2003
Acetamiprid	0301 Cotton Blank extract	08/27/03 QA B SF	1397-10391A	1	15.8	79	8/27/2003	8/28/2003
Acetamiprid	DFR Matrix Blank	8/13/03 Matrix Blank	None	0	0	NA	8/13/2003	8/14/2003
Acetamiprid	0301 Cotton Blank extract	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	8/28/2003
Acetamiprid	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	8/28/2003
Acibenzolar-S-Methyl	DFR Matrix Spike	100803S1	CB-10	20 ng/µL	21.5	108	10/8/2003	10/8/2003
Acibenzolar-S-Methyl	DFR Matrix Spike	100803S2	CB-10	20 ng/µL	21.7	109	10/8/2003	10/8/2003
Acibenzolar-S-Methyl	DFR Matrix Blank	100803MB	None	0	0	NA	10/8/2003	10/8/2003
Acibenzolar-S-Methyl	DFR Reagent Blank	100803RB	None	0	0	NA	10/8/2003	10/8/2003
Azoxystrobin	DFR Matrix Spike	8/27/03 QA SF E	1378-10111C	1.0006	5.35	107	8/27/2003	9/4/2003
Azoxystrobin	DFR Matrix Blank	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	9/4/2003
Azoxystrobin	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	9/4/2003
Benomyl	DFR Matrix Spike	093003S1	652-10331F	0.0998	301	100	9/30/2003	9/30/2003
Benomyl	DFR Matrix Spike	093003S2	652-10331F	0.0998	283	94.4	9/30/2003	9/30/2003
Benomyl	DFR Matrix Blank	093003MB	None	0	0	NA	9/30/2003	9/30/2003

NA = Not available

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Benomyl	DFR Reagent Blank	093003RB	None	0	0	NA	9/30/2003	9/30/2003
Bifenazate	DFR Matrix Spike	8/13/03 QA A	329-10448A	1.0006	12.2	61	8/13/2003	8/15/2003
Bifenazate	DFR Matrix Spike	8/13/03 QA B	329-10448A	1.0006	12.2	61	8/13/2003	8/15/2003
Bifenazate	DFR Matrix Blank	8/13/03 Matrix Blank	None	0	0	NA	8/13/2003	8/15/2003
Bifenthrin	DFR Matrix Spike	02-0052	574-10308C	1	31.3	62.6	9/5/2002	10/26/2002
Bifenthrin	DFR Matrix Spike	02-0057	574-10308C	1	29.7	59.4	9/5/2002	10/26/2002
Bifenthrin	Reagent Blank	070903RB	None	0	0	NA	7/9/2003	7/9/2003
Bifenthrin	DFR Water/Surfactant Spike	070903S2	VQ7903-10	10 ng/µL	10.14	101	7/9/2003	7/9/2003
Bifenthrin	DFR Water/Surfactant Spike	070903S1	VQ7903-5	5 ng/µL	5	100	7/9/2003	7/9/2003
Captan	DFR Reagent Blank	VQ71403RB	None	0	0	NA	7/15/2003	7/25/2003
Captan	DFR Reagent Spike	VQ71403RS	VQ71403-10	10 ng/µL	12.5	125	7/15/2003	7/25/2003
Chlorpyrifos	Matrix Spike	8/27/03 QA C SF	31-4923D	1.0005	15.6	78	8/27/2003	8/29/2003
Chlorpyrifos	Matrix Spike	8/27/03 QA D SF	31-4923D	1.0005	15.3	76.5	8/27/2003	8/29/2003
Chlorpyrifos	DFR Matrix Spike	101603S1	CB-12A	1 ng/µL	1.57	78.4	10/16/2003	10/16/2003
Chlorpyrifos	DFR Matrix Spike	101603S2	CB-12A	1 ng/µL	1.76	88	10/16/2003	10/16/2003
Chlorpyrifos	DFR Matrix Blank	101603MB	None	0	0	NA	10/16/2003	10/16/2003
Chlorpyrifos	DFR Reagent Blank	101603RB	None	0	0	NA	10/16/2003	10/16/2003
Chlorpyrifos	0301 Cotton Blank extract	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	8/29/2003
Chlorpyrifos	0301 Cotton Blank extract	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	8/29/2003
Cyfluthrin	DFR Matrix Spike	8/27/03 QC SF C	602-10086A	1	14.2	71	8/27/2003	9/4/2003
Cyfluthrin	DFR Matrix Spike	8/27/03 QC SF D	602-10086A	1	13.7	68.5	8/27/2003	9/4/2003
Cyfluthrin	DFR Matrix Spike	02-0058	602-4927D	1	59.7	99.5	8/20/2003	8/29/2003
Cyfluthrin	DFR Matrix Blank	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	9/4/2003
Cyfluthrin	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	9/4/2003
Cyromazine	DFR Matrix Spike	7/23/03 QA A	733-10253F	0.9999	4.45	22.3	7/23/2003	8/19/2003
Cyromazine	DFR Matrix Spike	7/23/03 QA B	733-10253F	0.9999	10.7	53.5	7/23/2003	8/19/2003
Diazinon	DFR Matrix Spike	DFR LOQ 1	108-4989E	1	1.82	91.2	6/19/2003	6/21/2003

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Diazinon	DFR Matrix Spike	DFR LOQ 2	108-4989E	1	1.85	92.7	6/19/2003	6/21/2003
Diazinon	DFR Matrix Spike	0301 LOQ 1-5	108-4989E	1	1.91	96.5	6/19/2003	6/19/2003
Diazinon	DFR Matrix Blank	DFR Blank 1	None	0	0	NA	6/19/2003	6/21/2003
Diflubenzuron	DFR Matrix Spike	7/23/03 QA A	448-10143C	1.0003	15.5	77.5	7/23/2003	8/7/2003
Diflubenzuron	DFR Matrix Spike	7/23/03 QA B	448-10143C	1.0003	13.8	69	7/23/2003	8/7/2003
Dimethoate	DFR Matrix Spike	DFR LOQ 1	19-4956B	1	1.89	94.5	6/19/2003	6/21/2003
Dimethoate	DFR Matrix Spike	DFR LOQ 2	19-4956B	1	1.93	96.4	6/19/2003	6/21/2003
Dimethoate	DFR Matrix Spike	0301 LOQ 1-5	19-4956B	1	1.83	92.1	6/19/2003	6/19/2003
Dimethoate	DFR Matrix Blank	DFR Blank 1	None	0	0	NA	6/19/2003	6/21/2003
Esfenvalerate	DFR Water/Surfactant Spike	070903S1	61003-4.95	4.95 ng/µL	5.95	120	7/9/2003	7/9/2003
Esfenvalerate	DFR Water/Surfactant Spike	070903S2	61003-9.90	9.9 ng/µL	10.79	109	7/9/2003	7/9/2003
Esfenvalerate	DFR Matrix Spike	8/27/03 QA SF E	718-10085F	1	15.9	79.5	8/27/2003	9/4/2003
Esfenvalerate	DFR Reagent Blank	070903RB	None	0	0	NA	7/9/2003	7/9/2003
Esfenvalerate	DFR Matrix Blank	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	9/4/2003
Esfenvalerate	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	9/4/2003
Fenhexamid	DFR Reagent Blank	VQ80503RB	None	0	0	NA	8/5/2003	8/14/2003
Fenhexamid	DFR Reagent Spike	VQ80503RS	VQ80503-10.0	10 ng/µL	12.4	124	8/5/2003	8/14/2003
Imidacloprid	DFR Matrix Spike	7/23/03 QA A	1062-10368A	1.0001	20.4	102	7/23/2003	7/28/2003
Imidacloprid	DFR Matrix Spike	7/23/03 QA B	1062-10368A	1.0001	19.2	96.1	7/23/2003	7/28/2003
Imidacloprid	DFR Matrix Spike	8/27/03 QC SF A	1062-10388A	1.0001	27.3	137	8/27/2003	9/4/2003
Imidacloprid	DFR Matrix Spike	8/27/03 QC SF B	1062-10388A	1.0001	16.5	82.5	8/27/2003	9/4/2003
Imidacloprid	DFR Matrix Spike	02-0056	1062-4973A	1	17.98	89.9	9/6/2002	10/11/2002
Imidacloprid	DFR Matrix Spike	02-0053	1062-4973A	1	18.78	93.9	9/6/2002	10/11/2002
Imidacloprid	DFR Matrix Blank	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	9/4/2003
Imidacloprid	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	9/4/2003
Indoxacarb	Reagent Blank	VQ123003-RB	None	0	0	NA	12/22/2003	12/30/2003
Indoxacarb	Reagent Spike	VQ123003RS-5	Vq71503-5.0	5 ng/µL	6.04	121	12/22/2003	12/30/2003

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Indoxacarb	Regent Spike	VQ123003RS-10	Vq71503-5.0	5 ng/µL	12.8	128	12/22/2003	12/30/2003
Indoxacarb	Reagent Spike	VQ123003RS-15	Vq71503-5.0	5 ng/µL	18.6	124	12/22/2003	3/23/2003
Kresoxim-Methyl	DFR Matrix Spike	02-0052	1675-10148C	1	50.35	100.7	9/5/2002	10/18/2002
Kresoxim-Methyl	DFR Matrix Spike	02-0057	1675-10148C	1	40.55	81.1	9/5/2002	10/18/2002
lambda-Cyhalothrin	DFR Matrix Spike	7/23/03 QA A SF	913-10305D	1.0001	14.9	74.5	7/23/2003	8/28/2003
lambda-Cyhalothrin	DFR Matrix Spike	8/27/03 QA A SF	913-10306D	1	15.1	75.5	8/27/2003	8/28/2003
lambda-Cyhalothrin	DFR Matrix Spike	8/27/03 QA B SF	913-10306D	1	14.5	72.5	8/27/2003	8/28/2003
lambda-Cyhalothrin	0301 Cotton Blank extract	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	8/28/2003
lambda-Cyhalothrin	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	8/28/2003
Malathion	DFR Matrix Spike	092203S1	111-10169D	1	398	99.6	9/22/2003	9/22/2003
Malathion	DFR Matrix Spike	092203S2	111-10169D	1	390	97.5	9/22/2003	9/22/2003
Malathion	DFR Matrix Spike	DFR LOQ 1	111-4627B	1	1.9	94.9	6/19/2003	6/21/2003
Malathion	DFR Matrix Spike	DFR LOQ 2	111-4627B	1	1.92	97.3	6/19/2003	6/21/2003
Malathion	DFR Reagent Blank	091203RB	None	0	0	NA	9/12/2003	9/20/2003
Malathion	DFR Matrix Blank	091203MB	None	0	0	NA	9/12/2003	9/20/2003
Malathion	DFR Matrix Blank	DFR Blank 1	None	0	0	NA	6/19/2003	6/21/2003
Methidathion	DFR Matrix Spike	DFR LOQ 1	453-4889E	1	1.92	96	6/19/2003	6/21/2003
Methidathion	DFR Matrix Spike	DFR LOQ 2	453-4889E	1	1.95	96.2	6/19/2003	6/21/2003
Methidathion	DFR Matrix Blank	DFR Blank 1	None	0	0	NA	6/19/2003	6/21/2003
Methomyl	DFR Reagent Blank	Water/Surfactant	58-3533i	5 ng/µL	3.91	78.1	9/5/2002	10/15/2002
Methomyl	DFR Reagent Blank	070803RB	None	0	0	NA	7/8/2003	7/8/2003
Methomyl	DFR Reagent Blank	091203RB	None	0	0	NA	9/12/2003	9/23/2003
Methomyl	DFR Matrix Blank	091203MB	None	0	0	NA	9/12/2003	9/23/2003
Methomyl	DFR Water/Surfactant Spike	070803S2	VQ7703-10	10 ng/µL	8.97	89.7	7/8/2003	7/8/2003
Methomyl	DFR Matrix Spike	091203S1	VQ7703-10	10 ng/µL	15.2	76	9/12/2003	9/23/2003
Methomyl	DFR Matrix Spike	091203S2	VQ7703-10	10 ng/µL	16.3	81.5	9/12/2003	9/23/2003
Methomyl	DFR water/surfactant spike	070803S1	VQ7703-5.0	5 ng/µL	4.92	98.4	7/8/2003	7/8/2003

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Myclobutanil	DFR Matrix Spike	02-0106spk	679-10006A exp. 10/19/03	1	95.04	95.04	8/29/2002	9/9/2002
Myclobutanil	DFR Matrix Spike	02-0108spk	679-10006A exp. 10/19/03	1	19.07	95.35	8/29/2002	9/9/2002
Myclobutanil	DFR Matrix Spike	02-0109spk	679-10006A exp. 10/19/03	1	18.04	90.2	8/29/2002	9/9/2002
Myclobutanil	DFR Matrix Spike	02-0107spk	679-10006A exp. 10/19/03	1	90.54	90.54	8/28/2002	9/9/2002
Myclobutanil	DFR Water/Surfactant Spike	071603S1	Myclo70103-5.0	5 ng/µL	5.67	113	7/16/2003	7/17/2003
Myclobutanil	DFR Water/Surfactant Spike	071603S2	Myclo70103-5.0	5 ng/µL	15.5	103	7/16/2003	7/17/2003
Myclobutanil	DFR Reagent Blank	071603RB	none	0	0	NA	7/16/2003	7/17/2003
Naled	DFR Matrix Spike	02-0106spk	646-10158D exp. N/A	1	22	110	9/5/2002	9/10/2002
Naled	DFR Matrix Spike	02-0108spk	646-10158D exp. N/A	1	5.34	106.7	9/5/2002	9/10/2002
Naled	DFR Matrix Spike	02-0107spk	646-10158D exp.N/A	1	23.2	116	9/5/2002	9/10/2002
Naled	DFR Matrix Spike	02-0109spk	646-10158D exp.N/A	1	5.1	102	9/5/2002	9/10/2002
Naled	0301 Cotton Blank extract	8/27/03 QA C SF	646-10185D	1	4.37	86.7	8/27/2003	8/29/2003
Naled	0301 Cotton Blank extract	8/27/03 QA D SF	646-10185D	1	4.13	82.6	8/27/2003	8/29/2003
Naled	Reagent Blank	081303RB	None	0	0	NA	8/13/2003	8/18/2003
Naled	DFR Matrix Blank	081303MB	None	0	0	NA	8/13/2003	8/18/2003
Naled	0301 Cotton Blank extract	8/27/03 Matrix Blank	None	0	0	NA	8/27/2003	8/29/2003
Naled	DFR Reagent Blank	8/27/03 Reagent Blank	None	0	0	NA	8/27/2003	8/29/2003
Naled	DFR Matrix Spike	081303S1	SS#646-10158D	1	14.5	72.5	8/13/2003	8/18/2003
Naled	DFR Matrix Spike	08130S2	SS#646-10158D	1	17.1	85.5	8/13/2003	8/18/2003
Oxamyl	DFR Reagent Blank	VQ82203RB	None	0	0	NA	8/22/2003	8/28/2003
Oxamyl	DFR Reagent Spike	VQ82203RS1	VQ82103-10	10 ng/µL	4.05	40.5	8/22/2003	8/28/2003
Oxamyl	DFR Reagent Spike	VQ82203RS2	VQ82103-10	10 ng/µL	12.5	41.7	8/22/2003	8/28/2003

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Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Oxydemeton-Methyl	DFR Water/Surfactant Spike	110503S1	CB-15	10 ng/µL	7.31	73.1	11/5/2003	11/13/2003
Oxydemeton-Methyl	DFR Water/Surfactant Spike	110503S2	CB-15	10 ng/µL	6.31	63.1	11/5/2003	11/13/2003
Oxydemeton-Methyl	DFR Reagent Blank	110503RB	None	0	0	NA	11/5/2003	11/13/2003
Parathion	DFR Matrix Spike	02-0052	120-10050C	1	47.1	94.2	9/5/2002	10/26/2002
Parathion	DFR Matrix Spike	02-0057	120-10050C	1	47.9	95.8	9/5/2002	10/26/2002
Permethrin	DFR Water/Surfactant Spike	102703S1	L5	4 ng/µL	7.37	92.1	10/27/2003	10/28/2003
Permethrin	DFR Water/Surfactant Spike	102703S2	L5	4 ng/µL	7.61	95.1	10/27/2003	10/28/2003
Permethrin	DFR Matrix Blank	DFR Blank 1	None	0	0	NA	6/19/2003	6/21/2003
Permethrin	DFR Matrix Blank	102303MB	None	0	0	NA	10/23/2003	10/23/2003
Permethrin	DFR Reagent Blank	102303RB	None	0	0	NA	10/23/2003	10/23/2003
Permethrin	DFR Matrix Spike	DFR Medium 1	see cis -, trans	1	19.18	95.9	6/19/2003	6/21/2003
Permethrin	DFR Matrix Spike	DFR Medium 2	see cis -, trans	1	19.3	96.7	6/19/2003	6/21/2003
Permethrin, cis	DFR Matrix Spike	DFR Medium 1	420-10416A	1	18.97	94.9	6/19/2003	6/20/2003
Permethrin, cis	DFR Matrix Spike	DFR Medium 2	420-10416A	1	19.08	95.4	6/19/2003	6/21/2003
Permethrin, trans	DFR Matrix Spike	DFR Medium 1	421-10185D	1	19.38	96.9	6/19/2003	6/20/2003
Permethrin, trans	DFR Matrix Spike	DFR Medium 2	421-10185D	1	19.58	97.9	6/19/2003	6/21/2003
Propargite	DFR Matrix Spike	02-56spk	105-10000A exp. 4/19/03	1	37	74	9/5/2002	9/11/2002
Propargite	DFR Matrix Spike	02-53spk	105-10000A exp. 4/19/03	1	496	86	9/5/2002	9/10/2002
Pyraclostrobin	DFR Water/Surfactant Spike	11/13/03 QA B SF	1582-10460A	1.0002	15.3	76.6	11/13/2003	11/20/2003
Pyraclostrobin	DFR Reagent Blank	11/13/03 Reagent Blank	None	0	0	NA	11/13/2003	11/20/2003
Spinosad A	DFR Matrix Spike	7/23/03 QA A	PL-49	40 µg/mL	0.26	2.6	7/23/2003	7/29/2003
Spinosad A	DFR Matrix Spike	7/23/03 QA B	PL-49	40 µg/mL	0.34	3.4	7/23/2003	7/29/2003
Spinosad B	DFR Matrix Spike	7/23/03 QA A	PL-49	40 µg/mL	0.23	2.3	7/23/2003	7/29/2003
Spinosad B	DFR Matrix Spike	7/23/03 QA B	PL-49	40 µg/mL	0.26	2.6	7/23/2003	7/29/2003
Spinosad D	DFR Matrix Spike	7/23/03 QA A	PL-49	40 µg/mL	0.24	2.4	7/23/2003	7/29/2003
Spinosad D	DFR Matrix Spike	7/23/03 QA B	PL-49	40 µg/mL	0.33	3.3	7/23/2003	7/29/2003

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Sulfur	DFR Matrix Blank	091603MB	None	0	64.1	NA-sample contaminated	9/16/2003	9/17/2003
Sulfur	DFR Reagent Blank	091603RB	None	0	0	NA	9/16/2003	9/17/2003
Sulfur	DFR Water/Surfactant Spike	091603S1	Spray Sulfur 9/23/02	1	507	101	9/16/2003	9/17/2003
Sulfur	DFR Water/Surfactant Spike	091603S2	Spray Sulfur 9/23/02	1	502	100	9/16/2003	9/17/2003
Tebuconazole	DFR Matrix Spike	02-0053	7-10043C	1	49.6	99.2	9/6/2002	10/11/2002
Tebuconazole	DFR Matrix Spike	02-0056	7-10043C	1	46.1	92.1	9/6/2002	10/11/2002
Tebuconazole	DFR Matrix Spike	QC-A	7-10043C	1	18.9	94.5	9/6/2003	7/29/2003
Tebuconazole	DFR Matrix Spike	QC-B	7-10043C	1	26.9	134	9/6/2003	7/29/2003
Tebuconazole	DFR Matrix Spike	7/23/03 QA A	1182-10442A	1.0003	18.8	94	7/23/2003	7/28/2003
Tebuconazole	DFR Matrix Spike	7/23/03 QA B	1182-10442A	1.0003	20.9	104.5	7/23/2003	7/28/2003
Tebuconazole	DFR Matrix Spike	02-0106spk	1182-4677C exp. 12/00	1	98.57	98.57	8/29/2002	9/9/2002
Tebuconazole	DFR Matrix Spike	02-0107spk	1182-4677C exp. 12/00	1	93.57	93.57	8/29/2002	9/9/2002
Tebuconazole	DFR Matrix Spike	02-0108spk	1182-4677C exp. 12/00	1	18.31	91.55	8/29/2002	9/9/2002
Tebuconazole	DFR Matrix Spike	02-0109spk	1182-4677C exp. 12/00	1	17.79	88.95	8/29/2002	9/9/2002
Thiamethoxam	DFR Matrix Spike	101403S1	1814-10457A	1	15.2	77.1	10/14/2003	10/14/2003
Thiamethoxam	DFR Matrix Spike	101403S2	1814-10457A	1	16.1	80.3	10/14/2003	10/14/2003
Thiamethoxam	DFR Matrix Blank	101403MB	None	0	0	NA	10/14/2003	10/14/2003
Thiamethoxam	DFR Reagent Blank	101403RB	None	0	0	NA	10/14/2003	10/14/2003
Triflumazole	DFR Matrix Spike	02-0052	910-10264D	1	39.3	78.6	9/5/2002	10/18/2002
Triflumazole	DFR Matrix Spike	02-0057	910-10264D	1	31.55	63.1	9/5/2002	10/18/2002
Triflumazole	DFR Matrix Spike	7/23/03 QA A	910-10432C	0.9999	18.6	93	7/23/2003	7/28/2003
Triflumazole	DFR Matrix Spike	7/23/03 QA B	910-10432C	0.9999	18.2	91	7/23/2003	7/28/2003
Vinclozolin	DFR Matrix Spike	7/23/03 QA A	537-10413A	1.0002	18.6	93	7/23/2003	8/11/2003

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Table 4. Laboratory Quality Control Data for Dislodgeable Foliar Residue (DFR) Samples

Analyte	Spike Type	Lab Number	Spiking Standard	Conc. ¹ (mg/mL)	Recovery (µg)	Recovery (%)	Date Extracted	Date Analyzed
Vinclozolin	DFR Matrix Spike	7/23/03 QA B	537-10413A	1.0002	18.3	91.5	7/23/2003	8/11/2003
zeta-Cypermethrin	DFR Matrix Spike	8/13/03 QC A SF	562-10256A	1.0004	16.6	83	8/13/2003	8/28/2003
zeta-Cypermethrin	DFR Matrix Spike	8/13/03 QC B SF	562-10256A	1.0004	17.1	85.5	8/13/2003	8/28/2003
zeta-Cypermethrin	DFR Water/Surfactant Spike	070903S2	CB-2	10 µg/mL	11.52	115	7/9/2003	7/9/2003
zeta-Cypermethrin	DFR Water/Surfactant Spike	070903S1	CB-2A	5 µg/mL	6.35	127	7/9/2003	7/9/2003
zeta-Cypermethrin	DFR Reagent Blank	8/13/03 Reagent Blank	None	0	0	NA	8/13/2003	8/28/2003
zeta-Cypermethrin	DFR Matrix Blank	8/13/03 Matrix Blank	None	0	0	NA	8/13/2003	8/28/2003
zeta-Cypermethrin	DFR Reagent Blank	070903RB	None	0	0	NA	7/9/2003	7/9/2003

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Table 5. Crop Advisor Information: Identification Number, Gender, PCA or Scout, Apparel and Personal Protective Equipment (PPE)

Worker ID	Gender	PCA?	Apparel (All workers wore long pants, socks, and either work boots or hiking boots)	PPE?	PPE Notes
01	Male	No	Short sleeved shirt, ball cap		
02	Male	Yes	Short sleeved shirt over short sleeved t-shirt, ball cap		
03	Male	Yes	Long sleeved shirt over short sleeved t-shirt, ball cap	✓	Wore long sleeved denim shirt, straw hat, N95 series paper respirator, goggles for all entry into treated corn, both under REI and post-REI
04	Male	No	Short sleeved shirt over short sleeved t-shirt, ball cap, sunglasses		
05	Male	Yes	Short sleeved shirt		
06	Female	No	Long sleeved fleece over short sleeved T-shirt over long sleeved sweat shirt, ball cap over 3 bandanas covering all of face and shoulders but eyes, t-shirt worn as rear apron,	✓	wore vinyl/latex gloves while inspecting fields
07	Female	No	Sweatshirt over 2 long sleeved T-shirts, ball cap over 3 bandanas covering all of face and shoulders but eyes, t-shirt worn as rear apron	✓	wore vinyl/latex gloves while inspecting fields
08	Female	No	Sweatshirt over 2 long sleeved T-shirt, ball cap over 3 bandanas covering all of face and shoulders but eyes, t-shirt worn as rear apron	✓	wore vinyl/latex gloves while inspecting fields
09	Male	Yes	Windbreaker over short sleeved dress shirt		
10	Male	Yes	Sweatshirt over short sleeved polo shirt, ball cap		
11	Male	Yes	Long sleeved shirt, hat	✓	wore leather gloves in artichokes
12	Male	Yes	Short sleeved dress shirt	✓	wore leather gloves in artichokes
13	Male	Yes	Long sleeved shirt with sleeves rolled to elbow, ball cap	✓	wore leather gloves in artichokes
14	Male	Yes	Long sleeved shirt over short sleeved t-shirt, ball cap		
15	Male	Yes	Sweatshirt		
16	Male	Yes	Jacket over short sleeved polo shirt,		
17	Female	No	Long sleeved shirt, hat		
18	Male	Yes	Long sleeved shirt, hat		

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Table 5. Crop Advisor Information: Identification Number, Gender, PCA or Scout, Apparel and Personal Protective Equipment (PPE)

Worker ID	Gender	PCA?	Apparel (All workers wore long pants, socks, and either work boots or hiking boots)	PPE?	PPE Notes
19	Male	No	Short sleeved polo shirt over short sleeved t-shirt, fleece vest, ball cap	✓	wore vest from 0632 - 0922
20	Male	Yes	Long sleeved polo shirt over short sleeved t-shirt, ball cap	✓	wore waterproof chaps, boots from 0708-1255
21	Male	Yes	Long sleeved shirt, vest, hat		
22	Male	Yes	Short sleeved dress shirt, sunglasses		
23	Male	No	Short sleeved t-shirt, straw hat, sunglasses		
24	Male	Yes	Short sleeved dress shirt, sunglasses		
25	Male	Yes	Short sleeved dress shirt, ball cap, sunglasses		
26	Male	Yes	Short sleeved dress shirt over short sleeved t-shirt		
27	Female	No	Short sleeved t-shirt, hat		
28	Male	Yes	Short-sleeved shirt		
29	Male	No	Short-sleeved t-shirt, straw hat		
30	Male	Yes	Short-sleeved t-shirt, ball cap		