

## State of California Department of Food and Agriculture

Mark Lubinski, Senior Agricultural Biologist Pest Detection/Emergency Projects

### Final Report for the 2009 Cereal Leaf Beetle (CLB) Survey- Statewide

The intent of the CLB survey is to annually monitor the possible introduction of this small grain and grass pest from the Pacific Northwest into California.

The statewide survey for 2009 is complete with **negative results** for finding CLB in California.

#### Mapping Methods-

All survey sites are GPS'd and loaded into an Excel sheet report form. These cumulative records are forwarded to USDA GIS specialists (Rocky Broadway) at the end of the season to generate a State map showing the 2009 survey for this final report.

The 2009 Statewide survey results map is attached as well as a cumulative 2006-2009 Statewide survey map showing the areas surveyed from 2006-2009 on a single map.

#### SURVEY AREA-

The 2009 survey area includes all California counties except Inyo, Mono, and San Francisco Counties. The survey minimum should be five optimum-condition fields per county. If no CLB is found, an additional 15 fields of secondary hosts are to be surveyed for **a total of 20 fields** in all counties. Survey in that county can cease as soon as a positive CLB specimen is intercepted. A county is considered infested after a single CLB site detection.

An **optimum-condition field** is one that has:

- 1.) Sufficient grass and grain host material available (**oats, wheat, barley, rye, and corn**).
- 2.) Fields that have been well irrigated containing host plants that have leaves dark green in color, including young, lush plants.
- 3.) Fields that are located along riparian corridors, but also include high hazard entry roads and railroad entryways.
- 4.) Sides of fields that are close to brush cover (weeds) with a sheltered area nearby (i.e. hedgerows, forest edges, fence lines, etc.).
- 5.) Well-irrigated fields in dry land areas, especially flood irrigated areas of a field with standing water.
- 6.) Areas of a field that are under stress and not lush (yellow) are less likely to support CLB.

Secondary host fields: Cultivated and native grasses of sorghum, timothy, orchard grass, ryegrass, reed canary grass, quackgrass, bluegrass, fescue, millet, rice, brome, wild oats.

#### HOSTS –

The primary feeding hosts are cultivated and escaped grains and grasses. Oats are favored, followed by barley, wheat, and various grasses. Both the larvae and adults cause feeding damage, which is visible between leaf veins. Damaged leaves have white stripes (larvae) or slits (adults) with heavily infested fields having a silvery appearance.

## SURVEY METHODS-

The survey method consists of three sets of 40 sweeps per field totaling 120 sweeps per field or site with visual inspection during the sweeps of the grain or grass leaves for feeding damage.

A 15-inch diameter canvas sweep net is to be used. A “sweep” consists of one pass through the upper 1/3 of the field plants, either left or right, with a second sweep in the opposite direction to complete one cycle (120 sweeps= 60 cycles or 3 sets of 20 cycles per field).

Visually search at least 10-15 minutes while sweeping (less-experienced surveyors search visually for additional 10 minutes). Visually search along ditch banks with grasses and young host crops that are too low to sweep. Never survey more than one hour per field.

Roadside entryway surveys are in addition to the minimum number of fields. These surveys are concentrated in the Northern California District and cover all major roads and pathways into California along the California/Oregon border and the California/Nevada border north from below Lake Tahoe.

Roadside entryway sweeps consist of a single shoulder site every linear mile with a minimum of 40 sweeps (up to 60 were undertaken if there was adequate host material present). Roadside sites are biased towards adjacent grain or grass fields when encountered.

### 2009- Detection Survey Results:

<b>County</b>	<b># Fields Sampled</b>	<b># Entryway Sites</b>	<b># High Hazard Sites</b>	<b># Positive Sites</b>	<b>Comments- (All survey performed by CDFA unless noted).</b>
Alameda-1	0	12	2	0	Includes 1 fairground
Alpine-2	0	32	1	0	Includes 1 fairground
Amador-3	0	9	2	0	Includes 1 fairground
Butte-4	0	3	3	0	Includes fairground, 2 dairies
Calaveras-5	0	8	2	0	Includes fairground, 1 dairy
Colusa-6	5	24	1	0	Includes 1 fairground.
Contra Costa-7	0	11	2	0	Includes 1 fairground
Del Norte-8	5	68	2	0	Includes 1 fairground, 1dairy
El Dorado-9	0	43	1	0	Includes 1 fairground
Fresno-10	13	11	6	0	
Glenn-11	5	8	1	0	Includes fairground
Humboldt-12	5	73	2	0	Includes fairground, dairy
Imperial-13	0	8	0	0	Fairground, roadside
Inyo-14	0	0	0	0	Fairground, fields
Kern-15	19	30	1	0	Fields, roadside
Kings-16	22	10	1	0	Fairground, fields
Lake-17	5	6	1	0	Fairground, fields
Lassen-18	4	40	1	0	Fairground, entryway
Los Angeles-19	5	17	1	0	Fields, fairground
Madera-20	11	16	5	0	Includes 1 fairground
Marin-21	0	18	2	0	Includes 2 fairgrounds
Mariposa-22	0	21	3	0	

Mendocino-23	5	88	5	0	Fields, fairground
Merced-24	22	0	0	0	Fields
Modoc-25	5	61	3	0	Fields, E. Tule Lake
Mono-26	0	0	0	0	Fields, fairground
Monterey-27	4	25	1	0	Fields, fairground, racetrack
Napa-28	1	6	1	0	Fields, fairground
Nevada-29	0	12	1	0	Fairground
Orange-30	0	20	0	0	Fields, fairgrounds
Placer-31	4	69	1	0	Fields, fairgrounds
Plumas-32	2	31	1	0	Fields
Riverside-33	17	1	2	0	Fields, fairgrounds
Sacramento-34	5	20	3	0	Fields, fairgrounds
San Benito-35	6	11	2	0	Fields, fairgrounds
San Bernardino-36	11	9	0	0	
San Diego-37	8	11	3	0	Dairies, fairgrounds
San Francisco-38	0	0	0	0	not surveyed
San Joaquin-39	15	3	3	0	
San Louis Obispo-40	0	20	0	0	
San Mateo-41	0	20	1	0	Fields, fairgrounds
Santa Barbara-42	20	0	0	0	Fields, fairgrounds
Santa Clara-43	5	14	2	0	Feed stores
Santa Cruz-44	0	4	2	0	dairy, stable
Shasta-45	5	46	1	0	fields
Sierra-46	5	36	1	0	fairgrounds
Siskiyou-47	30	81	1	0	W Tule Lake
Solano-48	4	14	1	0	Fairground
Sonoma-49	5	11	1	0	Fairground
Stanislaus-50	17	4	2	0	
Sutter-51	6	14	0	0	
Tehama-52	5	6	1	0	Fairground
Trinity-53	0	44	1	0	Fairground
Tulare-54	27	9	2	0	
Tuolumne-55	5	9	2	0	
Ventura-56	20	0	0	0	
Yolo-57	0	14	0	0	
Yuba-58	0	5	0	0	
<b>Subtotal</b>	<b>358</b>	<b>1,209</b>	<b>84</b>	<b>0</b>	

### Survey Grand Totals

**358** Fields (oats, barley, wheat or pasture)  
**1,209** Entryway sites (roadside grasses)  
**84** High Hazard sites (fairgrounds, dairies, feed stores)  
**1,651** Sites grand total

The 2009 survey in California was **NEGATIVE** for CLB.



**Legend**  
● Cereal Leaf Beetle CAPS Survey\_CA 2009

0 20 40 80 120 160 Miles

USDA, APHIS, PPO  
State Plant Health Director's Office  
650 Capitol Mall, Suite 6-400  
Sacramento, CA 95814

Coordinate System:  
CA Teale Albers, NAD 83  
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CA Dept of Food & Agric



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