In accordance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Annual Livestock and Agricultural Crop Report for 2009. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2009 gross value of all production was $52,715,375. This represents a decrease of $10,595,918, 16.7% from the 2008 total agricultural production value. The report represents gross returns to the producer and does not indicate actual net profit.

Milk is the long standing, premier commodity for Marin, and this year accounts for 42.4% of the crop report’s total value. The average Market Milk Price for 2009 was lower than 2008, contributing to a decrease in overall milk value of $13,216,320, 37.1%. This decrease is responsible for 2009 being the first year milk value was not at least 50% of Marin County’s total agricultural production value.

Field Crop values for 2009 increase by 13.0% when compared to 2008, this increase was a result of the value of pasture increasing.

Aquacultures value increased 11.8%, as production in the industry as a whole was increased.

Wine grape value increased 11.3%, as tons harvested increased by 24.1%.

My appreciation goes to the many growers, producers, individuals and organizations for their cooperation in providing the information necessary for this report. I would like to extend special thanks to members of my staff.

Respectfully submitted,

Stacy K. Carlsen
Agricultural Commissioner
# Table of Contents

Cover Story: Certified Farmers’ Markets 4
Summary of Production 5
Agricultural Production Gross Value – A Ten Year Summary 6
Livestock and Aquaculture 7
Livestock Products 7
Inventories of Livestock and Poultry 8
Field, Fruit and Vegetable Crops 9
Nursery Products 10
Department Program Overview 11
Summary of Sustainable Agriculture 12
   Organic Food Production, Registration, and Certification 12
   Marin Organic Certified Agriculture (MOCA) 13
   Biological Control 13
   Livestock Protection Program 13
Pest Prevention Programs 13
   Pest Detection 13
   Pest Exclusion 14
   Marin/Sonoma Weed Management Area 14
   Glassy-Winged Sharpshooter 15
   Sudden Oak Death (SOD) 15
   Light Brown Apple Moth (LBAM) 16
Farmers’ Markets of Marin County 17
Department Staff 18

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Cover photo: Bounty at Marin County Farmers’ Market
Photo credits: Jeffrey Stiles

This report is available at our web site:
http://www.co.marin.ca.us/depts/AG/Main/cropreports.cfm
Certified Farmers’ Markets

Previous to 1977, California state regulations required farmers to properly pack, size, and label their fresh fruits, nuts, and vegetables in standard containers to transport and sell anywhere other than the farm site. In 1977 after a bumper Peach harvest, farmers dumped their excess harvest on the California State Capitol Lawn to protest the strict regulations that prohibit farmers from selling directly to consumers. Following this incident California Department of Food and Agriculture regulations changed to exempt farmers from packing, sizing, and labeling requirements when selling at Certified Farmers’ Markets (CFM).

The Direct marketing of agricultural products through CFM’s benefits the agricultural community and consumers. CFM’s provide an opportunity for farmers to market their products without the added expenses of commercial preparation. Farmers may also benefit by having an additional marketing outlet, which can add diversity and flexibility to their sales; increasing their net income and assisting in economic sustainability. Consumers have direct access to fresh, high quality produce and an opportunity to learn who grew the food and how it is produced.

Each farm operation selling at a Certified Farmers’ Market must first obtain a Certified Producer’s Certificate (CPC) from their local county Department of Agriculture office. A farm operation’s CPC states where, how much, and when each type of produce will be grown. County Agricultural Inspectors verify that CPC’s are accurate by performing farm inspections and Certified Farmers’ Market Inspections. Producers may only sell what is listed on their valid CPC. This is done to keep competition between farmers fair and to protect customers.

Marin County is proud to host some of the state’s finest farmers’ markets, from the small, local and strictly organic Pt. Reyes market, to the large, abundantly diverse Thursday and Sunday markets at the Marin County Civic Center. Our newest markets proudly feature local backyard growers. In the American Farmland Trust’s “America’s Favorite Farmers’ Market” contest for 2009, both the Pt. Reyes and the Marin Civic Center Markets ranked in the top 20, in the small and large categories respectively.

Marin’s farmers’ markets have a reputation for top quality produce, and many local chefs rely on the weekly offerings for shaping their seasonally oriented menus. Locally produced grass fed beef, pastured eggs and chickens may also be found.

Many of our markets feature demonstrations from local chefs so shoppers can learn new ways of enjoying the bounty. Some of our markets also emphasize environmental sustainability, encouraging shoppers to bring their own bags, and educating consumers about learning how to eat locally and seasonally.

In California there are approximately 520 certified farmers markets and approximately 2,900 certified producers. Over half of California’s CFM’s are year-round markets. In a typical year, seasonal markets operate from April through October of each year.

A listing of Marin County’s Farmers’ Markets locations, seasons, and times can be found on page 17 of this document.
## Summary of Production

<table>
<thead>
<tr>
<th>Category</th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock Products</td>
<td>$22,405,683</td>
<td>$35,624,799</td>
</tr>
<tr>
<td>Livestock &amp; Misc.</td>
<td>$14,336,421</td>
<td>$13,304,779</td>
</tr>
<tr>
<td>Field Crops</td>
<td>$8,917,552</td>
<td>$7,886,586</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable Crops</td>
<td>$2,789,367</td>
<td>$2,654,374</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>$3,265,951</td>
<td>$2,918,780</td>
</tr>
<tr>
<td>Nursery Crops</td>
<td>$1,000,401</td>
<td>$921,975</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$52,715,375</strong></td>
<td><strong>$63,311,293</strong></td>
</tr>
</tbody>
</table>

### 2009 Production Summary

- Livestock Products: 43%
- Livestock and Miscellaneous: 27%
- Field Crops: 17%
- Fruit & Vegetable Crops: 5%
- Aquaculture: 6%
- Nursery Crop: 2%

- Livestock Products
- Livestock and Miscellaneous
- Field Crops
- Fruit & Vegetable Crops
- Aquaculture
- Nursery Crop
Agricultural Production Gross Value
A Ten Year Summary

$0.00 $20.00 $50.00 $70.00 $60.00 $10.00 $30.00 $40.00

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

$ IN MILLIONS

$70.00 $60.00 $50.00 $40.00 $30.00 $20.00 $10.00 $0.00
## Livestock and Aquaculture

<table>
<thead>
<tr>
<th>Item</th>
<th>Year</th>
<th>No. of Head</th>
<th>Live Weight</th>
<th>Unit</th>
<th>$/Unit</th>
<th>Dollar Value Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle &amp; Calves</td>
<td>2009</td>
<td>13,792</td>
<td>81,404</td>
<td>cwt</td>
<td>$ 76.37</td>
<td>$ 6,216,789</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>14,592</td>
<td>85,315</td>
<td>cwt</td>
<td>$ 82.79</td>
<td>$ 7,063,047</td>
</tr>
<tr>
<td>Sheep &amp; Lambs</td>
<td>2009</td>
<td>12,133</td>
<td>13,103</td>
<td>cwt</td>
<td>$ 75.37</td>
<td>$ 987,585</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>14,266</td>
<td>15,406</td>
<td>cwt</td>
<td>$ 75.79</td>
<td>$ 1,167,610</td>
</tr>
<tr>
<td>Miscellaneous†</td>
<td>2009</td>
<td>3,893</td>
<td></td>
<td></td>
<td></td>
<td>$ 315,468</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>1,606</td>
<td></td>
<td></td>
<td></td>
<td>$ 83,850</td>
</tr>
<tr>
<td>Poultry*</td>
<td>2009</td>
<td>245,127</td>
<td></td>
<td></td>
<td></td>
<td>$ 6,816,579</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>250,078</td>
<td></td>
<td></td>
<td></td>
<td>$4,990,272</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>2009</td>
<td></td>
<td>Oysters, Mussels, &amp; Clams</td>
<td>$ 3,265,951</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td></td>
<td>Oysters, Mussels, &amp; Clams</td>
<td>$ 2,918,780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 17,602,372</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 16,223,559</td>
</tr>
</tbody>
</table>

† Miscellaneous figures include goats, hogs, and rabbits.

* Poultry 2008 figures include poultry fryers, chicken eggs for consumption, ballute, pheasant, and quail. Poultry 2009 figures include poultry fryers and chicken eggs for consumption.

## Livestock Products

<table>
<thead>
<tr>
<th>Item</th>
<th>Year</th>
<th>Production</th>
<th>Unit</th>
<th>$/Unit</th>
<th>Dollar Value Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (Market)</td>
<td>2009</td>
<td>1,821,788</td>
<td>cwt</td>
<td>$12.28</td>
<td>$ 22,370,000</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>2,019,201</td>
<td>cwt</td>
<td>$17.62</td>
<td>$ 35,578,322</td>
</tr>
<tr>
<td>Milk (Manufacturing)</td>
<td>2009</td>
<td>0</td>
<td>cwt</td>
<td>$0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>461</td>
<td>cwt</td>
<td>$17.35</td>
<td>$ 7,998</td>
</tr>
<tr>
<td>Wool</td>
<td>2009</td>
<td>74,341</td>
<td>lbs</td>
<td>$ 0.48</td>
<td>$ 35,683</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>80,165</td>
<td>lbs</td>
<td>$ 0.48</td>
<td>$ 38,479</td>
</tr>
<tr>
<td>Total</td>
<td>2009</td>
<td></td>
<td></td>
<td>$ 22,405,683</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td></td>
<td></td>
<td>$ 35,624,799</td>
<td></td>
</tr>
</tbody>
</table>
# Inventories of Livestock and Poultry

<table>
<thead>
<tr>
<th>ITEM</th>
<th>HEAD</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Cattle†</td>
<td>30,000*</td>
<td></td>
</tr>
<tr>
<td>Milk cows and heifers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years and over</td>
<td>9,000</td>
<td></td>
</tr>
<tr>
<td>Beef cows and heifers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years and over</td>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td>Sheep and Lambs, all†</td>
<td></td>
<td>9,293</td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td>245,127</td>
</tr>
<tr>
<td>Miscellaneous**</td>
<td></td>
<td>3,893</td>
</tr>
</tbody>
</table>

† Number of Head as of January 1, 2010.
* Includes cows, heifers, calves, and bulls.
** Miscellaneous 2009 figures include goats, hogs, and rabbits.
## Field, Fruit and Vegetable Crops

<table>
<thead>
<tr>
<th>Item</th>
<th>Year</th>
<th>Harvested Acreage</th>
<th>Ton/Acre</th>
<th>Total Tons</th>
<th>Unit</th>
<th>Dollar Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hay†</strong></td>
<td>2009</td>
<td>1,850</td>
<td>2.05</td>
<td>3,793</td>
<td>ton</td>
<td>$ 97.96</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>1,505</td>
<td>2.17</td>
<td>3,266</td>
<td>ton</td>
<td>$ 150.13</td>
</tr>
<tr>
<td><strong>Silage</strong></td>
<td>2009</td>
<td>2,278</td>
<td>12.0</td>
<td>27,336</td>
<td>ton</td>
<td>$ 33.90</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>2,202</td>
<td>10.3</td>
<td>22,681</td>
<td>ton</td>
<td>$ 32.74</td>
</tr>
<tr>
<td><strong>Pasture, Irrigated</strong></td>
<td>2009</td>
<td>810</td>
<td></td>
<td></td>
<td></td>
<td>$ 100.00</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>810</td>
<td></td>
<td></td>
<td></td>
<td>$ 100.00</td>
</tr>
<tr>
<td><strong>Pasture, Other</strong></td>
<td>2009</td>
<td>154,000</td>
<td></td>
<td></td>
<td></td>
<td>$ 48.95</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>154,000</td>
<td></td>
<td></td>
<td></td>
<td>$ 42.68</td>
</tr>
<tr>
<td><strong>Fruits &amp; Vegetables</strong></td>
<td>2009</td>
<td>384</td>
<td></td>
<td></td>
<td></td>
<td>$ 2,005,426</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>281</td>
<td></td>
<td></td>
<td></td>
<td>$ 1,950,480</td>
</tr>
<tr>
<td><strong>Grapes, Wine</strong></td>
<td>2009</td>
<td>193</td>
<td>246.4</td>
<td></td>
<td>ton</td>
<td>$ 783,941</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>195</td>
<td>198.5</td>
<td></td>
<td>ton</td>
<td>$ 703,894</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 11,706,919</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 10,540,960</td>
</tr>
</tbody>
</table>

† Values for 2009 include Grass Hay, Oat Hay, Oat Seed, and Vetch Seed; 2008 figures are revised and include Grass Hay and Oat Hay.

* Varieties: Cabernet Sauvignon, Chardonnay, Merlot, Pinot Noir, Shiraz, and Riesling. Acreage values include 25 acres of Non-fruit bearing plantings.
## Nursery Products

<table>
<thead>
<tr>
<th>Item</th>
<th>Year</th>
<th>Production</th>
<th>Dollar Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery Stock, All</td>
<td>2008</td>
<td>6.68</td>
<td>$ 921,975</td>
</tr>
<tr>
<td>Nursery Stock, All</td>
<td>2009</td>
<td>6.62</td>
<td>$ 1,000,401</td>
</tr>
</tbody>
</table>
Departmental Mission Statement

Our mission is to serve the public's interest by ensuring equity in the market place, promoting and protecting agriculture, protecting environmental quality and the health and welfare of Marin County's residents.

Following is a description of the department's activities:

Pest Prevention

Pest prevention encompasses several activities aimed to prevent the introduction and spread of exotic pests in Marin County. Pest exclusion focuses on preventing the entry and establishment of exotic pests and limiting the intrastate movement of newly discovered pests. Marin County inspectors monitor all avenues of pest entry into the county. Pest detection is the systematic search for exotic pests outside of a known infested area. The goal is to find infestations of harmful exotic pests and eradicate them before it becomes biologically or economically unfeasible.

Protection of the Environment

Over the years Marin County has developed a program of Pesticide Use Enforcement that includes all the facets that are needed to comply with Federal and State laws and to ensure proper, safe, and efficient use of pest control methods and pesticides for the production of food and fiber and for the protection of public health, safety and welfare, and the environment. This is accomplished by a permit process and monitoring the use of pesticides, investigating pesticide incidents and complaints, continuous enforcement of pesticide use and records associated with that use, collecting and reviewing of pesticide use data, and educating and assisting users of pesticides.

Integrated Pest Management

Integrated pest management (IPM) is a common-sense approach to pest management that uses a variety of methods to control pests. Pesticides may be part of an IPM program, however, effort is focused towards preventing pest problems by controlling conditions which may attract and support pests. Marin County's IPM program is designed to ensure that County departments and everyone applying pesticides to property owned and/or managed by the County of Marin utilize IPM practices, eliminate or reduce pesticide applications where ever possible and take reasonable measures to ensure that long-term prevention or suppression of pest problems has minimal negative impact on human health, non-target organisms, and the environment.

Product Quality

Marin County inspectors are protecting consumers by inspecting agricultural products for compliance with laws, regulations, and standards and ensuring that businesses are afforded a fair and equitable opportunity to market their products. Inspections are conducted at horticultural nurseries, farmers markets, and organic farms, as well as locations selling wholesale and retail eggs.
Weights and Measures

The Weights and Measures program protects the interests of the consumer and marketplace to ensure honesty and integrity of routine transactions when products are sold by weight, measure, count or time. This is accomplished through continuous and systematic inspection of all equipment that is used to weigh or measure a commodity. Weights and Measures inspectors test taximeters, scales in stores, gasoline pumps, fabric and cordage meters, electric meters, water meters, livestock and animal scales, vehicle scales, scanner systems for pricing accuracy, and packaged products for stated net contents. Every transaction involving the exchange of goods by volume, count, or weight is affected in a very vital way by some form of weights and measures.

Price Verification

The emergence and application of scanner/point-of-sale systems technology at retail check out stands has provided retailers substantial benefits concerning the tracking of sales and inventory; however, the remote location of the price database and its maintenance, has increased price discrepancies between an item's advertised price on the store shelf and what the consumer is charged when checking out at the register. It is unlawful to charge at the time of sale a price that is more than the price that is advertised or posted. Pursuant to California Business and Professions Code sections 12103.5, 12024.2, and 12024.6, the purpose of this Chapter is to ensure that the advertised or posted price of a commodity is the price charged for that commodity. Business and Professions Code Section 13350 mandates that county weights and measures departments perform price verification inspections to regulate pricing and price representation. Beginning in January 2007 Marin County Department of Agriculture/Weights and Measures began routinely inspecting the approximately 410 different locations that use the estimated 1,456 scanner/point-of-sale devices in Marin County. Previously these inspections were only done as a result of a complaint.

Summary of the Sustainable Agricultural Activities

Sustainability is a method of balancing resource use in such a manner that it provides for current needs while ensuring such resources will be available to meet the needs of future generations.

Organic Food Production, Registration, and Certification

Organic production systems strive to achieve agro-ecosystems that are ecologically, socially, and economically sustainable. Organic farming emphasizes a greater cooperation with nature without reliance on synthetic inputs.

All California organic producers register in their principal county of operation. There are 56 registered organic producers in Marin County, farming 18,033 acres, which includes 17,649 acres in pasture, producing a total gross value of $13,922,912.

Organic production in Marin County include pasture, silage, milk, dairy products, hay, oats, fruits, vegetables, cut flowers, eggs, herbs, livestock, vegetable starts, olive trees, and nursery stock.
Marin Organic Certified Agriculture (MOCA)
The Marin County Agricultural Commissioner’s Office is accredited by the USDA as an official organic certification agency. MOCA serves the local community who are promoting sustainable farming practices.

Local and worldwide consumer demand for certified organic products is increasing with an expectation by consumers that organic products are verifiable. MOCA was developed to provide a professional service to local individual and business operations engaged in the production and distribution of organically grown commodities. The main duty of MOCA is to uphold the standards of the USDA National Organic Program, and document operations practices of sustainable agriculture. One of the most important benefits of the MOCA program is as a local service that promotes productions of organic value added products by Marin’s family farms. In 2009 the number of MOCA certified operations in Marin and Sonoma Counties was 46 operators including 1 processor.

Biological Control
Biological pest control is the use of natural enemies to help suppress pest populations to economically and environmentally acceptable levels. Once the agent becomes established, control is self perpetuating, potentially reducing the need to use pesticides. The following are pests found in Marin and some of the methods that have been used to control them.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Biological Agent/ Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gorse</td>
<td>Gorse Mite, Seed Weevil</td>
</tr>
<tr>
<td>Bull Thistle</td>
<td>Bull Thistle Gall Fly</td>
</tr>
<tr>
<td>Yellow Star Thistle</td>
<td>Seed Head Weevil, Gall Fly, Hairy Weevil, Peacock Fly, Rust - Puccinia jaceae var. solstitialis, Seed Weevil, Stem Boring Moth</td>
</tr>
<tr>
<td>Scotch Broom</td>
<td>Parasitic Wasp</td>
</tr>
<tr>
<td>Ash White Fly</td>
<td>Seed Weevil</td>
</tr>
<tr>
<td>Italian Thistle</td>
<td>Seed Weevil</td>
</tr>
<tr>
<td>Purple Star Thistle</td>
<td>Beetle</td>
</tr>
<tr>
<td>Klamath Weed</td>
<td>Parasitic Wasp</td>
</tr>
<tr>
<td>Eucalyptus Red Gum Lerp Psyllid</td>
<td></td>
</tr>
</tbody>
</table>

Livestock Protection Program
The Marin County Board of Supervisors has continued to support and appropriate funds to the Livestock Protection Program. Recognized non-lethal control methods such as protection animals, electric fencing, scare devices, and herd shepherding are initiated through cost share funds to livestock ranchers. The Marin County Agricultural Commissioner’s Office administers verification inspections, cost share funding, and indemnification reimbursement for livestock losses for ranchers participating in this program.

Pest Prevention Programs

Pest Detection
1,974 traps were serviced for exotic insect pests (including Mediterranean and Oriental Fruit Flies, Mexican Fruit Fly, Olive Fruit Fly, Gypsy Moth, Japanese Beetle, Melon fly, Vine Mealy Bug, Asian Longhorn Beetle, Glassy-Winged Sharpshooter, and Light Brown Apple Moth(LBAM)). Of the 1,974 traps, 272 traps were placed for the Glassy-Winged sharpshooter in nurseries and vineyards, 254 Mediterranean Fruit Fly traps were placed in fruit trees, 229 Gypsy Moth traps were placed on hardwood trees, and 748 LBAM traps were placed throughout the county.
**Pest Exclusion**

In 2009, Marin County personnel conducted 4,241 incoming plant quarantine inspections. Plant shipments were monitored at Federal Express, UPS, nurseries, ethnic markets, aquatic supply stores, and post entry quarantine. 64 gypsy moth inspections of household goods from infested states were conducted, as well as 1,212 Glassy-Winged Sharp Shooter inspections on plant material from infested California counties.

22 rejections of plant material were made. Rejected plant material was either destroyed or reconditioned and released.

A total of 27 pests were intercepted. Of those, 3 were “A” rated, 2 were “B” rated, and 19 were “C” rated, and 3 were “Q” rated. In addition, as of 9,324 Light Brown Apple Moths, “A” rated, were detected.

The following is a list of the significant pest interceptions:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Epiphyas postvittana</em></td>
<td>Light Brown Apple Moth</td>
<td>A</td>
</tr>
<tr>
<td><em>Fusarium oxysporum</em></td>
<td>Palm Wilt</td>
<td>A</td>
</tr>
<tr>
<td><em>Homalodisca vitripennis</em></td>
<td>Glassy-Winged Sharpshooter</td>
<td>B</td>
</tr>
<tr>
<td>Probable <em>Epiphyas postvittana</em></td>
<td>Light Brown Apple Moth</td>
<td>Q</td>
</tr>
</tbody>
</table>


**Marin/Sonoma Weed Management Area**

The Marin Sonoma Weed Management Area (MSWMA) is a cooperative effort of federal, state, county and city agencies, private industry and private landowners. Formed in 1999, our goals include improving the effectiveness of local weed management efforts, increasing public awareness of invasive weeds, and advancing responsible land stewardship practices. The MSWMA unites landowners and public agencies, provides an opportunity to share resources in mapping, planning information, and helps control weeds across land ownership boundaries.

A Rapid Response Program is under development to address early infestations of invasive weeds before they spread to larger areas and require costly control methods, or become completely uncontrollable.

A website is being developed to allow Weed Management Area (WMA) partners, landowners, and the general public to report early invaders, stay informed about WMA activities, and follow links about invasive weeds and control methods. Please visit www.marinsonomaweedmanagement.org for more information. Information about the larger Bay Area Early Detection Network can be found at: http://baedn.org/

Some priority weed occurrences occur on private lands. The Rapid Response/Bay Area Early Detection Network ensures that these habitats are not left out of the solution, and also connects the MSWMA with ranchers, farmers, and private landowners.

The Marin County Board of Supervisors has adopted a weed policy to discourage the import, sale or cultivation of non-native invasive plants. For a list of these plants, please visit our website at: www.co.marin.ca.us/depts/ag/main/index.cfm.
**Glassy-Winged Sharpshooter**

The Glassy-Winged Sharpshooter (GWSS) name was changed from *Homalodisca coagulata* to *Homalodisca vitripennis*. This serious pest to California agriculture was first observed in the state in 1990, and is now found throughout Southern California and portions of the San Joaquin Valley. It is a particular threat to vineyards due to its ability to spread Xylella fastidiosa, the bacterium that causes Pierce’s disease. Pierce’s disease kills grapevines and there are no effective treatments for it. The Glassy-Winged Sharpshooter also spreads other diseases to a variety of agricultural and ornamental plants, having the potential to substantially impact California’s agriculture and environment if left unchecked.

To prevent the introduction of this leafhopper into Marin County, staff inspects all incoming nursery plant shipments from infested California counties. In 2009 a total of 1,212 shipments were inspected for GWSS. Detection traps placed throughout the county are also monitored.

**Sudden Oak Death**

Marin County continues to be infested with Sudden Oak Death, the disease caused by the pathogen *Phytophthora ramorum*. Increased infestations have been detected in West Marin. Tree mortality in wildland and urban/wildland interface areas causes dramatic changes in the landscape, affecting ecosystems, increasing fire and safety hazards, and decreasing property values.

*P. ramorum* hosts include native woodland trees and understory plants, as well as ornamental nursery plants. Currently there are over 100 native and ornamental hosts; new hosts continue to be found and added to the state and federal quarantines.

On oaks, *P. ramorum* causes potentially lethal trunk cankers; on other hosts it causes a rarely lethal leaf or twig blight. Tanoaks may have both trunk cankers and leaf dieback. Unlike oaks, some hosts (i.e. California Bay Laurel) are not killed by this pathogen; instead these hosts are a vector, allowing inoculum to spread through natural or artificial means (rainwater, soil, infested nursery stock) under moist conditions.

The phosphonate product Agri-Fos® continues to be the only registered product for control of SOD on oaks. It works best as a preventative by stimulating the tree’s natural defense system to fight the disease.

The California Oak Mortality Task Force (COMTF) was established in 2000 to research and understand SOD. More information, including diagnostic guides and management recommendations may be found at [www.suddenoakdeath.org](http://www.suddenoakdeath.org).
Light Brown Apple Moth

In early 2007, Light Brown Apple Moth (LBAM), *Epiphyas postvittana*, was confirmed in Alameda County, California. This represented the first time LBAM had been detected in the contiguous 48 States. Currently the infestation occupies eighteen counties; compared to 14 counties in 2008. If left to spread unchecked, the LBAM could adversely impact a large number of plants including native tree species, horticultural crops and fruit and vegetable crops.

A mature LBAM female can deposit 300 – 1,500 eggs before dying. Each generation lives approximately 6 – 7 weeks. The eggs of LBAM are white to pale green, flat and oval, and are laid in mass with eggs slightly overlapping other eggs (resembling fish scales), and are laid on the upper leaf surface. The larvae may be found inside furled leaves. LBAM constructs leaf rolls (nests) by webbing together leaves, a bud and one or more leaves, leaves and fruit, or by folding individual mature leaves. Fully grown larvae are about 0.2 to 0.4 inch long, light green in color with a light brown head. Pupae are red-brown in color, or may appear greenish when newly developed, and ½ inch long. LBAM is light brown in color, yellowish with varying amounts of darker brown. Female wingspan is up to 3/4 inch; color may include a darker brown spot on the wing. Males have a smaller wingspan of 1/4 - 3/8 inch, color may include a darker red-brown band across the folded wings. Male moth wings fold upward on the front edge (magnification may be required to see fold).

This moth species is not native to the United States and therefore has no known predators or parasites here to reduce populations naturally.

Other countries and States want to keep this pest out. Some foreign countries have enacted quarantines and restrictions on crops and plants grown in the eighteen counties infested with LBAM. LBAM is not established in the rest of the lower 48 states, these states could impose restrictions on plant, fruit, and vegetable movement from California. Quarantines, and added restrictions, adversely impact the marketing of California agricultural and horticultural products.

Marin County, working in cooperation with the CDFA/USDA LBAM Cooperative Program, continued management and control of LBAM through servicing of traps, education of nursery owners and farmers, and visual inspections of nurseries, vineyards and farms located in the quarantine boundary.

There were several larval finds at regulated establishments in 2009; regulatory procedures were followed to prevent the spread of the larvae. Nurseries are establishing “Best Management Practices” as a preventative measure against further larval finds.

At time of printing this report, approximately 10,000 male Light Brown Apple Moths had been captured in traps placed throughout Marin County. More information may be found at: [www.cdfa.ca.gov/lbam](http://www.cdfa.ca.gov/lbam)
Farmers’ Markets of Marin County

The purpose of farmers’ markets is to allow local producers to sell their certified commodities direct to the public. There are 31 certified producers that have been issued certificates in Marin County. The following 13 Farmers’ Markets have been certified by the Agricultural Commissioner to market local produce in Marin County.

**Civic Center Farmers’ Markets**
Civic Center, San Rafael
Thursdays – 8:00 am – 1:00 pm
Sundays – 8:00 am – 1:00 pm
Open All Year

**Tam Valley Farmers’ Market**
Tamalpais Community Center
Tennessee Valley Rd. @ Marin Ave.
Tuesdays – 3:00 pm – 7:00 pm
May – October

**Old Town Novato Farmers’ Market**
Downtown, Novato
Tuesdays – 4:00 pm – 8:00 pm
May – September

**Corte Madera Farmers’ Market**
Corte Madera Town Center
Wednesdays – 12:00 pm - 5:00 pm
Open All Year

**Fairfax Farmers’ Market**
Bolinas Park, Downtown Fairfax
Wednesdays – 4:00 pm – 8:00 pm
May – September

**Ross Farmers’ Market**
Marin Art & Garden Center
Thursday – 3:00 pm – 7:00 pm
May – October

**Marin City Farmers’ Market**
Gateway Shopping Center
Saturdays – 9:00 am - 2:00 pm
May – September

**Downtown San Rafael Farmers’ Mkt.**
Fourth St., San Rafael
Thursdays – 6:00 pm – 9:00 pm
April – September

**Mill Valley Farmers’ Market**
East Blithedale Ave. @ Lomita Dr.
Fridays – 9:00 am – 2:00 pm
Open All Year

**Sausalito Farmers’ Market**
Bridgeway @ Bay Street
Fridays – 4:00 pm – 8:00 pm
May – October

**Pt. Reyes Farmers’ Market**
Toby’s Feed Barn
11250 Hwy 1, Pt. Reyes Station
Saturdays – 9:00 am – 1:00 pm
June – November

**Marinwood Community Farmers’ Market**
Marinwood Ave.
Saturdays – 9:00 am – 2:00 pm
Open All Year
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