Marin County

Livestock & Agricultural Crop Report 2007
May 2008

A. G. Kawamura, Secretary
California Department of Food and Agriculture

And

Marin County Board of Supervisors
Charles McGlashan, President, District 3
Susan L. Adams, District 1
Harold C. Brown Jr., District 2
Steven Kinsey, District 4
Judy Arnold, District 5

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 2007. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2007 gross value of all production was $67,132,841. This represents an increase of $17,658,465 or 35.7% from the 2006 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 (there are 29 dairies in Marin, which includes 2 goat dairies), and this year accounts for 58.0% of the crop report’s total value. The average Market Milk prices for 2007 was 54.0% higher than 2006 contributing to an increase in overall milk value of $11,877,621 (43.9%).

Livestock value increased by $4,542,611, the 40.1% increase was a result of new poultry operations and existing poultry operations increasing production. Prices received for sheep and beef cattle increased. Total value for beef was relatively unchanged as yields were lower due to reduced headcounts. The value of wool decreased by $21,096, or 50.0%. The decreased value was a result of lower prices paid for ungraded wool.

Aquaculture experienced a marginal increase in value of 1.5%.

The value of field, fruit and vegetable production, excluding wine grapes, went up by $917,677, a 12.5% increase in value. An increase in wine grape value was the cause for a gain of $149,715. Total wine grape value was up 24.7%; even as tons yielded decreased 33.0% from the 2006 harvest (2006 tonnage was nearly double that of 2005). Nursery crops experienced an increased value of $189,187 or 41.7%.

My appreciation goes to the many growers, individuals and organizations for their cooperation in providing the information necessary for this report. I would like to extend special thanks to the UC Cooperative Extension and members of my staff Jeffrey Stiles, Laurel Thomassin, Hugo Abaurre, Susan Ventura, and Fred Crowder.

Respectfully submitted,

Stacy K. Carlsen
Agricultural Commissioner
# Table of Contents

Marin Agriculture: Farming and Ranching in the Food Web .......................... 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 ............................................................ 13  
   Marin Organic Certified Agriculture (MOCA) .......................................... 13  
   Biological Control ................................................................................... 13  
   Grass Fed Livestock & Livestock Protection Programs .............................. 14  
   Pest Prevention Programs ................................................................... 15  
       Marin/Sonoma Weed Management Area ........................................... 15  
       Pest Exclusion ............................................................................... 15  
       Pest Detection .............................................................................. 16  
       Glassy-Winged Sharpshooter ......................................................... 16  
       Sudden Oak Death (SOD) .............................................................. 16  
       Light Brown Apple Moth ............................................................... 17  
Farmers Markets of Marin County ............................................................... 18  
Department Staff ....................................................................................... 19  

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*Cover photo: Sheep on Marin Pasture*  
*Photo credits: Steve Quirt*

This report is available at our web site:  
[www.co.marin.ca.us/depts/ag/main/index.cfm](http://www.co.marin.ca.us/depts/ag/main/index.cfm)
Marin Agriculture: Farming and Ranching in the Food Web

Carbon, water, climate, biodiversity. If these words remind you of a newsreel highlight on global warming, drought, habitat loss, genetically engineered organisms - it is indicative of the times. The atmospheric effects of carbon-dioxide are a “calling in” of our accrued debt on a one hundred year petroleum spending spree. In response new economies are being created around “carbon credits” and industries are being developed that are focused on carbon sequestration - lemonade from lemons, but certainly necessary.

Our dependence on carbon based energy sources has not only brought sensitive environmental niches to a tipping point, but will eventually challenge our ability to produce food as we have in the past. Carbon, water, climate, and biodiversity woven together form the fabric of life, shaping not only organisms but ecosystems as well. Maintaining these elements in balance is a challenge familiar to agricultural producers, as pasture and food crops are the most susceptible to the vagaries of the weather; now agricultural producers must consider a changing climate as well.

Developing or maintaining biodiversity along with crop diversification is an environmentally responsible practice, the effects being enhanced soil fertility, increased organic matter, better management of pest and disease problem, and optimized production, but it may also be a necessity to allow continued food production under challenging circumstances.

By spinning “food webs“, agricultural producers capture sunlight so it may be brought to the table. The more diverse and complementary the web components, the more productive, healthy, vigorous, and resilient the web and food production system will be. Ask a rancher about the pounds and quality of livestock they produce and they enter into a conversation about soil health, stocking densities, diverse pasture composition. Question a vineyard manager about erosion control and water quality and the conversation may jump from slope, to cover crops, to gophers, to enhancing bird of prey habitat. Thru crop diversification, companion planting, cover crops, fallowing, pollinator corridors, wildlife refuges, and other techniques, agricultural producers reduce pest pressure, improve soil fertility and yields.

The farmers and ranchers in Marin understand these tools as well as anyone and use them to forge a living. Grazing programs for livestock have been shown to harvest carbon from the air and store it in the soil, so some ranchers are looking at how to manage their pastures to increase carbon capture and manage carbon credits. Concerns with livestock and methane production have resulted in some producers installing methane collectors. These Marin producers are not only feeding people but substantially reducing their carbon foot print and likely a good slice of the urban foot print as well.

By protecting and improving the 167,000 acres of Marin County agricultural land, Marin’s agricultural producers are not only insuring the continuation of local agriculture, but improving the quality of the air, and water we all share.
## Summary of Production

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock Products</td>
<td>$38,956,052</td>
<td>$27,125,530</td>
</tr>
<tr>
<td>Livestock &amp; Misc.</td>
<td>$15,869,989</td>
<td>$11,327,378</td>
</tr>
<tr>
<td>Field Crops</td>
<td>$6,465,039</td>
<td>$5,787,648</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable Crops</td>
<td>$2,565,989</td>
<td>$2,185,988</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>$2,632,930</td>
<td>$2,594,177</td>
</tr>
<tr>
<td>Nursery Crops</td>
<td>$642,842</td>
<td>$453,655</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$67,132,841</strong></td>
<td><strong>$49,474,376</strong></td>
</tr>
</tbody>
</table>

## 2007 Production Summary

- **Livestock Products**: 55%
- **Livestock and Miscellaneous**: 24%
- **Field Crops**: 10%
- **Fruit & Vegetable Crops**: 4%
- **Aquaculture**: 4%
- **Nursery Crops**: 1%

- **Livestock and Miscellaneous**: 24%
- **Field Crops**: 10%
- **Fruit & Vegetable Crops**: 4%
- **Aquaculture**: 4%
- **Nursery Crops**: 1%
### 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>$/Unit</th>
<th>Dollar Value Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle &amp; Calves</td>
<td>2007</td>
<td>15,656</td>
<td>92,261</td>
<td>cwt</td>
<td>$ 84.86</td>
<td>$ 7,829,268</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>16,616</td>
<td>96,958</td>
<td>cwt</td>
<td>$ 81.02</td>
<td>$ 7,855,537</td>
</tr>
<tr>
<td>Sheep &amp; Lambs</td>
<td>2007</td>
<td>14,087</td>
<td>15,032</td>
<td>cwt</td>
<td>$ 76.40</td>
<td>$ 1,148,461</td>
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<tr>
<td></td>
<td>2006</td>
<td>13,702</td>
<td>14,798</td>
<td>cwt</td>
<td>$ 71.82</td>
<td>$ 1,062,897</td>
</tr>
<tr>
<td>Miscellaneous†</td>
<td>2007</td>
<td>3,439</td>
<td></td>
<td></td>
<td></td>
<td>$ 132,379</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>1,096</td>
<td></td>
<td></td>
<td></td>
<td>$ 84,675</td>
</tr>
<tr>
<td>Poultry*</td>
<td>2007</td>
<td>230,723</td>
<td></td>
<td></td>
<td></td>
<td>$ 6,759,881</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>90,330</td>
<td></td>
<td></td>
<td></td>
<td>$2,324,269</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>2007</td>
<td></td>
<td>Oysters, Mussels, &amp; Clams</td>
<td></td>
<td>$ 2,632,930</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td></td>
<td>Oysters, Mussels, &amp; Clams</td>
<td></td>
<td>$ 2,594,177</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$18,502,919</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 13,896,583</td>
</tr>
</tbody>
</table>

† Miscellaneous 2006 figures include goats, hogs, honey, and rabbits. Miscellaneous 2007 figures include goats, hogs, and rabbits.

* Poultry 2006 figures include poultry fryers, chicken eggs for consumption, eggs for turkey breeding stock, and ballute. Poultry 2007 figures include poultry fryers, chicken eggs for consumption, ballute, ducks, turkeys, and quail.

### 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>2007</td>
<td>2,063,773</td>
<td>cwt</td>
<td>$18.86</td>
<td>$ 38,922,759</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>2,208,436</td>
<td>cwt</td>
<td>$12.25</td>
<td>$ 27,053,341</td>
</tr>
<tr>
<td>Milk (Manufacturing)</td>
<td>2007</td>
<td>727</td>
<td>cwt</td>
<td>$16.51</td>
<td>$ 12,203</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>2,560</td>
<td>cwt</td>
<td>$11.72</td>
<td>$ 30,003</td>
</tr>
<tr>
<td>Wool</td>
<td>2007</td>
<td>76,813</td>
<td>lbs</td>
<td>$ 0.27</td>
<td>$ 21,090</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>71,560</td>
<td>lbs</td>
<td>$ 0.59</td>
<td>$ 42,186</td>
</tr>
<tr>
<td>Total</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td>$38,956,052</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td>$27,125,530</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></td>
<td></td>
</tr>
<tr>
<td>Milk cows and heifers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years and over</td>
<td>10,300</td>
<td></td>
</tr>
<tr>
<td>Beef 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>Sheep and Lambs, all†</td>
<td></td>
<td>9,602</td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td>230,723</td>
</tr>
<tr>
<td>Miscellaneous**</td>
<td></td>
<td>3,349</td>
</tr>
</tbody>
</table>

†  Number of Head as of January 1, 2008.

*  Includes cows, heifers, calves, and bulls.

** Miscellaneous 2007 figures include goats, hogs, and rabbits.
<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>Hay, Grass</td>
<td>2007</td>
<td>910</td>
<td>2.78</td>
<td>2,530</td>
<td>ton</td>
<td>$ 108.70</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>912</td>
<td>2.55</td>
<td>2,326</td>
<td>ton</td>
<td>$ 62.00</td>
</tr>
<tr>
<td>Hay, Oat†</td>
<td>2007</td>
<td>273</td>
<td>2.1</td>
<td>573</td>
<td>ton</td>
<td>$ 110.30</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>155</td>
<td>1.7</td>
<td>196</td>
<td>ton</td>
<td>$ 100.00</td>
</tr>
<tr>
<td>Silage</td>
<td>2007</td>
<td>1,642</td>
<td>13.0</td>
<td>21,346</td>
<td>ton</td>
<td>$ 38.60</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>1,705</td>
<td>13.5</td>
<td>23,018</td>
<td>ton</td>
<td>$ 24.20</td>
</tr>
<tr>
<td>Pasture,</td>
<td>2007</td>
<td>810</td>
<td></td>
<td></td>
<td></td>
<td>$ 100.00</td>
</tr>
<tr>
<td>Irrigated</td>
<td>2006</td>
<td>810</td>
<td></td>
<td></td>
<td></td>
<td>$ 100.00</td>
</tr>
<tr>
<td>Pasture,</td>
<td>2007</td>
<td>154,000</td>
<td></td>
<td></td>
<td></td>
<td>$ 33.90</td>
</tr>
<tr>
<td>Other</td>
<td>2006</td>
<td>154,000</td>
<td></td>
<td></td>
<td></td>
<td>$ 32.20</td>
</tr>
<tr>
<td>Fruits &amp;</td>
<td>2007</td>
<td>275</td>
<td></td>
<td></td>
<td></td>
<td>$ 1810.337</td>
</tr>
<tr>
<td>Vegetables</td>
<td>2006</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
<td>$ 32.00</td>
</tr>
<tr>
<td>Grapes,</td>
<td>2007</td>
<td>192**</td>
<td></td>
<td>173.2</td>
<td>ton</td>
<td>$ 755.652</td>
</tr>
<tr>
<td>Wine*</td>
<td>2006</td>
<td>171**</td>
<td></td>
<td>258.5</td>
<td>ton</td>
<td>$ 32.00</td>
</tr>
<tr>
<td>Total</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 9,031,028</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Acreage and Total Dollar Value Total include values for Oat Seed grown for the production of Oat Hay.
* Varieties: Cabernet Sauvignon, Chardonnay, Gewürztraminer, Merlot, Pinot Noir, Shiraz, and Riesling.
** Includes 47 acres of Non-fruit bearing plantings.
## Nursery Products

<table>
<thead>
<tr>
<th>Item</th>
<th>Year</th>
<th>Production Acres</th>
<th>Dollar Value Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery Stock, All</td>
<td>2006</td>
<td>42</td>
<td>$ 453,655</td>
</tr>
<tr>
<td>Nursery</td>
<td>2007</td>
<td>42</td>
<td>$ 642,842</td>
</tr>
</tbody>
</table>
Marin County Department of Agriculture/Weights & Measures

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. The goal of the County IPM Ordinance was to reduce countywide total yearly pesticide use by 75% by weight, as compared to the total pesticide use in 1997. Once again, the county has exceeded that goal with current estimates showing a greater than 80% pesticide use reduction. Currently, the County IPM Ordinance is being reviewed and updated so it reflects the county’s current ongoing IPM program. Also, policy is being developed to provide clearer direction to departments for the implementation of the IPM ordinance.
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 12024 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 450 different locations that use the estimated 1425 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 52 registered organic producers in Marin County, farming 18,858 acres which includes 18,528 acres in pasture, producing a total gross value of $5,502,196.

Organic crop production in Marin County include pasture, silage, milk, dairy products, hay, fruits, vegetables, cut flowers, eggs, herbs, livestock, vegetable starts, olive trees, and nursery stock. In 2007 the number of dairies producing certified organic milk in Marin County increased to 7 operations.

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.

Locally and word wide 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 agricultural. One of the most important benefits of the MOCA program is a local service that promotes productions of organic value added products by Marin’s family farms. In 2007 the number of MOCA certified operations in Marin and Sonoma Counties increased to 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 being 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 –</td>
</tr>
<tr>
<td></td>
<td>Puccinia jaceae var. solstitialis</td>
</tr>
<tr>
<td>Scotch Broom</td>
<td>Seed Weevil, Stem Boring Moth</td>
</tr>
<tr>
<td>Ash White Fly</td>
<td>Parasitic Wasp</td>
</tr>
<tr>
<td>Italian Thistle</td>
<td>Seed Weevil</td>
</tr>
<tr>
<td>Purple Star Thistle</td>
<td>Seed Weevil</td>
</tr>
<tr>
<td>Klamath Weed</td>
<td>Beetle</td>
</tr>
<tr>
<td>Eucalyptus Red Gum Lerp Psyllid</td>
<td>Parasitic Wasp</td>
</tr>
</tbody>
</table>
**Grass Fed Livestock & Livestock Protection**

We also developed and now manage a sustainable livestock protection program that provides cost sharing for non-lethal methods of predator control. This includes property improvements such as cross fencing; deterrents like electric fencing and management practices such as guard animals.

And lastly, there is the Marin County Agriculture Department Grass Fed Livestock Certification program whose purpose is to provide local grass fed livestock producers with a program which will provide the local livestock industry with the incentive to pursue innovative and sustainable animal agriculture principles, encourage sustainable agricultural and land management practices, increase marketing opportunities, and promote more natural animal management practices.
Pest Prevention Programs

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. In 2007, the MSWMA achieved several noteworthy projects made possible by grants. With this funding, the MSWMA translated into Spanish the “Invasive Weeds of Marin & Sonoma Counties” brochure, and printed 10,000 copies in English and Spanish. In addition, four Invasive Weed Seminars were conducted, reaching out to the targeted audiences of ranchers, growers & property operators; the Spanish speaking community; those living on the interface of public owned lands; and public owned land stewards. Topics focused on invasive weed identification, conventional control methods, as well as new technologies for non-chemical controls. Anyone is welcome to come to the bimonthly meetings and everyone is welcome to help control weeds.

Pest Exclusion
In 2007, Marin County personnel conducted 6,989 incoming plant quarantine inspections. Plant shipments were monitored at Federal Express, UPS, DHL, nurseries, ethnic markets, aquatic supply stores, and post entry quarantine. 40 gypsy moth inspections of household goods from infested states were conducted, as well as 1,558 Glassy-Winged Sharp Shooter inspections on plant material from infested California counties.

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

A total of 5 pests were intercepted. Of those, 1 was “Q” rated, 1 was “B” rated, 2 were “C” and 1 was “D” rated. In addition, as of May 20, 2008 313 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>Aonidiella aurantii</td>
<td>California Red Scale</td>
<td>B</td>
</tr>
<tr>
<td>Epiphyas postvittana</td>
<td>Light Brown Apple Moth</td>
<td>A</td>
</tr>
<tr>
<td>Gasteracantha sp.</td>
<td>Spider</td>
<td>D</td>
</tr>
<tr>
<td>Nipaecoccus nipae</td>
<td>Coconut Mealybug</td>
<td>C</td>
</tr>
<tr>
<td>Sphaerobulus sp.</td>
<td>Artillery Fungus</td>
<td>C</td>
</tr>
<tr>
<td>Technomyrex albipes</td>
<td>An Ant</td>
<td>Q</td>
</tr>
</tbody>
</table>

Q - rating: Quarantine Action
A - rating: State Action
B - rating: County Action
C - rating: County Action at Discretion of the Agricultural Commissioner
D - rating: No action
Pest Detection

1,949 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 1,949 traps, 272 traps were placed for the Glassy-Winged sharpshooter in nurseries and vineyards, 249 Mediterranean Fruit Fly traps were placed in fruit trees, 231 Gypsy Moth traps were placed on hardwood trees, and 877 LBAM traps were placed throughout the county.

Glassy-Winged Sharpshooter

The Glassy-Winged Sharpshooter (GWSS) (*Homalodisca coagulata*) is a serious pest in California. This insect was first observed in California 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 2007 a total of 1,558 shipments were inspected for GWSS. Detection traps placed throughout the county are also monitored.

Sudden Oak Death

The native woodlands and the urban/wild interface areas of Marin County continue 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 foliar or twig blight. Tanoaks may have both trunk cankers and foliar dieback. Foliar hosts such as California Bay Laurel, unlike oaks, are not a dead end for the 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, 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).

- 16 -
**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. Since then the moth infestation has spread to eleven Central Coast and Bay Area Counties including Marin (at time of print, May 2008, counties include Monterey, Santa Cruz, Santa Clara, San Mateo, Contra Costa, Marin, San Francisco, Alameda, Solano, Santa Barbara and Sonoma). Isolated detections in Los Angeles and Napa counties have already been eradicated. A native of Australia, LBAM has also established itself in New Zealand, New Caledonia, the British Isles, and Hawaii.

If left to spread unchecked, the LBAM could adversely impact a large number of plants including native tree species, horticultural crops and over 250 fruit and vegetable crops. Potentially impacted crops include-but are not limited to-grapes, citrus, peaches, plums, cherries, apricots, pears, apples, avocados, kiwis, strawberries, nursery industry plants, and trees such as pine, cypress, and oak. Almost every ornamental plant in the average garden or yard is in danger of being harmed by LBAM.

A mature LBAM female can deposit 300 – 1,500 eggs before dying. Each generation lives approximately 6 – 7 weeks. The eggs of LBAM, laid on the upper leaf surface, are white to pale green, flat and oval, and are laid in mass with each egg slightly overlapping other eggs that resemble fish scales. The larvae may be found inside furled leaves. LBAM constructs leaf rolls (nests) by webbing leaves together, a bud and one or more leaves, leaves to a fruit, or by folding and webbing individual mature leaves. Fully grown, the 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. Many leaf roller moths are gray, tan, or brown in color, as is LBAM. 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 of the front wings (hard to see – probably need magnification to spot).

These moths are not native to the United States and therefore have no known predators or parasites here to reduce populations naturally.

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

At time of print of this publication, 313 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)
The purpose of farmers markets is to allow local producers to sell their certified commodities direct to the public. There are 32 certified producers that have been issued certificates in Marin County. The following 9 Farmers Markets (Civic Center has two, Thursday and Sunday) 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

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

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

**Downtown San Rafael Farmers Mkt.**
Fourth St., San Rafael  
Thursdays – 5:00 pm – 8:00 pm  
April - September

**Sausalito Farmers Market**
Sausalito Ferry Landing  
Fridays – 4:00 pm – 8:00 pm  
May – October

**Corte Madera Farmers Market**
Corte Madera Town Center  
1554 Redwood HWY  
Wednesdays – 12:00 pm - 5:00 pm  
Open All Year

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

**Larkspur Farmers Market**
Larkspur Landing Circle  
Saturdays – 10:00 am - 2:00 pm  
May - October
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