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DEPARTMENT OF AGRICULTURE • WEIGHTS AND MEASURES

April 1, 2002

William J. Lyons, Jr., Secretary
California Department of Food and Agriculture
And
Marin County Board of Supervisors
Cynthia Murray, President, District 5

~~STACY K. CARLSEN~~
COMMISSIONER/DIRECTOR
FRED W. CROWDER
DEPUTY COMMISSIONER/DIRECTOR

John Kress,	District 1	Annette Rose,	District 3
Harold C. Brown,	District 2	Steve Kinsey,	District 4

In accordance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Annual Crop Report for 2001. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2001 gross value of all production was \$50,900,357. This is an increase of \$2,684,824 from the 2000 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 over 60% of the crop report's total value. Milk had a 10% increase in production from 2000, as production was affected by a 20% increase in the value of milk.

Livestock and poultry value decreased by \$758,340 as prices received for sheep decreased from last year's market prices by 13%. Poultry value went down 7%.

Aquaculture experienced a 10% increase in value over last year in spite of the usual juvenile oyster mortality rate of approximately 50%.

The value of field, fruit and vegetable production, including wine grapes, went up by \$460,884, resulting in a 49% increase in wine grape production. This is due to maturing vines, higher yield, good weather, and an increase in value. Nursery crops saw a 17% decrease in value due to the slowing economy as well as decreased acreage.

My appreciation goes to the many growers, individuals and organizations for their cooperation in providing the information necessary for this report and special thanks to the members of my staff, Laurel Thomassin and Amanda Stephens, for working so hard to prepare it.

Respectfully submitted,

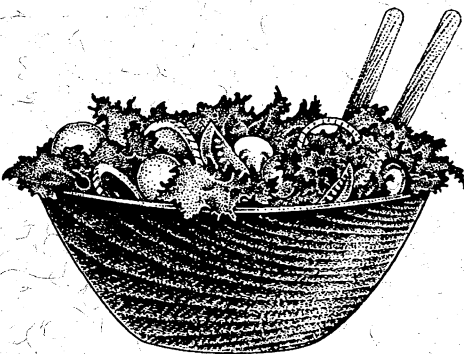
Stacy K. Carlsen
Agricultural Commissioner

Marin County Locally Produced, Processed And Marketed Agricultural Products

There is a lot happening in Marin County. Agriculture in Marin contributes over \$50 million annually to the local economy. Farms and ranches account for approximately 167,000 acres in Marin, which represents about 50 % of the land. The cool, moist, foggy climate of Marin, rolling hills and soil types do not lend to conditions favorable to intense vegetable row crop production. But tucked into the emerald hills are unique little valleys, with their own microclimates, where specialty crops thrive. In addition to the main commodities of dairy, beef and sheep that graze the hilly grasslands, Marin farmers and ranchers, through the years, have diversified into other commodities, many of them organic.

There has been a steady move towards organic production with commodities such as apples, beans, berries, broccoli, cabbage, carrots, chard, cucumbers, cut flowers, dairy products, garlic, herbs, leaf lettuce, lemons, milk, mixed salad greens, olives, onions, pasture, pears, potatoes, pumpkins, silage, spinach, squash, tomatoes, turnips, vegetable starts, and watercress. In response to increased organic production, the Marin County Agricultural Commissioner's Office became one of the first counties in California to offer an organic certification program to qualified agricultural producers and handlers. Marin Organic Certified Agriculture or MOCA, was created and inspired by the community it serves: local growers, processors and consumers.

The diversity of Marin County products can be seen on the shelves of many local markets. From the field to the dinner table, the products featured on the cover are a sample of Marin agricultural products that are grown, processed, and marketed from Marin County. The value added nature of creating, producing and marketing local commodities contributes to the sustainability of Marin's agriculture, while preserving agricultural family traditions and culture. The responsible stewardship of the land, the value, and local natural beauty are all reflected in the outstanding quality and freshness of locally grown products offered to customers.



- ◆ Scores of organic specialty crops that are particularly desirable in creative cuisine are grown in the cool mediterranean zone of Bolinas from the oldest continuously certified organic grower in California.
- ◆ Fresh, sweet, ripe, mouth-watering strawberries from the Nicasio Valley and Tomales areas.
- ◆ Olive orchards tended organically and planted with six noble varieties of Italian olives that produce the highest quality extra virgin olive oil in the Petaluma hills of northern Marin County.

◆ A nursery in Tomales that grows and sells over 500 varieties of native and drought tolerant plants.

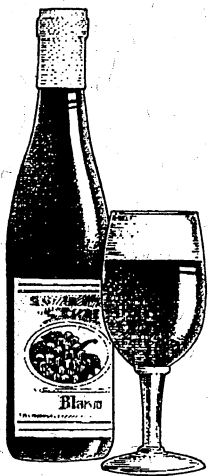
◆ Tomales Bay, a pristine estuary and a National Marine Sanctuary, provides a perfect place to grow shellfish. It's shallow waters support rich plankton blooms, the perfect food for clams, mussels, and oysters, and along with specially designed growing systems, shellfish growers are able to produce products with superior meat quality and a long shelf life.

◆ Point Reyes is home to the only farmstead (they own their own dairy which supplies their own milk for their own product) blue cheese maker in California.

◆ Nestled in the beautiful rolling hills of western Marin, lies a family operation that became the first certified organic dairy west of the Mississippi. They run a creamery to bottle milk and produce other dairy products under the family name and maintain a strong commitment to environmental sustainability.

◆ The beautiful, sunny Chileno Valley in northern Marin County is home to a plant propagation facility that grows California native plants exclusively. Plants from coastal, wetland, forest, woodland, riparian, grassland and chaparral habitats are reared to provide native plants to restoration and landscape settings.

◆ Located in the hills between Petaluma and Tomales Bay, vineyards take advantage of cool marine air and fog that ensures the delicate development of varietal flavors and textures.



◆ Built inside a renovated hay barn in the scenic Tomales Bay dairy region, a local creamery makes and sells cheeses with milk delivered from a local Marin County dairy. The quality of coastal Marin milk along with the cheese making process produces cheeses that are exceptionally rich, sweet and delicate.

◆ Exquisite orchids grown in greenhouses in Larkspur continue to delight the souls of young and old alike.

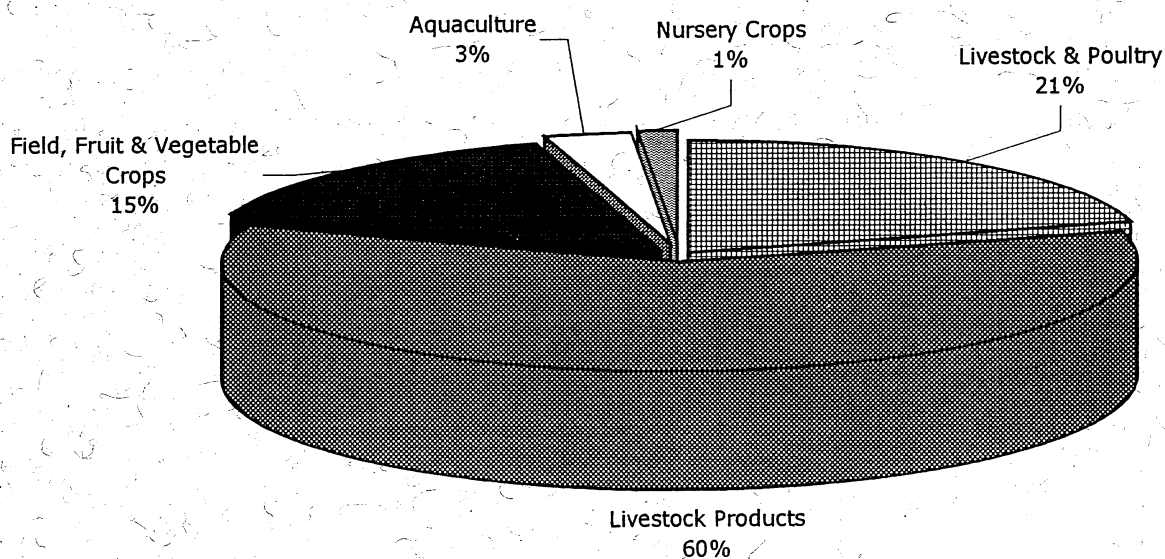
These are the treasures that Marin County has to offer. Support our local growers. Buy locally and savor the freshness and quality. Many Marin County products are found in local markets and restaurants throughout the county and neighboring bay area as well.



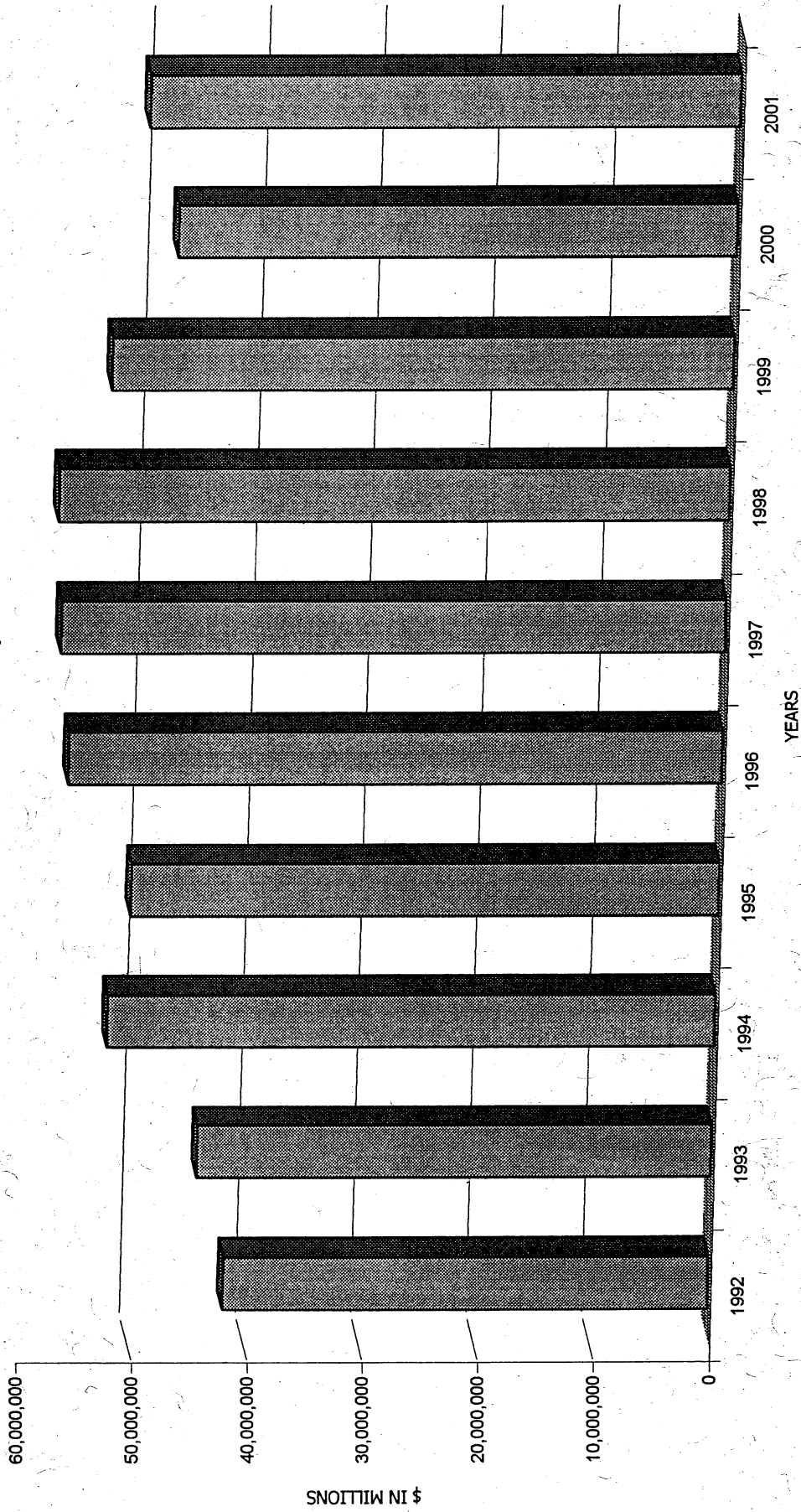
Summary of Production

	<u>2001</u>	<u>2000</u>
Livestock Products	\$ 30,397,233	\$ 27,456,326
Livestock & Poultry	\$ 10,552,165	\$ 11,310,505
Field, Fruit & Vegetable Crops	\$ 7,668,177	\$ 7,184,711
Aquaculture	\$ 1,608,315	\$ 1,450,305
Nursery Crops	\$ 674,467	\$ 813,686
TOTAL	\$ 50,900,357	\$ 48,215,533

2001 Production Summary



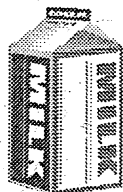
Agricultural Production Gross Value A Ten Year Summary



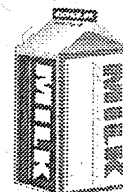
Livestock, Poultry and Aquaculture

Item	Year	No. of Head	Live Weight	Unit	Dollar Value	
					\$/Unit	Total
Cattle & Calves	2001	18,290	110,358	cwt	\$ 69.22	\$ 7,638,981
	2000	20,181	121,077	cwt	\$ 65.18	\$ 7,891,256
Sheep & Lambs	2001	5,516	5,958	cwt	\$ 58.69	\$ 349,675
	2000	9,121	9,851	cwt	\$ 67.39	\$ 663,857
Poultry & Eggs*	2001	42,117				\$ 2,563,509
	2000	99,957				\$ 2,755,392
Aquaculture	2001		Oysters, Mussels, & Clams			\$ 1,608,315
	2000		Oysters, Mussels, & Clams			\$ 1,450,305
Total	2001					\$ 12,160,480
	2000					\$ 12,760,810

* parent stock hatching eggs



Livestock Products

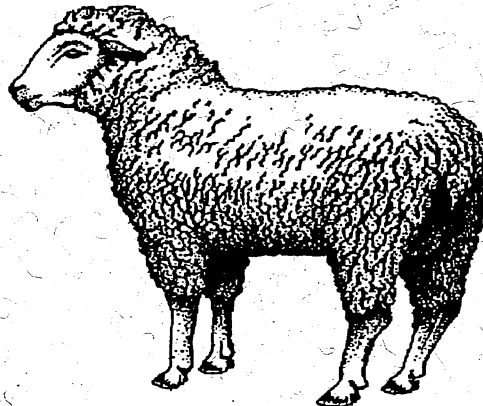
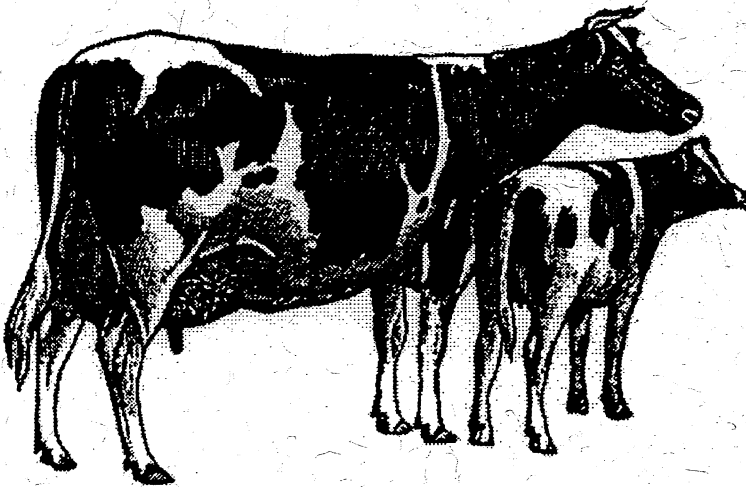


Item	Year	Production	Unit	Dollar Value	
				\$/Unit	Total
Milk (Market)	2001	2,069,751	cwt	\$ 14.62	\$ 30,259,760
	2000	2,245,752	cwt	\$ 12.18	\$ 27,353,259
Milk (Manufacturing)	2001	8,615	cwt	\$ 12.64	\$ 108,893
	2000	7,754	cwt	\$ 9.66	\$ 74,904
Wool	2001	71,450	lbs	\$ 0.40	\$ 28,580
	2000	70,407	lbs	\$ 0.40	\$ 28,163
Total	2001				\$ 30,397,233
	2000				\$ 27,456,326

Inventories of Livestock and Poultry

(Number of Head as of January 1, 2002)

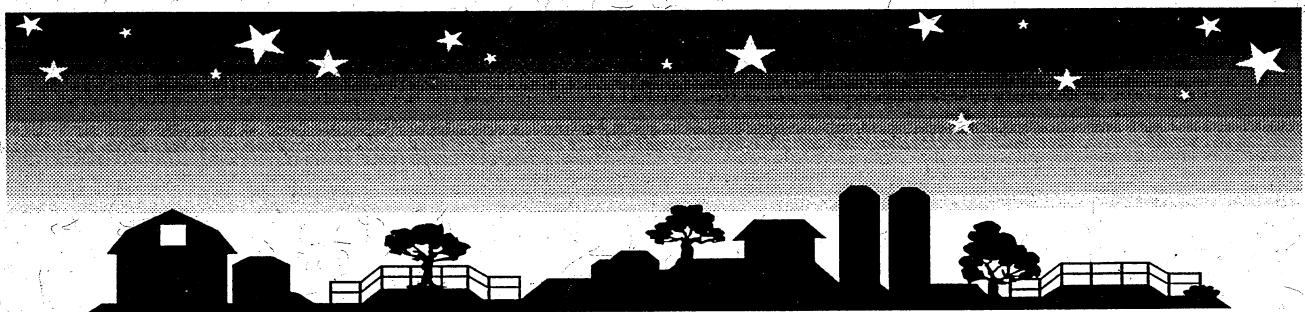
ITEM	NUMBER
Cattle and Calves, all	39,769
Milk cows and heifers 2 years and over	10,500
Beef cows and heifers 2 years and over	12,000
Sheep and Lambs, all	15,340
Poultry	42,117



Field, Fruit and Vegetable Crops

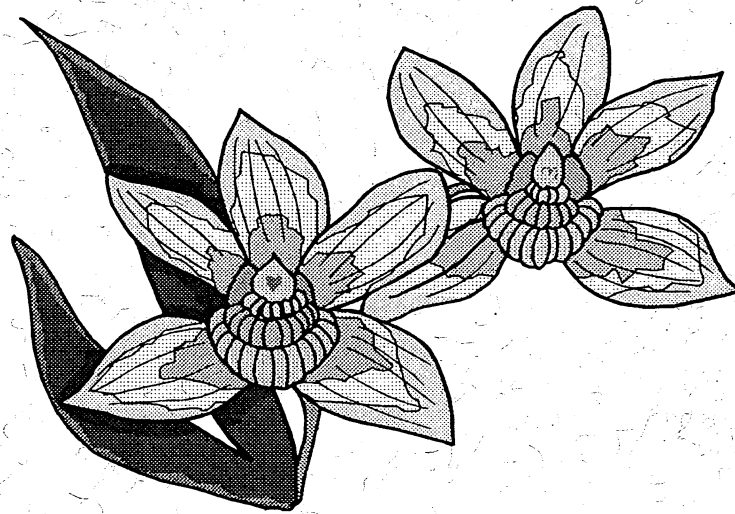
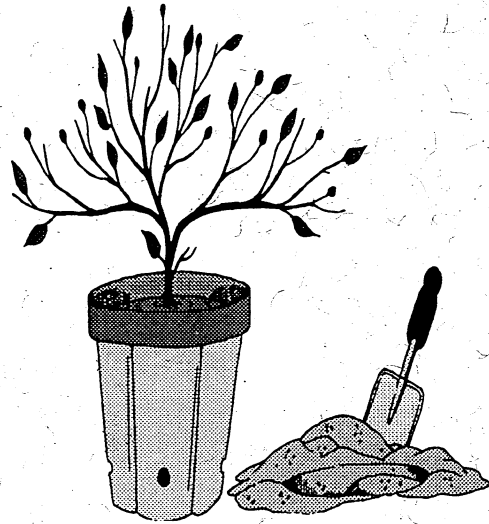
Item	Year	Harvested Acreage	Ton/ Acre	Total Tons	Unit	Dollar Value	
						\$/Unit	Total
Hay, Grass	2001	1,995	2.5	4,988	ton	\$ 58.38	\$291,199
	2000	1,990	2.5	4,975	ton	\$ 50.67	\$ 252,083
Hay, Oat	2001	1,525	2.1	3,203	ton	\$ 77.49	\$ 248,200
	2000	1,500	2.5	3,750	ton	\$ 76.00	\$ 285,000
Silage	2001	3,025	14	42,350	ton	\$ 29.00	\$ 1,228,150
	2000	2,575	14	36,050	ton	\$ 29.00	\$ 1,045,450
Hay, Grain	2001	190	.72	137	ton	\$ 340.00	\$46,580
	2000	160	.75	120	ton	\$ 220.00	\$ 26,400
Pasture, Irrigated	2001	810				\$ 100.00	\$ 81,000
	2000	810				\$ 100.00	\$ 81,000
Pasture, Other	2001	154,000				\$ 29.00	\$ 4,466,000
	2000	154,000				\$ 29.00	\$ 4,466,000
Fruits & Vegetables	2001	138.2					\$ 841,110
	2000	177					\$ 793,674
Grapes, Wine*	2001	95		228.4	ton		\$ 465,938
	2000	94		116.5	ton		\$ 235,104
Total	2001						\$ 7,668,177
	2000						\$ 7,184,711

* Varieties include: Chardonnay, Pinot Noir, Merlot, Cabernet Sauvignon, and Cabernet Franc



Nursery Products

Item	Year	Production Acres	Dollar Value Total
Nursery	2001	40.50	\$ 674,467
Stock, All	2000	42.00	\$ 813,686



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 health and welfare of Marin County's citizens.

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 essential for the production of food and fiber and for the protection of public health, safety and welfare, and the environment. This is accomplished by permitting 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, considerable effort is also put 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 all 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 is to reduce its countywide total yearly pesticide use by 75% by weight, as compared to the total pesticide use in 1997, no later than January 1, 2004. At this time the county has exceeded that goal with current estimates showing a greater than 80% pesticide use reduction.

The Marin County Agricultural Commissioner's Office has been developing a model IPM program for schools. This program has been established to develop pro-active pest management systems for the purpose of reducing risk to human health and the environment for activities associated with pest control.

Product Quality

Marin County inspectors are protecting consumers by inspecting agricultural products for compliance with laws and regulations, 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 buyer and seller 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.



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. The three "Es" of sustainability are the Environment, social Equity, and the Economy.

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 23 registered organic producers in Marin County, farming 810 acres, producing a total gross value of 3.3 million dollars.

Organic commodities produced in Marin County include: apples, beans, berries, broccoli, cabbage, carrots, chard, cucumbers, cut flowers, dairy products, garlic, herbs, leaf lettuce, lemons, milk, mixed salad greens, olives, onions, pasture, pears, potatoes, pumpkins, silage, spinach, squash, tomatoes, turnips, vegetable starts, and watercress.

Marin Organic Certified Agriculture (MOCA) is a new program offered by the Marin County Agricultural Commissioner's office. MOCA was recently accredited by the USDA as an official organic certification agency.

Local and statewide consumer demand for certified 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. MOCA certification verifies compliance with the USDA National Organic Program standards and documents the operation practices of a sustainable agricultural system.

Biological Control

Biological pest control is the use of natural enemies to help suppress pest populations to acceptable levels. Once the agent becomes established, control is self perpetuating, potentially reducing the need to use pesticides.

Pest

Gorse
Bull Thistle
Yellow Star Thistle
Scotch Broom
Ash White Fly
Italian Thistle
Puncture Vine
Purple Star Thistle
Klamath Weed
Canada Thistle
Plumeless Thistle

Biological Agent/Mechanism

Gorse Mite, Seed Weevil
Bull Thistle Gall Fly
Seed Head Weevil, Gall Fly, Hairy Weevil, Peacock Fly
Seed Weevil, Stem Boring Moth
Parasitic Wasp
Seed Weevil
Seed Weevil
Seed Weevil
Beetle
Mechanical and chemical removal
Mechanical and chemical removal

Marin/Sonoma Weed Management Area

A weed management area group was formed for Marin and Southern Sonoma Counties in early 1999. The Weed Management Area's (WMA) plan is to unite individual ownership and public agencies, provide an opportunity to share resources in mapping, planning information and help control weeds across land ownership boundaries. The WMA has performed a number of weed control projects made possible by the state legislature passing AB 1168 and SB 1740 which provide funding to WMA's. With this funding, the WMA has hand pulled woolly distaff thistle (*Carthamus lanatus*), and purple star thistle (*Centaurea calcitrapa*). The WMA works with all landowners to determine the best method of control of each individual landowner's requirements. Where there are sites potentially harboring endangered or threatened species of plants and animals, hand removal is the method of choice. Mechanical and chemical removal of weeds is utilized at other sites. The WMA also conducted a number of public workshops on how to control weeds and a hand pulling field day. Anyone is welcome to come to the meetings and everyone is welcome to help control weeds.

Pest Exclusion

In 2001, Marin County personnel conducted 5,286 incoming plant quarantine inspections. Plant shipments were monitored at Federal Express, UPS, nurseries, ethnic markets, aquatic supply stores, and marble/tile/slate stores (inspection of foreign wooden crates and pallets for wood boring insects). 66 gypsy moth inspections of household goods from eastern states were conducted, as well as 1,695 Glassy-Winged Sharp Shooter inspections on plant material from infested California counties.

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

A total of 18 pests were intercepted. Of those, 6 were "Q" rated, and 4 were "A" rated, and 8 were "C" or "D" rated. In addition, 5 Glassy-Winged Sharp Shooter egg masses were detected, none of which were determined to be viable.

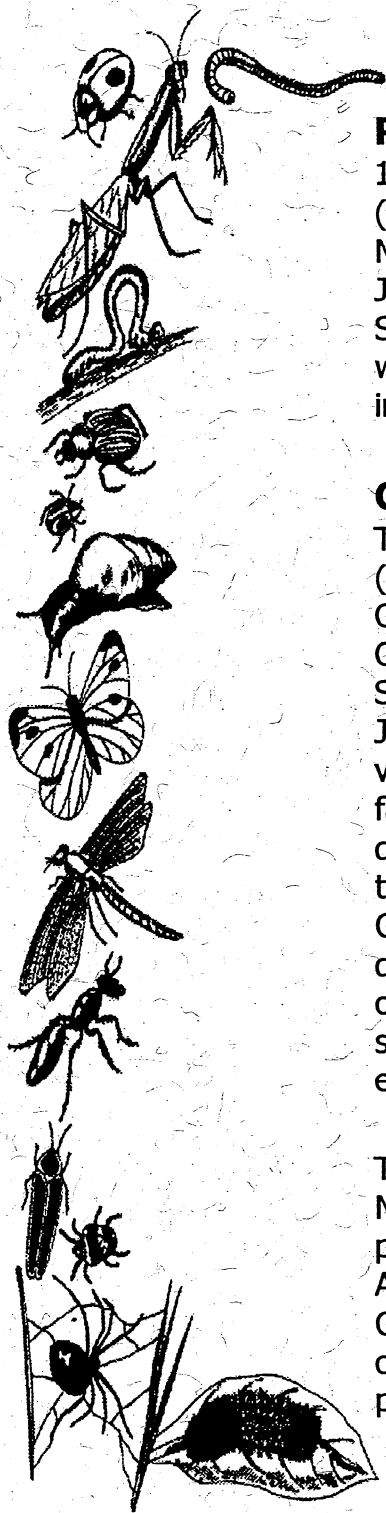
The following is a list of the significant pest interceptions:

Scientific Name	Common Name	Rating
<i>Lymantria dispar</i>	Gypsy Moth	A
<i>Malacosoma americanum</i>	Eastern Tent Caterpillar	A
<i>Thrips florum</i>	Thrips	A
<i>Homalodisca coagulata</i>	Glassy-Winged Sharp Shooter	B
<i>Pheidole megacephala</i>	Big Headed Ant	Q
<i>Technomyrmex albigipes</i>	An Ant	Q
Unknown	Insect Eggs	Q

Q - rating: Serious - Quarantine Action

A - rating: Serious - State Action

B - rating: Serious - County Action



Pest Detection

1,329 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, and Glassy-Winged Sharpshooter). Of the 1,329 traps, 131 traps were placed for the Glassy-Winged sharpshooter in nurseries and vineyards 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.

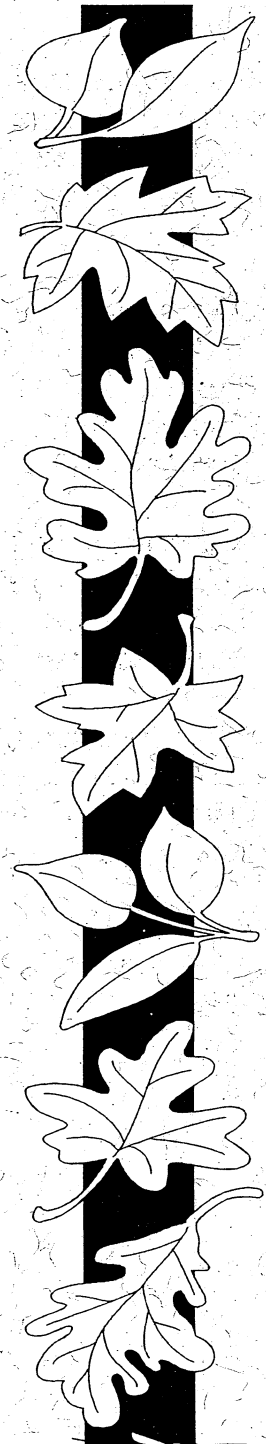
To prevent the introduction of this leafhopper into Marin County, staff inspect all incoming nursery plant shipments from infested California counties. A total of 1,695 shipments were inspected for GWSS. Detection traps placed throughout the county are also monitored for the Homopterus pest.

Sudden Oak Death (SOD)

Since 1995, tanoak, coast live oak, and black oak trees have been dying in large numbers in the counties of Alameda, Marin, Mendocino, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma. The elevated mortality of these trees is puzzling and alarming. Such a massive dieback of these species has never been reported in California. The extent of the problem is not fully known, and the problem is expected to become more extensive in upcoming years. Research pathologists have isolated the fungal causal agent – a new species of *Phytophthora*, recently designated as *P. ramorum*. This organism infects and destroys the inner bark in the lower trunk of oak trees, causing decline and eventual death of the tree.

In addition to the tree host species listed above, *Phytophthora ramorum* has also been isolated in rhododendrons, evergreen huckleberry, shreve oak, California bay laurel, California buckeye, big leaf maple, manzanita, California coffeeberry, toyon, hairy honeysuckle, and madrone. So far, all positive cases of *Phytophthora* come from wildland/forest settings, or from trees in the urban/wildland interface zone such is found in Marin County.

The California Oak Mortality Task Force (COMTF) was established to research and understand the disease process in an effort to manage or even control the spread of *Phytophthora*. More information with links to many other sites may be obtained at www.suddenoakdeath.org and www.camfer.cnr.berkeley.edu/oaks



Farmers Markets of Marin County

The purpose of farmers markets are to allow local producers to sell their certified commodities direct to the public. Currently, there are 16 certified producers that have been issued certificates in Marin County. The following 7 Farmers Markets have been certified by the Agricultural Commissioner to market local produce in Marin County.

Civic Center Farmers Market

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

Old Town Novato Farmers Market

Down Town, Novato
Tuesdays – 4:00 pm – 8:00 pm
May - December

Sausalito Farmers Market

Sausalito Ferry Landing
Fridays – 4:00 pm – 8:00 pm
June - September

Pt. Reyes Farmers Market

11250 Hwy 1, Pt. Reyes Station
Saturdays – 9:00 am – 2:00 pm
June - October

Fairfax Farmers Market

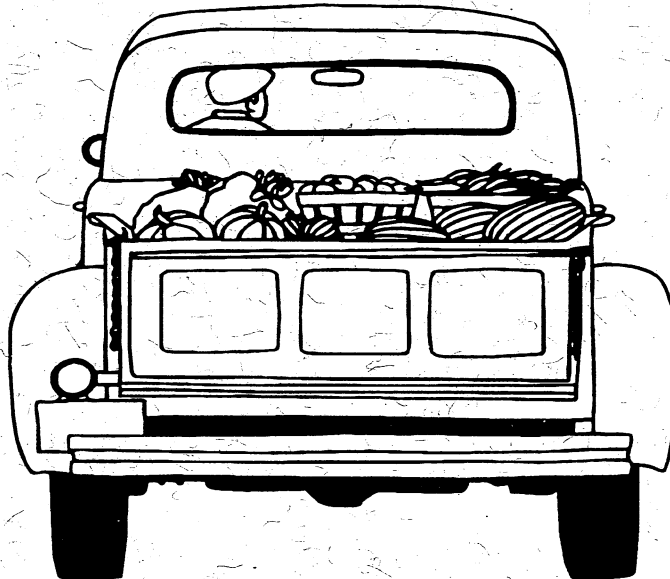
Broadway, in Fairfax Theatre
Parking Lot
Wednesdays – 4:00 pm – 8:00 pm
May – October

Downtown San Rafael Farmers Mrk

Fourth St., San Rafael
Thursdays – 6:00 pm – 9:00 pm
May – October

Corte Madera Farmers Market

1554 Redwood HWY (The Village Mall)
Wednesdays – 1:00 pm - 6:00 pm
May – November





Department Staff

Agricultural Commissioner/Director of Weights and Measures

Stacy K. Carlsen



Deputy Agricultural Commissioner/Deputy Director of Weights and Measures

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