

Table of Contents

Letter to the Secretary / Board of Supervisors	1
Niven Nursery	2
Summary of Production	4
Agricultural Production Gross Value – A Ten Year Summary	5
Livestock, Poultry, and Aquaculture.....	6
Livestock Products.....	6
Inventories of Livestock and Poultry.....	7
Field, Fruit and Vegetable Crops.....	8
Nursery Products.....	9
Department Programs	10
Summary of Sustainable Agriculture	12
Pest Prevention Program	
Marin/Sonoma Weed Management Area	13
Pest Exclusion	13
Sudden Oak Death (SOD)	14
Pest Detection	14
Gypsy Moth	14
Glassy-winged Sharpshooter	15
Farmers Markets of Marin County.....	16
Department Staff	17



DEPARTMENT OF AGRICULTURE • WEIGHTS AND MEASURES

April 1, 2001

William J. Lyons, Jr., Secretary
California Department of Food and Agriculture
And
Marin County Board of Supervisors
Harold C. Brown, President, District 2

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John Kress,
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Cynthia Murray,

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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 2000. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2000 gross value of all production was \$48,189,133. This is a decrease of \$5,352,426 from the 1999 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 crop for Marin, and this year accounts for over 57% of the crop report's total value. Milk had a 19% decrease in production from 1999, as production was affected by a 14% decrease in the value of milk.

Livestock and poultry value increased by \$819,679 as prices received increased from last year's market prices. Production also increased. Poultry value went up 9%, however, production decreased 18% due to flock movement to other counties.

Aquaculture experienced a 13% increase in value over last year in spite of the usual approximate 50% juvenile oyster mortality rate.

The value of field, fruit and vegetable production, including wine grapes, went down by \$12,101, due to a 22% reduction in wine grape production caused by a poor growing season. Nursery crops saw better market prices, fueled by a strong economy, resulting in a 13% increase in value.

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 who worked so hard in preparing it.

Respectfully submitted,

Stacy K. Carlsen
Agricultural Commissioner

Niven Orchid Company

Back in the early 1920's a man named James Niven had a dream to start up a commercial cut flower nursery operation in Marin County. He set out placing thermometers in various locations as he attended baseball games throughout the county, in search of just the right spot to build his greenhouses. Knowing just what he was looking for, he determined that the microclimate of Larkspur offered the best temperatures and the right amount of rain to begin his nursery operation. James started Niven Company at its present site in Larkspur in 1921 with his two sons, Walter and George. The primary crops were orchids, Begonias, and a few bulb crops, but the nursery was mostly known for its orchid production.

In 1937, in addition to the orchids, George formed a separate company with a partner under the name of Niven & Sarrat in order to market their crops and to grow gardenias. Gardenias were replaced with roses during the early 1950's and in 1958, George Niven bought out the partnership, bringing both the orchid and rose greenhouses together as one company.

George died in 1963 and his wife Inez and son, Jim took over the running of the business. In 1978, Jim, a Larkspur volunteer fireman died in a fire engine accident and at that time, his wife Lorraine became president. In 1982, their daughter Cynthia joined her mother to bring the business into its fourth generation of family operation.

When the nursery was in full operation in the late 1980's it occupied 230,000 square feet of greenhouses. In them, 54,000 rose plants of twenty varieties produced a total yearly production of 1,200,000 blooms, and annual orchid production was approximately 300,000 marketable blooms, with plant sales making up thirty five percent of total orchid sales. Orchid varieties grown by Niven include Cattleya, Phalaenopsis, Paphiopedilum, Oncidium, Vanda, and Cymbidium species. While commercial orchid production is maintained throughout the year, the plants usually produce these gorgeous little beauties once per year with the heaviest production in the spring. They're picky too; you have little control and can't force or manipulate blooming as you can with roses. They bloom when they bloom. Orchid flowers, although appearing to look very different from one another, have one thing in common. If you draw a line from top to bottom through the center of the flower, it will be identical on either side.

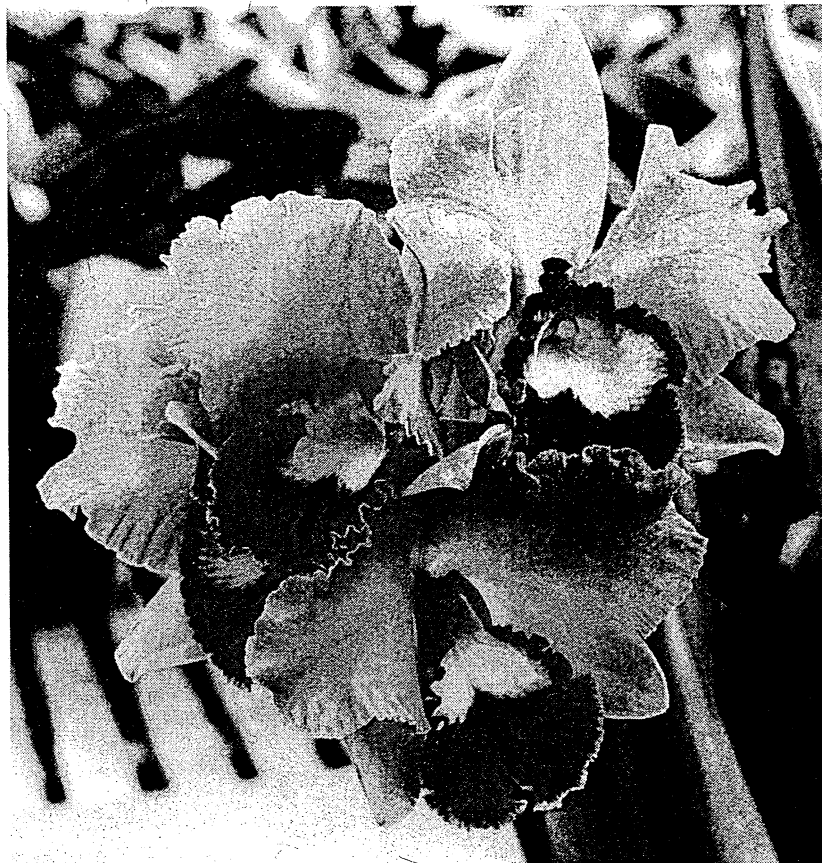
About six years ago the decision was made to drop rose production and concentrate entirely on orchid production. Roses are quite a bit more expensive to produce; they require 60 % more handling than orchids.

Initially, the flower industry evolved around Easter holiday and eventually grew popular during Thanksgiving, Valentine's Day, Mother's Day, Secretary's Day and Grandparent's Day, etc. Many years ago, orchid flowers were a stock item in floral shops. Cattleya orchid corsages for women were standard practice in the 1920's through 1950's, and orchids used in weddings were very popular as well. But times change. The formality prior to the 1960's

gave way to a more relaxed way of life. By the mid 1970's, the orchid business for cut flowers had dropped off and the focus switched to houseplants. In the mid 1980's, there was a surge in the number of hobbyists collecting Phalaenopsis orchid plants. Advances in orchid plant breeding brought orchids from nursery greenhouses of the wealthy to windowsills in suburbia and city apartments. In the last five years there has been a growing interest in cut orchids for weddings and funerals as well.

Today at Niven Nursery, all saleable orchid plants are housed in 80,000 square feet of greenhouses. However, the two boilers used to heat the greenhouses were turned off in January 2001 after receiving the December heating bill. This represents the first time in 80 years the greenhouses were no longer heated in winter.

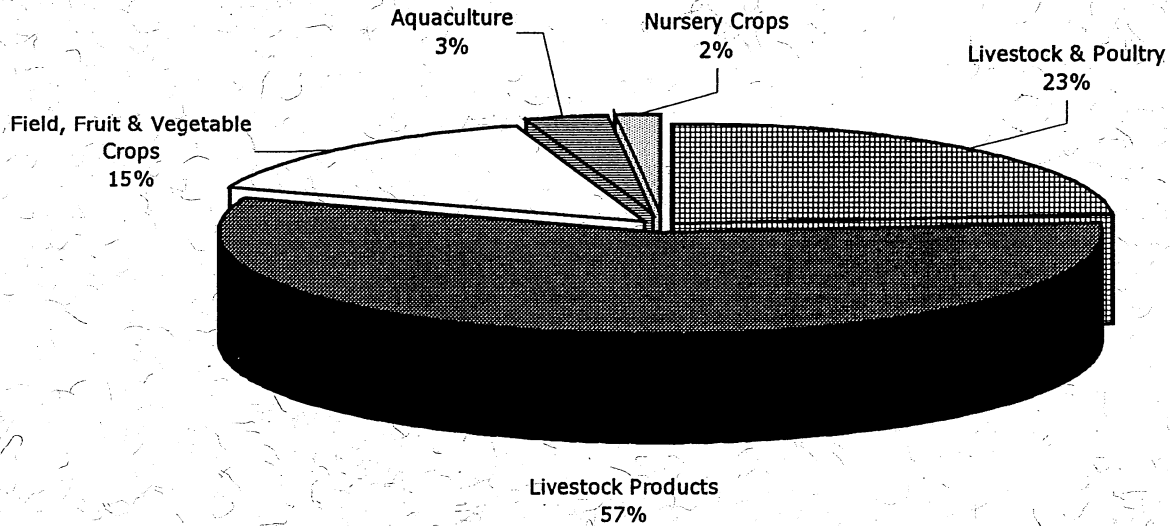
Niven continues to harvest and sell their exquisite orchid flowers to fill orders, which are shipped to all parts of the United States and locally to wholesalers at the San Francisco flower market. However, without heat, production is down. It is very likely that 2001 will be the final year in production. The land is for sale, and when it sells, it will mark the end of an historical era in Marin County.



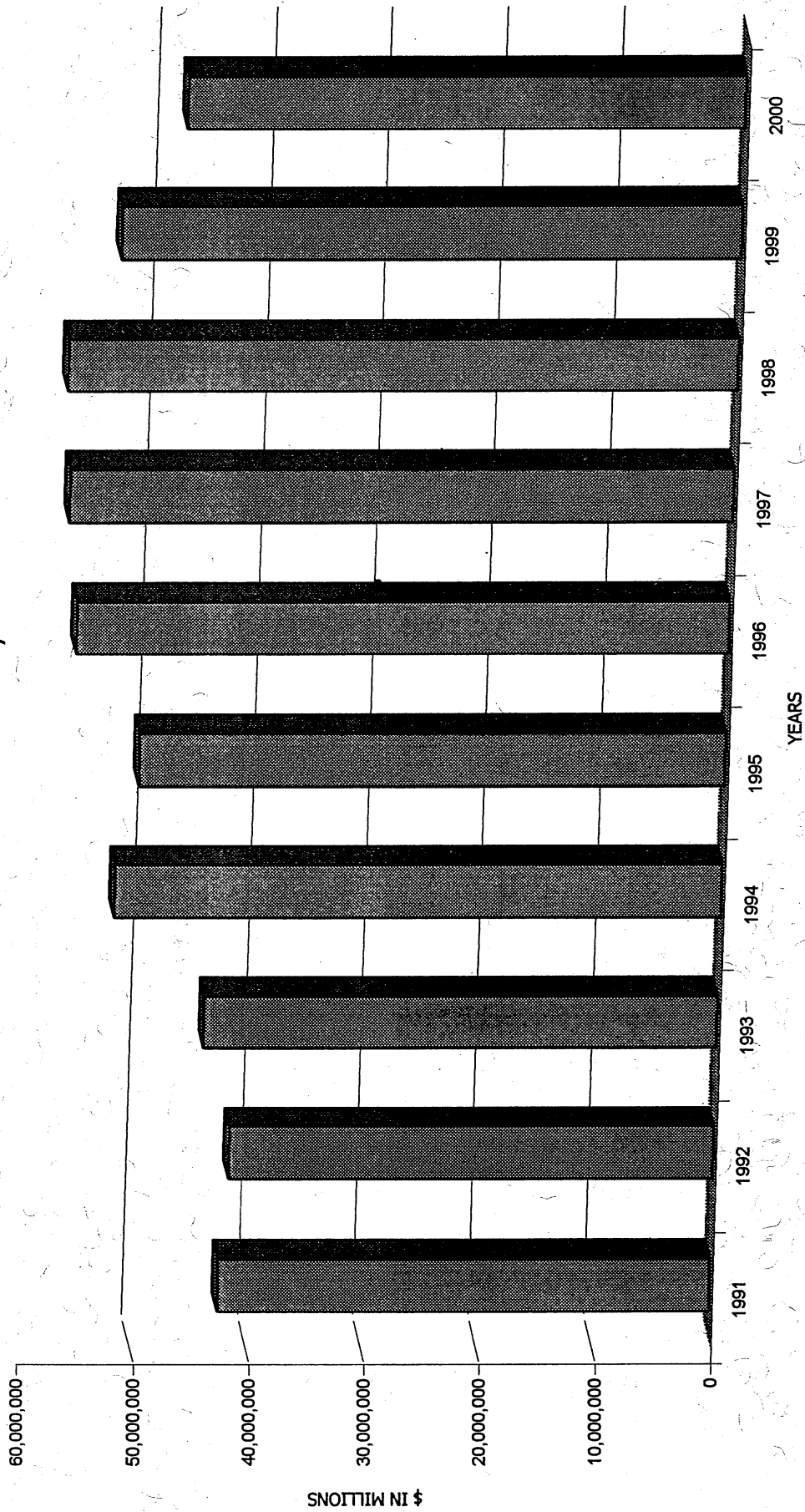
Summary of Production

	<u>2000</u>	<u>1999</u>
Livestock Products	\$ 27,456,326	\$ 33,906,850
Livestock & Poultry	\$ 11,310,505	\$ 10,490,826
Field, Fruit & Vegetable Crops	\$ 7,158,311	\$ 7,170,412
Aquaculture	\$ 1,450,305	\$1,266,019
Nursery Crops	\$ 813,686	\$ 707,452
TOTAL	\$ 48,189,133	\$ 53,541,559

2000 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	2000	20,181	121,077	cwt	\$ 65.18	\$ 7,891,256
	1999	20,514	123,571	cwt	\$ 60.39	\$ 7,462,255
Sheep & Lambs	2000	9,121	9,851	cwt	\$ 67.39	\$ 663,857
	1999	7,496	8,096	cwt	\$ 64.13	\$ 516,227
Poultry & Eggs*	2000	99,957				\$ 2,755,392
	1999	121,468				\$ 2,509,344
Aquaculture	2000		Oysters, Mussels, & Clams			\$ 1,450,305
	1999		Oysters, Mussels, & Clams			\$ 1,266,019
Total	2000					\$ 12,760,810
	1999					\$ 11,756,845

* parent stock hatching eggs



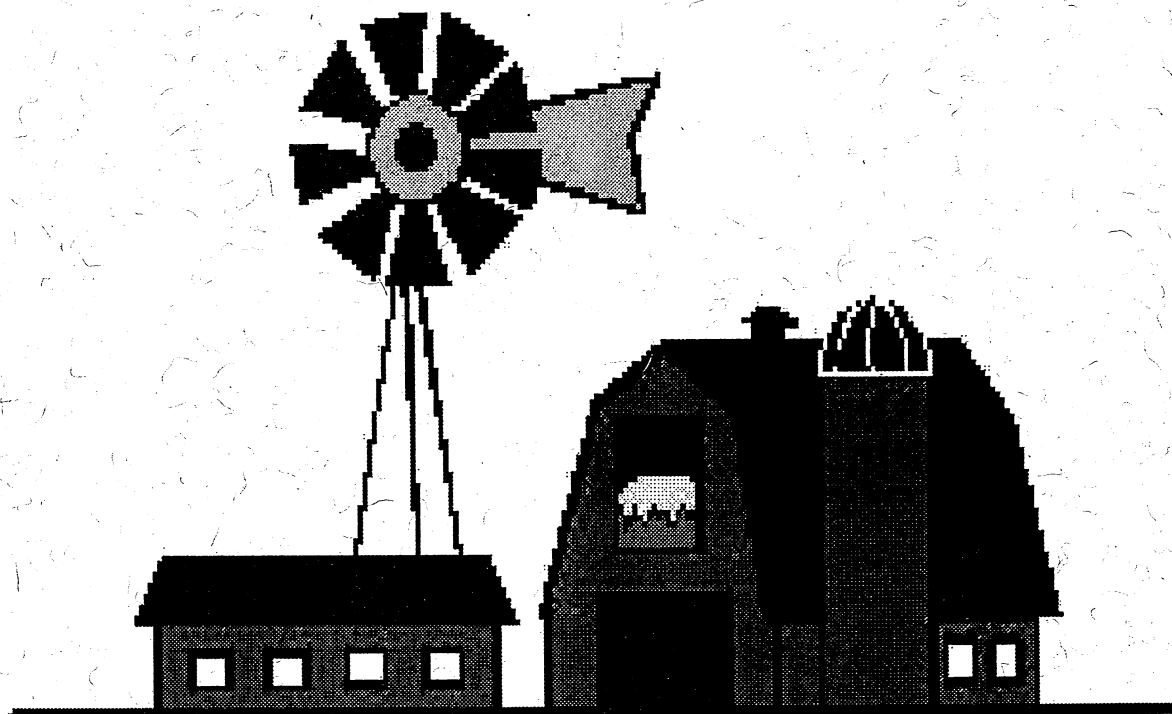
Livestock Products



Item	Year	Production	Unit	Dollar Value	
				\$/Unit	Total
Milk (Market)	2000	2,245,752	cwt	\$ 12.18	\$ 27,353,259
	1999	2,391,343	cwt	\$ 14.14	\$ 33,814,000
Milk (Manufacturing)	2000	7,754	cwt	\$ 9.66	\$ 74,904
	1999	4,945	cwt	\$ 13.05	\$ 65,000
Wool	2000	70,407	lbs	\$ 0.40	\$28,163
	1999	139,248	lbs	\$ 0.20	\$ 27,850
Total	2000				\$27,456,326
	1999				\$ 33,906,850

Inventories of Livestock and Poultry (Number of Head as of January 1, 2001)

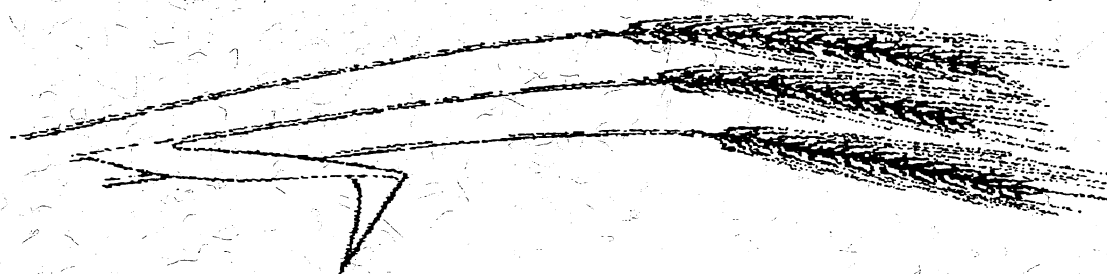
ITEM	NUMBER
Cattle and Calves, all	42,193
Milk cows and heifers 2 years and over	12,000
Beef cows and heifers 2 years and over	13,000
Sheep and Lambs, all	19,175
Poultry	121,468



Field, Fruit and Vegetable Crops

Item	Year	Harvested Acreage	Ton/ Acre	Total Tons	Unit	Dollar Value	
						\$/Unit	Total
Hay, Grass	2000	1,990	2.5	4,975	ton	\$50.67	\$252,083
	1999	1,985	2.28	4,525	ton	\$ 48.75	\$ 220,593
Hay, Oat	2000	1,500	2.5	3,750	ton	\$76.00	\$285,000
	1999	1,534	1.62	2,485	ton	\$ 60.00	\$ 149,100
Silage	2000	2,575	14	36,050	ton	\$29.00	\$1,045,450
	1999	2,574	14	36,036	ton	\$ 29.00	\$ 1,045,044
Hay, Grain	2000	0	0	0	ton	\$0	\$0
	1999	160	.75	120	ton	\$ 220.00	\$ 26,400
Pasture, Irrigated	2000	810				\$ 100.00	\$ 81,000
	1999	810				\$ 100.00	\$ 81,000
Pasture, Other	2000	154,000				\$ 29.00	\$ 4,466,000
	1999	154,000				\$ 29.00	\$ 4,466,000
Fruits & Vegetables	2000	177					\$ 793,674
	1999	176					\$ 882,275
Grapes, Wine*	2000	94		116.5	ton		\$ 235,104
	1999	91		154.5	ton		\$ 300,000
Total	2000						\$ 7,158,311
	1999						\$ 7,170,412

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



Nursery Products

Item	Year	Production Acres	Dollar Value Total
Nursery	2000	42	\$ 813,686
Stock, All	1999	40	\$ 707,452



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 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 pests outside of a known infested area. The goal is to find infestations of harmful exotic pests before eradication becomes biologically or economically not feasible.

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 to the maximum extent feasible 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.

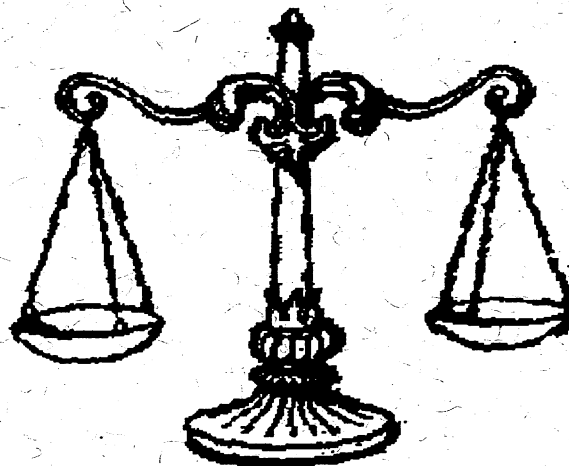
The Marin County Agricultural Commissioner's Office is also in the process of creating an IPM program for schools. This program is being established to develop pest management systems for the purpose of reducing risk to human health and the environment for activities associated with pest control.

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 plant nurseries, Farmers Markets, and organic farms, as well as eggs being sold at wholesale and retail outlets.

Weights and Measures

The Weights and Measures program protects the interests of the buyer and seller to ensure honesty and integrity of everyday business transactions when products are sold by weight, measure, count or time. This protection is accomplished through our continuous and systematic inspection of all equipment that weighs or measures a commodity that is sold. 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, property, and service 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 using resources in ways that meet our own needs without compromising the ability of future generations to meet their own needs. The three "Es" of sustainability are the Environment, social Equity, and the Economy.

Organic Food Production/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 28 registered organic producers in Marin County farming 357 acres, producing a total gross value of 3.2 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, milk, mixed salad greens, olives, onions, 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 is one of the first governmental agencies approved by the State of California to certify organic growers and handlers.

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. The State Legislature (AB 1168 & SB 1740) authorized funding to weed management areas. With this funding, the WMA hired a hand pulling weed crew to remove wooly distaff thistle (*Carthamus lanatus*), purple star thistle (*Centaurea calcitrapa*), and yellow star thistle (*Centaurea solstitialis*). The WMA works with all landowners to determine the best method of control of each individual landowner's requirements. Both mechanical and chemical removal of weeds is utilized. Where there are sensitive plants and animals, hand removal is the method of choice. 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 2000, Marin County personnel conducted 5,280 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). 82 gypsy moth inspections of household goods from eastern states were conducted, as well as 1,010 Glassy Winged Sharp Shooter inspections on plant material from infested California counties.

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

A total of 97 pests were intercepted. Of those, 11 were "Q" rated, and 52 were "B" rated, and 34 were "C" or "D" rated. In addition, 11 Glassy Winged Sharp Shooter egg masses were detected, 3 of which were determined to be viable.

The following is a list of the significant pest interceptions:

Scientific Name	Common Name	Rating
<i>Dasineura balsamicola</i>	Balsam Fir Gall Midge Complex	B
<i>Eulecanium kunoense</i>	Kuno scale	B
<i>Homalodisca coagulata</i>	Glassy Winged Sharp Shooter	B
<i>Orchidopilus aterrimus</i>	Orchid Weevil	Q
<i>Pheidole megacephala</i>	Big Headed Ant	Q
<i>Technomyrmex albipes</i>	An Ant	Q
Unknown	A Gall Wasp	Q

Q - rating: Serious - Quarantine Action

B - rating: Serious - County Action

Sudden Oak Death (SOD)

Since 1995, tanoak, coast live oak, and black oak trees have been reported dying in large numbers in the counties of Marin, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, 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*. This fungus infects and destroys the inner bark in the lower trunk of susceptible trees.

In addition to the tree host species listed above, the new species of *Phytophthora* has also been isolated in rhododendrons, huckleberry, shreve oak, bay laurel, 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, manage, and control the spread of the *Phytophthora* and understand the disease process. More information with links to many other sites may be obtained at www.suddenoakdeath.org and www.camfer.cnr.berkeley.edu/oaks

Pest Detection

1,130 traps were serviced for exotic insect pests (including Mediterranean and Oriental Fruit Flies, Olive Fruit Fly, Khapra Beetle, Gypsy Moth, Japanese Beetle, Melon fly, and Glassy Winged Sharpshooter). Of the 1,130 traps, 83 Gypsy Moth traps were placed in service in Novato for Gypsy Moth delimitation. Of the 1,130 traps, 123 traps were placed for the Glassy-winged sharpshooter in nurseries and vineyards throughout the county.

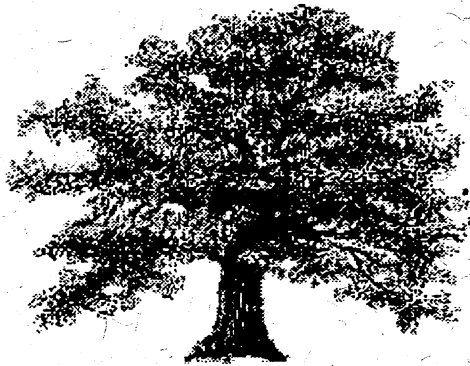
Gypsy Moth

On July 7, 2000, two adult male gypsy moths were captured in a detection trap located on a property in Novato. Subsequently, gypsy moth detection trap density was increased to 25 per square mile over a four-square-mile area surrounding this property. A door-to-door search was initiated after several additional gypsy moths were trapped in a localized area. The door-to-door search revealed eight egg masses, several pupal cases, and cast skins at a residence where outdoor items had been moved from Connecticut in January 2000. A total of 19 moths were trapped during a several week period, constituting an established infestation of this pest. An eradication program consisting of ground and aerial treatments began in the spring of 2001. Post treatment monitoring will consist of the placement of 49 traps per square mile for four square miles surrounding the treatment epicenter. Normal detection trap density will be resumed after two years of negative trapping.

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.

To prevent the introduction of this leafhopper into Marin County, staff have inspected all incoming nursery plant shipments from infested California counties. A total of 1,010 shipments were inspected for GWSS. Detection traps are also monitored for the Homopterous pest.



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 25 certified producers that have been issued certificates in Marin County. The following 9 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

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

West Marin Farmers Market

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

Canal Mercado Farmers Market

Alto St., San Rafael
Sundays – 9:00 am – 2:00 pm
June - September

Corte Madera Farmers Market

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

San Geronimo Farmers Market

Valley Presbyterian Church
Saturdays – 10:00 am – 2:00 pm
May - October



Department Staff

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Stacy K. Carlsen



Deputy Agricultural Commissioner/Deputy Director of Weights and Measures

Fred W. Crowder



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Ingrid David



Senior Secretary

Joanne Van Cleave



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Ann Keaton