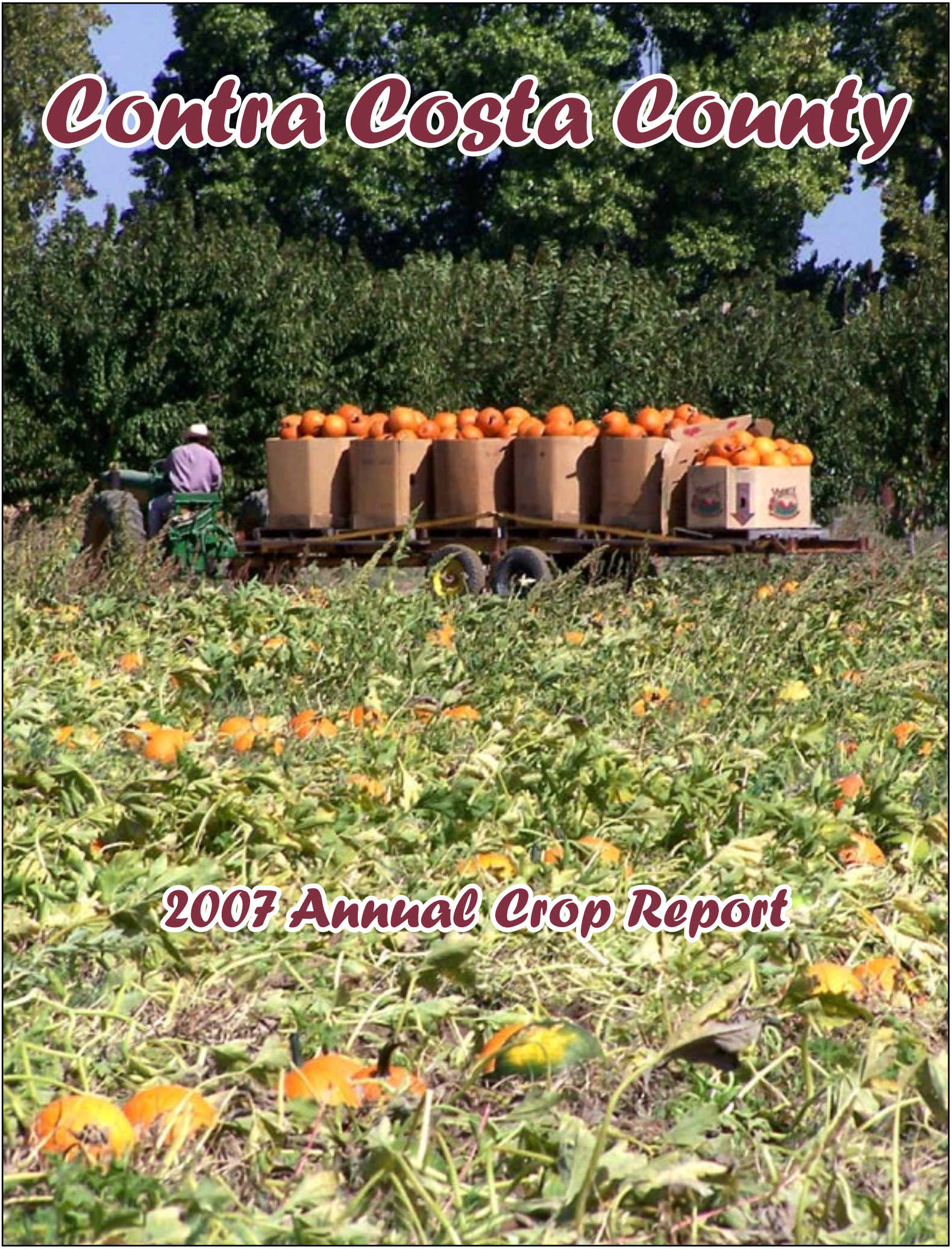
Contra Costa County



2007 Annual Crop Report

Contra Costa County
Department of Agriculture/
Weights & Measures

Agricultural Commissioner - Director of Weights & Measures
Edward P. Meyer

Chief Deputy Agricultural Commissioner/Sealer
Vince Guise

Deputy Agricultural Commissioner

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Chris deNijs	Kathryn White	Mariah Slusser

Weights & Measures Inspector I

Keely Kirkman	Patrick Bowen	Gabriel Adebote

Administrative Support

Executive Secretary	**Senior Clerk**
Susan Finley	Roxann Crosby

Field Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Field Corn	2007	7,210	3.88	28,000	Ton	145.00	4,060,000
	2006	5,690	3.96	22,500	Ton	110.00	2,475,000
Hay							
Alfalfa	2007	3,840	5.91	22,700	Ton	158.00	3,587,000
	2006	3,310	4.73	15,700	Ton	121.00	1,900,000
Grain	2007	1,200	2.17	2,600	Ton	97.30	253,000
	2006	1,580	2.76	4,360	Ton	58.50	255,000
Pasture							
Irrigated	2007	6,790			Acre	185.00	1,256,000
	2006	7,360			Acre	120.00	883,000
Rangeland	2007	169,000			Acre	20.00	3,380,000
	2006	169,000			Acre	20.00	3,380,000
Wheat	2007	1,260	1.59	2,000	Ton	163.00	326,000
	2006	2,520	1.94	4,890	Ton	121.00	592,000
Miscellaneous Field Crops*	2007	2,360					715,000
	2006	2,540**					687,000**
Total	2007	191,660					$13,577,000
	2006	191,996					$10,172,000

* Barley, Forage Hay, Hay (Wild), Rye, Silage, Straw, Sudan Grass, Safflower

**Revised value

Vegetable & Seed Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Beans	2007	361	3.85	1,390	Ton	1,080.00	1,501,000
	2006	319	3.16	1,010	Ton	1,040.00	1,050,000
Onions	2007	9	4.68	42	Ton	1,120.00	47,000
	2006	39	6.95	271	Ton	405.00	110,000
Squash	2007	16	3.60	58	Ton	994.00	57,700
	2006	19	3.78	72	Ton	1,150.00	82,800
Sweet Corn	2007	3,560	10.10	36,000	Ton	367.00	13,212,000
	2006	3,550	9.88	35,100	Ton	372.00	13,057,000
Tomatoes							
Total	2007	1,568		78,744	Ton		5,893,000
	2006	1,500		67,908	Ton		4,838,000
Fresh	2007	48	15.50	744	Ton	1,190.00	885,000
	2006	40	15.20	608	Ton	1,470.00	894,000
Processing	2007	1,520	51.30	78,000	Ton	64.20	5,008,000
	2006	1,460	46.10	67,300	Ton	58.60	3,944,000
Miscellaneous Vegetable & Seed Crops*	2007	1,450					4,996,000
	2006	857					2,896,000
Total	2007	6,964					$25,706,700
	2006	6,284					$22,033,800

* Asparagus, Artichokes, Beets, Cabbage, Cardoon, Carrots, Cauliflower, Cucumbers, Eggplant, Garlic, Ginseng, Lettuce, Okra, Greens, Herbs, Peas, Peppers, Potatoes, Pumpkins

Fruit & Nut Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Apples	2007	270	6.34	1,710	Ton	515.00	881,000
	2006	262	7.00	1,830	Ton	490.00	897,000
Apricots							
Total	2007	533	6.84	3,665	Ton		1,268,000
	2006	519	7.20**	3,738	Ton		1,714,000
Fresh	2007			145	Ton	1,510.00	219,000
	2006			238	Ton	2,790.00	664,000
Processing	2007			3,520	Ton	298.00	1,049,000
	2006			3,500	Ton	300.00	1,050,000
Cherries	2007	297	1.87	555	Ton	3,090.00	1,715,000
	2006	364	1.41	513	Ton	3,180.00	1,631,000
Grapes	2007	1,910	4.79	9,150	Ton	671.00	6,140,000
	2006	1,940	4.42	8,570	Ton	771.00	6,607,000
Nectarines	2007	38	1.79	68	Ton	3,190.00	217,000
	2006	39	2.57	100	Ton	3,190.00	319,000
Peaches	2007	151	3.50	529	Ton	1,640.00	868,000
	2006	157	3.07	482	Ton	1,270.00	612,000
Plums and Pluots	2007	36	1.61	58	Ton	1,920.00	111,000
	2006	39**	2.03**	79**	Ton	2,960.00	234,000**
Walnuts	2007	468	1.78	833	Ton	1,740.00	1,449,000
	2006	513	1.78	913	Ton	1,420.00	1,296,000
Miscellaneous Fruit & Nut Crops*	2007	167					847,000
	2006	162**					694,000**
Total	2007	3,870					$13,496,000
	2006	3,995					$14,006,000

* Almonds, Asian Pears, Berries, Citrus, Figs, Melons, Olives, Pears, Pecans, Persimmons, Pistachios, Prunes, Pomegranates, Quinces, Strawberries

** Revised value

Nursery Products

Crop	Year	Production Area		Value
		House Sq. Ft.	Field Acres	Total
Bedding Plants	2007	786,000	24.50	8,094,000
	2006	1,144,000	40.30	13,720,000
Herbaceous Perennials	2007	493,000	12.90	1,157,000
	2006	857,000	14.30	1,521,000
Indoor Decoratives	2007	346,000	0.50	676,000
	2006	515,000	0	1,078,000
Vegetable Plants	2007	1,000	2.60	382,000
	2006	0	4.00	581,000
Miscellaneous Nursery Crops *	2007	56,700	51.70	1,551,000
	2006	82,000	31.30	1,597,000
Total	2007	1,682,700	92.20	$11,860,000
	2006	2,598,000	89.90	$18,497,000

* Christmas Trees, Potted Flowers & Vegetables, Ground Covers, Propagative Materials, Hanging Baskets, Ornamental Trees & Shrubs, Fruit Trees, Cut Flowers.

Livestock

Item	Year	Production			Value	
		No. of Head	Total Liveweight	Unit	Per Unit	Total
Cattle & Calves	2007	18,000	126,000	Cwt	88.90	11,201,000
	2006	25,800	194,000	Cwt	92.30	17,906,000

Item	Year	Production	Unit	Value	
				Per Unit	Total
Honey	2007	32,000	Lbs.	7.00	224,000
	2006	40,000	Lbs.	6.00	240,000
Beeswax	2007	240	Lbs.	4.00	960
	2006	300	Lbs.	4.00	1,200
Pollination	2007	500	Colonies	150.00	75,000
	2006	500	Colonies	140.00	70,000
Miscellaneous Livestock and Livestock Products*	2007				500,000
	2006				500,000
Total	2007				$12,000,960
	2006				$18,717,200

* Chickens, Ducks, Emus, Goats, Hogs, Llamas, Ostriches, Pigs, Rabbits, Sheep, Turkeys, Milk, Wool, Eggs, Pollen

Recapitulation

Category	Gross Value/Million Dollars 2007	2006	Ranking 2007	2006
Vegetable & Seed Crops	25.7	22.0	1	1
Field Crops	13.6	10.2	2	5
Fruit & Nut Crops	13.5	14.0	3	4
Livestock	12.0	18.7	4	2
Nursery Products	11.9	18.5	5	3

Category	Gross Value 2007	2006	Change
Field Crops	13,577,000	10,172,000	3,405,000
Vegetable & Seed Crops	25,706,700	22,033,800	3,672,900
Fruit & Nut Crops	13,496,000	14,006,000	-510,000
Nursery Crops	11,860,000	18,497,000	-6,637,000
Livestock	12,000,960	18,717,200	-6,716,240
Total	$76,640,660	$83,426,000	-6,785,340

Total Acres in County	482,000
Population in County January 2007	1,042,341
Land in Farms - Acres (2002 Census)	126,338
Harvested Cropland - Acres (2002 Census)	26,018

Organic Farming

	Apricots	Cherries	Nectarines	Peaches	Pears	Pistachios	Plums	Fruit, other	Herbs	Peas/Beans	Sweet Corn	Tomatoes	Vegetables, leafy	Vegetables, root	Vegetables, other	Nursery products
No. of Farms	1	3	1	1	1	1	1	2	2	1	3	1	1	2	1	2
Estimated Acres	11.0	45.0	17.0	40.0	8.0	40.0	5.0	1.5	2.3	25.0	56.5	0.3	3.0	0.4	1.0	1.3

Total Acres Organically Farmed 257.3

Million Dollar Crops

Category	Gross Value/Million Dollars 2007	2006	Ranking 2007	2006
Sweet Corn	13.2	13.1	1	3
Cattle & Calves	11.2	17.9	2	1
Bedding Plants	8.1	13.7	3	2
Grapes	6.1	6.6	4	4
Tomatoes, All	5.9	4.8	5	5
Miscellaneous Vegetables	5.0	2.9	6	7
Field Corn	4.1	2.5	7	8
Hay - Alfalfa	3.6	1.9	8	9
Rangeland Pasture	3.4	3.4	9	6
Cherries	1.7	1.6	10	10
Miscellaneous Nursery	1.6	1.6	11	12
Beans	1.5	1.1	12	16
Walnuts	1.4	1.3	13	14
Apricots, All	1.3	1.6	14	11
Irrigated Pasture	1.3	0.9	15	
Herbaceous Perennials	1.2	1.5	16	13

Biological Control

Pest	Agent/Mechanism	Scope of Program
Yellow Starthistle (Centaurea solstitialis)	Hairy Weevil (Eustenopus villosus)	Ongoing
	YST Flower Weevil (Larinus curtus)	Ongoing
	Rust Pathogen (Puccinia jaceae var. solstitialis)	Ongoing
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Encytrid Parasitoid Wasp (Psyllaephagus bliteus)	Ongoing

Pest Exclusion

Japanese Beetle

Cedar Apple Rust

Shipments Inspected	
Mail/UPS/Fed Ex/Express Carriers	91,973
Truck shipments from within California	5,741
Truck shipments from other states	184
Household Goods	92
Total A & Q Rated Pests Found	119

Quarantine Rejections	***Total***	***Canine Program****
Live Pests	46	3
Plum Curculio	13	2
Citrus Pests	8	
Japanese Beetle	7	
Cedar-Apple Rust	6	
Light Brown Apple Moth	6	3
Glassywinged Sharpshooter	5	2
Burrowing Nematode	4	1
Weed Pests	4	
Gypsy Moth	3	
European Corn Borer	2	1
Colorado Potato Beetle	2	
Caribbean Fruit Fly	2	
Cereal Leaf Beetle	1	
Pine Shoot Moth	1	
Cherry Fruit Fly	1	
Chestnut Bark & Oak Wilt	1	
Nursery Stock Certificate	19	1
Hawaii Certification	2	1
Reasonable Cause	13	3
Origin/Markings	244	27
Total	***390***	***44***

***** Contra Costa County has two canine detection teams. These values represent finds in Contra Costa County only.

"A" and "Q" Rated Pests

Pests vary as to the level of potential harm they can do, so it is necessary to have a rating system to represent the statewide importance of the pest. Of special interest are pests that are rated "A" or "Q". These organisms have the potential to cause serious harm and require enforcement action when they are found. "A" rated pests, such as the Mediterranean Fruit Fly, are known to cause serious harm. "Q" rated pests are those that are suspected to cause serious harm but their status is uncertain because of incomplete information about the species.

A & Q Pest Interceptions in 2007

White-footed Ant

Magnolia White Scale

	Rating	Rejections
ANTS		
Technomyrmex albipes / White-footed Ant	Q	30
Pheidole megacephala / Bigheaded Ant	Q	14
Other ant species	Q	7
SCALES		
Ceroplastes rubens / Red Wax Scale	A	3
Pseudaulacaspis cockerelli / Magnolia White Scale	A	2
Pinnaspis strachami / Lesser Snow Scale	A	2
Ceroplastes rusci / Fig Wax Scale	A	1
Pseudaulacaspis brimblecombei / Macadamia White Scale	Q	5
Pseudaonidia trilobitiformis / Trilobe Scale	Q	2
Vinsonia stelllifera / Stellate Scale	Q	1
Aulacaspis yasumatsui / Cycad Aulacaspis	Q	1
Melanaspis bromeliae / Brown Pineapple Scale	Q	1
Other scale species	Q	5
MEALYBUGS		
Maconellicoccus hirsutus / Pink Hibiscus Mealybug	A	2
Pseudococcus jackbeardsleyi / Jack Beardsley Mealybug	Q	1
Other mealybug species	Q	3
OTHER INSECTS, MITES, & MOLLUSCS		
Opeas pyrgula / Sharp Awlsnail	A	1
Orchamoplatus mammaeferus / Croton Whitefly	Q	3
Gyponana sp. / Leafhopper	Q	2
Kallitaxila sp. / Planthopper	Q	1
Oliarus discrepans / Planthopper	Q	1
Dichromothrips corbetti / Orchid Thrips	Q	1
Scotinophara sp. / Black Bug	Q	1
Dreissena polymorpha / Zebra Mussel	Q	1
WEEDS		
Cuscuta japonica / Giant Dodder	A	22
Bupleurum rotundifolium / Hare's Ear	Q	2
Other weed species	Q	1
PLANT DISEASES		
Coleosporum plumeriae / Plumeria Rust	Q	3

When A Serious Exotic Pest Has Been Found: What's The Next Step?

As many people know, California has a pest detection program to find exotic plant pests before they grow into infestations costing hundreds of millions of dollars to eradicate. If not eradicated, these pests could cause the loss of foreign and domestic markets for California produce, serious harm to native plants, increased use of pesticides, and reduced yield and quality of California fruits, vegetables, and nursery products. But very few people know just what happens when a serious pest has been found.

The first step in the process consists of a delimitation project to find out the size of the infestation. For insects, this is usually done with detection traps. The traps may be baited with pheromones, a chemical perfume that attracts the male insect, or with a food lure to attract both males and females. During some insect delimitations, up to 1,000 traps per square mile may be used. For weed and disease pests, the delimitation step is much harder. It is necessary to physically survey the area or rely on reports from the public in order to find infestation sites. During a plant disease delimitation, samples from infected plants must be cultured in order to get a positive identification.

It is important to prevent the pest from spreading any further, so infested areas will be placed under quarantine immediately. The quarantine will control the movement of fruits, vegetables, nursery plants etc. that could carry the pest into uninfested areas. Often, additional items, such as soil, firewood, and harvest equipment, will also be restricted because life stages of the pest may hide in them.

The next step is to try to reduce and/or eradicate the pest in the infested areas. The most direct method to do this is to remove something the pest needs in order to complete its life cycle. For insects, this is usually done by removing the larval food or by preventing females from laying fertile eggs. This last method has proved to be the most effective and can be done in a variety of ways. Many male insects find mates by following a trail of pheromones put out by the female. These pheromones can be synthesized and applied to an area in large amounts, keeping the males from tracking the females. Another way to prevent female insects from laying fertile eggs is to release a large number of sterile males. The females are unlikely to find a fertile male in the crowd of sterile ones.

Physical or chemical methods can be an effective way to eradicate pests from an infested area. There are some parasitic weeds that can grow from even the tiniest fragment and must be removed along with their host plants and buried deep in a landfill. Other types of weeds are controlled by burning or by discing the soil. It may sometimes be necessary to use insecticides to kill insects or herbicides to kill weed pests. Biological control agents such as parasitic or predatory insects are often helpful when used together with other eradication methods. However, there are cases in which it may simply be impossible to successfully eradicate a pest.



Exotic pests threaten production agriculture, nurseries, and the natural environment.

Several very serious pests have been found in the San Francisco Bay Area within the last year; Mediterranean Fruit Fly (Medfly), Light Brown Apple Moth (LBAM), Japanese Dodder (a parasitic weed), Red Sesbania (a weed of riparian areas), and Sudden Oak Death (a plant disease). All are considered to be very serious threats because they have the potential to cause severe harm to both agriculture and the environment.

Mediterranean Fruit Fly: (from left to right) adult fly, larvae, locations in the San Francisco Bay Area where it has been found in 2007.

Mediterranean Fruit Fly (Medfly):

What is it: a fly that attacks over 260 types of fruits and vegetables. Medfly is a short, squat fly about 1/4 inches long that lays its eggs under the skin of fruits and vegetables. The larvae tunnel through the fruit as they feed and decay organisms enter, leaving the interior a rotten mass unfit for human consumption. Medfly is native to Africa, but has spread to other parts of the world including the Mediterranean, southern Europe, Australia, the Caribbean, South America, the New World tropics, and Hawaii.

Where is it in the Bay Area and how did it get here: in fall 2007, infestations were found in Dixon (Solano County) and San Jose (Santa Clara County). They probably were started when larvae infested fruit was brought back from Mexico, Hawaii, or some other vacation destination. The USDA Smuggling Interdiction Team has been investigating to identify the persons responsible for these two infestations.

What is being done about it: as of the end of 2007, Dixon had a quarantine covering 114 square miles and delimitation trapping over 90 square miles. In San Jose, the quarantine area was 75 square miles and the delimitation area was 81 square miles. In areas where Medfly larvae have been found, fruit has been stripped from host trees to remove larval food and ground sprays have been applied to kill adult flies. Both the Dixon and San Jose areas have had releases of sterile male Medflies that will continue twice a week throughout several life cycle's time. If no more wild Medflies are found, the quarantines could be lifted sometime in late 2008 or early 2009.

Light Brown Apple Moth (LBAM):

What is it: a moth that attacks over 2,000 types of agricultural, landscape and native plants. Adults are light brown and about 3/8 inches long. The larvae are green in color with a brown head and typically stick or roll leaves and buds together with silk webbing to make shelters. LBAM is native to Australia, but has spread to Hawaii, New Zealand, and Great Britain.

Where is it in the Bay Area and how did it get here: in early 2007, LBAM was first discovered in Alameda

Light Brown Apple Moth: (from left to right) adult male, larvae, locations where it had been found in the Bay Area in 2007 .

County. By December 2007, it had been found in all of the Bay Area counties except Sonoma. LBAM probably was introduced into California in infested nursery stock from Australia.

What is being done about it: as of December 2007, there were areas under quarantine for LBAM in seven of the nine Bay Area counties (the quarantine in Napa County was lifted in December 2007). Ground applications of B. t., a biocontrol agent, have been made to treat small, isolated infestations in Contra Costa and Napa Counties. Other small infestations in Contra Costa, Napa, Alameda, Santa Clara, and Solano Counties have been treated using pheromone impregnated twist ties. In some of these areas, there have been no more LBAM life stages found and the quarantines have been lifted. There are plans to apply LBAM pheromones by air in some parts of the Bay Area starting in late summer 2008. For the future, it may be possible to develop a sterile male release program for LBAM similar to the one used for Medfly.

Japanese Dodder:

Japanese Dodder: (from left to right) growth on a landscape plant, vine strands , locations where it has been found in the Bay Area in 2007.

What is it: a weed from Asia that looks like yellow-green or orange spaghetti. Japanese Dodder is a rapidly growing (up to six inches per day) parasitic vine capable of feeding on a wide range of landscape, crop, and native plants. It produces modified roots that take water and nutrients from its host, eventually causing weakness and death. Japanese Dodder's seeds can remain viable in the soil for up to 30 years and even tiny fragments of the plant carried by wind, water, or animals can infect any other plants they contact.

Where is it in the Bay Area and how did it get here: as of December 2007, Japanese Dodder had been found at over 70 properties in Alameda, Contra Costa, and Solano Counties. This

number will likely increase as surveys and public education continue. Both the seeds and strands are thought in Asia to have medicinal uses and it may first have been introduced into California as seeds in herbal supplements. In some areas, Japanese Dodder is probably being intentionally grown.

What is being done about it: the only way to control Japanese Dodder is to physically remove it along with its host plant and bury it in a landfill. This means having to cut out and dispose of plants ranging in size from small weeds to huge trees. USDA has stepped up efforts to inspect herbal medicine shipments that could contain Japanese Dodder seeds. In spite of U.S. import regulations requiring that the seeds in these herbal remedies be sterilized, viable seeds have often been found.

Red Sesbania: (from left to right) growth in a wetland, flowers, locations where it has been found in the Bay Area in 2007.

Red Sesbania:

What is it: a poisonous woody shrub from southern South America that grows up to fifteen feet tall with a trunk diameter of up to six inches. Each plant matures rapidly, producing bright red flowers and hundreds of seed pods that float downstream. Red Sesbania forms dense thickets along rivers and creeks, displacing native plants needed by wildlife for food and cover. The dense clusters prevent access to rivers, block waterways, and can increase bank erosion and flooding.

Where is it in the Bay Area and how did it get here: as of December 2007, Red Sesbania has been found growing in wetland areas in central and northern Contra Costa County and also near Santa Rosa in Sonoma County. It will probably be found in other areas in the Bay Area as surveys continue. Red Sesbania was introduced into California as an ornamental plant because of its brightly colored flowers and may be found planted in older gardens.

What is being done about it: Red Sesbania is removed by hand-pulling smaller plants and cutting down larger ones together with treating the stumps to prevent resprouting. Seed pods are collected, bagged, and buried in a landfill. Since Red Sesbania is considered a noxious weed, it is illegal to sell it or even bring it into California. In spite of this, it is still sometimes found for sale in nurseries.

Sudden Oak Death (SOD):

What is it: a fungal disease that infects over 100 kinds of ornamental and native plants. Symptoms range from leaf spots, seeping bark cankers, and twig dieback, to the sudden death of an entire tree. SOD is thought to be

Sudden Oak Death: (left to right) leaf spotting symptoms, tree death in a forest, locations where it has been found in the Bay Area.

spread in forests by spores carried in rainwater and soil. When conditions are cool and moist, spores may also be blown by the wind. SOD has caused widespread dieback of several tree species in forests in California and Oregon as well as affecting many other types of plants.

Where is it in the Bay Area and how did it get here: SOD has been found in all nine Bay Area Counties, primarily in coastal regions and inland valleys that receive cooling from fog. SOD was first identified on rhododendrons in Europe and was probably introduced into California on infected nursery stock.

What is being done about it: in wild lands and urban areas, there are no physical, chemical, or biological control methods known for SOD. Some nurseries have been able to control the disease within their growing grounds using a combination of sanitation, fungicides, and the culling of any plants with SOD symptoms. All nine Bay Area Counties are currently under quarantine to restrict the movement of nursery stock, wood, soil, green waste, etc. that might carry the disease or its spores to new areas. Nurseries inside the quarantined areas must be under a compliance agreement in order to ship host plants to non-infested areas. The compliance agreement includes visual inspections of shipments and an annual inspection where host plants are sampled and cultured for SOD.

Infestations of exotic pests are a serious concern to both California and to the Federal Government. Exotic plant pests that became established in California could spread into other states and threaten their agriculture industries and the environment. California and the rest of the nation could face enormous losses in export markets as a result of quarantines established by our international trading partners against exotic plant pests, diseases, and weeds. There already have been specific quarantines for Medfly, LBAM, and SOD placed on the Bay Area Counties that restrict the ability of local growers to market and ship their agricultural commodities.

When exotic plant pest infestations are found, it is important to respond as soon as possible. The longer a pest population exists, the greater the chance it will spread and become permanently established. Small populations can be controlled and eradicated more successfully than large ones. Too much delay only allows the problem to grow out of control.