



MONTEREY COUNTY 2019 CROP REPORT

Henry Gonzales
Monterey County Agricultural
Commissioner

INVASIVE SPECIES

**ASIAN CITRUS
PSYLLID**

**MEDITERRANEAN
FRUIT FLY**

GYPSY MOTH

PLUS MANY MORE!





IMPACTS FROM INVASIVE SPECIES



IMPACTS FROM INVASIVE SPECIES

BY HEATHER HEALY, TIM LEWIS AND HANNAH WALLIS

Known for its beautiful coastline, diverse landscapes, and rich history, Monterey County is a prime destination spot for people from around the world. With 4.6 million visitors every year, tourism contributes an annual revenue of \$1.3 billion to the local economy. Aside from its world-renowned beauty, Monterey County is a leader in the agricultural industry, generating \$4.5 billion in 2018 alone. With an extensive farming history dating back to the 1850s, Monterey County currently grows over 150 specialty crops and exports nearly 400 billion pounds of produce from the Salinas Valley every year.

Despite this prosperity, our thriving industry and natural resources remain threatened by invasive species. The National Invasive Species Council (NISC) defines an invasive species as any non-native insect, plant, animal, or disease that can "...cause economic or environmental harm, or harm to human, animal, or plant health." It is estimated that California loses three billion dollars annually in agricultural revenues due to damage from invasive pests that have been introduced throughout the state. The NISC has identified certain invasive species whose establishment in the United States would increase those damages exponentially and directly impact Monterey County agriculture if they were to become established locally.

The Monterey County Agricultural Commissioner's Office (MCAC) works in conjunction with the United States Department of Agriculture (USDA) and the California Department of Food and Agriculture (CDFA) to prevent the introduction and establishment of invasive species. While the USDA is responsible for protecting the United States as a whole, CDFA works throughout the state of California and assists the MCAC in protecting the region. The Monterey County Agricultural Commissioner, Henry Gonzales, utilizes resources from USDA and CDFA, to support invasive pest detection efforts and safeguard the interests of all Monterey County residents.

At the state level, CDFA utilizes a rating system to identify all non-native species based on overall significance. These ratings of A, B, C, D, or Q identify the action that agricultural commissioners will take when a non-native pest is identified. A, B, and C-rated pests are identified as invasive species while D-rated pests are simply considered non-native species because they do not pose any harm. Once a non-native species is identified as an invasive species however, action must be taken statewide.

The MCAC quarantine unit protects against invasive species establishment. Made up of 10 Agricultural Inspectors/Biologists and 13 Agricultural Assistants, the quarantine unit is split into three units of pest exclusion, pest detection, and pest management. Exclusion is prioritized to ensure harmful organisms are not brought in, then the detection and pest management branches control pests already present in the county. These highly trained professionals run a network of programs that mitigate any potential damages caused by invasive species.

The quarantine pest exclusion unit is Monterey County's first line of defense against A and B-rated invasive species. The MCAC is tasked with intercepting those pests before they can be introduced into the county. This is accomplished by inspecting all incoming shipments that could harbor pests like the Gypsy Moth, Glassy-Winged Sharpshooter, exotic fruit flies, Japanese Beetle, and the Asian Citrus Psyllid (ACP), to name a few. Freight truck shipments, parcel deliveries, and airline baggage are considered high risk entry points to Monterey County. These avenues are constantly monitored by pest exclusion inspectors for incoming soil, plants, seeds and plant propagative parts that could harbor hitchhiking pests.

Monterey County's second line of defense, the pest detection unit, monitors for the presence of targeted A-rated pests with trapping programs. These programs are designed to capture insects which were not subject to, or might have been missed, during initial incoming inspections. The potential to spread pests is heightened when people move fruits, vegetables, plants, seeds, or animals from one area to another. Therefore, insect monitoring traps are strategically placed and moved throughout the County's neighborhoods, farmland, nurseries, and natural areas. They target pests like exotic fruit flies,



JAPANESE BEETLE

the Japanese Beetle, and the ACP in order to find invasive insects before they can become established. This early warning detection system alerts MCAC staff if an invasive insect is present. In 2019, the pest detection staff placed and serviced approximately 4,500 traps throughout Monterey County.

The pest management unit is the third line of defense. The MCAC works to control or remove A, B, and C-rated pests and weeds that are present within the county. Pest eradication programs such as Scotch Thistle, Skeleton Weed, and Puna Grass target complete removal, while control programs such as Yellow Starthistle, and French Broom seek to limit spread. This protects agricultural and native landscapes and prevents these noxious weeds from pushing out local flora and fauna in rangelands, natural, and public lands.



GYPSY MOTH



SCOTCH THISTLE

TOP TEN CALIFORNIA INVASIVE PESTS



MEDITERRANEAN
FRUIT FLY



GLASSY WINGED
SHARPSHOOTER



GYPSY MOTH



ASIAN CITRUS
PSYLLID



ORIENTAL
FRUIT FLY



MELON
FRUIT FLY



JAPANESE
BEETLE



MEXICAN
FRUIT FLY



LIGHT BROWN
APPLE MOTH



EUROPEAN
GRAPEVINE
MOTH

Ranking of invasive species varies in each county based on the threat of the pest, crops grown and climatic conditions of the area.





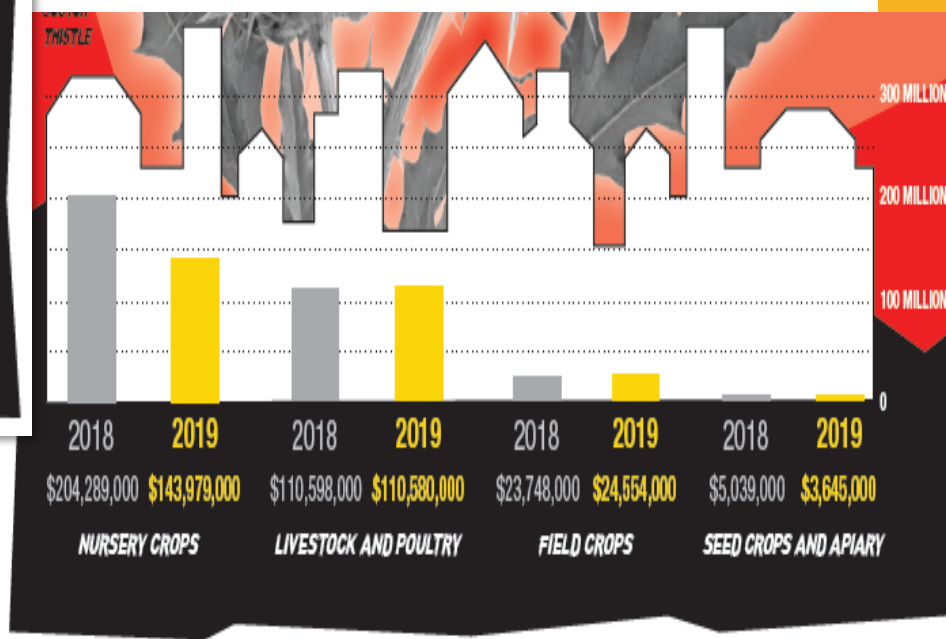
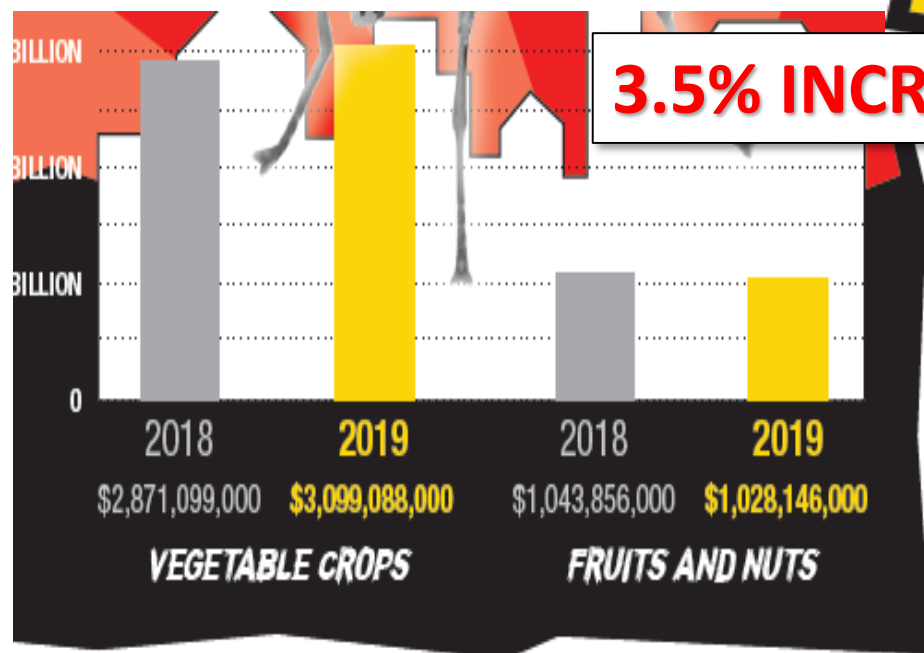
2019 GROSS PRODUCTION VALUE

TOTAL

2018 – \$4,258,629,000

2019 – \$4,409,992,000

3.5% INCREASE IN VALUE

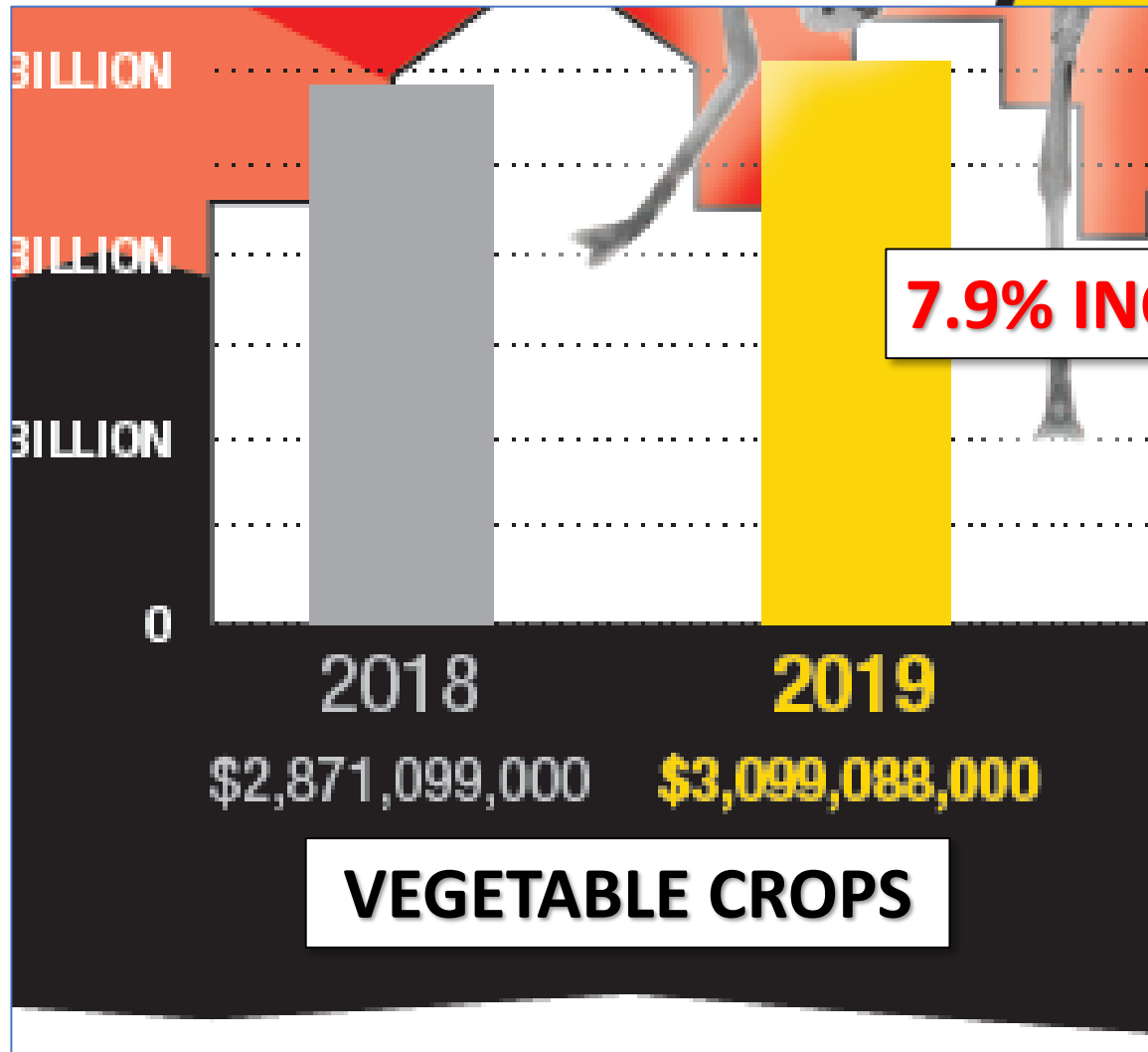


2019 GROSS PRODUCTION VALUE

TOTAL

2018 – \$4,258,629,000

2019 – \$4,409,992,000



7.9% INCREASE IN VALUE



2019 GROSS PRODUCTION VALUE

TOTAL

2018 – \$4,258,629,000

2019 – \$4,409,992,000

1.5% DECREASE IN VALUE

2018

\$1,043,856,000

2019

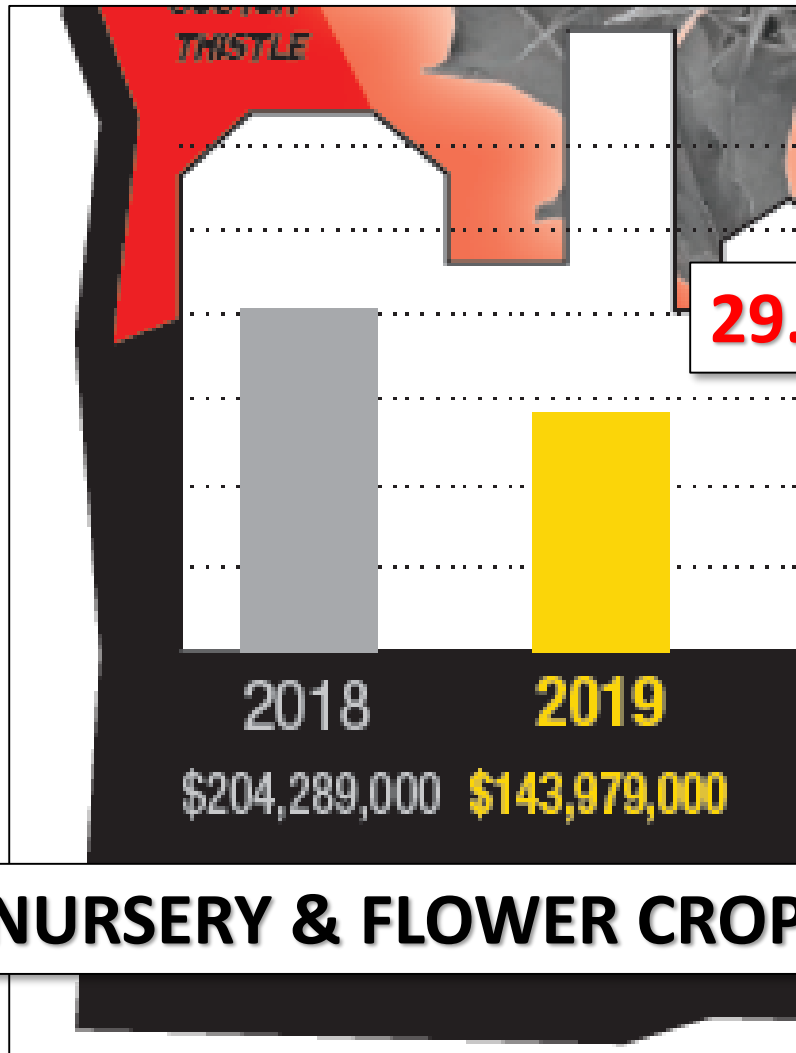
\$1,028,146,000

FRUIT & NUTS CROPS



2019 GROSS PRODUCTION VALUE

TOTAL
2018 – \$4,258,629,000
2019 – \$4,409,992,000



29.5% DECREASE IN VALUE

NURSERY & FLOWER CROPS



2019 GROSS PRODUCTION VALUE

TOTAL

2018 – \$4,258,629,000

2019 – \$4,409,992,000

\$18K DECREASE IN VALUE

3.4% INCREASE

27.6% DECREASE

2018

2019

2018

2019

2018

2019

\$110,598,000 **\$110,580,000**

\$23,748,000 **\$24,554,000**

\$5,039,000 **\$3,645,000**

LIVESTOCK & POULTRY

FIELD CROPS

SEEDS & APIARY

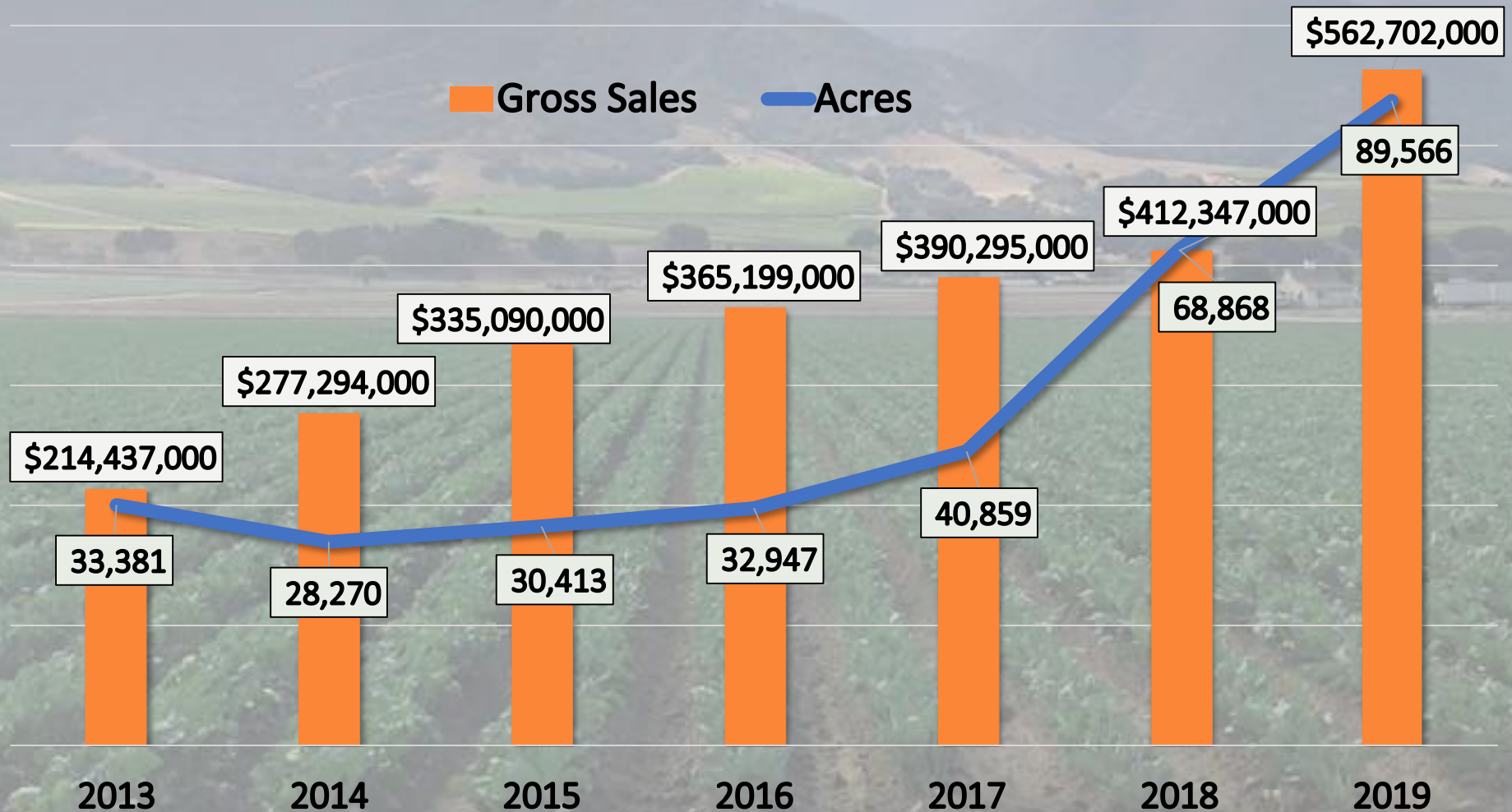


TOP TEN CROPS BY VALUE

CROP	2019 CROP VALUE	2019 CROP RANKING
Leaf Lettuce	\$840,555,000	1
Strawberry	\$732,761,000	2
Head Lettuce	\$514,088,000	3
Broccoli	\$457,390,000	4
Cauliflower	\$212,375,000	5
Misc. Vegetables	\$196,840,000	6
Celery	\$186,391,000	7
Wine Grape	\$186,096,000	8
Nursery	\$143,979,000	9
Spinach	\$127,120,000	10



ORGANIC PRODUCTION MONTEREY COUNTY





EXPORTS & TRADE PARTNERS

COMMODITY

POUNDS

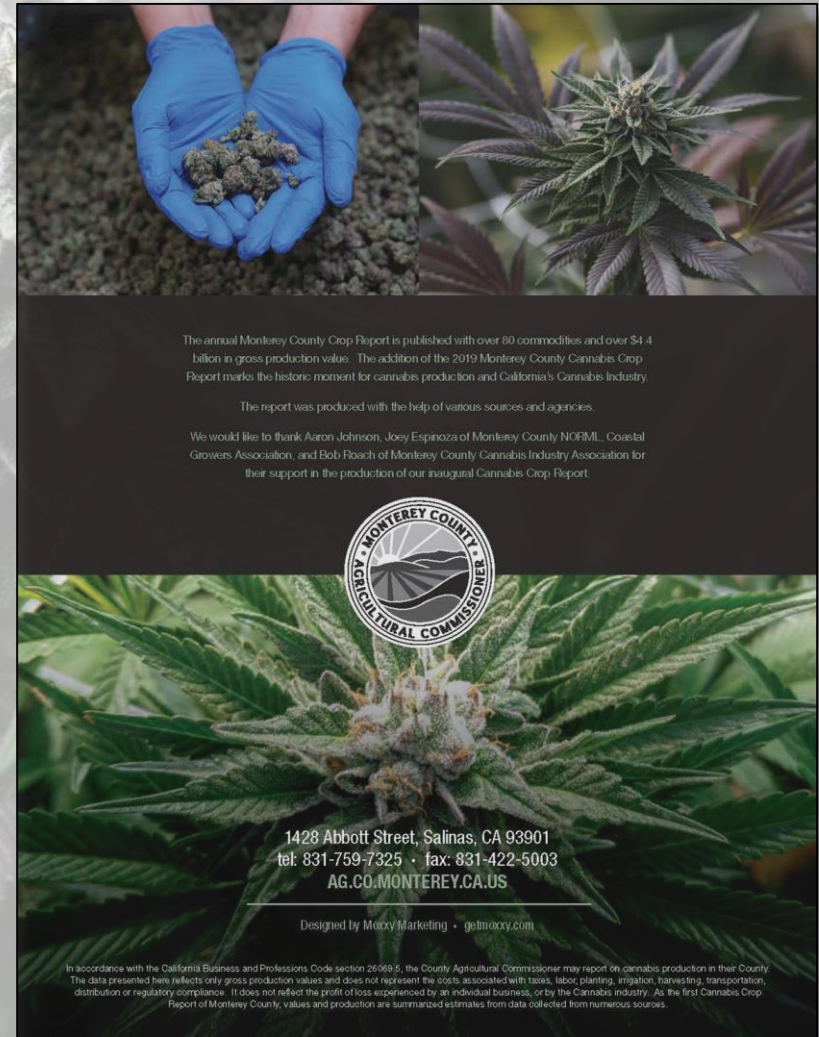
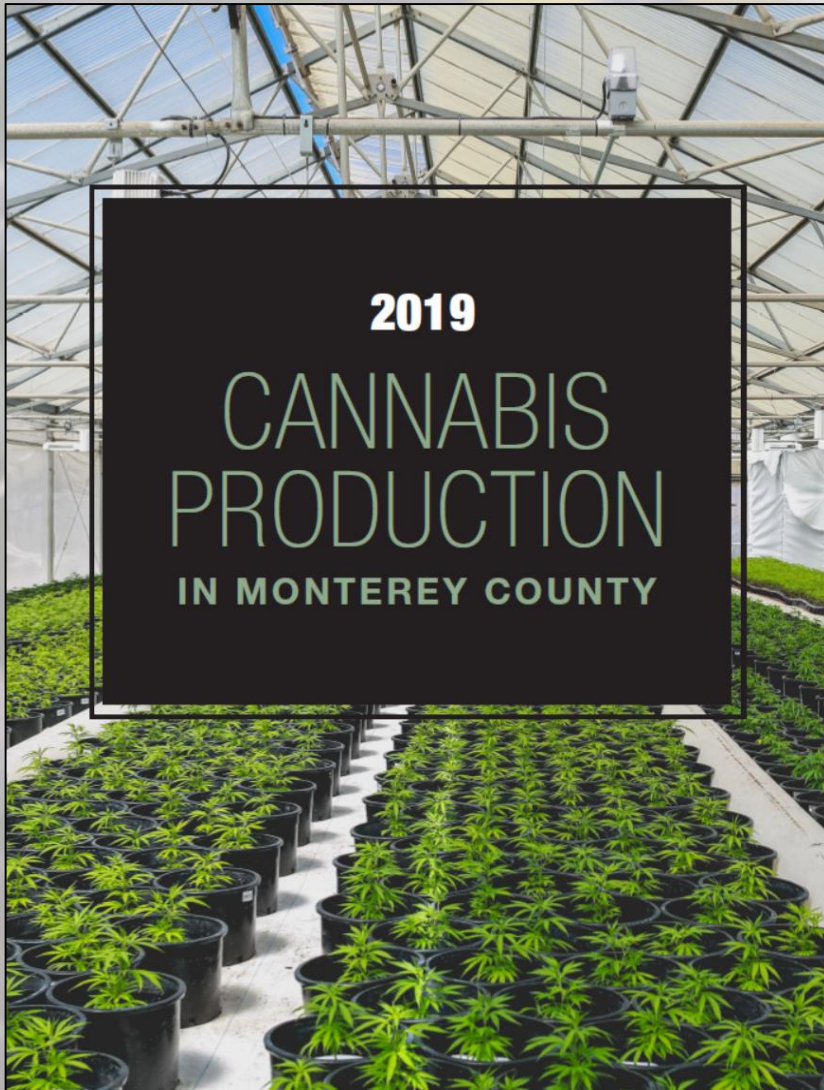
Lettuce	110,203,000
Strawberry	87,229,000
Broccoli	37,081,000
Celery	22,638,000
Cauliflower	18,904,000
Spinach	17,599,000
Cabbage	8,208,000
Raspberry	4,311,000
Radicchio	4,083,000
Carrot	3,405,000
Leek	2,153,000
Brussels Sprout	1,490,000
Other	10,190,000
TOTAL	327,494,000

TOP TRADING PARTNERS

BY COUNTRY

Mexico
Canada
Taiwan
Japan
Hong Kong
Saudi Arabia
South Korea
Kuwait
United Arab Emirates
Singapore
European Union
Puerto Rico
Qatar

1ST MONTEREY COUNTY CANNABIS PRODUCTION REPORT



In accordance with the California Business and Professions Code section 26069.5, the County Agricultural Commissioner may report on cannabis production in their County. The data presented here reflects only gross production values and does not represent the costs associated with taxes, labor, planting, irrigation, harvesting, transportation, distribution or regulatory compliance. It does not reflect the profit or loss experienced by an individual business, or by the Cannabis Industry. As the first Cannabis Crop Report of Monterey County, values and production are summarized estimates from data collected from numerous sources.

MONTEREY COUNTY CANNABIS PRODUCTION REPORT



The 2019 Cannabis Crop Report summarizes commercial cannabis production in Monterey County for the first time. Data revealed a gross production value of nearly \$450 million was cultivated on 86 acres in one year. In addition to our annual Crop Report with over 80 different commodities valued at \$4.4 billion, we are proud to introduce our first Cannabis Crop Report.

Recent History of Legal Cannabis Cultivation

A report of this kind would not be possible without the 2019 California Senate Bill 657. The bill authorizes county agricultural commissioners to report to the Secretary of the California Department of Food and Agriculture (CDFA) on the condition, acreage, production, and value of cannabis in the commissioner's county grown under a cultivation license. This bill was the idea of Monterey County Supervisor Luis Alejo and was sponsored by the County Board of Supervisors. The bill was authored by State Senator Bill Monning.

In 2015, the Monterey County Board of Supervisors adopted an ordinance allowing cannabis cultivators to utilize historic greenhouse space, located mostly south and east of the City of Salinas, to cultivate cannabis. Similarly, the cities of Salinas, Seaside, Gonzales, Greenfield, and King City adopted ordinances allowing for the cultivation of cannabis in greenhouse and indoor facilities, and each have their own regulations and tax structures surrounding cannabis businesses. The vast majority of Cannabis cultivation occurs within the unincorporated areas of Monterey County. This report includes cultivation in incorporated and unincorporated areas.

Monterey County's Cannabis Ordinance limits cultivation to the footprint of buildings on farmland-zoned property, including the neglected greenhouses remnant of a once thriving flower industry. Japanese-Americans established nurseries here in the

1960s because the climate was ideal for greenhouse production. The flower industry peaked in the 2000s, and then declined due to increased competition from South America when U.S. anti-drug policies eliminated import tariffs to help promote their cut flower industry.

Licenses

All Monterey County commercial cannabis cultivators are issued state licenses from the CDFA CalCannabis Licensing Division. Cannabis licenses generally fall within two categories: cultivation and nursery. Cultivation licenses are required to cultivate cannabis in its mature state (flowering plants). A nursery license allows a licensee to produce seeds and cultivate immature plants (vegetative state without flowers).

Monterey County's ordinance allows for commercial indoor cultivation and mixed light cultivation. Indoor cultivation utilizes only artificial light whereas mixed light cultivation combines artificial and natural light to grow cannabis. At the local level, an applicant needs at least two permits to operate in Monterey County: First, the applicant must obtain a Land Use Permit (LUP) from the County of Monterey, which allows a specific property to be used for cannabis business purposes. Second, the applicant must obtain a Monterey County Cannabis Business Permit (CNPB), which allows an operator to pass initial screening and background checks and provides the County with square footage production for tax purposes. A licensee may not operate without a valid LUP, CNPB and state license, and must be in good standing with the County.

	NURSERY	PROCESSOR	SPECIALTY COTTAGE MIXED LIGHT (2,500 SF)	SPECIALTY COTTAGE INDOOR (500 SF)	SPECIALTY INDOOR (6,000 SF)	SPECIALTY MIXED LIGHT (6,000 SF)	SMALL INDOOR (10,000 SF)	SMALL MIXED LIGHT (10,000 SF)	MEDIUM INDOOR (22,000 SF)	MEDIUM MIXED LIGHT (22,000 SF)	TOTAL
NO. OF LICENSES ISSUED BY CDFA	43	31	2	2	12	43	9	318	2	8	470
CULTIVATION LICENSED (SQUARE FEET)	Unlimited	—	5,000	1,000	60,000	215,000	90,000	3,180,000	44,000	178,000	3,771,000
CULTIVATION LICENSED (ACRES)	—	—	0.11	0.02	1.38	4.94	2.07	73.00	1.01	4.04	86.57

Review of Table A In 2019, CDFA CalCannabis licensed approximately 3.77 million square feet, or 86.5 acres, of cannabis cultivation area for growing plants in Monterey County. Eight different license types were issued in Monterey County to produce flowering canopy. License types represent gross production area permitted for cultivation and must not exceed each licensed square footage of flowering canopy. All the licensed square footage was not utilized in production during 2019. Even so, many operations utilized numerous licenses at one location. Throughout the year, there were approximately 70 locations utilizing the 470 licenses issued. Approximately 68% of licenses issued were for Small Mixed Light which reflects the use of numerous greenhouses in the Salinas Valley. Nursery licenses are needed to cultivate vegetative plants, that are not flowering, from seed or clones. Processor licenses are needed for combining post-harvest activities between licenses and cannot cultivate Cannabis.

Cannabis Tax Rate & Revenue

In 2018, the cannabis industry and Monterey County worked collaboratively to reduce taxes. Greenhouse cultivators in Monterey County are now taxed \$5 per square foot annually, and indoor cultivators are taxed \$8 per square foot annually. Nurseries are taxed at \$1 per square foot annually. Cities within the County have varying tax rates. The State of California also levies taxes on cultivation, which are currently \$9.65 per ounce of dry flower, \$2.87 per ounce of dry trim and \$1.35 per ounce of fresh cannabis plant.

The result of lower cannabis tax rates allowed the industry to invest more into its growth and infrastructure. The result has been increased permitted cultivation square footage from 1.42 million in 2018 to 3.94 million in 2020. The annual tax revenue to the County has increased from \$5.5 million in 2017-2018 fiscal year, to \$14.8 million in 2018-2019, and is expected to increase to \$16.0 million in 2019-2020.

LICENSED PRODUCTION METHOD	ESTIMATED PRODUCTION AREA (SQUARE FEET)	NURSERY PRODUCTS (EA)	DRIED FLOWER (LB)	TRIM (LB)	SEED (LB)
NURSERY	1,052,800	1,442,000	—	—	—
INDOOR	115,500	—	48,000	22,600	—
MIXED LIGHT	3,048,600	—	408,000	201,000	—
TOTAL	4,216,900	1,442,000	454,000	223,600	—

Review of Table B Monterey County cannabis production methods can be generalized into three groups: Nursery, Indoor and Mixed Light. Nursery products include clones/transplants, small potted plants (teens) and plants grown to produce clones (mothers). Indoor cultivation uses only artificial light and Mixed Light uses artificial and natural light, both production methods produce flowering plants. Total production area, including nursery production, was an estimated 4.21 million square feet for incorporated and unincorporated areas during 2019 in Monterey County. Estimated production of nursery products was 1.44 million immature plants. Indoor and mixed light dried flower production was estimated at 454,000 pounds, and trim (small pieces of flower and leaves containing cannabinoids) production was estimated at 223,600 pounds. No data was available for cannabis seed production.

PRODUCT	VALUE: HIGH	VALUE: LOW
NURSERY CLONES	\$5 each	\$3 each
NURSERY TEENS	\$13 each	\$10 each
NURSERY MOTHERS	\$50 each	\$35 each
FLOWER (MIXED LIGHT)	\$950 lb	\$650 lb
FLOWER (INDOOR)	\$1,700 lb	\$1,000 lb
TRIM	\$150 lb	\$80 lb
SEED	\$2 seed	\$1 seed

Review of Table C Product values vary substantially and are influenced by strain, market demand, production method, volume, THC concentration, smell, and more. Estimated value data was summarized from Monterey County cultivator surveys, Monterey County Cannabis Industry Association, Coastal Growers Association, and sales data from University of California research. The product value reported here is determined when sold by the cultivator, whether to another cultivator, manufacturer, or distributor. Values reported do not reflect additional production costs as it may be further processed, packaged, or sold directly at retail.

PRODUCT	PRODUCTION	UNIT	VALUE
NURSERY PRODUCTS	1,442,000	Each	\$11,536,000
FLOWER (MIXED LIGHT)	408,000	Pound	\$334,667,000
FLOWER (INDOOR)	48,000	Pound	\$78,203,000
TRIM	223,600	Pound	\$25,282,000
SEED	—	Each	—
TOTAL			\$449,688,000

Review of Table D Total production value for cannabis cultivation during 2019 was calculated at nearly \$450 million. The value is summarized and averaged from products sold and is a gross production value. Capital expenditures, labor, profits, fees, taxes, and other overhead costs are not reflected in this total and it does not represent the net profit of the industry, or any individual cultivator.

MONTEREY COUNTY CANNABIS PRODUCTION VALUE



TABLE D

Overall Production Value

PRODUCT	PRODUCTION	UNIT	VALUE
NURSERY PRODUCTS	1,442,000	Each	\$11,536,000
FLOWER (MIXED LIGHT)	408,000	Pound	\$334,667,000
FLOWER (INDOOR)	46,000	Pound	\$78,203,000
TRIM	\$449 MILLION IN GROSS PRODUCTION VALUE PRODUCED ON 86 ACRES		\$25,282,000
SEED			—
TOTAL			\$449,688,000

THANK YOU!



QUESTIONS?

