

IMPERIAL COUNTY AGRICULTURAL CROP & LIVESTOCK REPORT 2020



Cultural Pioneers

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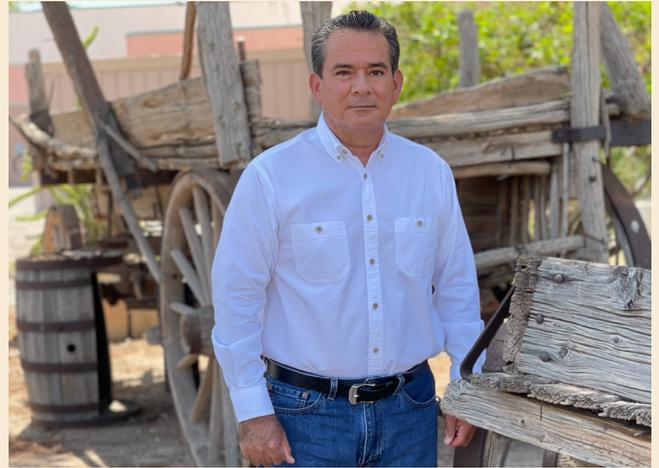
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Office of the
Agricultural Commissioner
Sealer of Weights and Measures



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and
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Supervisor Luis A. Plancarte, District 2
Supervisor Ryan E. Kelley, District 4
Supervisor Raymond R. Castillo, District 5
and
County Executive Officer, County of Imperial
Tony Rouhotas, Jr.

I am pleased to present the 2020 Imperial County Agricultural Crop and Livestock Report in accordance with the requirements of Section 2279 of the California Food and Agricultural Code. This report summarizes the estimated acreage, yield, and gross value of Imperial County's agricultural production for the 2020 calendar year. Also included is a report on sustainable agriculture pursuant to Section 2272 of the California Food and Agricultural Code.

The values presented in this report represent the gross value for products and do not reflect the cost of production, marketing, storage, or transportation. No attempt is made to reflect the net income, profit, or loss to producers.

Gross production for 2020 was valued at \$2,026,427,000. This is an increase of \$10,584 (0.53%) compared to the 2019 gross value of \$2,015,843,000. The increase was mainly due to an increase in market price for some vegetable and melon crops and fruit and nut crops. Vegetables such as leaf lettuce, sweet corn, head lettuce, Romaine lettuce and spinach saw a significant increase in price. Melon crops such as cantaloupes and watermelon also saw a significant increase in price. The increase in market price for dates also contributed to the increase in gross value.

Cattle ranked as our #1 commodity with a gross value of \$427,087,000, which is a decrease of 4.88% from 2019. This was due to a 5.92% decrease in market price. Alfalfa remained as #2 and Sweet Corn moved from #16 in 2019 to #4 mainly due to better market prices. Imperial County remains the sole producer of sugar beets in the state.

In 2020, there was a decrease of 33,180 total harvested acres, down 6.29% from 2019. Vegetables & Melon crops saw a significant decrease in harvested acres, down 13.44%. Head Lettuce saw the largest decrease of harvested acres, down 59.42% with a decrease of 8,118 acres. Watermelon saw the second largest decrease of harvested acres, down 55.07% with a decrease of 353. Seed Crops & Nursery Products also saw a decrease in harvested acres.

The theme for the 2020 Agricultural Crop & Livestock Report was chosen to signify our appreciation and respect for the many diverse backgrounds of our cultural pioneers and their initial contributions that helped shape Imperial County into one of the most agriculturally productive areas of the world. I hope you enjoy reading the Cultural Pioneers article within, develop an understanding of what a diverse background our founding settlers came from, and learn how they aspired to accomplish many very difficult tasks in an era of hard manual labor to succeed in building prosperous agricultural communities within our county.

Thank you to all the growers, processors, industry groups, and agencies who provided the information and statistics for this report; your help in this effort is truly appreciated. In addition, I would like to express my appreciation to all of the members of my staff for their continued hard work and dedication and particularly to the Special Projects Division, for their work in compiling this annual report.

Sincerely,

Carlos Ortiz
Agricultural Commissioner
Sealer of Weights and Measures

Cultural Pioneers

The Imperial Valley's first farming-minded pioneer, known as the Father of the Imperial Valley, was a Forty-Niner chasing the gold rush to California on his way to San Francisco from the mid-west. As he traversed Imperial County from the Yuma crossing, he dreamed of irrigating this desert area and later obtained a provisional allocation for thousands of acres of the then named Salton Sink in the Colorado Desert. He was unable to obtain official federal legislation to finalize the land acquisition and water rights to this area, but he set the wheel into motion for progress by having the land surveyed for a controlled, gravity-fed canal route to provide water for irrigation from the Colorado River. More than a decade later, the chief engineer of the California Development Company was finally successful in developing this project via a water diversion headgate constructed at Pilot Knob. Water officially arrived in the city of Imperial in June of 1901 via the Imperial Canal system. During this era, the Imperial Land Company was formed to attract colonization and settlements, renaming the Colorado Desert to become known by a more notable title of Imperial Valley. The company placed advertisements in various newspapers promoting: the largest irrigation system in the United States; abundant water supply, cheapest on the Pacific Coast; government land, the most fertile in the world, for \$1.25 per acre; all in support to a photo of a 10-foot tall alfalfa plant.

The Imperial Canal system quickly filled with silt from the Colorado River during the first few years of operation, reducing the amount of water flow and delivery to settlers and farming operations. Therefore, a new channel bypassing the major clogged area of the canal was engineered, but without a control gate, which resulted in major flooding and excess water delivery into the Salton Sink area from 1905 to 1906. During the winter of 1905, the Salton Sea was created as the entire Colorado River changed its course, overflowed, and poured water into the surrounding areas and the Salton Sink basin. Great gorges were also carved through the Alamo and New River areas during this time of full river flooding. The canal was repaired in 1907, finally putting an end to the seasonal overflowing of the river. Imperial Valley settlers voted to form the Imperial Irrigation District in

1911 under the California Irrigation District Act leading to full operation of all canals by 1916. This and other later improvements by the Boulder Canyon Project Act brought dependable water flow into this region.

Farming began with the arrival of water to the Imperial Valley. The first pioneers lived under arrow weed ramadas or canvas tents, cooked on wood or kerosene stoves, and boiled water to wash their clothes. The canal irrigation systems were their only means of water, and it was very silty. This silty water was placed in ollas or barrel reservoirs to let settle for drinking. Travel was difficult as irrigation ditches did not have bridges and were forded, often resulting in wrecked buggies and wagons. Then the Southern Pacific railroad from Niland to Imperial was completed in 1903 and on to Calexico in 1904. This led to the shipment of ice with the first icehouse built in 1906. Next, Imperial County was separated from San Diego County in 1907, established from the desert lands east of the coastal mountains. Following this division, voters elected El Centro as the county seat. Also happening in this eventful year, the Imperial County Board of Horticulture Commissioners was organized to enforce a

ALFALFA
FROM SIX TO EIGHT CROPS A YEAR
FROM ONE TO TWO TONS CURED HAY PER ACRE TO THE CROP

Photograph of Alfalfa Plant, 10 FEET HIGH, grown in Imperial Valley, 1905

IMPERIAL VALLEY
SAN DIEGO COUNTY, CALIFORNIA

Largest irrigation system in the United States Water rights, \$50 per acre, easy terms
Most abundant water supply, and at lowest cost Water cheapest on Pacific Coast
Government land \$1.25 per acre Land most fertile in the world

Southern Pacific Imperial Branch Railroad now in operation to Imperial and Calexico
Water running daily.

For further information, send for revised edition illustrated pamphlet entitled, "From Desert to Garden," containing true colored map of Imperial Valley, size 100 of our Government land sections in the valley, also send for copy of the "Imperial Edition." Address

IMPERIAL LAND COMPANY, 224 Stowell Block
Los Angeles, California

BY MAILING TO ABOVE ADDRESS PLEASE RETURN RECEIPT

Newspaper ad to attract settlers.

new ordinance to prohibit importation of infected cuttings or plants, and to keep the county clean and free from insect pests.



Early desert home. Circa 1900's.

Prior to the first settlement in the Imperial Valley, in the late 1800s and early 1900s, open range cattle feeding ranches, based primarily from western mountain regions in Cuyamaca, Laguna, and Campo areas, pioneered their way into this region. These operations drove cattle here during the winter via Warner Springs, Coyote Wells, and other passages into the Valley to forage on thousands of acres of grass growing around Blue and Cameron Lakes, along the New River area, established from years of seasonal Colorado River overflow. Many of these cattlemen were local Native and Mexican Americans working in the area. Others came from Arizona, Texas, Arkansas, and farther California regions. Cattle were fattened from the ample grass and driven to markets to sell, sometimes to Mexico and Yuma, other times to Temecula for the Los Angeles market. As farmland expanded in the Valley and with the water diversion from the 1905 Colorado River flooding, cattle migration from the mountains ceased and local cattle were raised from irrigated crops and transported to market by railcar. Cattle and livestock production continues to reign as king of commodities in Imperial County today.

Between 1900 and 1915, more than 15 million immigrants arrived in the United States. This number is close to the total number of immigrants arriving in the previous 40 years combined. Many of these immigrants originally stayed nearby in port cities to earn money and then pioneered their way out to the new frontier for the land and conquest they dreamed of, the auspicious ones settling here. The first Imperial County census conducted in 1910 showed greater than 30 percent of the pioneering settlers here were either foreign born or their children. Settlers of various cultural backgrounds each contributed their special essence and flair to Valley development. A

few of the many establishing contributions made by some of these cultural pioneers are described below.

Native Americans originally occupied this Colorado Desert region before the first explorers arrived. They were made up of various tribes of indigenous people of the United States and Mexico, who inhabited areas in the Imperial Valley, lower Colorado River, and the Sonoran Desert in the Yaqui River area. During the Mexican Revolution, some Native Americans joined up with Pancho Villa, and when his army was defeated, headed to the United States for safety. As a result of the Revolution, Mexico claimed ownership of land and natural resources, alienating Native Americans from their ancestral land and cultures. Many migrated and settled in Arizona, while others came to Imperial County, contributing to development by primarily working as laborers.



Ranch near Westmorland. Circa 1908.

Early Mexican American association with Imperial County preceded all others, except for Native Americans, as explorers led expeditions across and through the Valley multiple times during the early exploration and gold rush eras. At the turn of the century, as water was channeled into the Valley, these men crossed the border to find work to support their families. They provided much needed labor to develop the land at that time. Later, many brought their families, registered to become citizens, and prospered in various businesses and administrative roles throughout the county and beyond.

Swiss American pioneers first arrived in 1901 and constructed the California-Mexico Land and Cattle Company ranch headquarters that consisted of thousands of acres for ranching and crop production. Due to underpopulation of indigenous people in the area, arrangements were made to import Chinese laborers and Yaqui Native American cowboys to work the company's farms and ranches. The Swiss are credited with being the first to plant cantaloupes and cotton in Imperial County. They

also started many dairy operations by leasing alfalfa fields for three to four years, and then moving their herd to a fresh planting of alfalfa as bermuda invaded their current pastures. Cream was the primary commodity marketed from these dairies, so many also became hog farmers, using the skimmed milk to feed and raise the hogs. As their dairy operations became profitable, many sent for their families to join them.

A wave of Chinese emigrants sailed to Mexico in the early 1900's due to the Chinese Exclusion Act of 1882 that prevented them from entering the United States. Numerous migrants worked their way north following opportunities to work in Imperial Valley agriculture, as laborers were needed for critical development. Many of these early Chinese American pioneers worked as laborers, but were later attracted to starting food markets, and established credit and loan services for Valley residents in the process. These markets later developed into grocery stores and restaurant businesses throughout the Valley.



Milking cows, El Centro, 1915.

Many French Americans, primarily from southwestern France, immigrated at the turn of the century through Ellis Island, coming for adventure and opportunity after a three-week voyage. Most had little education other than military service for their country. Many of these pioneers started farming, sheep, and dairy operations. They sold their cream production while the excess milk was fed to livestock, especially hogs, which also became a profitable business.

Indian American pioneers arrived from the then British Empire ruled country of India as some of the earliest pioneers in Imperial County. Many of these immigrants were from the Punjab province, or had served in the British-Indian army, or worked as police in treaty ports in India or China. They crossed oceans for better work and higher wages with some arriving in Vancouver, Canada while others arrived later in the San Francisco

Bay. Originally working as migrant laborers, numerous men settled in Imperial County and considered the desert climate, environment, and life similar to their homeland, while envisioning profitable farmland opportunities. They settled in the Valley successfully, established cotton as a crop here, and became agricultural landowners.



Barley crop, 1918.

The land of promise and opportunity called out to Portuguese emigrants who sought out a new world with abundant prospects for a better life. Most of these settlers arrived on the east coast and numerous families journeyed their way westward to the new California desert frontier with great expectations. Many of these industrious Portuguese American pioneers worked in the dairy industry and sent for their homeland relatives to join them in these prosperous Valley businesses.

African American settlers began relocating here about 1904, primarily coming from southern states. They arrived via train and covered wagons, seeking financial independence, a better life, and independent farmland. Most had previous agricultural experience. Cotton and hay farming proved profitable endeavors for them along with laboring for local railroads in the early years. Later, many worked in stables, icehouses, cotton gins, and lumberyards, while some established businesses and professions such as dairies, barbershops, bakeries, boarding houses, cafes, and teachers.

The first Japanese American immigrants came to the Valley in 1904 to serve as agricultural laborers due to the depressed economic conditions in Japan. They called the Valley the American promise land. These hard working pioneers often became sharecroppers and eventually leased and owned farmland as a major contributor to the Valley becoming a produce growing region. They produced melons, lettuce, and tomatoes while leasing land for crop rotations from hay producers, creating a nomadic life style while

moving from field to field. Later, Japanese American farmers dominated the cantaloupe industry by creating improved growing techniques and produced lettuce commercially.

Middle Eastern Americans originally immigrated to Mexico in 1892, primarily from Lebanon and Syria, in French ships arriving at the Mexican ports of Jalisco, Tampico, and others. During the turn of the century, they worked their way north to the Imperial Valley with many working as laborers. These primarily Lebanese Americans came here seeking religious freedom, jobs, and an opportunity for a better life.

Korean immigration began in 1903 with ships arriving in Hawaiian ports to provide laborers to work on sugar and pineapple plantations, and Mexican ports to serve as laborers on haciendas. A few years later, when the plantation contract work expired, nearly half of the Korean workers moved to mainland America, while a few of the laborers in Mexico migrated north. Some of both of these groups pioneered their way into the Imperial Valley. Many of these immigrants worked in agriculture while some established businesses such as laundry services; others arrived as picture brides. Korean Americans immigrated to escape the famine and turbulent political involvement of other countries present in their homeland.

Many of the Irish immigrating to America during the turn of the century came from the northern province of Ulster. They left Ireland due to religious conflicts and dire economic hardships, looking to own land and for religious freedom. Some of these immigrants were educated and skilled workers but started out as laborers. Irish Americans contributed to organized labor and industry, helping to develop agricultural production in the Valley.

Greek immigrants came through Ellis Island during the early 1900s and often worked to raise money before heading west to California. The men came to avoid economic hardships and often worked to send money home to the family, planning to return to Greece later on. They worked their way across America to find areas of opportunities. Most Greek American pioneers coming to the Valley went into railroad labor, agricultural farming, or the restaurant business.

The Germans were some of the first and most numerous

early immigrants to America due to religious conflicts in their homeland and the prospect of affordable land. German Americans wrote back to their families of the opportunities here and thus created chain migration as their families came to join them. Many of these immigrants were fleeing persecution and violence. Some pioneered their way through the southwest desert country into the Valley and were among the first to grow oranges here.

Most Italian Americans came from Italy to Ellis Island in the early 1900s due to homeland chaos, lack of government support, and poverty. Numerous were farmers and laborers by trade looking for a steady source of work. Some migrated on to California, believing that with hard work nothing is impossible in America. Many of the first cultural pioneers established farms, dairies, and agricultural businesses successfully.

Immigration from the Philippines began in the 1900s with ships full of men arriving in Hawaiian ports to provide workers for pineapple and sugar plantations. Later, as the plantation work ended, many Filipino workers moved to mainland America through the port in San Francisco. Filipino Americans were some of the later immigrants to Imperial County, arriving in the 1920s. They primarily served as agricultural laborers, proving much needed work for the growing industry.



Truck load of cabbage, 1921.

Often times, until we read actual accountings and documentation from pioneers who originally established the areas we live in, we don't fully realize or appreciate the full spectrum of hardships and challenges they faced. One of the most terrifying circumstances they withstood was not having a reliable water supply. But others existed too, as thousands of ducks migrated each year and fully covered the lakes near the shores they settled upon, making the water unusable. Massive dust storms made it impossible to eat or do anything some days. Men often

slept outside due to lack of accommodations. Coyotes killed livestock, scorpions crawled under blankets, rattlesnakes lurked in the land they worked, scourges of mosquitoes were impossible to avoid, and diseases spread with migration and blending of livestock and people. Yet even in the face of these adversities they didn't give up or quit, possibly partially because once they committed to come here, there was no easy and immediate way to turn back. Regardless, they adapted to the conditions they faced, made the best of what they had, continued to dream of what they could do, made it happen, and learned to appreciate where they were.

Harnessing water from the Colorado River, also known as the Nile of America, was instrumental to our early pioneering success and the establishment of Imperial County. Without its nutrient rich silt deposits throughout this region and the dependable supply of fresh water, it would have been impossible for our first settlers to dream of, and then build and conduct agricultural processes in this arid desert region. Many pioneers came to Imperial County to claim land, seek a new beginning, and start fresh in this land of opportunity. It was during this time that their grit, endurance, and will to succeed was fully tested. Their determination and perseverance allowed them to endure the many hardships faced by all, regardless of

their background. Many immigrants from different lands shaped the cosmopolitan character of this region. We are greatly indebted to our cultural pioneers, including those not mentioned above, for their tireless tenacity of building the foundation for what we have now.

The early explorers, travelers, and visionaries that dreamed and chartered avenues to create Imperial County were primarily multiethnic pioneers from previous generations of immigrants that had settled in America. However, they couldn't see their dreams and plans come into fruition without the help of multitudes of laborers to create it. This is where the early 1900s era immigrants that came to the Valley and become our earliest cultural pioneers played an essential role. They were a necessary part of the grand scheme to develop the county into what we see today, all the while stamping tidbits of their cultures into our local customs and traditions as foundations that carry on throughout generations and history. This new era of cultural pioneers forged new opportunities and careers from their initial labors that birthed more possibilities for generations to come. Only through a culturally diverse set of great dreamers, visionaries, thinkers, and courageous, hard-working pioneers was Imperial County developed into one of the most productive agricultural areas in the world today.

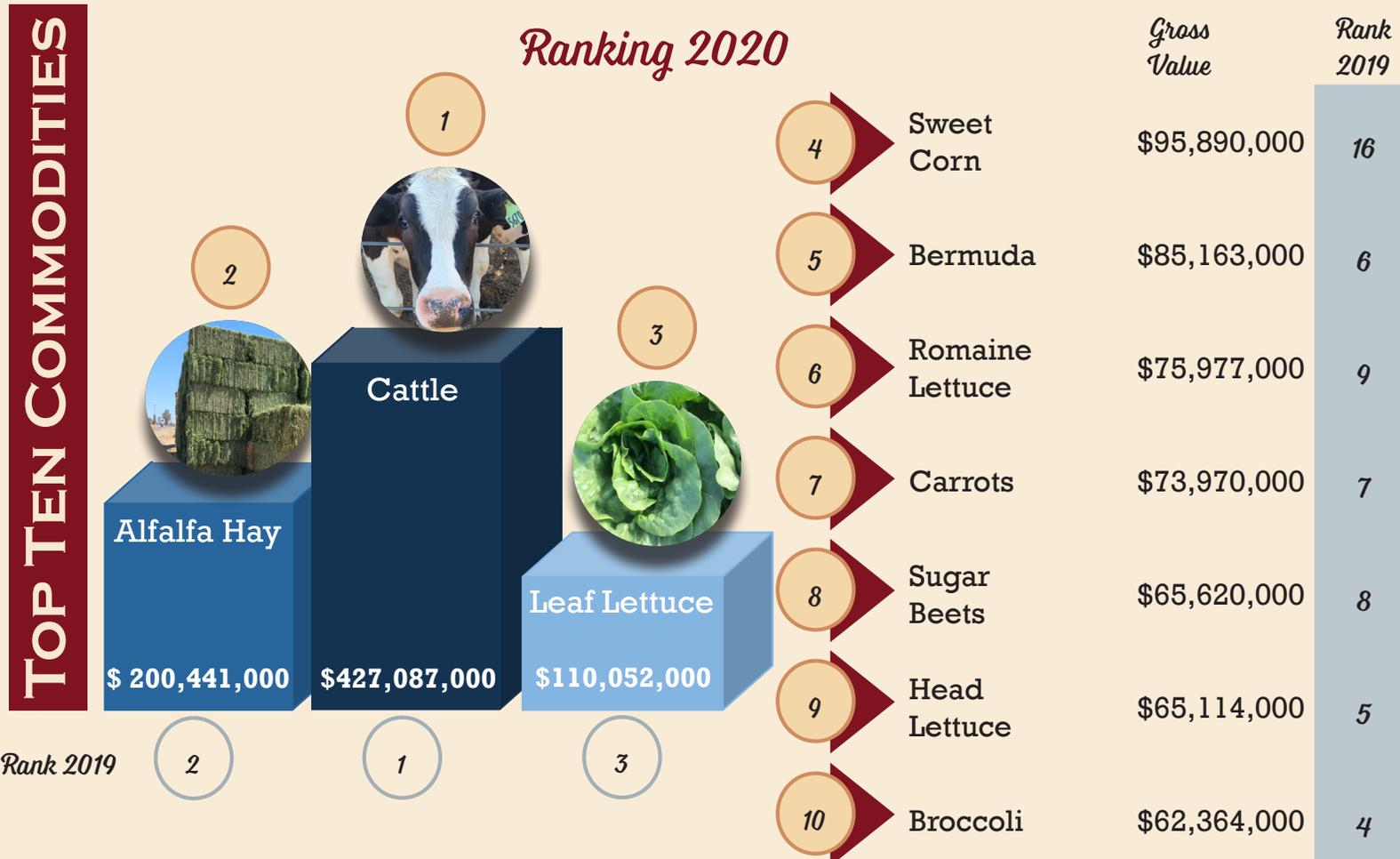


Canal excavation by farmers with mules and horses. Pioneers Museum. Newspaper ad picture obtained from Amazon Antiques & Collectibles item on sale, rest of the pictures obtained from the Pioneers Museum.

PRODUCTION SUMMARY

	Harvested Acres		Changes in Harvested Acres	Gross Value		Changes in Gross Value
	2019	2020		2019	2020	
Livestock				\$522,309,000	\$490,633,000	-6.06%
Field Crops	344,435	331,173	-3.85%	\$498,165,000	\$444,693,000	-10.73%
Vegetable & Melon Crops	120,415	104,235	-13.44%	\$799,424,000	\$895,978,000	12.08%
Fruit & Nut Crops	9,606	10,844	12.89%	\$75,636,000	\$94,574,000	25.04%
Seed & Nursery Products	53,404	48,427	-9.32%	\$113,690,000	\$95,330,000	-16.15%
Apiary Products				\$6,619,000	\$5,219,000	-21.15%
Total	527,860	494,679	-6.29%	\$2,015,843,000	\$2,026,427,000	0.53%

Total harvested acres include multiple cropping on individual fields throughout the year.



Agricultural Production Areas*

	2020 Total County Farmable Acres
Imperial Valley	459,616
Bard/Winterhaven	14,782
Palo Verde	7,794

*Obtained from Imperial Irrigation District, Palo Verde Water District and Bard Water District Reports.

LIVESTOCK & APIARY

Livestock

Item	Year	Head	Unit Gain	Total Gain	Unit	Value Per Unit	Gross Value
Cattle (Feedlot)	2020	382,065	10.39	3,968,128	cwt	\$107.63	\$427,087,000
	2019	386,295	10.16	3,924,760	cwt	\$114.41	\$449,021,000
Aquatic Products	2020						\$19,980,000
(Fish & Algae)	2019						\$18,282,000
Misc. Livestock	2020						\$43,566,000
	2019						\$55,006,000
Total 2020						Value	\$490,633,000
Total 2019						Value	\$522,309,000

Misc. Livestock may include: Calves, Replacement Cattle, Dairy Animals, Milk, Manure/Compost, Sheep, Wool, California Mid-Winter Fair & Fiesta Show Animals

Cwt = 100 Pounds



Sheep herder and trained dog residing by the field to protect sheep. Pioneers Museum.

Apiary Products

Item	Year	Hives	Yield Per Hive	Total Unit	Unit	Value Per Unit	Gross Value
Honey & Wax	2020						\$2,095,000
	2019						\$774,000
Pollination	2020	41,376			colony	\$75.51	\$3,124,000
	2019	81,210			colony	\$71.98	\$5,845,000
Total 2020						Value	\$5,219,000
Total 2019						Value	\$6,619,000

Honey and wax data have been combined for both 2019 and 2020



FIELD CROPS

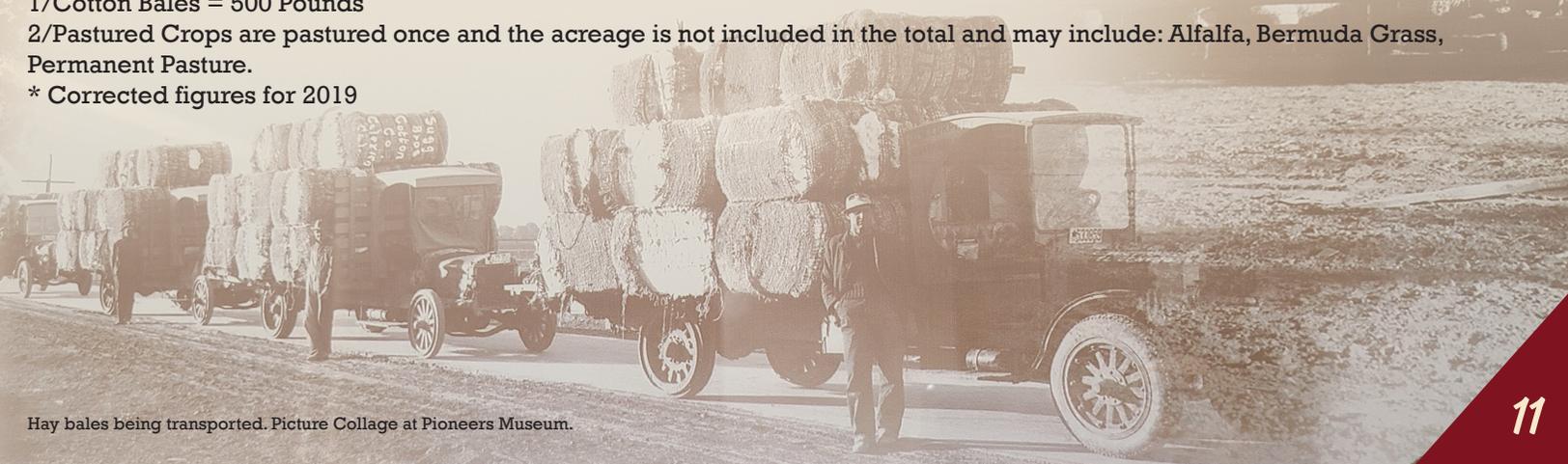
Crops	Year	Harvested Acres	Yield Per Acre	Total Units	Unit	Value Per Unit	Gross Value
Alfalfa Hay	2020	143,963	7.89	1,135,494	tons	\$176.52	\$200,441,000
	2019	150,562	7.92	1,191,859	tons	\$182.44	\$217,446,000
Bermuda Grass Hay	2020	71,918	8.49	610,721	tons	\$139.45	\$85,163,000
	2019	64,660	8.60	556,240	tons	\$150.29	\$83,597,000
Cotton (Lint) ^{1/}	2020	2,971	3.31	9,842	bale	\$359.41	\$3,537,000
	2019	3,938	2.25	8,861	bale	\$447.53	\$3,965,000
Cotton (Seed)	2020			3,201	tons	\$325.00	\$1,040,000
	2019			3,168	tons	\$147.50	\$467,000
Klein Grass Hay	2020	21,585	7.06	152,354	tons	\$125.21	\$19,076,000
	2019	20,952	9.43	197,491	tons	\$154.41	\$30,494,000
Pastured Crops ^{2/}	2020	30,969			acre	\$39.49	\$1,223,000
	2019	42,950			acre	\$37.23	\$1,599,000
Straw (Baled)	2020			122,267	tons	\$35.14	\$4,297,000
	2019			61,276	tons	\$34.26	\$2,099,000
Sudan Grass Hay *	2020	47,032	4.89	230,136	tons	\$152.00	\$34,981,000
	2019	53,141	5.18	275,138	tons	\$141.26	\$38,867,000
Sugar Beets	2020	23,981	49.25	1,181,064	tons	\$55.56	\$65,620,000
	2019	25,417	47.20	1,199,642	tons	\$51.68	\$62,050,000
Wheat	2020	11,432	3.16	36,072	tons	\$201.21	\$7,258,000
	2019	14,127	3.51	49,629	tons	\$246.67	\$12,242,000
Misc. Field Crops	2020	8,291					\$22,057,000
	2019	11,638					\$45,339,000
Total 2020	Acres	331,173				Value	\$444,693,000
Total 2019	Acres	344,435				Value	\$498,165,000

Misc. Field Crops may include: Barley, Field Corn, Flax, Hemp, Oats, Mixed Grasses, Ryegrass, Safflower, Sesbania, Sorghum Grain, Sorghum Silage, Sugarbeet Molasses, Sugarbeet Pulp.

^{1/}Cotton Bales = 500 Pounds

^{2/}Pastured Crops are pastured once and the acreage is not included in the total and may include: Alfalfa, Bermuda Grass, Permanent Pasture.

* Corrected figures for 2019



Hay bales being transported. Picture Collage at Pioneers Museum.

SEED & NURSERY PRODUCTS

Crops	Year	Harvested Acres	Yield Per Acre	Total Units	Unit	Value Per Unit	Gross Value
Alfalfa Seed							
Non-Certified	2020	7,146	787.20	5,625,331	lbs	\$1.87	\$10,505,000
	2019	11,102	733.18	8,139,474	lbs	\$2.20	\$17,907,000
Certified	2020	13,840	735.50	10,179,320	lbs	\$2.86	\$29,062,000
	2019	15,358	713.10	10,952,081	lbs	\$2.81	\$30,815,000
Total Alfalfa Seed	2020	20,986	753.10	15,804,651	lbs	\$2.50	\$39,567,000
	2019	26,460	721.53	19,091,555	lbs	\$2.55	\$48,722,000
Bermuda Grass Seed							
Non-Certified	2020	6,373	964.14	6,144,482	lbs	\$2.30	\$14,159,000
	2019	5,025	376.46	1,891,719	lbs	\$3.82	\$7,231,000
Certified	2020	4,288	634.12	2,719,121	lbs	\$3.91	\$10,620,000
	2019	5,253	321.63	1,689,540	lbs	\$4.96	\$8,380,000
Total Bermuda Grass Seed	2020	10,661	831.40	8,863,603	lbs	\$2.80	24,779,000
	2019	10,278	349.05	3,581,259	lbs	\$4.36	\$15,611,000
Onion Seed	2020	544	396.20	215,535	lbs	\$11.94	\$2,575,000
	2019	746	462.00	344,652	lbs	\$5.00	\$1,723,000
Misc. Seed & Nursery							
Misc. Seed ^{1/}	2020	15,727					\$20,409,000
	2019	15,281					\$40,281,000
Misc. Nursery Products	2020	509					\$8,000,000
	2019	639					\$7,353,000
Total 2020	Acres	48,427				Value	\$95,330,000
Total 2019	Acres	53,404				Value	\$113,690,000

Misc. Seed and Nursery Products may include: Broccoli Seed, Sunflower Seed, Grass Seed, Coriander Seed, Vegetable Seed, Chrysanthemum Seed, Asparagus Seed, Palm Trees, Cut Flowers, Vegetable Transplants.

^{1/} Miscellaneous non-certified and certified seed is now combined.

FRUIT & NUT CROPS

Crops	Year	Harvested Acres	Yield Per Acre	Total Units	Unit	Value Per Unit	Gross Value
Dates	2020	3,096	2.50	7,727	tons	\$3,562.37	\$27,525,000
	2019	2,556	3.59	9,175	tons	\$2,471.23	\$22,674,000
Grapefruit	2020	641	13.80	8,843	tons	\$633.33	\$5,601,000
	2019	638	15.66	9,992	tons	\$466.50	\$4,661,000
Lemons	2020	4,435	17.55	77,817	tons	\$632.58	\$49,225,000
	2019	4,126	11.68	48,171	tons	\$757.01	\$36,466,000
Tangelos	2020	842	4.26	3,584	tons	\$523.26	\$1,876,000
	2019	633	6.11	3,870	tons	\$458.97	\$1,776,000
Tangerines	2020	737	6.48	4,774	tons	\$662.88	\$3,165,000
	2019	578	11.51	6,651	tons	\$453.33	\$3,015,000
Misc. Citrus, Fruit & Nut Crops	2020	1,093					\$4,928,000
	2019						\$5,825,000
Citrus-by-Products	2020						\$2,254,000
	2019						\$1,219,000
Total 2020	Acres	10,844				Value	\$94,574,000
Total 2019	Acres	9,606				Value	\$75,636,000

Misc. Fruit & Nut Crops may include: Orange, Grape, Olive.



VEGETABLE & MELON CROPS

Crops	Year	Harvested Acres	Yield Per Acre	Total Units	Unit	Value Per Unit	Gross Value
Broccoli (Market)	2020	8,507	301.94	2,568,569	26 lbs	\$24.28	\$62,364,000
	2019	11,957	451.73	5,401,345	26 lbs	\$19.54	\$105,521,000
Cabbage (Market)	2020	1,822	755.73	1,376,933	45 lbs	\$10.26	\$14,124,000
	2019	1,922	802.65	1,542,700	45 lbs	\$8.76	\$13,507,000
Carrots							
Market	2020	4,192	793.83	3,327,908	50 lbs	\$6.59	\$21,924,000
	2019	4,298	825.75	3,549,156	50 lbs	\$5.84	\$20,740,000
Processing & Others	2020	9,782	35.54	347,689	tons	\$149.69	\$52,046,000
	2019	10,029	35.51	356,118	tons	\$126.52	\$45,058,000
Total Carrots	2020	13,974					\$73,970,000
	2019	14,327					\$65,798,000
Cauliflower (Market)	2020	5,738	731.59	4,197,846	23 lbs	\$12.05	\$50,605,000
	2019	4,815	687.05	3,308,167	23 lbs	\$11.31	\$37,411,000
Head Lettuce							
Naked Pack	2020			784,244	50 lbs	\$16.89	\$13,245,000
	2019			1,984,064	50 lbs	\$9.56	\$18,976,000
Wrap Pack	2020			1,960,610	40 lbs	\$12.94	\$25,379,000
	2019			4,960,161	40 lbs	\$9.28	\$46,041,000
Bulk	2020			1,568,488	50 lbs	\$16.89	\$26,490,000
	2019			3,968,129	50 lbs	\$9.56	\$37,953,000
Total Head Lettuce	2020	5,545		4,313,343	ctn	\$15.10	\$65,114,000
	2019	13,663		10,912,354	ctn	\$9.44	\$102,970,000
Leaf Lettuce	2020	12,001	485.20	5,822,857	35 lbs	\$18.90	\$110,052,000
	2019	14,066	549.31	7,726,531	35 lbs	\$14.17	\$109,502,000



VEGETABLE & MELON CROPS

Crops	Year	Harvested Acres	Yield Per Acre	Total Units	Unit	Value Per Unit	Gross Value
Onions							
Market	2020	3,636	1,553.80	5,649,617	50 lbs	\$3.45	\$19,491,000
	2019	3,109	1,401.50	4,357,263	50 lbs	\$4.16	\$18,119,000
Processing	2020	8,840	23.32	206,154	tons	\$193.96	\$39,986,000
	2019	8,694	21.03	182,869	tons	\$148.40	\$27,138,000
Total Onions	2020	12,476					\$59,477,000
	2019	11,803					\$45,257,000
Potatoes ^{1/}	2020	*	*	*	*	*	*
	2019	2,518	183.33	461,633	cwt	\$26.30	\$12,139,000
Spinach	2020	7,027	8,228.00	57,818,156	lbs	\$0.81	\$46,601,000
	2019	8,128	13,173.67	107,075,563	lbs	\$0.54	\$57,928,000
Sweet Corn	2020	7,623	898.50	6,849,266	50 lbs	\$14.00	\$95,890,000
	2019	8,246	344.71	2,842,514	50 lbs	\$11.58	\$32,908,000
Romaine Lettuce	2020	9,940	840.22	8,351,777	35 lbs	\$9.10	\$75,977,000
	2019	8,050	994.83	8,008,370	35 lbs	\$7.53	\$60,307,000
Misc. Vegetables	2020	14,928					\$172,002,000
	2019	14,657					\$119,415,000
Cantaloupes	2020	3,562	1,804.50	6,427,629	40 lbs	\$8.96	\$57,579,000
	2019	4,224	717.00	3,028,608	40 lbs	\$7.04	\$21,334,000
Honeydew & Misc. Melons	2020	804	527.50	424,110	40 lbs	\$10.83	\$4,595,000
	2019	1,398	620.29	867,159	40 lbs	\$9.70	\$8,411,000
Watermelons	2020	288	32.91	9,479	tons	\$804.76	\$7,628,000
	2019	641	31.06	19,911	tons	\$352.38	\$7,016,000
Total 2020	Acres	104,235				Value	\$895,978,000
Total 2019	Acres	120,415				Value	\$799,424,000

Misc. Vegetables may include: Arugula, Asparagus, Beets, Bok Choy, Celery, Cilantro, Collard, Dill, Gai Lon, Kale, Mustard, Napa Cabbage, Okra, Parsley, Sweet Basil, Swiss Chard, Vegetable Leaf.

^{1/}* 2020 Potatoes are now included in Misc. Vegetables

SUSTAINABLE AGRICULTURE

Pest Exclusion & Quarantine

This division is mandated to exclude exotic agricultural, urban, and environmental pests and to prevent movement of newly discovered pests within the state. This is accomplished through inspection of incoming agricultural products and enforcement of quarantines that prohibit or restrict the movement of plants, seeds and other items capable of harboring harmful pests. In addition, certificates of quarantine compliance and phytosanitary certificates are issued for commodities originating here, in order to assist growers in moving their products to other counties, states or countries.

Plant Quarantine

Pest Exclusion Inspection ~ Shipments Entering Imperial County

Type of Inspection	Inspections	Pounds	Origin
Field & Vegetable Seed	638	12, 586, 806	AZ, OR, WA, NV, NE, ID, MO, CO, WY, AB
Plants	275	N/A	AZ, PA, BC, OR, NV, MI, TN, AB, FL, NC, MS, CA
Bees	1	N/A	CA

Nursery & Seed Inspection

The goal of the nursery inspection program is to prevent the introduction and spread of agricultural pests through nursery stock and to protect agriculture and the consumer against economic losses resulting from the sale of inferior, defective or pest-infested nursery stock. The seed law enforcement program protects seed consumers by regulation of the marketing of seed, inspection of seed grown or sold locally, verification of purity and germination, investigation of seed complaints, and prevention of the spread of noxious weed seeds through seed products. Also included in this program is the California Certified Seed Program in which superior varieties of seed are grown, processed and distributed under close supervision.

Nursery Inspections

Type of Inspection	Locations	Production Acres	Nursery Stock Type
Production Nursery	26	930.39	Date Palms, Ornamental trees, Shrubs, Cactus and Succulents

California Crop Improvement Association Inspections & Certifications

Type of Inspection	Inspections	Seed Transfer Certification	Inspections
Harvest Equipment	24	In-State	29
		Out of State	38



SUSTAINABLE AGRICULTURE

Pest Detection Trapping

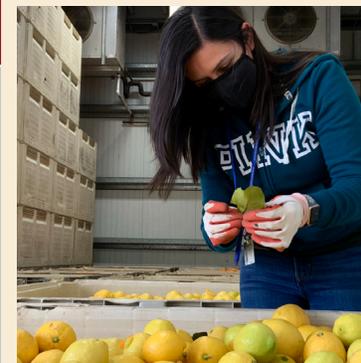
The pest detection division is mandated to monitor agricultural and urban areas for harmful exotic pests in order to protect the local agricultural industry, environment, the public, and urban landscaping. This is largely accomplished through trapping, visual surveys, and the inspection of incoming nursery stock. The division also provides field inspection services for seed exporters where inspection of mother plants is required and provides pest identification services.

Target Pest	Host Crops	Traps Placed	Annual Services
European Corn Borer	Corn & Sorghum	12	72
Various Exotic Fruit Flies	Fruit Trees & Vegetables	108	1,422
Glassy-winged Sharpshooter	Crops & Ornamentals	490	7,685
Gypsy Moth	Shade Trees	60	156
Japanese Beetle	Turf & Flowers	60	156
Khapra Beetle	Stored Food Products	36	468
Mediterranean Fruit Fly	Fruit Trees	121	5,519
Melon Fruit Fly	Vegetables	121	5,519
Mexican Fruit Fly	Fruit Trees	121	5,520
Oriental Fruit Fly	Fruit Trees	121	5,519
South American Palm Weevil	Palm Trees	150	3,497



Pest Detection Survey

Target Pest/Survey Sites	Area Surveyed	Inspections & Finds	Actions
Asian Citrus Psyllid / Huanglongbing	Residential citrus trees within 2 miles of the international border	924 sites surveyed; 926 plant samples, 3 insect samples	No action needed
Glassy-Winged Sharpshooter	Retail nursery stock shipments	1,379 inspections; No finds 8 rejections not due to finds	1 - returned 7 - other
	Bulk citrus fruit	577 inspections; No finds	No action needed
Ag & Urban, A-Rated & Noxious Weeds Pest survey	2,146 total miles	180 total positive sites	128 sites mechanical removal
Red Imported Fire Ant	12 high risk sites	14 inspections; No finds	No action needed

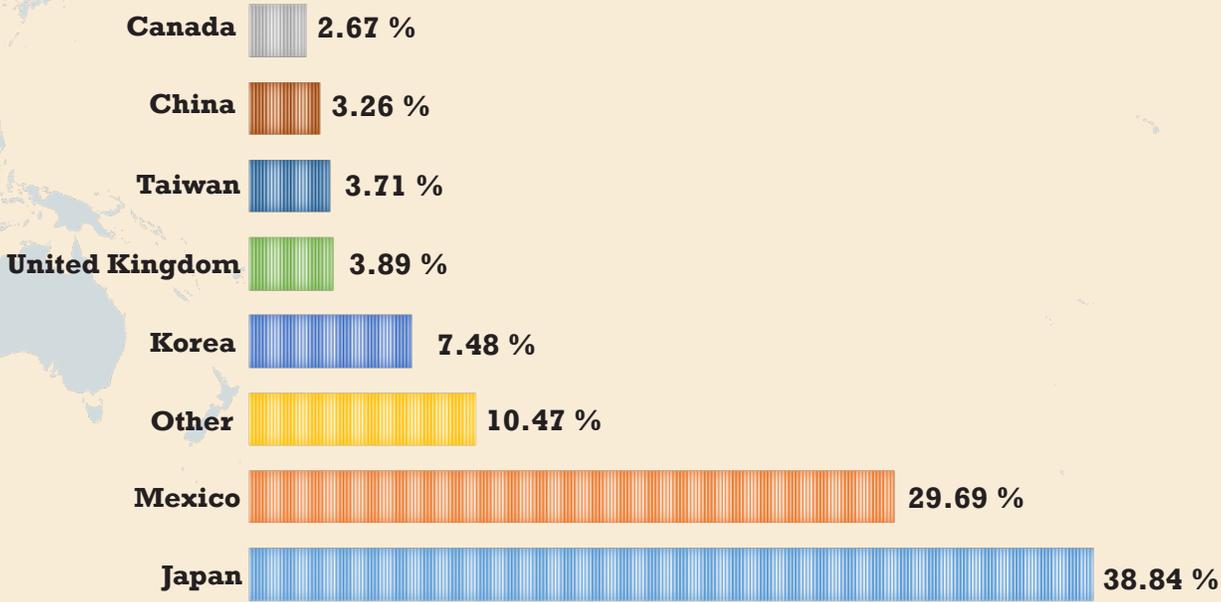


2020 EXPORT COMMODITIES

Federal Export Certificates^{1/}

20,962 federal certificates issued to 87 countries
89.53% of the certificates issued to 7 countries

Percentage of Certificates Issued per Country



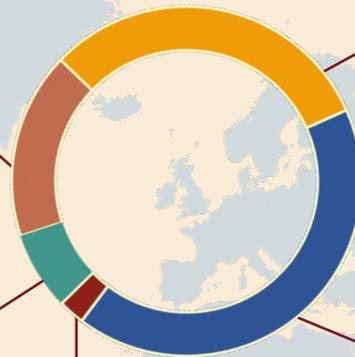
Commodities Exported^{2/}



Seeds
17.46 %



Fruit
7.18 %



Hay
31.56 %



Vegetables
41.20 %

Other
2.61 %

^{1/} Based on USDA Phytosanitary Certification Program

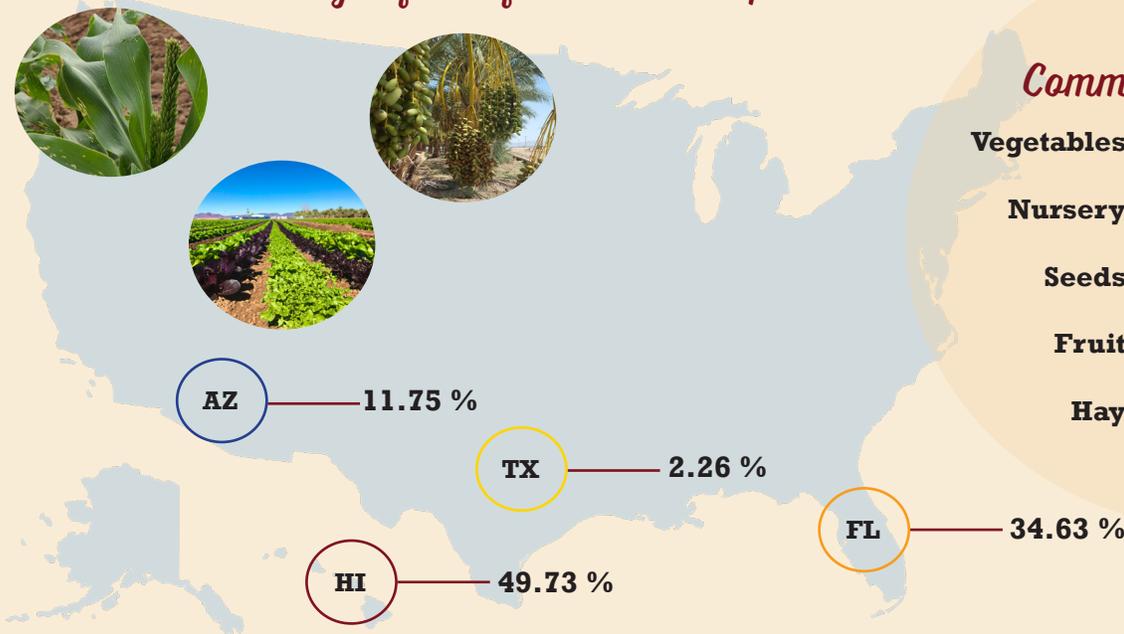
^{2/} Not all commodities originated in Imperial County

2020 EXPORT COMMODITIES

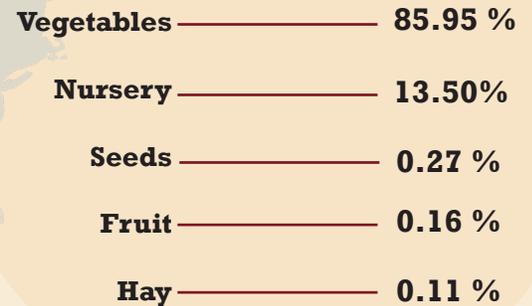
A Closer look at our Trading Partners State Export Certificates^{1/}

1,106 state certificates issued to 9 states and territories
98.37 % of the certificates issued to 4 states

Percentage of Certificates Issued per State



Commodities Exported^{2/}



Maps created with mapchart.net ®

NOTE: Not all U.S. produce shipments require a phytosanitary certificate

California and the Global Market

In 2019, California was once again the country's largest producer and exporter as it exported 28% of its total agricultural production volume^{1/}.

- California was the sole producer and supplier for 99% of: almonds, artichokes, dates, figs, garlic, kiwifruit, olives and olive oil, pistachios, prunes, raisins, table grapes, tomatoes for processing and walnuts.
- The principal 57 export commodities accounted for \$18.5 billion in export value, 85% of California's total agricultural exports.



CALIFORNIA TOP 10 AGRICULTURAL EXPORT MARKETS 2019^{1/}

Country	Rank
European Union	1
Canada	2
China/Hong Kong	3
Japan	4
South Korea	5
Mexico	6
India	7
United Arab Emirates	8
Taiwan	9
Turkey	10

^{1/} Based on USDA Phytosanitary Certification Program

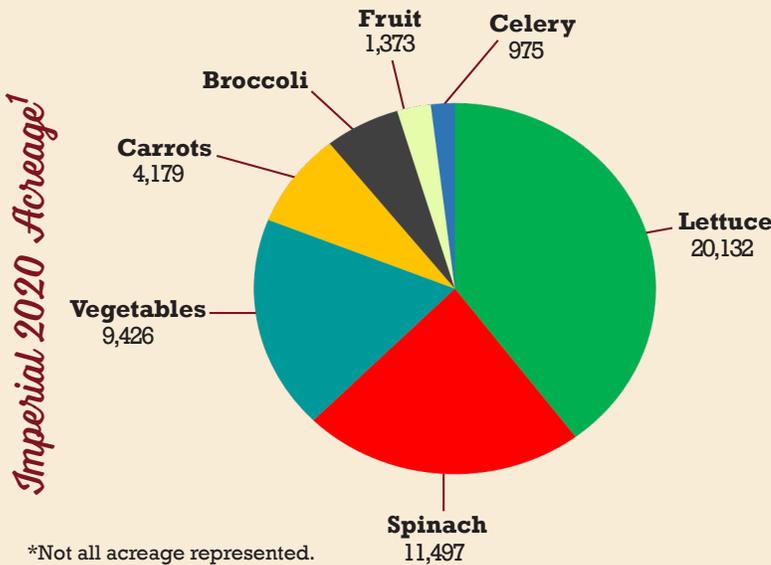
^{2/} Not all commodities originated in Imperial County

¹ <https://www.cdfa.ca.gov/statistics/>

ORGANIC GROWER PROGRAM

The Organic Program is responsible for the enforcement of the Federal Organic Foods Production Act of 1990 and the California Organic Products Act of 2003. These statutes were adopted to protect consumers, producers, handlers, processors and retailers by monitoring and inspecting fresh commodities grown, labeled or sold as organic.

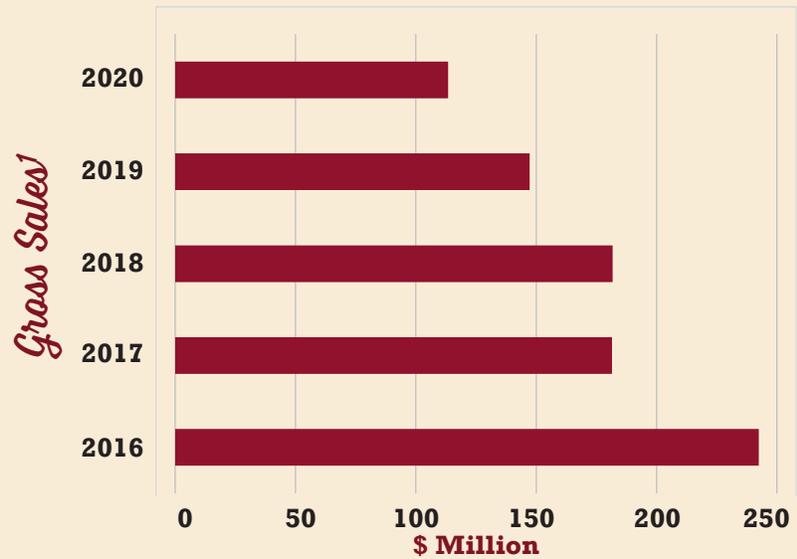
In 2019, California was responsible for 40% of U.S. organic production with a total gross sales of \$10.4 billion, which was an increase of 3.5% from 2018². Imperial took the 16th place in organic harvested acres.



Tractor & cultivator working in a field of lettuce. Pioneers Museum.

Imperial Organic Gross Sales¹

Ranked	Value	% of CA
18	113 million	1.2
	(-23% from 2019)	



Organic Operations

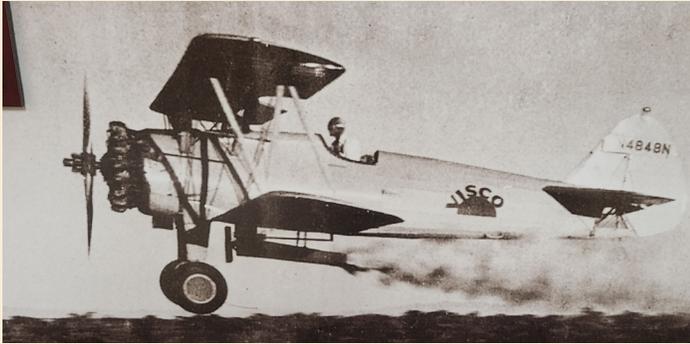
Year	Producers	Producer Acres	Handlers	Processors
2020	52	48,207	39	3
2019	70	46,440	30	3
2018	52	46,850	28	3
2017	55	45,216	27	3
2016	48	33,505	23	2



¹ <https://organic.cdfa.ca.gov/> - State Organic Program

² <https://www.cdfa.ca.gov/statistics/>

PESTICIDE USE ENFORCEMENT



Imperial Valley Aerial Applicators, crop dusting. Pioneers Museum.

Issuance of Permits	#
Restricted Material Permits and Supplements	1,406
Operator Identification Numbers	162
Private Applicator Certificates	58

Inspections	#
Notice of Intent	483
Agricultural Use Monitoring	587
Structural Use Monitoring	31
Headquarters/Employee Safety Records	143



Registrations	#
Pest Control Advisors	75
Pest Control Businesses	53
Pest Control Aircraft Pilots	20
Farm Labor Contractors	107
Structural Operators	38

Outreach	#
Number of Events	18
Attendees	525

Personal Protective Equipment
Distributed to
Agricultural Industry

In partnership with CDFA, DPR and CalOES

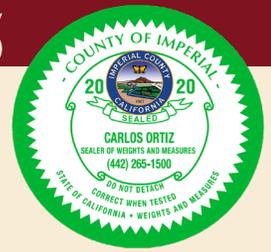
Surgical masks **1,246,000**

Gloves **20,000**

N95 **31,800**



WEIGHTS AND MEASURES



Weighing Devices	Locations	Inspections
Computing Scales	67	440
Counter Scales	31	52
Platform Scales <2,000 lb	32	51
Platform Scales 2,000 to 10,000 lb	27	52
Hopper Scales	4	8
Hanging Scales	8	13
Livestock Scales	17	19
Prescription/Jewelry Scales	11	13
Vehicle Scales	124	142



Measuring Devices	Locations	Inspections
Fabric/Cord/Wire	3	6
LPG	8	8
Retail Fuel Meters (Gas Pumps)	116	2,593
Retail Water Meters	85	129
Vehicle Meters	12	15



Point of Sale	Locations
Businesses	181 visited
Items	3,049 inspected



Pea pickers weighing their baskets. Pioneers Museum.

CALIFORNIA AGRICULTURAL STATISTICS 2019 - 2020

California Agricultural Statistics¹ are compiled annually from County Agricultural Commissioner Crop Reports

Inside Imperial



Leading commodities in the County

1. Cattle & Calves *
2. Alfalfa Hay
3. Vegetables
4. Other Hay

Imperial is the # 1 producer



1. Alfalfa Hay *
2. Sweet Corn
3. Sugar Beets
4. Sudan Hay
5. Alfalfa Seed

Imperial is among the top 2 producers



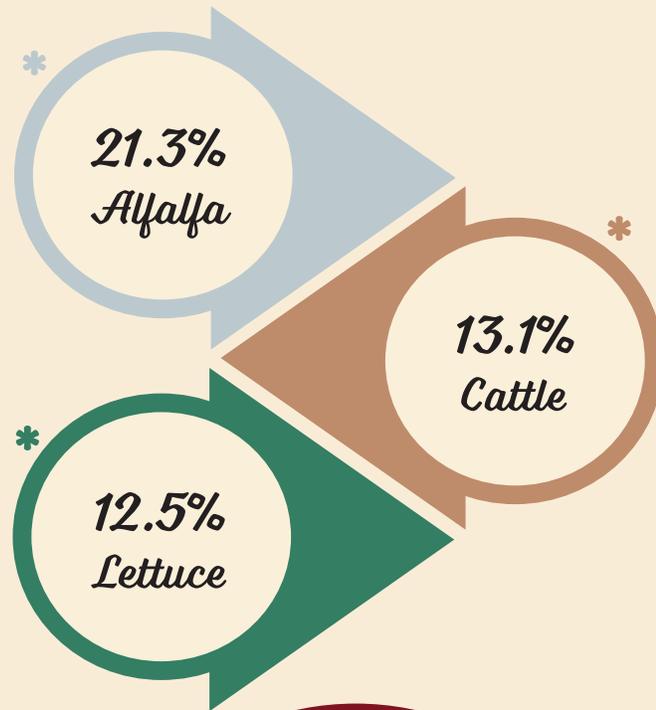
1. Cattle, Heifers & Steers
2. Lettuce*
3. Broccoli
4. Carrots
5. Spinach
6. Vegetable & Vinecrop
7. Dates

How did we do in California?

IMPERIAL COUNTY

**Ranked #9
in 2019**

\$2.02 billion
(-9.4% from 2018 gross sales)



¹<https://www.cdfa.ca.gov/statistics/>



Grain combines (left), Farmall F-20 pulling hay baler (center), and Deering ensilage harvester in maize field (right). Pioneers Museum.

Carlos Ortiz
Agricultural Commissioner
Sealer of Weights & Measures
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*Thank you to the Pioneers Museum for opening up their doors to us during the pandemic.
Your resources were invaluable to the production of this report.*