STANISLAUS COUNTY AGRICULTURAL REPORT



2020 CELEBRATING OUR FARMWORKERS

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2021 STAFF LISTING

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Recently Retired
 Graphic Design by Cassy Costa



DEPARTMENT OF AGRICULTURE & WEIGHTS AND MEASURES

Karen Ross, Secretary

California Department of Food and Agriculture and

The Honorable Board of Supervisors of Stanislaus County

| Buck Condit | District 1 |
|----------------|---------------------------|
| Vito Chiesa | District 2, Chairman |
| Terry Withrow | District 3, Vice-Chairman |
| Mani Grewal | District 4 |
| Channce Condit | District 5 |

In accordance with Sections 2279 of the California Food and Agricultural Code, we are pleased to submit Stanislaus County's Agricultural Report for 2020. This report provides a statistical description of Stanislaus County's agricultural production. We must emphasize that this report represents gross values of agricultural commodities and does not reflect production costs or profits.

The gross value of agricultural production for 2020 was \$3,476,093,000. This represents a 3% decrease from the 2019 value of \$3,598,404,000.

This year's report reflects a historic pandemic year that changed markets suddenly and dramatically and created numerous challenges along the entire production chain. As lockdown orders went into effect, consumers changed eating habits as schools and restaurants closed. Locally, after emerging from a dry winter, the summer dragged into a historic fire season that burned significant rangeland on the Westside of the county in the 47-day SCU Lightning Complex fire. Additionally, we experienced a dry fall that saw little rain into mid-December.

A few bright spots emerged despite these factors, such as the increase in value of livestock products including eggs and dairy, and increases in yield and value of freestone peaches, cherries and sweet potatoes. Mirroring statewide trends were decreases in dairy cattle numbers, as well as lessened field crop, processing tomato and wine grape acreage.

We wish to express our appreciation to the agricultural producers, industry representatives and public agencies that provide data for this report. We would also like to express our thanks to the UC Cooperative Extension, and the Agricultural Commissioner's crop report team that compiled, designed and edited this report.

Respectfully submitted,

Kamaljit Bagri Agricultural Commissioner/Sealer Stanislaus County

Jennifer Heguy County Director, UC Cooperative Extension Stanislaus County

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A DEDICATION TO

STANISLAUS COUNTY AGRICULTURAL COMMISSIONER 2013 - 2021





Milton O'Haire leaves behind a department that values the culture of approachability, the promotion of education with regulation, and premium customer service. During his 39 years representing the very best of government, his enthusiasm and dedication for problem solving combined with modernizing processes for efficiency was instrumental to developing and instituting technology within the Stanislaus Ag Department and at the state level.

Well-rounded, a polymath, jack-of-all-trades, Renaissance man, versatile, a MacGyver, and a man for all seasons are descriptors that fail to capture the broad spectrum of talents, interests and associations that illustrate Stanislaus County's recently retired 10th Agricultural Commissioner and 11th Sealer of Weights and Measures.

Perhaps Milton's greatest career impacts will be on those he has influenced as a public servant. Despite being constantly on the move with the next project or agenda item, Milton is widely known as a patient communicator who will always listen to a stakeholder or collaborator and maybe share a story...or three!

Our department, along with a great many others that have known him throughout the years, wish Milton a long, joyful and well-deserved retirement. Thank you for your many years of dedication and contributions to the agricultural community, local, regional and state government.

INDISPENSABLE FARMWORKERS

RESILIENCE IN TIMES OF CRISIS



During this past year's pandemic, we've accustomed ourselves to a slew of terms and definitions: stay at home orders, lock-downs, quarantines, essential businesses, essential workers. As grocery shelves emptied and product was left unharvested due to the pandemic, a new light was shed on this essential work. For a time, the definition was devoid of the political and historical baggage the term "agricultural worker" usually carries in today's conversations, and it was unequivocally, unquestionably, essential work. It was, simply: "A person who is employed in agriculture, usually a manual worker" (Harper Collins Dictionary).

Many of the tasks agricultural laborers do daily would be considered a weekend chore or even exercise in many households. The true agricultural work is often romanticized as "feeding the world": an honest physical job, for humble and proud



people. In addition, statistically, farm work is also one of the most physically demanding, dangerous, and low paying jobs around.

Agricultural laborers were not immune to the uncertainty, risk and ever-changing rules, regulations and guidelines by government and health officials as more was discovered about the virus.

Despite the unusual challenges of 2020, and a testament to the tenacity of the agricultural workforce, the work was still done, as reflected in the county's agricultural production and values in this report. The Agricultural Commissioner's office was quick to identify our agriculture laborers as an essential yet vulnerable population and worked with numerous state and local agencies and businesses to distribute masks and other



Photo courtesy Tommy Van Groningen

personal protective equipment to agricultural personnel and operations. The Commissioner's office also partnered with the Farm Bureau to offer virtual continuing education courses for agriculture workers and assisted in identifying agricultural populations and locations for testing and vaccination clinics.

As you take in this report, we invite you to also take note of the highlighted individuals from the Farmworker of the Year nominations hosted by the Stanislaus County Farm Bureau, the Modesto Rotary Club and Ag Safe. Without reliable agricultural workers such as these, the production data this report represents would not be possible. These exemplary individuals are just a few of the many faces of essential agricultural workers.

REPORT SUMMARY



| CATEGORY | YEAR | HARVESTED ACRES | TOTAL VALUE |
|------------------------------|------|--------------------|-----------------|
| Areigen / Dro du oto | 2020 | | \$105,638,000 |
| Apiary Products | 2019 | | \$109,523,000 |
| Field Cropp | 2020 | 588,767 | \$172,816,000 |
| Field Crops | 2019 | 639,534 | \$214,113,000 |
| | 2020 | 277,785 | \$1,365,573,000 |
| Fruit and Nut Crops | 2019 | 275,627 | \$1,484,057,000 |
| Livertock & Doultry | 2020 | | \$608,798,000 |
| Livestock & Poultry | 2019 | | \$636,561,000 |
| Livertook & Doultry Droducto | 2020 | | \$782,421,000 |
| Livestock & Poultry Products | 2019 | | \$659,186,000 |
| Nursery Dreducts | 2020 | 1,479 | \$210,746,000 |
| Nursery Products | 2019 | 1,650 | \$227,537,000 |
| Oragnia Braduata | 2020 | 15,283 | \$37,528,000 |
| Organic Products | 2019 | 16,444 | \$61,415,000 |
| | 2020 | 365 | \$29,047,000 |
| Other Agriculture | 2019 | 360 | \$25,018,000 |
| Vagatable Crass | 2020 | 25,256 | \$163,526,000 |
| Vegetable Crops | 2019 | 28,223 | \$180,994,000 |
| TOTAL | 2020 | 908,935 | \$3,476,093,000 |
| | 2019 | 961,838 | \$3,598,404,000 |

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TOP TEN COMMODITIES



Bee Registration and BeeWhere



Beekeepers are required to register with the County Agricultural Commissioner's office so they can be notified when a planned pesticide application toxic to bees occurs within a mile of their colony location. BeeWhere streamlines registration on-line while working in conjunction with Cal Ag Permits to safeguard hive locations across California. Beekeepers, Pest Control Advisors & farmers will receive automatic alerts if colonies are within proximity of a scheduled pesticide application, allowing measures to be taken to prevent apiary loss incidents. For more information go to: https://beewhere.calagpermits.org.



Photo courtesy BeeWhere website

Apiary Products



| CATEGORY | YEAR | TOTAL | UNIT | PER UNIT | TOTAL VALUE |
|---------------------------------|------|-----------|--------|----------|---------------|
| Beeswax ¹ | 2020 | 404,822 | Lb | \$3.00 | \$1,214,000 |
| Deeswux | 2019 | 662,952 | Lb | \$3.25 | \$2,155,000 |
| Hopoy 1 | 2020 | 7,472,513 | Lb | \$2.03 | \$15,169,000 |
| Honey ¹ | 2019 | 5,686,746 | Lb | \$3.96 | \$22,520,000 |
| Pollination, Almond | 2020 | 435,292 | Colony | \$204.00 | \$88,800,000 |
| Polination, Almona | 2019 | 430,488 | Colony | \$195.00 | \$83,945,000 |
| Pollination, Other ² | 2020 | | | | \$455,000 |
| Poliniunon, Onier- | 2019 | | | | \$903,000 |
| TOTAL | 2020 | | | | \$105,638,000 |
| IUIAL | 2019 | | | | \$109,523,000 |

1 Beeswax and Honey are based on resident colonies plus the value of the colonies during almond pollination season 2 Pollination, Other includes: Apple, Blueberry, Cherry, Cucumber, Melon, Pumpkin, Squash

Farmworker of the Year Nominee - Razo Barron

Bruce Beard, owner of Blossom Hill and Beard's Quality Nut, knew just the person to nominate for farmworker of the year: Razo Barron, who has served 35 years with the company. "Razo is so deserving. He gives his heart and soul to this company and its employees. He is always so positive and gets the job done. Razo's work ethic and values are hard to come by. He oversees all of our orchard operations and labor from beginning to end," said Beard.

Razo shared that he finds his job truly rewarding, and his favorite time of year is harvest. "I like the dust," he says with a smile.

Barron's daughter, Alex, also works for the Beard family and expressed the Barron family's pride in Razo's recognition. "He's so professional and detail oriented with his tasks and his knowledge in farming," she said.

Original interviews by Anna Genasci, Farm Bureau Editor.

FIELD CROPS

| CATEGORY | YEAR | HARVESTED ACRES | PER ACRE | TOTAL | UNIT | PER UNIT | TOTAL VALUE | N. S. W.S. |
|---------------------------------|------|--------------------|-------------|----------|------|-------------|---------------------------|------------|
| De ana Drie d All | 2020 | 7,302 | 8122513 | 5.184 | | | \$11,831,000 | |
| Beans, Dried All | 2019 | 6,954 | | | | | \$9,533,000 | |
| Disch aug | 2020 | 1,062 | 1.15 | 1,200 | Ton | \$1,170 | \$1,404,000 | |
| Black-eyed | 2019 | 1,568 | 1.02 | 1,600 | Ton | \$992 | \$1,587,000 | |
| Delaulia | 2020 | 531 | 1.15 | 611 | Ton | \$1,250 | \$764,000 | |
| Baby Limas | 2019 | 1,228 | 1.15 | 1,410 | Ton | \$987 | \$1,392,000 | |
| Laura Lineau | 2020 | 5,045 | 1.21 | 6,100 | Ton | \$1,500 | \$9,150,000 | |
| Large Limas | 2019 | 3,412 | 1.20 | 4,090 | Ton | \$1,428 | \$5,841, <mark>000</mark> | |
| Denne Drivel Other 1 | 2020 | 664 | 0.30 | 200 | Ton | \$1,100 | \$220,000 | |
| Beans, Dried Other ¹ | 2019 | 746 | 0.92 | 686 | Ton | \$831 | \$570,000 | |
| Do on Otronu | 2020 | 1.4 | | 6,100 | Ton | \$48 | \$293,000 | |
| Bean Straw | 2019 | | | 4,090 | Ton | \$35 | \$143,000 | |
| Llow Alforday | 2020 | 13,588 | 6.93 | 94,200 | Ton | \$196 | \$18,463,000 | |
| Hay, Alfalfa | 2019 | 18,664 | 6.82 | 127,000 | Ton | \$198 | \$25,146,000 | 11 |
| Have Oat | 2020 | 25,351 | 2.73 | 69,200 | Ton | \$148 | \$10,242,000 | |
| Hay, Oat | 2019 | 9,018 | 4.08 | 36,800 | Ton | \$135 | \$4,968,000 | |
| Han Other 2 | 2020 | 9,581 | 1 Stores | | | | \$4,889,000 | |
| Hay, Other ² | 2019 | 10,748 | | | | | \$6,125,000 | |
| | 2020 | 23,057 | | Sec. 122 | Acre | \$292 | \$6,733,000 | |
| Pasture, Irrigated | 2019 | 32,000 | | | Acre | \$297 | \$9,504,000 | |

Razo Barron pictured left and nominator Bruce Beard. Photo courtesy Stanislaus County Farm Bureau.

FIELD CROPS continued

| CATEGORY | YEAR | HARVESTED ACRES | PER ACRE | TOTAL | UNIT | PER UNIT | TOTAL VALUE | |
|----------------------------|------|--------------------|----------------|-----------|-------|-------------|----------------|------|
| Denerational | 2020 | 400,540 | Service 1 | Set Strat | Acre | \$36 | \$14,419,000 | |
| Rangeland | 2019 | 421,449 | | | Acre | \$35 | \$14,751,000 | |
| | 2020 | 108,235 | 13153 | | | S.S.L | \$99,498,000 | 3 |
| Silage, All | 2019 | 139,443 | | | | | \$137,001,000 | |
| Com | 2020 | 55,739 | 26.61 | 1,483,000 | Ton | \$51 | \$75,633,000 | |
| Corn | 2019 | 70,857 | 27.67 | 1,961,000 | Ton | \$50 | \$98,050,000 | |
| Oct | 2020 | 10,355 | 16.25 | 168,000 | Ton | \$36 | \$6,048,000 | |
| Oat | 2019 | 27,054 | 14.54 | 393,000 | Ton | \$33 | \$12,969,000 | |
| Other ³ | 2020 | 24,051 | | 1 | | X | \$8,331,000 | |
| Oner | 2019 | 20,910 | | | | | \$13,562,000 | |
| What | 2020 | 18,090 | 15.43 | 279,000 | Ton | \$34 | \$9,486,000 | |
| Wheat | 2019 | 20,622 | 16.74 | 345,000 | Ton | \$36 | \$12,420,000 | 15-1 |
| Miscellaneous ⁴ | 2020 | 1,113 | Sec. | | | 11. 118 | \$6,741,000 | |
| Miscellaneous * | 2019 | 1,258 | | S. S. S. | 7.494 | and the | \$7,085,000 | |
| ΤΟΤΑΙ | 2020 | 588,767 | NIP CONTRACTOR | | ane! | | \$172,816,000 | |
| TOTAL | 2019 | 639,534 | 11111 | | 724 | Ref Lat | \$214,113,000 | |

1 Beans, Dried Other includes: Unspecified

2 Hay, Other includes: Clover, Grass, Sudan, Wheat, Winter Forage

3 Silage, Other includes: Alfalfa, Broccoli Stalks, Grass, Sorghum, Sudan, Triticale, Vetch, Winter Forage

4 Miscellaneous includes: Corn-Grain, Corn-Human Consumption, Corn-Sweet, Industrial Hemp, Rice, Rye-Grain,

Safflower, Wheat-Grain, Wheat-Straw

Farmworker of the Year Nominee - Ted Voss

"TJ is my right-hand-man," shares Charles Voss. Over the last seven years, Charles' son, Ted, who goes by TJ, takes on more and more responsibility each year on the farm, doing everything from being the go-to mechanic to irrigating. "Each day I get to farm with my family. I am proud to work alongside him," says Charles.

"They didn't tell me about the nomination, until after they had done it," said TJ, humbly. "I have been on this ranch my whole life. When our ranch manager retired, I jumped in. I really am where I am supposed to be," smiled TJ.

Sometimes life is about timing. TJ loves what he does on the farm, but the flexible schedule has especially helped him care for his six year old son, Lincoln. Lincoln was sent to Children's Hospital fifteen minutes after he was born and needed heart surgery right away. He had his second surgery at three months old, and most recently, his third-and hopefully final-surgery.

"God has watched over us, working on the ranch lets me be with him," shared TJ.

Original interviews by Anna Genasci, Farm Bureau Editor.

FRUIT & NUT CROPS

| CATEGORY | YEAR | HARVESTED ACRES | PER ACRE | TOTAL | UNIT | PER UNIT | TOTAL VALUE |
|---------------------|------|--------------------|--|-----------|--------|-----------------------|-----------------|
| | 2020 | 217,646 | | | 244 | | \$1,123,961,000 |
| Almonds, All | 2019 | 216,265 | | | | | \$1,228,536,000 |
| Almond Meats | 2020 | 217,646 | 1.33 | 289,000 | Ton | \$3,720 | \$1,075,080,000 |
| AIMONU MEUIS | 2019 | 216,265 | 1.10 | 237,900 | Ton | \$4,965 | \$1,181,174,000 |
| Almond Hulls | 2020 | 120 2000 | 1. The second se | 579,000 | Ton | \$80.20 | \$46,436,000 |
| AIMONU HUIIS | 2019 | | | 476,000 | Ton | \$95.60 | \$45,506,000 |
| | 2020 | | | 289,000 | Ton | \$8. <mark>4</mark> 6 | \$2,445,000 |
| Almond Shells | 2019 | 1.1435 32 | | 238,000 | Ton | \$7.80 | \$1,856,000 |
| Apricata | 2020 | 2,192 | 4.92 | 10,800 | Ton | \$834 | \$9,007,000 |
| Apricots | 2019 | 2,549 | 7.20 | 18,400 | Ton | \$647 | \$11,905,000 |
| Cherries | 2020 | 3,577 | 2.40 | 8,590 | Ton | \$3,790 | \$32,556,000 |
| Chemes | 2019 | 3,282 | 1.91 | 6,270 | Ton | \$3,638 | \$22,810,000 |
| Citrus ¹ | 2020 | 530 | Sec. 1 and | aning the | | | \$5,140,000 |
| Cillus | 2019 | 512 | | | | | \$5,333,000 |
| | 2020 | 8,497 | | | | | \$35,557,000 |
| Grapes, All | 2019 | 9,226 | all the | dist. | 1. 198 | | \$40,738,000 |
| Pad | 2020 | 5,183 | 9.42 | 48,800 | Ton | \$458 | \$22,350,000 |
| Red | 2019 | 5,651 | 9.32 | 52,700 | Ton | \$520 | \$27,404,000 |



FRUIT & NUT CROPS continued

| CATEGORY | YEAR | HARVESTED ACRES | PER ACRE | TOTAL | UNIT | PER UNIT | TOTAL VALUE |
|----------------------------|------|--------------------|-------------|---------|-----------|-------------|-----------------|
| White | 2020 | 3,314 | 9.63 | 31,900 | Ton | \$414 | \$13,207,000 |
| VVIIIIe | 2019 | 3,575 | 8.93 | 31,900 | Ton | \$418 | \$13,334,000 |
| Peaches, All | 2020 | 3,396 | 11. | | 1-1-1-1-1 | | \$31,789,000 |
| Peuches, All | 2019 | 3,136 | | | | 2.00 | \$26,744,000 |
| Clipa | 2020 | 2,521 | 16.90 | 42,600 | Ton | \$488 | \$20,789,000 |
| Cling | 2019 | 2,763 | 17.75 | 49,000 | Ton | \$463 | \$22,687,000 |
| Freestone | 2020 | 875 | 10.00 | 8,800 | Ton | \$1,250 | \$11,000,000 |
| rieesione | 2019 | 373 | 12.37 | 4,610 | Ton | \$880 | \$4,057,000 |
| Walnuts | 2020 | 37,916 | 1.94 | 73,600 | Ton | \$1,400 | \$103,040,000 |
| vvalituts | 2019 | 37,044 | 1.71 | 63,300 | Ton | \$1,936 | \$122,549,000 |
| Miscellaneous ² | 2020 | 4,031 | | | | | \$24,523,000 |
| | 2019 | 3,613 | Ess. | 4 | | | \$25,442,000 |
| τοτοι | 2020 | 277,785 | 5.8.5 | S-HANGE | | | \$1,365,573,000 |
| TOTAL | 2019 | 275,627 | | | | | \$1,484,057,000 |
| | | | | | | | |

1 Citrus includes: Grapefruit, Lemons, Mandarins, Oranges

2 Miscellaneous includes: Apples, Avocados, Berries (Blackberries, Boysenberries, Blueberries, Raspberries, Strawberries), Chestnuts, Figs, Jujube, Kiwifruit, Nectarines, Olives, Pears, Pecans, Persimmons, Pistachios, Plums, Pluots, Pomegranates, Prunes, Quince, Table Grapes

Farmworker of the Year Nominee - Joe Brazil

Greg and Yvette Nunes asked their son, Heston, to nominate one of their loyal employees, Joe Brazil, for Farmworker of the Year. Despite only working for the Nunes family dairy for only two years, "Joe treats this place like it is his. He does all the extras and even checks on things on his days off," shared Yvette. "We so appreciate him. When we leave things with Joe, it gets done, he has become one of the family."

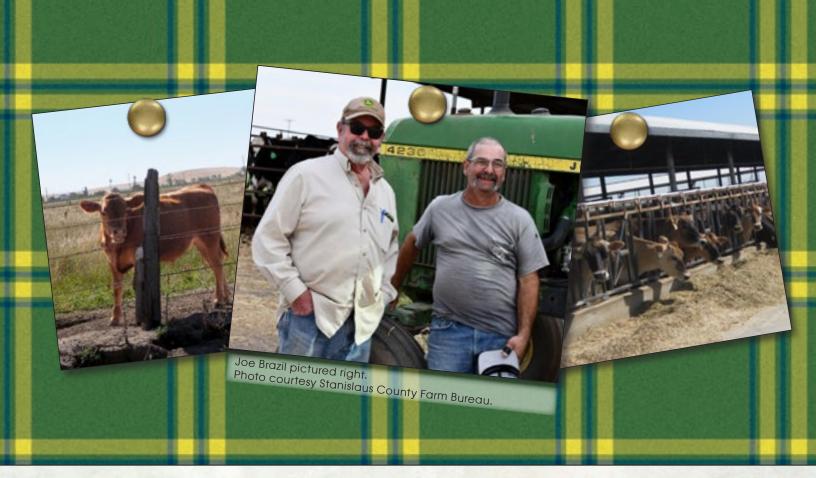
Joe has a long history in agriculture and loves working with equipment. Joe spends his days feeding heifers, farming, irrigating, and keeping the place neat and tidy. Heston shared that his parents needed someone reliable and without Joe, "We couldn't get it done."

Original interviews by Anna Genasci, Farm Bureau Editor.

LIVESTOCK & POULTRY

| CATEGORY | YEAR | NUMBER OF HEAD | TOTAL VALUE |
|-------------------------|------|-------------------|----------------|
| Cattle & Calves, All | 2020 | 338,600 | \$201,783,000 |
| Cume & Cuives, All | 2019 | 327,970 | \$198,477,000 |
| Beef, All ¹ | 2020 | 194,600 | \$99,418,000 |
| | 2019 | 179,570 | \$41,813,000 |
| Dain A#2 | 2020 | 144,000 | \$102,365,000 |
| Dairy, All ² | 2019 | 148,400 | \$156,664,000 |
| Chickens | 2020 | 134,830,000 | \$342,099,000 |
| CHICKEHS | 2019 | 161,020,385 | \$365,786,000 |
| Coate All 3 | 2020 | 20,700 | \$3,063,000 |
| Goats, All ³ | 2019 | 15,347 | \$1,933,000 |





LIVESTOCK & POULTRY continued

| CATEGORY | YEAR | NUMBER OF HEAD | TOTAL VALUE |
|------------------------------------|------|-------------------|----------------|
| Hoge & Dige | 2020 | 33,700 | \$3,767,000 |
| Hogs & Pigs | 2019 | 22,261 | \$3,720,000 |
| Sheep, All ⁴ | 2020 | 4,650 | \$645,000 |
| | 2019 | 3,229 | \$595,000 |
| Turkeys | 2020 | 7,495,000 | \$54,117,000 |
| TUIKEys | 2019 | 8,181,139 | \$60,931,000 |
| Miscellaneous Poultry ⁵ | 2020 | 686,000 | \$3,324,000 |
| Wiscelia leous Poulity | 2019 | 830,068 | \$5,119,000 |
| TOTAL | 2020 | | \$608,798,000 |
| | 2019 | | \$636,561,000 |

1. Beef, All includes: Beef Calves less Replacement Heifers, Beef Cull Bulls & Cows, Feedlot Cattle, Replacement Heifers (Beef Feeders and Beef Slaughter categories are combined for 2020)

2. Dairy, All includes: Dairy Cull Bulls & Cows, Dairy Calves less Replacement Heifers, Dairy Replacement Heifers (Dairy Replacement and Dairy Slaughter categories are combined for 2020)

3. Goats, All includes: Dairy & Meat Goat Cull Bucks & Does, Dairy & Meat Goat Kids less Replacement Does, Dairy & Meat Goat Replacement Bucks & Does

4. Sheep, All includes: Dairy & Meat Sheep Cull Ewes and Rams, Dairy & Meat Sheep Lambs less Replacement Ewes & Rams

5. Miscellaneous Poultry includes: Game Birds & Squab

Farmworker of the Year Nominee - Larry Alan Byrd

When asked what inspired him to nominate his grandson, Larry Byrd had this to say about Larry Alan, "Larry was born and raised on the ranch. He is the fifth generation. When he [decided he] wanted to stay on the farm and raise cattle and grow almonds, we felt blessed." Larry Alan carries on the family tradition.

Larry Alan grew up in Waterford and earned his degree at Stanislaus State. For the last two years he has worked full time on the ranch-checking cattle, irrigating, spraying, fixing fence, whatever the day brings. "I really like what I do – even irrigating," he says.

"It's like a dream come true having Larry Alan on the ranch, we are so proud of him," says the senior Alan.

Original interviews by Anna Genasci, Farm Bureau Editor.

LIVESTOCK & POULTRY PRODUCTS

| YEAR | TOTAL | UNIT | PER UNIT | TOTAL VALUE | |
|------|--|---|--|--|---|
| 2020 | 36,413,729 | Doz | \$0.97 | \$35,321,000 | |
| 2019 | 27,250,000 | Doz | \$0.88 | \$23,980,000 | 1 |
| 2020 | | 200 | | \$3,700,000 | |
| 2019 | and the second second | 61.5 | | \$0 | 2 |
| 2020 | 39,300,822 | Cwt | | \$736,644,000 | |
| 2019 | 38,207,107 | Cwt | | \$628,701,000 | |
| 2020 | 39,171,119 | Cwt | | \$732,500,000 | |
| 2019 | 38,120,000 | Cwt | à la | \$625,168,000 | |
| 2020 | 129,703 | Cwt | | \$4,144,000 | |
| 2019 | 87,107 | Cwt | 2.5/22 | \$3,533,000 | |
| 2020 | 813,631 | Ton | \$8.29 | \$6,745,000 | |
| 2019 | 797,596 | Ton | \$8.08 | \$6,445,000 | |
| 2020 | 24,700 | Lb | \$0.46 | \$11,000 | |
| 2019 | 39,128 | Lb | \$1.54 | \$60,000 | |
| 2020 | | | | \$782,421,000 | |
| 2019 | 1 dente | Test and | A Charles | \$659,186,000 | |
| | 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 2020 2019 | 2020 36,413,729 2019 27,250,000 2020 27,250,000 2019 2019 2020 39,300,822 2019 38,207,107 2020 39,171,119 2019 38,120,000 2019 38,120,000 2020 129,703 2019 87,107 2020 813,631 2019 797,596 2020 24,700 2019 39,128 | 2020 36,413,729 Doz 2019 27,250,000 Doz 2020 2019 2019 2019 39,300,822 Cwt 2019 38,207,107 Cwt 2020 39,171,119 Cwt 2019 38,120,000 Cwt 2019 38,120,000 Cwt 2019 38,120,000 Cwt 2019 87,107 Cwt 2020 129,703 Cwt 2019 87,107 Cwt 2019 813,631 Ton 2019 797,596 Ton 2019 39,128 Lb 2019 39,128 Lb | YEAR IOTAL UNIT 2020 36,413,729 Doz \$0.97 2019 27,250,000 Doz \$0.88 2020 27,250,000 Doz \$0.88 2020 \$0.97 \$0.97 \$0.97 2019 27,250,000 Doz \$0.88 2020 \$0.97 \$0.97 \$0.97 2019 \$0.92 \$0.88 \$0 2020 \$9,300,822 \$Cwt \$0.97 2019 \$8,207,107 \$Cwt \$0.97 2020 \$9,171,119 \$Cwt \$0.97 2019 \$8,120,000 \$Cwt \$0.97 2019 \$8,120,000 \$Cwt \$0.97 2020 \$13,631 Ton \$8.29 2019 \$97,596 Ton \$8.08 2020 \$24,700 \$0.46 \$0.46 2019 \$9,128 \$0.5 \$1.54 | YEAR IOTAL UNIT VALUE 2020 36,413,729 Doz \$0.97 \$35,321,000 2019 27,250,000 Doz \$0.88 \$23,980,000 2020 27,250,000 Doz \$0.88 \$23,980,000 2019 27,250,000 Doz \$0.88 \$23,980,000 2019 27,250,000 Doz \$0.88 \$23,980,000 2019 39,300,822 Cwt \$3,700,000 2019 38,207,107 Cwt \$736,644,000 2019 38,120,000 Cwt \$628,701,000 2019 38,120,000 Cwt \$6455,168,000 2019 38,120,000 Cwt \$6455,168,000 2019 87,107 Cwt \$3,533,000 2019 813,631 Ton \$8.08 \$6,445,000 2019 797,596 Ton \$8.08 \$6,445,000 2019 24,700 Lb \$0.46 \$11,000 2019 39,128 Lb \$60,000 |

*Cwt = Hundred Weight

1 Eggs, Other includes: Quail Eggs, Duck Eggs (None reported in 2019)

2 Milk, Other includes: Goat & Sheep Milk

3 Manure includes: Chicken, Cow, Turkey

4 Wool includes: Alpaca Fiber, Sheep Wool

Larry Alan Byrd,right, with nominator Larry Byrd. Photo courtesy Stanislaus County Farm Bureau.

NURSERY PRODUCTS

| | | | | | | _ |
|----------------------------|---------------------------|------|----------------|--------------|----------------|---|
| | CATEGORY | YEAR | FIELD ACRES | UNIT SOLD | TOTAL VALUE | |
| | Fruit & Nut Trees & Vines | 2020 | 670 | 20,806,000 | \$163,123,000 | |
| | | 2019 | 856 | 22,079,265 | \$175,314,000 | 2 |
| Ornamental Trees & 9 | Ornamental Trees & Shrubs | 2020 | 510 | 1,935,000 | \$28,519,000 | |
| | | 2019 | 453 | 2,652,334 | \$34,022,000 | |
| | Missellanseus | 2020 | 299 | | \$19,104,000 | |
| Miscellaneous ¹ | Miscellaneous | 2019 | 341 | | \$18,201,000 | |
| TOTAL | TOTAL | 2020 | 1,479 | | \$210,746,000 | |
| | IUIAL | 2019 | 1,650 | and a second | \$227,537,000 | |

1 Miscellaneous includes: Industrial Hemp Transplants, Raspberry Transplants, Strawberry Transplants, Turf, Vegetable Transplants



Farmworker of the Year Nominee - Tim Sanders

Both nominee Tim Sanders and nominator Arby Hoobyar are Stanislaus County Board Members. "Tim is a good farmer, conscientious, and always willing to help – we have a 25-year friendship," shared Arby. "If I have a problem on the farm, I call Tim. He manages 200-plus acres practically by himself." Tim's dedication to his family, his work, and his dependability inspired Arby's nomination.

Tim has deep roots in Stanislaus County and is a graduate of Davis High School, Modesto Junior College and UC Davis. Tim's grandma told him, "Get your education, you can take it anywhere," but Tim's love of the ranch brought him home. Tim has farmed beans, alfalfa, nuts, and runs a sweeper business. "We've done good with a little bit of hard work," says Tim.

Original interviews by Anna Genasci, Farm Bureau Editor.

ORGANIC PRODUCTS

| CATEGORY | YEAR | HARVESTED ACRES | TOTAL VALUE |
|----------------------|------|--------------------|----------------|
| All Organia Draduata | 2020 | 15,283 | \$37,528,000 |
| All Organic Products | 2019 | 16,444 | \$61,415,000 |

OTHER AGRICULTURE

| CATEGORY | YEAR | TOTAL | UNIT | PER UNIT | TOTAL VALUE |
|------------------------------------|------|------------------|-------|-------------|----------------|
| Firewood | 2020 | 94,651 | Cord | \$240.00 | \$22,716,000 |
| Firewood | 2019 | 81,099 | Cord | \$240.00 | \$19,464,000 |
| All Other Agriculture 1 | 2020 | | | | \$5,890,000 |
| All Other Agriculture ¹ | 2019 | | | | \$5,113,000 |
| Sood Cropp ² | 2020 | 365 | Acres | | \$441,000 |
| Seed Crops ² | 2019 | 360 | Acres | | \$441,000 |
| TOTAL | 2020 | an est of the st | | | \$29,047,000 |
| IUIAL | 2019 | and the second | 14.26 | | \$25,018,000 |
| | | | | | |

1 All Other Agriculture includes: Aquaculture (Channel Catfish, Fingerling, Largemouth Bass, Silver Carp), Compost, Mulch, Wood Chips, Vermiculture (Worms, Worm Castings)

2 Seed Crops includes: Bean, Rice

<image>

VEGETABLE CROPS

| CATEGORY | YEAR | HARVESTED ACRES | PER ACRE | TOTAL | UNIT | PER UNIT | TOTAL VALUE | 1 |
|----------------------------|------|--------------------|-------------|--------|-----------------------------------|-------------|----------------|------|
| Beans, Succulent | 2020 | 796 | 0.78 | 621 | Ton | \$1,120 | \$696,000 | |
| Deans, Succulent | 2019 | 1,363 | 1.17 | 1,600 | Ton | \$1,106 | \$1,770,000 | |
| Melons, All ¹ | 2020 | 3,211 | | | | | \$25,578,000 | |
| MEIOLIS, AII | 2019 | 3,836 | | | | | \$51,490,000 | |
| Pumpkins | 2020 | 678 | 31.10 | 21,100 | Ton | \$380 | \$8,018,000 | |
| Рипркінз | 2019 | 267 | 23.43 | 6,256 | Ton | \$414 | \$2,590,000 | |
| Sweet Potatoes | 2020 | 1,955 | 18.24 | 35,700 | Ton | \$540 | \$19,278,000 | |
| Sweet Poluloes | 2019 | 1,903 | 15.17 | 28,900 | Ton | \$493 | \$14,248,000 | |
| Tomatoes, All ² | 2020 | 8,953 | | 1 | $\mathbf{S} \subset [\mathbf{y}]$ | | \$37,991,000 | 1200 |
| Tomatoes, All - | 2019 | 10,216 | | | | | \$42,493,000 | |
| Miscellaneous ³ | 2020 | 9,663 | 1.1 | | | | \$71,965,000 | 1.5 |
| IVIISCEIIOI IEOUS * | 2019 | 10,638 | | | | | \$68,403,000 | |
| TOTAL | 2020 | 25,256 | and the | | | | \$163,526,000 | 113 |
| TOTAL | 2019 | 28,223 | inter fine | | | | \$180,994,000 | |

1 Melons, All includes: Cantaloupe, Honeydew, Watermelon, and Unspecified

2 Tomatoes, All includes: Fresh, Processing

3 Miscellaneous includes: Asparagus, Beet, Bok Choy, Broccoli, Brussels Sprout, Cabbage-All, Carrot, Cauliflower, Celery, Chinese Greens, Cilantro, Cole Crop, Collard, Cucumber, Dandelion Green, Daikon, Dill, Edible Flower, Eggplant, Endive/Escarole, Fava Bean, Fennel, Garlic, Herb-Spice, Kale, Kohlrabi, Leek, Lettuce-All, Mint, Mustard Greens, Onion-All, Parsley, Pea, Pepper, Potato, Radish, Rutabaga, Spinach, Squash-All, Sweet Basil, Swiss Chard, Turnip, Vegetable, Vegetable-Leaf

PEST DETECTION EMERGENCY PROJECTS 2020

Focus: Protection of Agriculture & Horticultural industries in Stanislaus County

Traps Placed: 5,293 monitoring for specific pests

Trap Attractants: Insect pheromone, food bait, color (varies by pest)

Distribution of Traps: 65% residential yards, 24% nurseries, 9% vineyards & orchards, 2% commercial locations

Trapping allows for early detection of invasive & destructive pests that would be detrimental to the economy, the environment, & public health.

Target pests are shown with corresponding trap Insect & trap photos are not to scale



Melon Fruit Fly

Crops Affected: Apple, Bean, Cantaloupe, Cucumber, Grape, Orange, Peach, Pear, Tomato, & Watermelon

Champ^(TM) Trap (General Fruit Fly) Traps Deployed: 94





Gypsy Moth Traps Deployed: 204 **Crops Affected:** Most Trees



Mexican Fruit Fly Traps Deployed: 224

Crops Affected: Apple, Apricot, Citrus, Nectarine, Pear, Plum, Peach, & Pomegranate





Asian Citrus Psyllid (Vector for Huanglongbing Disease) Traps Deployed: 591 Crops Affected: Citrus

Glassy-Winged Sharpshooter (Vector for Pierce's Disease)

Traps Deployed: 1,926 Crops Affected: Almond, Citrus, Grape, & Peach





Japanese Beetle Traps Deployed: 204 Crops Affected: Roses & Turf







Traps Deployed: 8

Crops Affected: Corn, Green Bean, Oat, Potato, & Rhubarb





Light Brown Apple Moth

Traps Deployed: 433

Crops Affected: Alfalfa, Almond, Apple, Berries, Broccoli, Citrus, Corn, Grapes, Stone Fruit, & Tomato

Mediterranean Fruit Fly

Traps Deployed: 433

Crops Affected: Almond, Apple, Apricot, Citrus, Fig, Grape, Nectarine, Olive, Peach, Pear, Plum, Pomegranate, Tomato, & Walnut



Oriental Fruit Fly

Traps Deployed: 433

Crops Affected: Apple, Citrus, Cucumber, Fig, Grape, Pear, Pomegranate, Stone Fruit, Tomato, & Walnut



Red Imported Fire Ant

Traps Deployed: 81 Crops Affected: Infests agricultural & residential settings, natural habitats. Dangerous to children, elderly, pets, livestock, & wildlife





European Grapevine Moth

Traps Deployed: 297 Crops Affected: Grapes & Spurge Laurel







Khapra Beetle Traps Deployed: 107 Crops Affected: All Grain & Grain-Products





Danielle Mitchell January 12, 1967 - March 29, 2021

In Loving Memory

In her eleven years of service as a Pest Detection Trapper, there wasn't a program Danielle couldn't master.

She had a great knowledge of Stanislaus County history and agriculture.

Danielle was well known as a creator, an inventor, and lived a full and adventurous life.

She was also a cheerful mentor and friend to many of her co-workers.

She will be remembered always.



2020 EXPORT CERTIFICATES

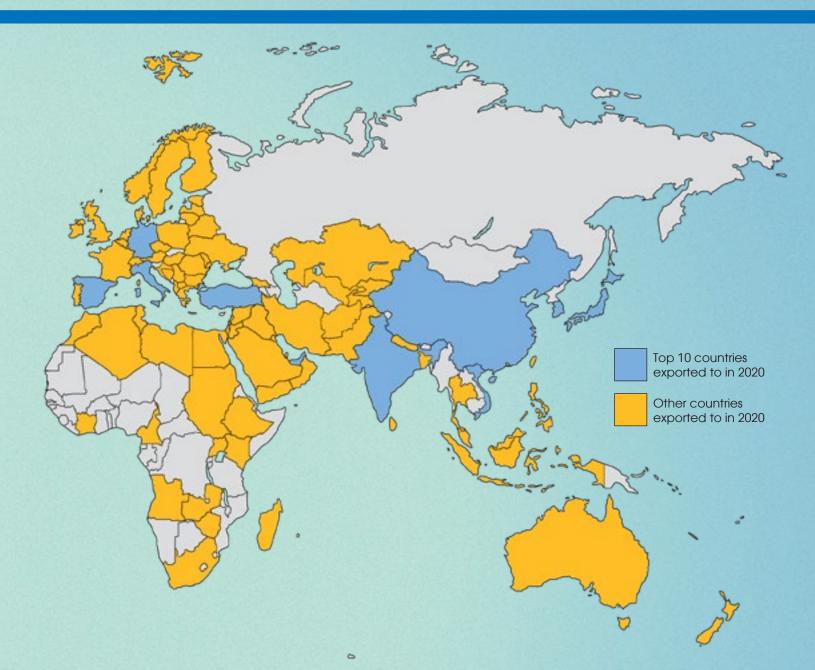
| In 2020, |
|---------------------|
| 10,884 Certificates |
| were issued to |
| 108 Countries |
| were issued to |

| Percent of Ce Issued by Co | |
|-------------------------------|-----|
| Almond | 60% |
| Walnut | 25% |
| Seed | 10% |
| Fruit | 1% |
| Spices | 1% |
| All Other | 3% |

Export Certificates are issued to certify that the commodity meets the plant cleanliness requirements of the importing country

*Not all countries require export certificates

| TOP TEN | COUNTRY CERTS | COUNTRY CERTS | COUNTRY CERTS | COUNTRY CERTS |
|---------------------|----------------|----------------------|---------------------|----------------------|
| Korea, Rep. of 949 | Afghanistan 16 | Bolivia 9 | Czech Republic 5 | Georgia 8 |
| Japan 883 | Albania 4 | Bosnia Herzegovina 5 | Denmark 23 | Greece 43 |
| India 798 | Algeria 71 | Brazil 90 | Dominican Rep. 15 | Guatemala 47 |
| Turkey 626 | Argentina 38 | Bulgaria 19 | Ecuador 11 | Guyana 1 |
| Germany 598 | Australia 142 | Canada 28 | Egypt 92 | Honduras 23 |
| United Arab Em. 586 | Austria 11 | Chile 119 | El Salvador 12 | Hong Kong 175 |
| China 551 | Bahrain 20 | Colombia 38 | Estonia 21 | Hungary 6 |
| Spain 547 | Bangladesh 3 | Costa Rica 22 | Ethiopia 1 | Indonesia 117 |
| Viet Nam 455 | Barbados 6 | Cote d'Ivoire 1 | Finland 2 | Iran, Islamic Rep. 1 |
| Italy 264 | Belarus 1 | Croatia 10 | France 166 | Iraq 33 |
| | Belgium 40 | Cyprus 1 | French Polynesia 46 | Ireland 12 |



| COUNTRY | CERTS | COUNTRY CERT | S | COUNTRY | CERTS | COUNTRY | CERTS | COUNTRY | CERTS |
|------------|-------|----------------|---|-------------|---------|--------------|-------------------|---------------|---------|
| Israel | 167 | Madagascar | 2 | North Maceo | donia 5 | Saudi Arabi | a 175 | Thailand | 178 |
| Jamaica | 11 | Malaysia 17 | 4 | Norway | 56 | Serbia | 1 | Trinidad & To | bago 3 |
| Jordan | 261 | Malta | 1 | Oman | 5 | Singapore | 84 | Tunisia | 4 |
| Kazakhstan | 21 | Mauritius | 6 | Pakistan | 35 | Slovakia | 1 | Ukraine | 26 |
| Kenya | 22 | Mexico 25 | 2 | Panama | 7 | South Africo | א ⁹⁵ ג | United Kingc | lom 194 |
| Kosovo | 1 | Morocco 25 | 1 | Peru | 101 | Sri Lanka | 3 | Uruguay | 8 |
| Kuwait | 39 | Nepal 1 | 5 | Philippines | 34 | Sudan | 5 | Uzbekistan | 1 |
| Latvia | 14 | Netherlands 24 | 7 | Poland | 17 | Sweden | 36 | Venezuela | 3 |
| Lebanon | 78 | New Caledonia | 5 | Portugal | 19 | Switzerland | 46 | Yemen | 15 |
| Libya | 22 | New Zealand 8 | 0 | Qatar | 16 | Syrian Arab | Rep. 17 | Zimbabwe | 2 |
| Lithuania | 36 | Nicaragua | 7 | Romania | 3 | Taiwan | 166 | | |

As part of California's effort to curb the spread of COVID-19, the Stanislaus County Ag Commissioner's office was tasked with supplying personal protective equipment (PPE) to the local ag community. The state provided a variety of PPE in bulk to the Ag Department, who distributed the supplies within Stanislaus and to other surrounding counties.

The pandemic caused a wide variety of supply shortages. N95 masks were at the top of that list, leaving ag workers trying to follow regulations out of luck. Thankfully, N95 masks were part of the PPE supplied by the state.

The tables below show an estimation of the PPE supplies distributed by the Stanislaus County Ag Commissioner's office along with a map representing approximate locations of distribution in 2020.

PERSONAL PROTECTIVE EQUIPMENT DISTRIBUTION

PPE distribution began May 19, 2020.

We will continue distributing available PPE until our supply is exhausted.

| PPE DISTRIBUTION TOTALS | | | | | |
|-------------------------|------------------|--------------------------------------|-------------|---------|--|
| N95 Masks | Disposable Masks | Hand Sanitizer (16.9 oz. bottles) | Cloth Masks | Gloves | |
| 160,800 | 492,000 | 3,500 | 109,720 | 140,000 | |

AG FACTS

Production Rank In California

| No. 1 | Chickens 53.5%, Turkeys 54.4% |
|-------|---|
| No. 2 | Nursery 7%, Sweet Potatoes 5.6%, Irrigated Pasture 8.3%, Honey 20.6%, Dry Beans 14.5%, Apricots 22.5% |
| No. 3 | Almonds 15.6%, Milk & Cream 10.7%, Silage, All 13.6% |
| No. 4 | None |
| No. 5 | Peaches 4%, Cherries 8.6% |

| Organic Statistics | |
|---|--------|
| Organic Commodities | Acres |
| All Other Field Crops | |
| (Including Pasture & Rangeland) | 20,080 |
| Almonds | 891 |
| Seed Crops | 470 |
| Broccoli | 450 |
| All Other Vegetables | 380 |
| All Other Nut Crops | 361 |
| Stone Fruit | 350 |
| Broiler Chickens | 182 |
| Tomatoes | 126 |
| Layer Chickens | 126 |
| Fluid Milk | 112 |
| Fallow Land | 80 |
| All Other Fruit Crops | 20 |
| Lettuce | 19 |
| Pome Fruit | 5 |
| Citrus | 2 |
| Beef Cattle | 2 |
| Table Grapes | 1 |
| All Other Berries | 1 |
| Wine Grapes | 1 |
| All Other Poultry, Livestock & Products | 1 |
| Total Acres Harvested | 23,660 |
| 54 Organic Producers | |
| 21 Organic Handlers | |
| 11 Organic Processors | |
| Numbers are not exact due to roundi Source: 2019 California Agricultural Statistics Review | ng |

Stanislaus County Ag Value Compared to State Ag Values

| California | |
|---|---|
| California | \$49,938,076,000 |
| lowa | \$27,487,829,000 |
| Nebraska | \$21,436,242,000 |
| Texas | \$21,249,024,000 |
| Minnesota | \$16,632,782,000 |
| Illinois | \$16,318,156,000 |
| Kansas | \$16,301,222,000 |
| Wisconsin | \$11,246,602,000 |
| North Carolina | \$10,603,108,000 |
| Indiana | \$10,587,053,000 |
| Missouri | |
| | \$9,347,225,000 |
| Washington | \$9,302,294,000 |
| South Dakota | \$8,894,483,000 |
| Ohio | \$8,519,770,000 |
| Arkansas | \$8,486,916,000 |
| Georgia | \$8,387,171,000 |
| Idaho | \$8,047,933,000 |
| Florida | \$7,796,019,000 |
| North Dakota | \$7,558,755,000 |
| Colorado | \$7,425,467,000 |
| Michigan | \$7,316,572,000 |
| Oklahoma | \$6,741,600,000 |
| Pennsylvania | \$6,675,212,000 |
| Kentucky | \$5,523,824,000 |
| New York | \$5,317,729,000 |
| Mississippi | \$5,304,110,000 |
| Alabama | \$5,215,172,000 |
| ••••••••••••••••••••••••••••••••••••••• | \$5,047,489,000 |
| Oregon | |
| Arizona | |
| Arizona | \$5,020,241,000 |
| Montana | \$3,640,898,000 |
| ••••••••••••••••••••••••••••••••••••••• | \$3,640,898,000 \$3,598,404,000 |
| Montana | \$3,640,898,000 |
| Montana Stanislaus County | \$3,640,898,000 \$3,598,404,000 |
| Montana Stanislaus County Tennessee | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 |
| Montana Stanislaus County Tennessee Virginia | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 \$1,221,847,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 \$1,221,847,000 \$792,174,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 \$1,221,847,000 \$792,174,000 \$709,046,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$2,273,820,000 \$1,815,585,000 \$1,522,371,000 \$1,221,847,000 \$792,174,000 \$799,046,000 \$681,604,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$1,515,85,000 \$1,522,371,000 \$1,522,371,000 \$1,221,847,000 \$792,174,000 \$709,046,000 \$681,604,000 \$638,752,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 \$1,221,847,000 \$792,174,000 \$799,046,000 \$681,604,000 \$638,752,000 \$587,778,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut Hawaii | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$1,815,585,000 \$1,815,585,000 \$1,522,371,000 \$1,253,987,000 \$1,221,847,000 \$792,174,000 \$799,046,000 \$681,604,000 \$638,752,000 \$587,778,000 \$571,963,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut Hawaii Massachusetts | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,170,391,000 \$1,815,585,000 \$1,522,371,000 \$1,221,847,000 \$1,221,847,000 \$792,174,000 \$799,046,000 \$681,604,000 \$681,604,000 \$638,752,000 \$587,778,000 \$571,963,000 \$437,891,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut Hawaii Massachusetts New Hampshire | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$1,21,847,000 \$1,221,847,000 \$1,221,847,000 \$792,174,000 \$792,174,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$671,963,000 \$571,963,000 \$437,891,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut Hawaii Massachusetts | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$1,21,847,000 \$1,221,847,000 \$1,221,847,000 \$792,174,000 \$792,174,000 \$681,604,000 \$681,604,000 \$687,778,000 \$571,963,000 \$437,891,000 \$199,877,000 \$64,449,000 |
| Montana Stanislaus County Tennessee Virginia New Mexico Louisiana South Carolina Maryland Utah Wyoming Delaware New Jersey Vermont Nevada Maine West Virginia Connecticut Hawaii Massachusetts New Hampshire | \$3,640,898,000 \$3,598,404,000 \$3,419,909,000 \$3,362,950,000 \$3,179,895,000 \$3,009,375,000 \$2,273,820,000 \$2,273,820,000 \$1,21,847,000 \$1,221,847,000 \$1,221,847,000 \$792,174,000 \$792,174,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$681,604,000 \$671,963,000 \$571,963,000 \$437,891,000 |

Source: 2019 California Agricultural Statistics Review

Source: United States Department of Agriculture Economic Research Service 2019 Farm Income and Wealth Statistics

C Resurgence of Pacific Flatheaded Borer in Walnut Orchards and Ongoing Research Efforts

Background

In the Fall of 2018, several walnut growers, mainly from San Joaquin and Stanislaus counties, notified the University of California Cooperative Extension (UCCE) about a high degree of damage in walnut orchards by a "new" insect. We put together a team representing experts from the UCCE and the United States Department of Agriculture (USDA) and surveyed multiple walnut orchards by collecting borer insects which were later identified as flatheaded borers. The larval stages of these beetle borers have an enlarged and flattened anterior portion of the body (technically known as the thorax), hence the name "flatheaded". In several English walnut orchards, we observed borer infestations on trees across a range of maturities (from young (1-2 years) to mature (15-20 years)] and in multiple commonly grown cultivars such as Howard, Tulare, and Chandler. High-density larval feeding galleries led to the flagging and breakage of nut-bearing branches. We collected infested branches from numerous walnut orchards and reared out adult beetles (size: 1/2 to 3/4 inch-long), the species was confirmed as Pacific Flatheaded Borer (PFB), Chrysobothris mali Horn species.



Pest Status

Pacific flatheaded borer females deposit about 100 eggs singly in potentially weaker portions of the walnut wood (i.e., sun burnt, freshly pruned areas, etc.) or bark crevices or depressions. Larvae bore through the outer bark and feed on the phloem and cambium layer initially, but eventually reach the xylem and mine the woody surface and interior. The larvae construct pupal chambers deeper in the wood and molt into the final larval instar (i.e., prepupal stage) to overwinter. Pupation occurs in the spring and

early summer, followed by adult emergence. Pacific flatheaded borer has one generation per year but the life cycle may be longer (1-3 years).

The PFB is native to the western United States and a pest of urban landscapes, forests, and occasionally of orchard trees with poor health conditions. In our observations in several orchards, the feeding damage was not limited to wounded and sunburn-damaged branches, an unwelcome behavior for a primary pest of concern to walnut growers. The damage appears to be distributed randomly throughout the tree, including pencilsized twigs, branches (2-4 inch- diameter), limbs, and even tree trunks, making it very difficult to control. However, the current resurgence and infestation of walnuts appears to be much more severe and widespread throughout the walnut growing regions of California. A pertinent question which remains unanswered is, what could be the reason or reasons behind the increased occurrence of the borers in walnut orchards. Is it related to recent drought events? Is it related to increased walnut acreage which serves as a continuous host? Or is it something else?



Knowledge Gaps & Future Research Directions

We had several meetings and conversations with walnut growers, pest control advisers, and walnut board research committee members to discuss flatheaded borer issues as well as research and educational needs. In the 2019 season, California Walnut Board funded a one-year project to study this pest in walnuts. The study helped identify the borer species [Chrysobothris mali, Horn] and documented damage symptoms from the multiple orchards surveyed. Currently, we have



received multi-year funding (2020-24) from the USDA's Specialty Crop Research Initiative (SCRI) program to study several aspects of this pest in walnut orchards. The primary objectives of the project are: 1) to determine the seasonal biology of PFB and understand the risk factors associated with infestation; 2) to test new traps and lures for pest monitoring; and 3) to explore management options that can be used alone or in combination such as conducting cultural practices, maintaining orchard health, and insecticide application. Some of these studies are ongoing (For example: we are trying to determine the adult emergence timing in the field by deploying fabric cages, see pictures) and others will be conducted in the next 2 to 3 years. We will continue to share research results from these projects and their practical implications for integrated management of flatheaded borers.

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Photos courtesy University of California



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Almond Hulls: A Valuable, yet Highly Variable, Byproduct Feedstuff

Field weight at almond harvest is 23% nuts, 14% shells, 13% debris and 50% hulls. Shells are often used for bedding material. Hulls are an excellent byproduct feedstuff that are fed to lactating dairy cows because of their high sugar content. However, because the hulling process cannot remove all of the sticks and shells from the nutritious hull fraction, almond hulls are highly variable in nutrient and energy composition.

The aim of our research was to determine the chemical composition of almond hulls and the impact of total debris (sticks and shells) contamination on the chemical composition (quality) of almond hulls. There is surprisingly little information on the composition of almond hulls. The information that is available has not identified the contribution and impact of total debris on feeding value of commercial almond hulls.

<u>Why is identifying the amount of total debris in almond hulls important?</u> Sticks and shells are of little nutritional value and these contaminants lower the feeding value of the hulls.

We obtained 12 samples of commercial almond hulls that included 5 samples of Nonpareil hulls and 7 samples of pollinator variety hulls. The 12 samples were split into 2 portions. One portion represented **Commercial Hulls** that contained debris. The other portion was hand sorted to remove sticks and shells to create what we called **Pure Hulls**.

<u>What did we find for composition?</u> Pure Hulls were high in sugar and high in fiber, and higher in sugar and lower in fiber than Commercial Hulls. The total debris contamination in Commercial Hulls reduced the sugar content and increased the fiber and lignin content. Lignin is indigestible so the debris contamination lowered the energy value of the Commercial Hulls. Hulls, Pure and Commercial, were low in protein.

<u>What did we find for variety?</u> Commercial Nonpareil hulls had a lower proportion of total debris compared with Commercial Pollinator hulls which impacted the chemical composition. Nonpareil hulls were higher in sugar and lower in fiber and lignin than Pollinator hulls. Because of the lower debris content, Nonpareil hulls are higher in nutritional quality than Pollinator hulls. For both varieties of hulls, the ranges in chemical composition were large indicating that there was large variation in chemical composition.

For full details of our findings on the chemical composition of almond hulls, view the publication here: https://www.appliedanimalscience.org/article/S2590-2865(20)30149-X/fulltext

Take Home Message: Commercial almond hulls can be an excellent byproduct feedstuff for lactating dairy cows because of their highly digestible sugar content. Commercial almond hulls also contribute fiber to the diet of which a portion is digested by the rumen microbes to provide energy to the dairy cows. The hulls also add a physical aspect to support rumen contractions and chewing. Nonpareil hulls are higher in feeding value than Pollinator hulls. Purchased almond hulls are often a blend of Nonpareil and Pollinator hulls; this blending of hull varieties contributes to the high variability in chemical composition that is found with delivered almond hulls.

Much more research needs to be done to better describe the feeding value of almond hulls that will allow for feeding higher amounts of hulls to lactating dairy cows and reduce the large variation that exists in quality delivered to a dairy farm. In the meantime, **testing the chemical composition of almond hulls is important** to ensure diets are formulated with accurate information, and that you're not paying premium price for an inferior product.



Photo courtesy University of California

Sampling is important. Note the visible quality difference between the two samples of almond hulls. The sample to the right has fewer sticks and shells and has larger sized hulls.

Research Provided By:

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NATIONAL AG SCIENCE CENTER HALL OF FAME 2020 RECIPIENT: PACIFIC SOUTHWEST CONTAINER

Pacific Southwest Container (PSC), a Modestobased company, represents a sector vital in our local agricultural community. Part of the local packaging industry, PSC's motto, "More Than Just a Box" briefly yet succinctly communicates the service they provide. Beginning in 1973, PSC established their business in Modesto and has grown from one location to four, with three locations in Modesto and one in Visalia, CA.



As a local packing company accessible to our local growers, PSC's presence helps farmers extend market reach. The last 47 years has seen PSC emerge as a large, local employer offering innovative packaging options to varied industries. Their services include customers in agriculture, wine, snack food, craft beer, retail, and technology. A metropolitan area economically sustained by agriculture, PSC is an entity that is professional, local, innovative, and a proponent of teamwork that helps to sustain county principles.

family endeavor, spanning three А generations, their circle includes other such established local businesses as Manufacturers Council of the Central Valley, Western Growers, and Modesto Chamber of Commerce. Their continued presence in Modesto is a welcomed boon to the economy.



Photos courtesy PSC website

AGRICULTURAL COMMISSIONER PROGRAMS

APIARY INSPECTION:

- Registration of honeybee colonies
- Colony strength & health inspections

CROP STATISTICS:

- Annual report of the gross production & value of the county's agricultural commodities
- Agriculture disaster surveys used by other agencies
 offering disaster relief

FRUITS, NUTS & VEGETABLE STANDARDIZATION:

- Enforcement of California's minimum standards for quality & marketing produce commercially grown &/or marketed in the state
- Direct Marketing, Certified Producers & Certified Farmers Markets
- Organic law enforcement
- Local protection to growers, marketers & consumers

NURSERY & SEED INSPECTION:

- Inspections of production & sale sites of nursery stock to assure cleanliness from pests, true variety & healthy plants for sale to consumers
- Licensing, registration & certification, truth in labelling & quality, soil & plant laboratory permitting
- Obtain samples for seed germination & purity testing

PEST DETECTION:

- Early detection of insect pests
- Administering specific "action plans" for unwanted agricultural pests
- Maintaining properly trained & equipped pest detection teams

PEST MANAGEMENT:

- Managing nuisance pests of agriculture & human health
- Programs include glassy-winged sharpshooter, ground squirrels, capeweed, etc.

PEST ERADICATION:

- Local government liaison to CDFA after a pest species is discovered
- Eradication of that particular pest species

PEST EXCLUSION:

- Interior Pest Exclusion
- Annual certification of feed mills
- Enforcement of quarantines, inspection of packages, phytosanitary certification of exports
- Exterior Pest Exclusion
 - Quarantine enforcement of materials susceptible to insect infestation crossing into California with a Stanislaus County destination

PESTICIDE USE ENFORCEMENT:

- Provides for the proper, safe, & effective use of pesticides for agricultural production & protection of public health & safety
- Prohibiting, regulating or ensuring proper stewardship of pesticides for environmental protection
- Ensuring safe working conditions, use of proper protective equipment & training for employees working with or around pesticides
- Pesticide use reporting, incident investigations, outreach activities, & monitoring applications

SEED CERTIFICATION:

 Certification services for growers & processors in cooperation with the California Crop Improvement Association

WEIGHTS & MEASURES PROGRAMS

DEVICES:

- Annually inspects commercial weighing & measuring devices to ensure they are correct
- Examples of commercial devices include livestock scales, vehicle scales, propane delivery trucks, fuel dispensers, deli scales, & taxi meters

PETROLEUM:

• Enforce petroleum product quality, labelling & advertising requirements

QUANTITY CONTROL:

- Determine proper weight, measure, or count of packaged goods
- Ensure package labelling requirements
- Ensure pricing accuracy at the checkout

SERVICE AGENTS:

 Review the work of licensed persons that sell, rent, install, service or repair commercial weighing and measuring devices to validate the accuracy of their work & to verify the appropriate use of commercial devices

WEIGHMASTER:

- Persons licensed to certify the weighed, measured, or counted quantity of any commodity are Weighmasters
- Assure accuracy of commercial transactions certified on a Weighmaster Certificate

A CLOSER LOOK AT WEIGHTS & MEASURES

Weights & Measures provides support, protection, and confidence in daily transactions between consumers and businesses. The purpose of the Weights and Measures program is to protect consumers and businesses by ensuring that equity prevails in all commercial transactions involving determinations of quantity. This is accomplished through device inspections, quantity control, weighmaster inspections, and petroleum inspections.

The device inspection program protects both the buyer and seller through the testing of weighing and measuring devices used in commercial transactions to ensure their correctness. Weighing and measuring devices are tested for accuracy and inspected to determine that they are appropriate for their intended use. This provides for uniform standards of weight and measure when the price of goods depends on the accuracy of these devices. Examples of commercial devices include livestock and vehicle scales, propane delivery trucks, fuel dispensers, deli scales and taximeters. The quantity control program assures the accuracy of quantity standards and price extension in commercial transactions and provides for informative labeling of identity, quantity, and responsibility of packaged commodities. From time to time, inspectors conduct inspections on packaged goods to determine if the proper weight, measure, or count is being used. Scanner inspections are also conducted to ensure pricing accuracy at checkout.

The weighmaster inspection program protects persons having a financial interest in transactions which are required to be based upon a written statement of quantity. Inspectors assure that commercial transactions certified on a Weighmaster Certificate are accurate.

The petroleum inspection program assures that requirements for petroleum product quality, labeling and advertising are met. Inspections are routinely conducted at service station locations to verify compliance.

| MEASURING DEVICES | QUANTITY SEALED | WEIGHING DEVICES | QUANTITY SEALED | |
|-------------------------|-----------------|-------------------------------------|-----------------|--|
| Electric Submeters | 2 | Computing | 1,311 | |
| Fabric, Cord, Wire | 39 | Counter/Class II | 260 | |
| Liquefied Petroleum Gas | 69 | Dormant/Portable Platform | 292 | |
| Misc. Measuring Devices | 30 | Hanging | 70 | |
| Retail Motor Fuel | 4,985 | Hopper & Tank | 25 | |
| Retail Water | 156 | Livestock & Animal | 38 | |
| Vapor Submeters | 142 | Law Enforcement Wheel Load Weighers | 468 | |
| Vehicle | 116 | Misc. Weighing Devices | 12 | |
| Water Submeters | 270 | Monorail & Meat | 5 | |
| | | Prescription & Jewelers | 35 | |
| | | Railway | 5 | |
| | | Vehicle | 218 | |
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DEVICES SEALED IN 2020

Stanislaus County Agricultural Commissioner Sealer of Weights and Measures



Our Mission

Support and Protect the Well-Being of Agriculture, Business and the Community