	Practice or Metric	Your Selection
	Operations Management Subsection	
	Operations Management	
OM-01	Did the operation have a method for staying updated and complying with applicable legislation and regulations related to farming? Examples of methods for staying updated include, but are not limited to, regular review of relevant newsletters and publications, Farm Bureau membership, and maintenance of certifications for pest management.	Yes
OM-02	Did the operation follow legally required recruitment and employment practices for all employees and contracted workers? Note: employees are directly hired, contracted workers are indirectly hired through an intermediary (e.g., Farm Labor Contractor).	Yes
	Financial Management Subsection	
	Profitability and Production Planning	
FM-01	Were financial targets, including net profit, established?	Yes
FM-02	Was your business involved in direct sales decisions for any part of your almond crop? If you answered 'No,' then skip to question FM-04.	No
	FM-03. Was a documented sales and marketing plan, as well as a supporting production plan, developed and implemented based on financial targets?	
FM-04	Was revenue from all sources estimated for use in budgeting?	Yes
FM-05	Were costs estimated for use in budgeting?	Yes
FM-06	Was the ROI calculated and evaluated prior to any renovation, expansion and/or renewal (e.g., orchard replanting) over the last five years?	Not applicable
	Business Risk Management Planning	
FM-07	Has a documented succession plan been established?	No
FM-08	Has a written will and estate plan for the business been prepared and reviewed at appropriate intervals? If the ownership structure for this business does not require estate or will planning, answer 'Not Applicable'.	Yes
FM-09	Has a documented financial risk management plan been developed that includes issues which may affect future profitability (e.g., urban sprawl, water quality, water availability, labor availability and climate change)?	No
FM-10	Were risk-related insurance policies (e.g., fire, crop replacement and liabilities) in place and evaluated to ensure adequate coverage based on needs and the scale of the operation?	Yes
FM-11	Were changes in almond prices and/or yield considered when analyzing financial risk?	Yes
	Financial Accounting, Tracking, Analysis and Optimization	
FM-12	After the initial planning process, was an annual budget established and updated with actual results on a regular basis (monthly/quarterly)?	Yes
FM-13	Was a financial accounting system and budgeting approach to track and report finances for the farm used to inform operational decisions?	Yes
FM-14	Were financial management reports (profit and loss statements) generated to track and manage performance for each management unit (e.g., field/block)?	Yes
FM-15	Were input costs and productivity measures calculated and tracked for all key practices to help manage financial efficiency?	No
FM-16	Were input costs and productivity measures calculated and tracked for newly implemented practices and compared to previously used practices to help manage financial efficiency?	Not applicable

	Energy Efficiency Subsection	
	Monitoring Electricity and Fuel Use	
EE-01	Was electricity use in the operation recorded and tracked beyond filing paid bills? If you answered 'No,' then skip to question EE-03.	No
	EE-02. Was electricity use recorded and tracked for the operation as a whole?	
EE-03	In the past 5 years, was the operation audited by a qualified expert (e.g., utility representative or paid consultant) to identify opportunities to improve electricity energy efficiency?	No
EE-04	Was fuel use in the operation recorded and tracked beyond filing paid fuel bills? If you answered 'No,' then skip to question EE-06.	No
	EE-05. Was fuel use recorded and tracked for the operation as a whole?	
EE-06	In the past 5 years, was the operation audited by a fuel efficiency expert and/or analyzed fuel use to identify opportunities to improve fuel use efficiency?	No
	Workplace Management Subsection	
	Employee Staffing and Development	
WM-01	How many employees were directly employed at this farm? If the farm does not have employees, then select '0' and skip to question WM-15.	1-4
WM-02	Did the farm offer employees competitive compensation packages to ensure competitive salaries and limit attrition?	Yes
WM-03	Was a standardized process for recruiting documented and used to comply with federal, state and local regulations?	No
WM-04	Was an orientation program provided for new employees? If you answered 'No,' then skip to question WM-06.	No
	WM-05. Did the orientation program include an employee handbook?	
WM-06	Were employees provided the opportunity for professional development and further enhancement of skills and competencies through in-house or external company sponsored- training or education?	Yes
WM-07	Was a documented program used to recognize employees (e.g., safety, operational, community or environmental contributions; and/or years of service)?	No
WM-08	Was a documented grievance process established that ensured grievances were addressed in a timely manner?	No
	Workplace - Health and Safety	
WM-09	Were employees offered a health insurance plan?	No
WM-10	Did the farm offer health screenings, medical exams, vaccinations and flu shots on-site and/or through health care plans?	No
WM-11	Was safety training done according to Cal OSHA regulations (e.g., for new employees; as well as for employees beginning new job assignments or using new processes, procedures, substances or equipment posing hazards)?	Yes
WM-12	Was employee participation in safety training recorded, tracked, and reviewed to ensure requirements were met, which enhances employee safety, satisfaction and performance, and limits business risk?	Yes
WM-13	Did the farm develop and implement an Injury and Illness Prevention Program (IIPP), including supplemental programs, in compliance with federal, state and location regulations?	Yes
	If you answered 'No,' then skip to question WM-15.	
	WM-14. Was an individual identified as the responsible farm representative for all aspects of worker safety and was this person's role communicated to all employees?	Yes
WM-15	If labor was contracted, was appropriate verification completed to ensure that the labor company trained its workers according to regulations?	Not applicable
WM-16	If a service provider(s) was contracted, was appropriate verification completed to ensure that the service provider(s) trained its workers according to regulations?	Yes

WM-17	Were safety failure statistics (e.g., frequencies of procedural violations, equipment malfunctions and accidents) documented, tracked and retained for a minimum of two years; and were causes for safety failures determined and documented, and appropriate actions taken to prevent future incidents?	Yes
WM-18	Did management engage in continuing education about workplace safety to identify opportunities to improve safety for employees and/or contracted workers?	Yes
	Neighbors and Community Subsection	
	Neighbor and Community Relations	
	Were the following potential neighbor and community issues evaluated on an ongoing basis and appropriate actions taken when needed? (Answer 'Yes' to all that apply):	
	NC-01. pesticide and other chemical use (e.g., timing applications to minimize drift)	Yes
	NC-02. dust (e.g., upgrading equipment to capture dust or timing harvest to minimize dust creation)	Yes
	NC-03. traffic (e.g., not blocking roads)	Yes
	NC-04. noise (e.g., avoiding early morning or late evening operations)	Yes
	NC-05. light (e.g., ensuring outside lighting is defused)	Yes
	NC-06. erosion (e.g., minimizing runoff)	Yes
	NC-07. odor (e.g., minimizing or eliminating sources)	Yes
NC-08	Did the farm seek and have friendly dialogue with nearby residents, such as neighbors, schools, and surrounding businesses, to maintain/improve relationships and understandings?	Yes
NC-09	Did the farm host or participate in activities (e.g., orchard tours, open houses, seminars, public forums, service organizations and/or with news media) to educate and build trust with neighbors and the community?	Yes
	Communities - Support and Improvement	
NC-10	Did the farm make contributions (e.g., money, products and/or time) to charitable organizations?	Yes
NC-11	Did employees and management participate in activities (e.g., served on Boards of Directors, volunteered with community organizations, programs, and/or industry organizations) that contribute to community well-being?	Yes
NC-12	For which of the following areas did members of the farm participate in activities that contribute to community well-being? <i>Please select all that apply.</i>	housing public health and safety school/educational religion/church
NC-13	Did someone representing the farm participate in a watershed stewardship planning group?	No
	Irrigation Management Subsection	
	Irrigation Source	
IM-01	What is the source of irrigation water for this orchard?	Ground & surface/district
IM-02	Were all water sources sampled and lab-evaluated for water quality/irrigation suitability?	Yes
IM-03	What type of irrigation system is used for this orchard (not counting separate systems for frost control)? It is recommended that you assess one irrigation set at a time. If you wish to assess an orchard with multiple types of irrigation systems, please select all appropriate types.	Micro-sprinkler
	Orchard Water Requirements	

IM-05	Were water requirements based on almond orchard evapotranspiration (ETc)? If you answered 'No,' then skip to question IM-10.	No
	IM-06. Was historical (normal year) ETc adjusted for weather and, if applicable, cover crops?	
	IM-07. Were monthly water requirements based on historical (normal year) ETc values of the region?	
	IM-08. Were semi-monthly (every two weeks) water requirements based on historical (normal year) ETc values of the region?	
	IM-09. Were weekly water requirements based on historical (normal year) ETc values in the region and adjusted for the actual ETc values from the previous week?	
IM-10	Was Strategic Deficit Irrigation (SDI) used throughout the hullsplit period to provide a uniform hullsplit, increase drying on the tree, and facilitate a rapid, timely harvest?	Yes
	Irrigation System Performance	
IM-11	Was the irrigation system infrastructure (e.g., pumps, lines, filters, and emitters) regularly tested and corrected, when needed, to maintain optimal efficiency?	Yes
IM-12	Were the pH, EC (electroconductivity or salinity), bicarbonate, and iron levels of the irrigation water source(s) tested at least once in the past year?	No
IM-13	Was the irrigation system performance (application rate or pressure) evaluated at least once during the past 3 years and have any diagnosed problems been corrected? If you answered 'No,' then skip to question IM-18.	No
	IM-14. Was the average application rate evaluated at least once in the past 3 years?	
	IM-15. Was variation in irrigation system pressure evaluated at least once in the past 3 years? If it is a flood/furrow system, answer 'Not applicable.'	
	IM-16. Was distribution uniformity (based on measured water volume and application rate) evaluated at least once within the past 3 years?	
	IM-17. Was distribution uniformity (based on measured water volume and application rate) evaluated at least once within the past 2 years?	
IM-18	Was a pump used for irrigation of the orchard? If you answered 'No,' then skip to question IM-22.	Yes
	IM-19. Was the irrigation pumping system tested for energy efficiency in the last 3 years and have any repairs or improvements been made where needed?	Yes
	IM-20. Was one or more pump powered by an electric motor? If you answered 'No,' then skip to question IM-22.	Yes
	IM-21. Were variable-speed drives installed for electric pumps experiencing variable loads?	No
IM-22	Have all flow meters been inspected and calibrated in the past 2 years?	No
IM-23	Were pressure gauges checked for accuracy at least annually?	No
	Applied Water	
IM-24	Was the applied water measured and recorded for the entire season? If you answered 'No', skip to question IM-28.	No
	IM-25. Was applied water in each irrigation event calculated from application rate and duration, and recorded?	
	IM-26. Were flow meter readings recorded for each irrigation set, each time it was run? If you answered 'No', skip to question IM-28.	
	IM-27. Was applied water compared to crop water use (ETc, evapotranspiration) for the entire season to validate irrigation efficiency?	
	Soil Moisture	
IM-28	Was the soil moisture status (either by feel or by sensors) monitored at least monthly during the irrigation season? If you answered 'No,' then skip to question IM-32.	No
	IM-29. Were auger samples taken and evaluated to a depth of at least 3-5 feet using NRCS guidelines?	

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	<b>IM-30.</b> Were manually operated soil sensors used at least every 2 weeks for moisture monitoring to a depth of at least 3 to 5 feet and were the results used to ensure that calculated water amounts were not over/under irrigating the orchard?	
	IM-31. Were automated soil sensors used weekly for moisture monitoring to a depth of at least 3 to 5 feet and were the results used to ensure that calculated water amounts were not over/under irrigating the orchard?	
	Plant Water Status	
IM-32	Were visual cues of plant stress evaluated at least every other week prior to irrigation?	Yes
IM-33	At least monthly prior to irrigation, was plant water status evaluated using a pressure chamber to measure midday stem-water potential, and were the measurements compared to applied water to ensure that trees were not over/under irrigated?	No
IM-34	At least weekly prior to irrigation, was plant water status evaluated using a pressure chamber to measure midday stem-water potential, and were the measurements compared to applied water to ensure that trees were not over/under irrigated?	No
IM-35	Was the first irrigation of the season based on pressure chamber measurements?	No
	Water Penetration and Salinity	
IM-36	Does the orchard have a history of problems with water penetration (infiltration)? If you answered 'No,' then skip to question IM-40.	No
	IM-37. Was irrigation adjusted to shorter, more frequent run times to prevent ponding or runoff?	
	IM-38. Have organic soil amendments periodically been applied or has between-row ground cover (pre-existing or planted) been intentionally grown to improve water penetration and moisture retention?	
	IM-39. Were gypsum, sulfuric acid, or other chemical additives, such as organic polyacrylamides (PAM) and polysaccharides or surfactants, applied to the soil or in irrigation water to improve water penetration?	
	Groundwater Recharge	
IM-40	Has the orchard location been evaluated for efficiency or suitability of groundwater recharge (e.g., using the Soil Agricultural Groundwater Banking Index - SAGBI)? For more information, go to https://casoilresource.lawr.ucdavis.edu/sagbi/	No
IM-41	Was the orchard intentionally irrigated or flooded for groundwater recharge?	No
	If you answered 'No,' then skip the remaining questions in this subsection.	
	Check all of the following methods used to recharge groundwater on the orchard:	
	IM-42. Flood irrigation of the orchard in the dormant, winter season.	No
	IM-43. Intentional over-irrigation of the orchard during the growing season.	No
	IM-44. Flooding of a recharge basin on the orchard property.	
	IM-45. Has an incentive, credit, or grant been received from the local Groundwater Sustainability Agency, Irrigation District, or other program related to groundwater recharge?	
	Nutrient and Soil Management Subsection	
	Source	
NS-01	To ensure overall nitrogen use efficiency, was a documented comprehensive nitrogen management plan and budget used for this orchard?	Yes
NS-02	Were nitrogen contributions from compost, manure, or nitrogen-fixing cover crops included in total nitrogen budgeting? If compost, manure, or nitrogen-fixing cover crops were not used, then click 'Not applicable.'	Yes
NS-03	Was well water used for irrigation? If you answered 'No,' then skip to question NS-06.	Yes
	NS-04. Has the nitrogen content of the well water been tested at least once during the past 3 years? If you answered 'No', then skip to question NS-06.	No
	Dens 5 of 47 Conversely Almond Decad of California all viebte reconved	

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	NS-05. If the test indicated the water had nitrogen, was the amount of nitrogen applied via irrigation over the season calculated and used in calculating the total nitrogen applied? If well water contained no nitrogen, then click 'Not applicable.'	
	Were the following sources of nitrogen used in this orchard in the past year? Answer 'Yes' to all that apply.	
	NS-06. commercial in-organic nitrogen fertilizer	No
	NS-07. commercial organic nitrogen fertilizer	No
	NS-08. manure (not recommended for food safety reasons)	No
	NS-09. compost	Yes
	NS-10. nitrogen-fixing cover crops	No
NS-11	Was commercial fertilizer nitrogen applied to the orchard during the year using the following methods? If you answered 'No,' then skip to question NS-15.	No
	NS-12. Nitrogen was applied broadcast	
	NS-13. Nitrogen was fertigated	
	NS-14. How many soil or fertigation applications of fertilizer nitrogen (including post-harvest) were made during the year?	
	Placement	
NS-15	Were fertilizer-efficient and irrigation-efficient practices used together to maintain desired nitrogen in the root zone, and reduce losses from N2O emissions, nitrate leaching or runoff?	Yes
NS-16	Was the depth of irrigation monitored to ensure that nitrogen was positioned only in the root zone?	No
NS-17	Was fertigation used to provide any nutrients to the orchard during the year being assessed?	Yes
	Soil and Tissue Sampling	
NS-18	Were plant tissues sampled and tested for nutrient content to guide the amounts of fertilizer applications? If you answered 'No,' then skip to question NS-20.	Yes
	NS-19. Were tissue samples collected following recommended procedures that included taking samples at the appropriate time(s) of year?	Yes
NS-20	Has the soil been sampled and tested to identify any problems impacting nutrient availability or to guide management decisions?	Yes
NS-21	Were soil or tissue test results mapped and used with variable rate technology to apply different rates of fertilizer within the orchard?	No
NS-22	Were tissue testing and other nutrient budgeting techniques (e.g., estimates of yield and nutritional needs for tree growth) employed to efficiently use fertilizers? (Efficient fertilizer use limits the energy footprint, cost, and potential pollution from fertilizer use, manufacture, application, and transport.)	Yes
	Fertilizer Application	
NS-23	Were the applied amounts of nitrogen fertilizer calculated from yield estimates, nitrogen credits from other sources (e.g., irrigation water, compost and/or cover crops), and results of early season leaf sampling?	Yes
NS-24	Were all fertilizer applications made at recommended timings (coinciding with crop growth and demand)?	Yes
NS-25	Was fertilizer storage secured, products properly labelled, and were measures taken to minimize risks (e.g., associated with spills, mixing, and handling) to humans and the environment?	Yes
	Enhancing Soil Properties	
NS-26	Over the past three years, how frequently was the orchard floor tilled (excluding floating, smoothing or rolling)?	3 or more times in past three years (every year)

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NS-27	Were organic soil amendments (e.g., compost) used to stabilize soil by increasing moisture retention and reducing compaction?	Yes
NS-28	Was a cover crop (pre-existing or planted ground cover) intentionally grown between orchard rows? If you answered 'No,' then skip to question NS-33.	No
	NS-29. Was the ground cover purposely planted?	1
	If you answered 'No,' then skip to question NS-33.	ļ
	NS-30. Was the cover crop recommended for providing forage to pollinators (e.g., mustards, clovers, vetch and/or wildflowers)?	
	NS-31. Was the cover crop selected, seeded and managed to out-compete weeds and prevent weed colonization of tree rows?	
	NS-32. Were the plant species used for cover rotated annually to restrict the growth of nematode populations?	
	Answer 'Not Applicable' if this is the first year of cover cropping or if the cover crop planted doesn't support nematodes.	ļ
NS-33	Was orchard equipment chosen (e.g., ATV instead of tractor) or modified (e.g., via wider or bigger diameter tires, or lower tire pressure) to minimize soil compaction?	Yes
	Erosion Prevention	
NS-34	Have farm roads and/or equipment yards and their margins been graded or engineered, kept in vegetation, or otherwise managed to minimize erosion?	Yes
NS-35	Did down-slope orchard margins, stream banks, or other areas prone to runoff have vegetated buffers, fabric fencing, filter strips, straw bale check dams or water bars, sediment basins and/or other means to slow and retain water and filter contaminants (sediment, nutrients and pesticides)?	Not applicable
NS-36	Were drainage and erosion prevention systems cleaned/maintained prior to the rainy season and checked regularly during stormy periods?	Yes
NS-37	Were culverts properly sized to accommodate high-flow events and had hardened inlets and outlets or energy dissipaters to reduce erosion?	Yes
NS-38	If areas had eroded previously, were efforts made to stabilize (e.g., via geotech fabric or berms) and restore the damaged area?	Yes
	Numeric - Yield, Water and Soil Subsection	
	Numeric - Yield, Water and Soil	
YW-01	Did this orchard produce a crop? If you answered 'No,' then skip to question YW-03.	Yes
	YW-02. What was the average kernel yield across all varieties? pounds of kernels per acre	1,700.0 pounds of kernels per acre
YW-03	For the crop year assessed, how many acre-inches of water were applied to this orchard, not including rainfall? acre-inches per acre	35.0 acre inches/acre
YW-04	Is this amount an estimate, or is it verified by measurement (e.g., flow meters)?	Estimate/Calculatio
YW-05	Has the percent soil organic matter for this orchard been measured in the past 5 years? If you answered 'No,' then skip to question YW-07.	No
	VIN OC What was the management and expension motton?	
	YW-06. What was the measured percent soil organic matter?	
YW-07	How many units (pounds per acre) of nitrogen (N) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season? (NOTE: The N of	
YW-07	How many units (pounds per acre) of nitrogen (N) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season? (NOTE: The N of	
YW-07 YW-08	How many units (pounds per acre) of nitrogen (N) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season? (NOTE: The N of N-P-K on fertilizer labels shows the percent of N by weight.) Pounds of nitrogen (N) applied per acre. This is the first number on a fertilizer label N-P-K. How many pounds per acre of P205 (the phosphorous component) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season? (NOTE: The P of N-P-K on fertilizer labels shows the percent of P205 by weight.)	nitrogen (N) applie
	How many units (pounds per acre) of nitrogen (N) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season? (NOTE: The N of N-P-K on fertilizer labels shows the percent of N by weight.) Pounds of nitrogen (N) applied per acre. This is the first number on a fertilizer label N-P-K. How many pounds per acre of P205 (the phosphorous component) sourced from commercial fertilizer (mineral and organic) were applied to this orchard during the past season?	nitrogen (N) applie per acre 50.0 pounds per
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YW-10	Was the entire orchard removed for replanting, left fallow, sold, or farmed by another company? If you answered 'Yes,' reach out to CASP support to remove the orchard from your account.	No
YW-11	Was any acreage on this orchard removed or redeveloped in the past year? If you answered 'No,' then skip the remaining questions in this Topic.	No
	Of acreage removed or redeveloped in the last year, please specify the approximate number of acres of the almond orchard/trees by category:	
	YW-12. Whole Orchard Recycled (WOR). WOR involves grinding whole trees into chips, spreading the chips evenly on the soil surface, then incorporating them into the soil. <i>If none, enter '0'.</i>	
	YW-13. Chipped and used as mulch at this site (on the orchard or nearby) or hauled offsite for use as mulch. If none, enter '0'.	
	YW-14. Used for energy generation. If none, enter '0'. This option includes trees or vines that were chipped and then hauled away for use at an energy or cogeneration facility.	
	YW-15. Burned in the field. If none, enter '0'.	
	YW-16. Trees were cut for firewood. If none, enter '0'.	
	YW-17. Other, Please specify: If none, enter '0'.	
	Pest Management Subsection	
	General IPM	
PM-01	Were integrated pest management (IPM) techniques used to reduce the likelihood of treatments for insect, disease and weed control and associated energy use? IPM may reduce the need for equipment passes.	Yes
	Did acts posticide stars a procedures include all of the following staring due products shows liquide staring only undergoed containers, ensuring the stars as a use more	
PM-02	Did safe pesticide storage procedures include all of the following: storing dry products above liquids, storing only undamaged containers, ensuring the storage area was more than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks?	Yes
PM-02 PM-03	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan?	Yes
PM-02 PM-03	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists.	
	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan?	
PM-03	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists.	No
PM-03 PM-04 PM-05	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists. When insecticide applications were necessary, were the lowest label rates shown to be effective (e.g., by UC IPM guidelines) used?	No Yes
PM-03 PM-04	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? <i>If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists.</i> When insecticide applications were necessary, were the lowest label rates shown to be effective (e.g., by UC IPM guidelines) used? When choosing pesticides, were low-VOC formulations (e.g., not emulsifiable concentrates) used when available and practical for application? If effective alternatives existed, were broad-spectrum insecticides and acaricides (e.g., pyrethroids, organophosphates and carbamates), not used because of their potential	No Yes Yes
PM-03 PM-04 PM-05 PM-06 PM-07	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? <i>If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists.</i> When insecticide applications were necessary, were the lowest label rates shown to be effective (e.g., by UC IPM guidelines) used? When choosing pesticides, were low-VOC formulations (e.g., not emulsifiable concentrates) used when available and practical for application? If effective alternatives existed, were broad-spectrum insecticides and acaricides (e.g., pyrethroids, organophosphates and carbamates), not used because of their potential negative effects on beneficial and non-target organisms? Prior to applying newly registered pesticides, were impacts to bees and natural enemies checked using information from labels and other sources (such as the UC IPM website)	No Yes Yes Not applicable
PM-03 PM-04 PM-05 PM-06	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists. When insecticide applications were necessary, were the lowest label rates shown to be effective (e.g., by UC IPM guidelines) used? When choosing pesticides, were low-VOC formulations (e.g., not emulsifiable concentrates) used when available and practical for application? If effective alternatives existed, were broad-spectrum insecticides and acaricides (e.g., pyrethroids, organophosphates and carbamates), not used because of their potential negative effects on beneficial and non-target organisms? Prior to applying newly registered pesticides, were impacts to bees and natural enemies checked using information from labels and other sources (such as the UC IPM website) and was the product with the fewest precautions and/or shortest residual considered for use? In addition to following required practices on product labels, were mode-of-action group numbers for insecticides and acaricides (on labels or in UC Pest Management	No Yes Yes Not applicable Yes
PM-03 PM-04 PM-05 PM-06 PM-07 PM-08	than 100 feet from the nearest well, and ensuring the area had an impermeable floor and sump to contain leaks? Was an emergency response plan covering pesticide or fertilizer spills and exposure risks posted in the appropriate languages and locations for employees to review, and were employees trained to follow the plan? If you do not have employees, answer 'Yes' but only if a posted plan covering spills and exposure exists. When insecticide applications were necessary, were the lowest label rates shown to be effective (e.g., by UC IPM guidelines) used? When choosing pesticides, were low-VOC formulations (e.g., not emulsifiable concentrates) used when available and practical for application? If effective alternatives existed, were broad-spectrum insecticides and acaricides (e.g., pyrethroids, organophosphates and carbamates), not used because of their potential negative effects on beneficial and non-target organisms? Prior to applying newly registered pesticides, were impacts to bees and natural enemies checked using information from labels and other sources (such as the UC IPM website) and was the product with the fewest precautions and/or shortest residual considered for use? In addition to following required practices on product labels, were mode-of-action group numbers for insecticides and acaricides (on labels or in UC Pest Management Guidelines) recorded and used to guide pesticide rotation/resistance decisions? Was a map of sensitive sites (e.g., aquatic areas, residences, schools, pollinator and pest natural enemy habitat) and associated buffer zones within or near the orchard created	No Yes Yes Not applicable Yes No

	PM-11. Were written or electronic scouting reports kept by or provided to the farm owner or staff to inform decision making? If you answered 'No,' then skip to question PM-13.	No
	PM-12. Was a year-end review of pest levels and trends completed to improve future decision-making?	
	PM-13. Were scouting data, university guidelines, and practical experience used to design and implement management strategies for insects, mites, and diseases?	Yes
	PM-14. Were scouting efforts continued after the use of each pest control tactic to verify efficacy and/or resistance issues?	Yes
PM-15	Did spring and summer monitoring include scouting for nut drop, nut gummosis and signs of other damage from leaffooted bugs and/or stinkbugs, and were results used for management decisions?	Yes
PM-16	At harvest, did farm staff or a PCA sample and analyze the nuts for types of nut rejects to determine the pest(s) causing the damage, the efficacy of the year's pest management program, and the plan for the next year?	No
	Application Practices	
	If a custom applicator or farm management company was primarily responsible for applying pesticides, you may have to answer 'Not applicable' for some of the following questions related to spray equipment and applications. However, please answer 'Not applicable' ONLY if necessary.	
PM-17	Was pesticide application equipment calibrated prior to use each year, after every equipment repair or modification, and when other circumstances requiring recalibration occur (e.g., when changes were made in operating pressure, spray pattern, fan speed, tractor type and/or tractor wheels)?	Yes
PM-18	Was a log of calibration and repairs to pesticide and fertilizer application equipment maintained to ensure timely maintenance and efficient operation?	Not applicable
PM-19	Were sprayer operating manuals reviewed, and were all applicators trained in proper operation?	Not applicable
PM-20	Prior to each air blast and/or aerial application, was the weather checked for current and forecasted wind speed and direction, inversion conditions, temperature and rain?	Yes
PM-21	Were air blast and/or aerial applications made only when rain was not forecasted for the next 48 hours and when zero runoff into waterways was expected? (Exceptions could be made for applications just before rainfall only if specifically recommended, such as for managing diseases.)	Yes
PM-22	To minimize drift from inversions and wind, were air blast and/or aerial applications made only when winds were between 2 and 8 mph?	Yes
PM-23	Were air blast applications kept at or below ground speeds of 2 mph to optimize coverage?	Yes
PM-24	To avoid vapor drift and for worker safety, did air blast applications occur only at night or the coolest part of the day (and not when bees were active during bloom)?	Yes
PM-25	Were low-drift nozzles used for air blast and/or aerial sprayers to optimize spray placement and minimize off-target movement?	Yes
PM-26	Were sprayer nozzles for air blast sprayers replaced at least once per season, or more frequently if powders or other corrosive materials were used?	Not applicable
PM-27	Was the air blast spray pattern adjusted according to the orchard's average tree size and shape? (Examples of adjustments include reducing size of lower nozzles for a mature orchard with a thin lower canopy and shutting off top nozzles for a young orchard with short trees.)	Not applicable
PM-28	When shifting between foliar sprays and dormant or bloom sprays for air blast sprayers, were the fan speed, pressure, and/or nozzle type adjusted for the canopy density?	Not applicable
PM-29	Was spray coverage periodically checked using water-sensitive paper placed in the target zone?	No
PM-30	Were proven drift-control spray additives (as long as no impacts to bees are expected) or drift-reducing sprayers used?	Yes
PM-31	To reduce drift, was the air blast sprayer(s) operated at the lowest pressure providing uniform coverage?	Not applicable
PM-32	Was interference spraying (involving the use of a second spray rig to run in parallel blowing inwards on rows near the orchard edge) used as a method to minimize spray drift?	No
PM-33	Were sprayer shields or drift guards used to keep sprays on target (e.g., for weed sprayers)?	Not applicable
PM-34	Were ultra-low-volume spray equipment or target-sensing sprayers (e.g., SmartSpray (R) or WeedSeeker (R) technology) used to reduce spray volumes or amounts of pesticides?	Not applicable
PM-35	Were sprayers turned off when making row turns and spraying not resume until the nozzles were adjacent to the first trees?	Yes

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PM-36	Was spraying discontinued when winds blew in the direction of nearby waterways (e.g., creeks or irrigation canals) or other sensitive sites (e.g., residences, schools, pollinator and pest natural enemy habitat)?	Yes
PM-37	When operating air blast sprayers next to open or sensitive sites (e.g., aquatic areas, residences, schools, pollinator and pest natural enemy habitat), were the two rows directly adjacent to these sites sprayed on the outer side only (i.e., to direct spray into the orchard)?	Not applicable
PM-38	If there were drainage ditches or other aquatic areas in or near the orchard, was pesticide application discontinued at least 100 feet upslope from these sites?	Not applicable
PM-39	Did the orchard have an operational well(s)? If you answered 'No,' then skip to question PM-42.	Yes
	PM-40. Were wellheads situated or berms or other barriers placed in such a way to prevent surface water from contacting the wellhead and potentially contaminating groundwater?	Yes
	PM-41. Was pesticide mixing and loading done at least 100 feet from wellheads, unless wellheads were protected from contamination by berms or other physical characteristics?	Yes
	Insect and Mite Pests	
PM-42	To reduce outbreaks of NOW, were mummy nuts counted and removed, as needed, during the winter, so that less than two mummies per tree remained by February 1? (For the southern San Joaquin Valley and any almond orchard within 3 miles of pistachio orchards, this rate must be less than one mummy nut per tree).	Yes
PM-43	By March 1, were all mummy nuts on the ground destroyed (e.g., by mowing or discing)?	Yes
PM-44	Were nuts harvested in a timely manner (as soon as they were dry enough) to reduce nut damage by NOW?	Yes
PM-45	Was a mating disruption program for navel orangeworm (NOW) used for this orchard?	No
PM-46	Was a non-aflatoxin producing Aspergillus strain (e.g., AF36) used prior to hullsplit to reduce aflatoxin development associated with damage from NOW?	No
PM-47	Was navel orangeworm (NOW) sprayed in the past year? If you answered 'No,' then skip to question PM-53.	Yes
	PM-48. How many spray applications were applied for NOW in the past year? ("Spray" refers to the number of applications, not the number of spray products in a tank or mix).	2
	. Check each of the following combinations of spray timing and monitoring for NOW that were used to ensure efficacy:	
	PM-49. Spring spray timing for NOW was based on egg traps and degree-day calculations.	No
	PM-50. Hullsplit spray timing for NOW was based on the percentage of split hulls.	Yes
	PM-51. Hullsplit spray timing for NOW was based on egg traps and degree-day calculations.	No
	PM-52. Hullsplit spray timing for NOW was based on pheromone trap catches.	Yes
PM-53	Was San Jose Scale (SJS) sprayed in the past year? If you answered 'No,' then skip to question PM-55.	Yes
	PM-54. Was San Jose Scale (SJS) monitored using pheromone traps and degree-day calculations?	No
PM-55	Was Peach Twig Borer (PTB) sprayed in the past year (dormant, bloom or spring sprays)? If you answered 'No,' then skip to question PM-58.	Yes
	. Check each of the following types of monitoring used to decide if and when to spray for PTB:	
	PM-56. Did shoot strike monitoring being in April to determine if the number of strikes reached a treatment threshold? (The threshold is generally four or more strikes per tree for mature orchards; threshold should be lower for second- and third-leaf orchards.)	No
	PM-57. Was Peach Twig Borer (PTB) monitored using pheromone traps and degree-day calculations?	No
PM-58	To reduce outbreaks of mites, was dust reduced on orchard roadways (e.g., via dust suppressants, oiling, watering, mulching, vegetative cover and/or driving slowly)?	Yes
PM-59	Was irrigation managed to prevent levels of water stress that can cause problems with web-spinning mites?	Yes

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PM-60	Were hot spots for web-spinning spider mites (e.g., orchard areas along dusty roads) monitored (generally May to August) to guide management decisions?	Yes
PM-61	Were mite predators (e.g., predatory mites and six-spotted thrips) also monitored to estimate the amount of biological control and to make management decisions that reduced pests and preserved natural enemies?	Not applicable
PM-62	Were mites sprayed in the past year? If you answered 'No,' then skip to question PM-65.	Yes
	PM-63. How many spray applications were applied for mites in the past year?	2
	PM-64. Were miticides only applied after mite populations exceeded an established threshold of 25 percent of leaves infested (if there were no natural enemies), or 40 percent of leaves infested (if natural enemies were present)?	Yes
PM-65	In mid- or late spring, were the number of ant colonies per 5,000 square feet estimated and the results used for management decisions?	Yes
PM-66	Was rapid pickup of nuts off the ground completed to reduce nut damage by ants and other pests?	Yes
	Diseases	
PM-67	To guide management decisions, was the orchard monitored for signs of Alternaria leaf spot from April to June?	Yes
PM-68	Were temperature and leaf wetness duration monitored and used in a disease severity value (DSV) model to help forecast Alternaria leaf spot?	No
PM-69	Was Alternaria leaf spot sprayed in the past year? If you answered 'No,' then skip to question PM-71.	Yes
	PM-70. How many spray applications were applied for Alternaria leaf spot in the past year?	1
PM-71	Was hull rot observed in the orchard this past year? If you answered 'No,' then skip to question PM-73.	Yes
	PM-72. Did you or your PCA identify the type of fungus responsible for hull rot (e.g., Monilinia, Rhizopus, Aspergillus)?	No
PM-73	Were fungicide sprays used to manage hull rot in the past year? If you answered 'No,' then skip to question PM-75.	Yes
	PM-74. How many fungicide spray applications were applied for hull rot in the past year?	1
PM-75	Was the orchard monitored for shot hole or rust lesions and fruiting structures in the fall to determine if treatment would be necessary during the following season? (Zinc sprays applied as foliar fertilizers in the fall may cause incidental leaf loss, thereby reducing potential infection sites.)	Yes
PM-76	Was pruning completed during dry weather (e.g., immediately after harvest) to minimize time that open wounds are exposed to rain? (This practice is especially important for young trees.) Select "Not Applicable" if no pruning was done on the orchard.	Yes
PM-77	During bloom and spring periods, were decisions to spray for diseases based on temperature and rainfall patterns conducive for disease development?	Yes
PM-78	To determine necessary fungicides, rates and timings, were disease symptoms monitored weekly prior to and during bloom, throughout spring, and until the weather was no longer conducive for disease development?	Yes
PM-79	Was the orchard scouted during postharvest for nuts or leaves stuck on trees or shoot die-back, which may indicate hull rot or damage from San Jose Scale and the need for future control for these pests?	Yes
PM-80	In addition to required practices on product labels, was the most recent fungicide efficacy and resistance management information reviewed (e.g., UC Fungicide Efficacy and Treatment Timing tables) to guide active ingredient rotation/resistance management decisions?	Yes
	Nematodes	
PM-81	If any equipment used in orchards was infested with nematodes, was it cleaned of soil and roots before being moved to non-infested areas?	Not applicable
PM-82	If weak areas of tree growth were evident, were root and soil samples taken from these areas and tested for nematode pests and used for management decisions?	Not applicable
	Weeds	

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PM-83	To prevent transferring weeds among orchards, was equipment cleaned after working in weedy areas, especially if herbicide-resistant species were suspected or verified to be present?	Yes
PM-84	Were weeds monitored at least twice a year and was monitoring information used for management decisions? Preferably, monitoring would occur during the fall after harvest and first rains (for winter annuals and perennials) and during late spring (summer annuals and perennials). If you answered 'No,' then skip to question PM-88.	Yes
	PM-85. Were species and infestation levels recorded to guide the weed management strategy and type and timing of control(s)?	No
	PM-86. Did monitoring records include growth stages (seedling or mature) and potential herbicide resistance issues?	No
	PM-87. Did monitoring include an evaluation after each treatment to identify and manage problems with efficacy, including resistance?	No
PM-88	Were some annual weeds tolerated within the tree rows, if competition from them was negligible and their presence did not increase rodents or interfere with irrigation or harvest?	Yes
PM-89	Was an integrated weed management strategy developed (e.g., involving multiple control tactics, and rotation of herbicides with different modes of action) that considered monitoring results, past treatments, herbicide resistance, regulations and physical characteristics of the orchard, and surrounding sensitive areas?	Yes
PM-90	Were herbicides generally applied only within the tree rows (not in orchard middles)?	Yes
PM-91	Were rates of applied post-emergent herbicides decreased by spot-spraying (e.g., manually or by use of smart sprayers)?	Yes
PM-92	Were suspected or identified herbicide-resistant weeds managed with alternative tactics, including cultural practices (such as hoeing small patches when first noticed) and alternating herbicides with different modes of action?	Not applicable
	Vertebrate Pests	
PM-93	If the orchard is adjacent to grasslands or other wild areas, was a cleared margin maintained to discourage rodents from entering the orchard?	Not applicable
PM-94	Were orchard floors managed to prevent weeds from getting tall and providing shelter for rodents (especially directly adjacent to almond trees)?	Yes
PM-95	Were the orchard and its margins, including brush piles, monitored for signs of vertebrate pests (e.g., ground squirrels and gophers) throughout the season to support management decisions?	Yes
PM-96	Was the orchard intensely monitored during the onset of vertebrate activity to detect and control problems early (e.g., spring)?	Yes
PM-97	Was biological control of burrowing vertebrate pests encouraged by installing nest boxes or perches for predatory birds (e.g., owls or hawks) at orchard margins? If you answered 'No,' then skip the remaining question in this subsection.	Yes
	PM-98. Were nest boxes or perches periodically maintained and cleaned to maximize predator occupancy, which included cleaning the orchard floor under them before harvest?	No
	Ecosystem Management Subsection	
	Promotion of Biodiversity	
EM-01	Were threatened or endangered species that might inhabit the farm identified? If there has been no determination of potential threatened/endangered species, then click 'No' and skip to question EM-05.	No
	EM-02. Were identified threatened or endangered species that might inhabit the farm documented?	
	EM-03. Was habitat for threatened or endangered species that might inhabit the farm property identified?	
	EM-04. Was the farm property managed to protect or enhance habitat for threatened or endangered species (e.g., Safe Harbor Agreement)?	
	Did the person(s) responsible for pesticide selection and application regularly check county, state or federal sources for endangered species updates that may impact pest	Yes
EM-05	management options and, if necessary, modify the selection of products or applications accordingly?	165
EM-05 EM-06		Yes

	EM-08. Were unfarmed or landscaped areas managed to increase appropriate biodiversity, including beneficial wildlife (e.g., by providing owl and songbird nest boxes, bat boxes or raptor perches)?	Yes
	EM-09. Were habitat features on the farm property connected by vegetated corridors and to adjacent properties to provide connectivity for beneficial wildlife?	Not applicable
	Conservation Easements	
M-10	Were some or all of the natural areas of the farm property protected by a natural resources conservation easement?	Not applicable
M-11	Were some areas or the entire farm protected by an agricultural conservation easement?	Not applicable
	Upland Habitat Maintenance and Enhancement	
M-12	Was vegetation such as grasses, trees or shrubs maintained along roadsides, ditch-banks, headlands and/or irrigation canals, to provide habitat for beneficial wildlife and to serve as vegetative filter strips to slow and retain water and filter contaminants?	Yes
M-13	Were beneficial trees (besides almonds) that existed before farm establishment maintained, and/or were beneficial trees planted after establishment (such as along roadsides), to provide habitat for beneficial wildlife?	Yes
	Riparian and Wetland Habitat Maintenance and Enhancement	
EM-14	Were riparian habitat, swales, vernal pools or water courses present on the farm property? If you answered 'No,' then skip to question EM-21.	No
	EM-15. Were swales managed with setbacks to preserve them and prevent equipment from creating ruts when the soil was wet?	
	EM-16. If vernal pools or water courses existed on the farm property, were setbacks in place to minimize their disturbance?	
	EM-17. Did a water course(s) exist on the farm property? If you answered 'No,' then skip to question EM-21.	
	EM-18. Were the banks of the water course(s) maintained with resident non-woody vegetation (excluding noxious weeds)?	
	EM-19. Were the banks of the water course(s) maintained with a mix of grasses, trees and shrubs?	
	EM-20. Was there enough canopy cover to adequately shade the water course(s) and support its functions as habitat?	
	Ecosystem Management Planning	
EM-21	Was an environmental survey and map of the farm property completed and have sensitive areas been noted (e.g., swales, waterways, trees, habitat for endangered species and other features)?	No
EM-22	Was a documented ecosystem/habitat management plan completed for the farm that includes goals for production areas, goals for managing areas not used for farming or processing, and a monitoring protocol to measure improvement over time?	No
	Bee Health and Pollination Subsection	
	Best Management Practices Guide	
BP-01	Was the operation aware of the Almond Board's guide, 'Honey Bee Best Management Practices for California Almonds'? If you answered 'No,' then skip to question BP-04.	No
	BP-02. Were practices in the guide specific to the internal farm operation used?	
	BP-03. Were practices in the guide relevant to the farm's role in communication and coordination with parties throughout the pollination and pest management communication chain used?	
	Agreements with Beekeepers	
BP-04	Were commercial bees used for pollination on the orchard? If you answered 'No,' then skip to question BP-14.	Yes

BP-05	Was a pollination agreement executed with the beekeeper?	No
	If you answered 'No,' then skip to question BP-08. BP-06. Was the pollination agreement executed with the beekeeper documented?	
	BP-07. Did the agreement stipulate hive strength, potential pesticide applications, and hive removal date? Answer "Yes" if all items were included in the agreement.	
BP-08	Were hives placed at sites not susceptible to pesticide drift from outside sources?	Yes
BP-09	Did the operation ensure that the beekeeper registered locations of the hives with the county agricultural commissioner's office?	No
BP-10	Was an inspection completed by the beekeeper, or third party consultant, to ensure expectations for hive strength were met (two hives per acre having an average of eight frames of bees, with six-frame minimum strength is common)?	Yes
BP-11	Were arrangements made with the beekeeper about which pesticides could be applied if daytime applications were necessary while hives were present, and, if an application(s) was necessary, was the beekeeper provided with 48-hour advance notice?	Yes
BP-12	Was notification given to the person responsible for pesticide recommendations, as well as the applicator, which and when during the day, pesticides could be applied while hives were present?	Yes
BP-13	Were beekeepers advised to remove hives based on timing recommended by the University of California (about 90% of latest blooming variety is at petal fall)?	Yes
	Pollinator Risk Mitigation	
BP-14	Before applying pesticides to the orchard during bloom, were beekeepers with hives on nearby properties notified using an appropriate communication method (e.g., through the County Ag Commissioner, BeeWhere, CalAgPermits, etc.)?	Not applicable
	Answer 'Not Applicable' if you do not spray anything during bloom.	
BP-15	Did the operation ensure that pesticides with label cautions "highly toxic to bees," "toxic to bees," "residual times," or "extended residual toxicity" were not used during bloom? Answer 'Yes' if no pesticides are applied during bloom.	Yes
BP-16	Except for possibly Bacillus thuringiensis, did the operation ensure that insecticides (including tank mixes with fungicides) were not applied during bloom? Answer 'Yes' if no pesticides are applied during bloom.	Yes
BP-17	During bloom, were necessary fungicides (or Bacillus thuringiensis) applied in the late afternoon or evening when bees and pollen were not present?	Yes
BP-18	Was abundant potable water, free from contamination, provided for bees?	Yes
BP-19	Were water sources for pollinator bees covered before or replaced after pesticide applications?	Not applicable
BP-20	Was the orchard manager familiar with common symptoms of honey bee exposure to pesticides?	Yes
BP-21	If incidences of possible pesticide-related bee incidences were observed, were they immediately reported to the county agricultural commissioner's office?	Not applicable
BP-22	Before applying pesticides to the orchard anytime of the year, were beekeepers with hives on nearby properties notified using an appropriate communication method (e.g., through the County Ag Commissioner, BeeWhere, CalAgPermits, etc.)?	Yes
	Alternative Forage for Pollinators	
BP-23	Were hedgerows of flowering shrubs, such as coyote brush, maintained along at least some edges of the farm to provide alternative nutrition sources for managed and native pollinators and pest natural enemies?	Yes
BP-24	Was vegetation maintained on or adjacent to the farm that provided pollen and nectar sources for pollinator bees before and/or after almond bloom (includes nutritional ground cover)?	Yes
	If you answered 'No' or 'Not Applicable', then skip to question BP-27.	
	BP-25. Have natural habitat areas or set aside plantings with flowering plants and/or nesting habitat for managed and native pollinators been established or maintained in unfarmed areas on or within 2 miles of the orchard?	Yes
	BP-26. Has cover crop recommended for providing forage to pollinators (e.g., mustards, clovers, vetch and/or wildflowers) been planted in an adjacent, neighboring field within 2 miles of the orchard?	Yes

EA-UI	Energy Efficiency and Air Quality Subsection         Clean-Energy Sourcing         Did on-site renewable energy sources (e.g., solar, wind, biogas digester or fuel cells) supply at least some electricity or heat requirements?	
EA-UI	Did on-site renewable energy sources (e.g., solar, wind, biogas digester or fuel cells) supply at least some electricity or heat requirements?	
EA-UI		
	If you answered 'No,' then skip to question EA-05.	No
	EA-02. Was on-site solar energy used to generate electricity or heat (e.g., hot water or processing heat)?	
	EA-03. Was on-site wind power used to generate electricity?	
	EA-04. Was an on-site biogas digester(s) or fuel cell(s) used to generate electricity or heat?	
	Did the operation contract with its electrical utility to receive more than the standard blend of the electricity requirement from renewable sources (e.g., PG&E Solar Choice (TM) or SMUD Greenergy (R) programs)?	No
	Vehicles and Equipment	
EA-06	Were lighter vehicles used for road trips not requiring a large vehicle (small pickup instead of a large pickup, car instead of a pickup, etc.)?	Yes
	Instead of tractors or larger vehicles, were bicycles or vehicles with smaller motors/engines (e.g., ATVs, motorcycles, golf carts, and self-propelled light-spray rigs) used for on-site transportation requiring less horsepower?	Yes
EA-08	Were calculated horsepower needs and fuel efficiency factored into purchasing decisions for tractors or other heavy, fuel-powered equipment?	Not applicabl
EA-09	Were zero emission vehicles (e.g., electric, hydrogen) used by the business?	No
EA-10	Were engine emissions reduced by retrofitting/replacing diesel engines to Tier 3 or 4 standards?	Not applicable
EA-11	Were diesel engines replaced (or retrofitted) with technology relying on cleaner-burning fuel (e.g., propane, natural gas or biodiesel) or electricity?	Not applicabl
EA-12	Was a plan implemented to minimize passes by equipment and motorized vehicles in the orchard?	Yes
EA-13	Was selection of stationary power equipment based, in part, on emissions ratings (e.g., electric motors instead of diesel engines for pumping systems)?	Not applicable
	Above-Ground Fuel Storage Tanks	
CA-14	Did the operation have above-ground fuel storage tanks? If you answered 'No,' then skip to question EA-19.	Yes
	EA-15. Were all above-ground fuel storage tanks painted/coated white or aluminum to reflect solar radiation?	Yes
	EA-16. Were all above-ground fuel storage tanks shaded?	Yes
	EA-17. Were pressure-relief vacuum caps used by all above-ground fuel storage tanks rather than conventional caps?	Yes
	EA-18. Were all above-ground fuel storage tanks concrete-lined 'vault' tanks or other type of highly insulated tanks, e.g., ConVault (R), Fireguard (R) or SuperVault (TM)?	Yes
	Waste Management	
EA-19	Do you reduce, reuse, or recycle non-crop waste? (Examples could include recycling of pesticide containers, reuse of bins, recycling of used irrigation lines.)	Yes
EA-20	Were prunings used productively (e.g., chipped or composted and used on-site, used for energy generation or used on unpaved roads) and not burned?	Yes
	Unpaved Surfaces	
EA-21	Did unpaved roads have posted speed limits of 15 mph or less to reduce dust generation?	Yes
	Were applications of water or organic dust suppressants (e.g., road oil or polymers) made or was layering of mulches, chips (during winter), sand or gravel used on unpaved roads and/or on unpaved equipment yards?	Yes

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EA-23	Were orchard floor management techniques used to reduce tractor passes and associated energy use (e.g., judicious use of preemergent herbicides to reduce the passes needed for weed management)?	Yes
	Harvest	
EA-24	Did year-round floor management result in a smooth, level, and clean orchard floor at harvest, to help optimize harvest efficiency and minimize dust? Answer Not Applicable for an orchard that is not being harvested, e.g., a young orchard that is not yet bearing. If you answered, 'Not Applicable,' then skip to question EA-44.	Yes
EA-25	Was a harvest dust management plan implemented that ensured operators of sweepers and pickup machines (including custom harvesters) and others involved in harvest activities were appropriately trained before harvest?	Yes
EA-26	How many sweeper blower passes were used?	2
EA-27	Did sweeper and pickup machine passes and travel direction direct dust into tree canopies (filter mechanism) and away from roads, homes and other sensitive locations such as schools, hospitals and day care centers?	Yes
EA-28	If adjacent to a public road, were traffic signs warning of low visibility posted along the roads during sweeping and pickup activities?	Not applicable
EA-29	If adjacent to a public road, did sweeping and pickup activities occur when road traffic was at a minimum?	Yes
EA-30	To reduce dust, was the sweeper head set at the manufacturer-recommended height (not lower)?	Not applicable
EA-31	Was the angle of the sweeper blower spout and speed of the fan adjusted to match orchard conditions so only nuts were moved and not soil?	Not applicable
EA-32	Were harvest sweepers designed to minimize passes and reduce dust used (e.g., sweepers with a mounted berm brush)?	Not applicable
EA-33	Was groundspeed for conventional pickup machines lowered to match local conditions (e.g., 1.5 mph instead of 3 mph)?	Not applicable
EA-34	Was a conditioner used prior to using a harvester for pickup? If you answered 'No,' then skip to question EA-36.	No
	EA-35. What was the approximate percent (%) of acreage that was conditioned?	
EA-36	Was dust reduced by setting head heights for pickup machines to optimum levels based on local conditions (not too low)?	Not applicable
EA-37	Was at least one type of low-dust harvester used? If you answered 'No,' then skip to question EA-44.	No
	Which type(s) of low-dust harvester(s) were used? Answer 'yes' to all that apply.	
	EA-38. Pull-behind PTO or self-propelled low-dust harvester.	Yes
	EA-39. Low-dust retrofit technology for harvester (e.g., cyclone separator).	
	EA-40. Off-ground harvester (off-floor harvesting). If you answered 'No', then skip to question EA-44	
	If nuts were harvested using off-ground harvesting equipment, please select the scenario that best describes the overall harvesting practice: Answer 'Yes' to the best fit.	
	EA-41. Off-ground equipment was used to reallocate the nuts directly to the windrow, followed by a low dust or conventional harvester (avoiding use of a sweeper and/or conditioner).	
	EA-42. Nuts were naturally dried on-ground outside of the orchard with pick-up using a standard harvester.	
	EA-43. Nuts never touched the ground prior to arriving at the processing facility, and nuts were mechanically dried.	
	Did this orchard stockpile nuts (in the orchard or elsewhere)?	

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