



**Protected Harvest Certification Standards:  
CALIFORNIA ORANGES & MANDARINS**

Line	Standard	Points NO = non-qualifier practice	Practice W = whole farm F = field
<b>1.</b>	<b>Whole Farm Management</b>		
<b>1.1</b>	<b>Grower Knowledge and Educational Activities -- Select ALL that apply--</b>		
a.	The farming operation has current membership in at least two organizations that provide information or support for IPM or water quality protection practices.	3	W
b.	The farming operation has had someone in attendance at a minimum of two training sessions related to IPM or BMPs offered by university, government, or non-profit organizations within the last 12 months.	3	W
c.	The farming operation is a member of the coalition which provides services for compliance with conditional agriculture discharge waiver requirements.	1	W
d.	The farming operation uses Internet-based sustainable agriculture resources from local sources.	2	W
e.	A self-assessment of the operation has been completed using the Positive Points for Citrus.	3	W
f.	None of the above.	0	W
<b>1.2</b>	<b>Wildlife Management -- Select ALL that apply--</b>		
a.	Nesting boxes have been provided for birds or bats, or mature native trees have been preserved within or adjacent to the grove.	2	F
b.	Invasive species have been mapped and treated in the past 12 months.	2	F
c.	If riparian areas or water bodies are on or adjacent to grove, a vegetative buffer area of at least 35 feet is established and maintained. If no riparian areas or water bodies are on or adjacent to grove, subtract 3 points from total points available.	3	F

d.	Grower has completed the worksheet contained in his/her county's US EPA Endangered Species Protection Bulletin to determine which pesticides require special use modifications for protection of endangered species, even when not required to do so on the current pesticide label.	3	W
e.	None of the above.	0	

<b>2.0</b>	<b>Soil and Water</b>
------------	-----------------------

<b>2.1</b>	<b>Pesticide Handling</b>
------------	---------------------------

<b>2.1.1</b>	<b>Pesticide Spill Containment Planning -- Select ONE --</b>
--------------	--

a.	A spill containment plan has been developed and addresses all of the following issues: 1. Who to contact if there is a spill, with phone numbers 2. How to contain the spill 3. How to clean up the spill 4. How to prevent spills (specific to the farm) 5. Where critical or sensitive areas are on your farm 6. How often the plan will be updated	5	W
b.	A spill containment plan has been developed, addressing only items 1-3, above.	2	W
c.	No spill containment plan has been written.	0	W

<b>2.1.2</b>	<b>Pesticide Storage Conditions -- Select ALL that apply --</b> If a commercial applicator is used and no pesticides are stored on-farm, add 10 points
--------------	---

a.	Pesticides are stored on the farm in a locked containment area with a secondary containment device or structure.	3	W
b.	Pesticide containers are stored off the ground.	3	W
c.	A spill response/cleanup kit is in the pesticide storage facility.	4	W
d.	None of the above apply	0	W

<b>2.1.3</b>	<b>Pesticide Inventory Management -- Select ONE --</b>
--------------	--

a.	No pesticides are stored on the farm OR pesticides are stored on the farm and inventories are limited to materials purchased less than 12 months previously.	5	W
b.	When pesticides are stored on the farm, inventories are limited to materials purchased less than 24 months previously.	3	W
c.	Pesticide inventories are not limited to materials purchased less than 24 months previously.	0	W

<b>2.1.4</b>	<b>Pesticide Storage Location -- Select ONE --</b>		
a.	No pesticides are stored on the farm OR storage area is located at least 400 feet from any public or private drinking water source AND two hundred feet from surface water.	4	W
b.	Storage area is located less than 400 feet but more than 200 feet from public or private drinking water source and greater than 200 feet from any surface water.	2	W
c.	Storage area is located less than 200 feet from public or private drinking water source or surface water.	0	W

<b>2.2</b>	<b>Nutrients</b>		
<b>2.2.1</b>	<b>Nutrients Storage Conditions -- Select ONE --</b>		
a.	Synthetic nitrogen or phosphorus fertilizers are not present on the farm for more than 30 days prior to application.	5	W
b.	If synthetic nitrogen or phosphorus fertilizers are present on the farm for more than 30 days, they are stored in an enclosed structure with a secondary containment device or structure. Liquid fertilizers of any type are stored in an enclosed structure with a secondary containment device or structure.	4	W
c.	If synthetic nitrogen or phosphorus fertilizers are present on the farm for more than 30 days, they are covered with a roof or tarp on an impermeable surface. Liquid fertilizers of any type are simply stored in closed containers without cover and secondary containment.	1	W
d.	Fertilizers are stored without cover or secondary containment devices or structures.	0	W

<b>2.2.2</b>	<b>Nutrients Planning -- Select ONE --</b>		
a.	A nutrient plan has been prepared. This plan includes the following factors: soil type, sources of nutrients (including organic / biological), recommended rates, application methods, application timing, and a process for updating the plan.	5	F (may be one plan w/ specifics for each grove)
b.	A nutrient plan has been prepared which addresses recommended rates, sources of nutrients, and application timing.	2	F (may be one plan w/ specifics for each grove)
c.	No plan has been prepared.	0	F

<b>2.2.3</b>	<b>Nutrient Testing</b>		
<b>2.2.3.1</b>	<b>Soil Analysis – Micro-nutrients -- Select ONE --</b>		
a.	A soil sample has been analyzed by a lab for micro-nutrients in the last 36 months.	3	F
b.	A soil sample has been analyzed by a lab for micro-nutrients in the last 5 years.	2	F
c.	It has been at least 5 years since a micro-nutrient soil analysis was done.	0	F

<b>2.2.3.2</b>	<b>Soil Analysis – Macro-nutrients -- Select ONE --</b>		
a.	A soil sample has been analyzed by a lab for macro-nutrients in the last 36 months.	3	F
b.	A soil sample has been analyzed by a lab for macro-nutrients in the last 5 years.	2	F
c.	It has been at least 5 years since a macro-nutrient soil analysis was done.	0	F

<b>2.2.3.3</b>	<b>Tissue Analysis -- Select ONE --</b>		
a.	At least one tissue nutrient analysis has been done in the last 12 months.	5	F
b.	A tissue analysis has been done once during the past 24 months.	1	F
c.	Tissue analysis has not been done in the past 24 months.	0	F

<b>2.2.4</b>	<b>Irrigation Water Nitrogen -- Select ONE --</b> Only applies to groves irrigated with well water. Subtract 3 points from total available if no well water is used.		
a.	Well water used for irrigation has been tested in the last 24 months for nitrogen content and the amount of N applied annually in irrigation water has been calculated and subtracted from amount needed.	3	F
b.	Well water used for irrigation has been tested in the last 36 months for nitrogen content and the amount of N applied annually in irrigation water has been calculated and subtracted from amount needed.	2	F
c.	Well water used for irrigation has been tested in the last 5 years for nitrogen content and the amount of N applied annually in irrigation water has been calculated and subtracted from amount needed.	1	F

d.	Well water is used for irrigation but has not been tested for nitrogen content in the last 5 years.	0	F
----	---	---	---

<b>2.2.5</b>	<b>Soil pH -- Select ONE --</b>		
a.	Soil pH has been tested in the last 36 months.	3	F
b.	Soil pH has been tested in the last 5 years.	1	F
c.	Soil pH has not been tested in the last 5 years.	0	F

<b>2.2.6</b>	<b>Sources of Nitrogen</b>		
<b>2.2.6.1</b>	<b>Biological Nitrogen Sources -- Select ONE --</b>		
a.	Some or all of the nitrogen applied was from a plant or animal source that was analyzed for its nutrient value in advance. --If manure is used, it has been composted according to the National Organic Program compost standard OR Code of Federal Regulations Title 40, Part 503, Appendix B OR is incorporated into the soil at least 120 days prior to harvest.	3	F
b.	Some or all of the nitrogen applied was from a plant or animal source, but the material was not analyzed for its nutrient value in advance. --If manure is used, it has been composted according to the National Organic Program compost standard OR Code of Federal Regulations Title 40, Part 503, Appendix B OR is incorporated into the soil at least 120 days prior to harvest.	1	F
c.	Not as above.	0	F

<b>2.2.6.2</b>	<b>Synthetic / Mined Nitrogen Source -- Select ONE --</b>		
a.	If a synthetic source of N is used, a slow-release N source is used for at least 50% of required N.	3	F
b.	If a synthetic source of N is used, N is applied in small injections through the drip irrigation system with no more than 20 units of N applied at a time. Foliar feeding may be used in addition to fertigation.	3	F
c.	No synthetic source of N is used in this grove.	3	F
d.	If a synthetic source of N is used, N is applied to the soil in at least 3 applications throughout the season (foliar sprays may be counted if at least 20% of N is applied in this fashion).	1	F
e.	None of the above applies.	0	F

<b>2.2.7</b>	<b>Nutrient Application Factors</b>		
<b>2.2.7.1</b>	<b>Nutrient Application Equipment Calibration -- Select one --</b>		
a.	Fertigation equipment has been calibrated at least twice in the last 12 months.	3	F
b.	Other types of nutrient application equipment (not fertigation) have been calibrated at the start of the current season and after all equipment adjustments or repairs.	3	F
c.	Fertigation equipment has been calibrated only once in the last 12 months.	1	F
d.	Other types of nutrient application equipment (not fertigation) have been calibrated in the last 24 months but greater than 12 months ago.	1	F
e.	No record of calibration or calibration not fitting into the above categories.	0	F

<b>2.2.7.2</b>	<b>Fertigation System Design -- Select ONE --</b> If fertigation is not used, subtract 4 points from the total available.		
a.	Grower has written record of measurement of length of time for materials to move from injection site to the beginning of furthest lateral and from beginning to end of last lateral line.	4	F
b.	Measurement has not been done.	0	F

<b>2.3</b>	<b>Water Movement Issues -- Select ALL that apply --</b>		
a.	If gullies are present, they have been graded, filled, planted to permanent vegetation, or grade control structures have been constructed in gullies.	3	F
b.	If a wetland area is in or adjacent to grove, buffers and setbacks are planted to grass or other permanent vegetation that filters the water as it moves off of the field.	3	F
c.	If flood or furrow irrigation is used, no tailwater leaves the farm.	4	F
d.	Active wells have been inspected for damage to the casing seal and/or grout in the last 5 years by a well driller or pump installer.	3	F
e.	Active wells have a concrete slab that extends at least 2 feet from the well in all directions, is at least 4 inches thick, and slopes away from the casing to drain water away from the well. Slab is maintained to keep animals from burrowing underneath.	2	F

<b>2.4</b>	<b>Leaching Prevention -- Select ALL that apply --</b>		
a.	Grower has augmented soils with compost, organic mulch, or similar organic matter source in the last 12 months (grinding prunings and leaving them in the field qualifies).	3	F
b.	A soil organic matter analysis has been done in the last 36 months.	3	F
c.	Grove floor is managed so that vegetation is maintained between tree rows year round (dry season dieback excepted).	3	F
d.	None of the above.	0	F

<b>2.5</b>	<b>Irrigation</b>		
<b>2.5.1</b>	<b>Irrigation Scheduling -- Select ALL that apply --</b>		
a.	Evapotranspiration (ET) and precipitation are measured and recorded during the cropping season for use in irrigation scheduling.	3	F
b.	Irrigation scheduling utilizes soil probes or moisture sensing technologies such as gypsum blocks, tensiometers, or pressure bombs.	3	F
c.	None of the above technologies is used.	0	F

<b>2.5.2</b>	<b>Water Conservation - Irrigation Type -- Select ONE --</b>		
a.	Drip or microsprinklers.	3	F
b.	Regular sprinklers.	1	F
c.	Flood/furrow with no tailwater generated.	1	F
d.	Flood/furrow with tailwater.	0	F

<b>2.5.3</b>	<b>Water Conservation – Flow Meter -- Select ONE --</b>		
a.	A flow meter is used on each irrigation pump. If no pump is used in the system, add 2 points.	2	F
b.	No flow meters are used on irrigation pumps.	0	F

<b>3.0</b>	<b>Air Quality</b>		
<b>3.1</b>	<b>Irrigation Pump Type -- Select ONE --</b>		
a.	Electric with time-of-use meter or variable frequency controller.	3	F
b.	Low emission internal-combustion powered (as defined by NRCS EQIP program).	2	F
c.	Other.	0	F
d.	Bonus: No pump (gravity-fed system) or solar powered electric.	Bonus: 2 (Plus 3 for section)	F

<b>3.2</b>	<b>Road Dust Management -- Select ONE --</b> For farm roads with greater than 10 vehicle trips per day. If no roads have greater than 10 vehicle trips per day, add 3 points.		
a.	Roads are permanently paved.	5	F
b.	Unpaved roads are oiled or roadmix/base is applied.	4	F
c.	A chemical dust suppressant or polymer, washed gravel, organic material, or chip/mulch approved by the NRCS EQIP program or San Joaquin Valley Air Pollution Control District (see companion guide) is applied.	3	F
d.	Roads are watered when dust is visible, or driving speed is posted for 10 mph or less.	2	F
e.	The dust control practices described above are not consistently used.	0	F

<b>3.3</b>	<b>Chipping / Burning -- Select ONE --</b>		
a.	Annual prunings are chipped and incorporated into or remain on soil in grove.	3	F
b.	Annual prunings are not returned to the soil, but are not burned.	1	F
<b>c.</b>	<b>Annual prunings are burned.</b>	<b>NQ</b>	<b>F</b>

<b>3.4</b>	<b>Drift Management</b>		
<b>3.4.1</b>	<b>Drift Management Plan -- Select ONE --</b>		
a.	A drift management plan has been developed (see citrus companion document) and training has been conducted with those responsible for application.	4	W
b.	No drift management plan and training of applicators.	0	W



<b>3.4.2</b>	<b>Bonus: Drift Management Technologies -- Select ONE --</b>		
a.	If pesticides are applied, sensor-controlled sprayer or tower spray equipment is used.	Bonus: 5	W
b.	Sensor-controlled or tower sprayers are not used.	0	W

<b>3.4.3</b>	<b>Sprayer Calibration -- Select ONE --</b>		
a.	If pesticides are applied, sprayer has been calibrated at least once in the last 1 month prior to each application and after every adjustment or repair.	4	W
b.	If pesticides are applied, sprayer has been calibrated at least once in the last 2 months prior to each application and after every adjustment or repair.	2	W
c.	No pesticides have been applied during the season.	4	W
d.	Pesticides have been applied but sprayer has not been calibrated at least once in the last 2 months prior to each application and after every adjustment or repair.	0	W

<b>4.0</b>	<b>Integrated Pest Management</b>		
<b>4.1</b>	<b>Who scouts the crop? -- Select ONE --</b>		
a.	Independent or in-house Farm Employed PCA, with written report to grower.	4	W
b.	Dealer/Co-op Employed PCA, with written report to grower.	2	W
c.	Non-PCA scout, with written report to grower, or grower is scout and keeps records.	1	W
<b>d.</b>	<b>Crop not scouted or incomplete scouting report regardless of scout qualifications.</b>	<b>NQ</b>	<b>W</b>

<b>4.2</b>	<b>Scouting Frequency -- Select ONE --</b>		
a.	Scout inspects grove at least weekly March 15 through Nov 1.	3	F
b.	Grove is scouted at least once every two weeks from March 15 through Nov 1.	2	F
c.	Grove is scouted less than once every two weeks but at least monthly March 15 through Nov 1.	1	F
<b>d.</b>	<b>Documented scouting is performed monthly or less March 15 through November 1.</b>	<b>NQ</b>	<b>F</b>

<b>4.3</b>	<b>Scouting Records -- Select ONE --</b>		
a.	Scouting records are analyzed at year end with a written evaluation of trends both within a season and from season to season.	4	W
b.	Scouting records are analyzed at year end with a written evaluation of trends within the season.	3	W
c.	Scouting records for the complete season are kept from year to year, but a written evaluation of trends is not done at year's end.	1	W
d.	Scouting records for the complete season are not kept from year to year.	0	W

4.4	Scouting Details -- Select ALL that apply --		
a.	Beneficial organism populations in the grove are monitored during scouting and factored into treatment decisions.	3	F
b.	Red scale is monitored using pheromone traps (or Aphytis releases are used) and parasitism is monitored in the red scale population.	3	F
c.	Grove has been mapped for emerging weed problems at least twice in the past 12 months.	3	F
d.	Honeydew feeding ants are monitored.	1	F
e.	Multiple worm species are monitored and their levels recorded separately.	3	F
f.	Soil and root samples have been analyzed for nematode populations in the past 36 months.	3	F
g.	Soil and root samples have been analyzed for <i>Phytophthora</i> propagules in the past 36 months.	3	F
h.	Scouting program includes monitoring for disease symptoms.	1	F
i.	<b>None of the above is done.</b>	<b>NQ</b>	<b>F</b>

4.5	Other Insect Management Practices -- Select ALL that apply --		
a.	No pesticides were applied for worms –OR- worms were treated with a spray but economic thresholds were met or exceeded prior to treatment and a non-carbamate or non-OP material was used.	3	F
b.	<i>Aphytis</i> sp. are released for red or yellow scale.	3	F
c.	If pyriproxyfen or buprofezin are applied to red scale, grower has monitored for the second period of crawler production prior to application.	5	F
d.	Mature trees are hedged or topped.	3	F
e.	The packinghouse uses a high-pressure washer for scale removal.	4	W
f.	Non-OP and non-carbamate treatments are used for ant treatments, or no ant treatment is made.	3	F
g.	Economic thresholds are used prior to citrus thrips treatment, or no citrus thrips treatment was made.	3	F
h.	Economic thresholds are used prior to citricola scale treatment, or no citricola scale treatment is made.	3	F
i.	Economic thresholds are used prior to citrus red mite treatment, or no citrus red mite treatment is made.	3	F
j.	None of the above.	0	F

<b>4.6.</b>	<b>Brown Garden Snail Management -- Select ONE --</b>		
a.	Snails are not treated or are managed by one or more of the following methods: <ul style="list-style-type: none"> <li>Decollate snail has been established in the grove, or grower has documentation of attempt to establish decollate snail.</li> <li>One of the following pesticide alternatives are used: copper banding, iron phosphate, copper sulfate or cuprous oxide paint.</li> </ul>	2	F
b.	A treatment other than one of the above is used for snail management.	0	F

<b>4.7</b>	<b>Disease Management -- Select ALL that apply --</b>		
a.	Lower branches of the trees are pruned to 24 inches off the ground annually.	2	F
b.	Irrigation method used does not wet the trunk.	2	F
c.	If replanting or topworking trees, only registered budwood or certified planting stock from the Citrus Clonal Protection Program is used.	2	F
d.	None of the above.	0	F
e.	Bonus: Farm has an on-farm rootstock or scion trial planted.	Bonus: 3	W

<b>4.8</b>	<b>Weed Management</b>		
<b>4.8.1</b>	<b>Herbicide Selection -- Select ONE --</b>		
a.	Herbicides are not used, or none of the following herbicides were used in the previous 12 months: Atrazine (Aatrex), Simazine (Princep), Bromacil (Hyvar, Krovar), Diuron (Karmex, Krovar), Prometon (Pramitol), Bentazon (Basagran), Norflurazon (Solicam, Predict, Zorial).	3	F
b.	One or more of the above materials was used, but was applied in a band within the dripline of the tree row.	1	F
c.	One or more of the above herbicides were used beyond the dripline.	0	F

<b>4.8.2</b>	<b>Herbicide Application -- Select ALL that apply --</b>		
a.	Ultra Low Volume applicators are used for herbicide applications.	2	W
b.	Hooded/shielded sprayers or wiper applicators used to reduce drift.	2	W
c.	None of the above technologies are used.	0	W

<b>4.8.3</b>	<b>Other Weed Management -- Select ALL that apply--</b>		
a.	Drip irrigation is used (not fanjet).	3	F
b.	Fanjet/microsprinkler irrigation is used.	2	F
c.	Spot treatment of weeds is used at least once in the past 12 months.	2	F
d.	No herbicide tank mixtures are used, or herbicide tank mixtures are of chemicals from different HRAC mode-of-action groups.	2	F
e.	A mechanical weed control method (mowing, discing, flaming) is used at least once in the past 12 months.	3	F
f.	None of the above.	0	F

<b>5.0</b>	<b>Chain of Custody Management -</b> Growers that only handle crops grown on their own farm are exempt from the requirement for a separate Handling Certification. However, during the grower audit basic chain-of-custody measures will be evaluated. Each grower of Protected Harvest certified crops must document the chain-of-custody of the crop from field to retail or produce title change, including during storage, packing, pallet loading, and transportation, ensuring the integrity of Protected Harvest's certification.		
<b>5.1</b>	<b>How are procedures for handling Protected Harvest certified crops communicated to staff? -- Select ONE --</b>		
a.	Specific written standard operating procedures (SOP) for handling are in place and are distributed to employees and/or posted.	5	W
b.	Only a summary of procedures is included in other company documentation (e.g. production procedure, etc.).	3	W
c.	Procedures are only verbally communicated to staff with no formal written procedure.	1	W
d.	No procedures are in place.	0	W

<b>5.2</b>	<b>What <u>documented</u> employee training methods are used? -- Select ONE --</b>		
a.	Employees attend special handling training sessions.	3	W
b.	Employees are in a documented handling mentoring program with experienced staff.	1	W
c.	Employees are trained, but training is not documented.	0	W

<b>5.3</b>	<b>Which of the following <u>written</u> tracking mechanisms are used? -- Select ALL that apply --</b>		
a.	Harvest records include a unique field and harvest identification (e.g. field tags, harvest log, etc.).	3	W
b.	Storage records show the unique product lot identifications and quantities in inventory (e.g. warehouse log, bin log, etc.). If your operation does not store product within the certification program, award yourself 3 points.	3	W
c.	Distribution records identify the unique product identifications and quantities distributed (e.g. bill of lading, pull sheet, warehouse log, etc.).	3	W
d.	Shipping paperwork clearly shows the certified status of product represented under this program (e.g. Protected Harvest identification on invoice, bill of lading, copy of Protected Harvest Certificate with each load, etc.).	3	W
e.	None of the above.	0	W

<b>5.4</b>	<b>What methods are used to ensure the segregation of certified product from non-certified product? -- Select ONE --</b>		
a.	No separation measures are needed because our facilities only store certified product.	5	W
b.	Designated storage units are used that solely house certified or non-certified product at any given time.	4	W
c.	Certified and non-certified product is mixed within the same bins, and visual identification techniques are employed (e.g. chalk mark on wall).	2	W
d.	Certified and non-certified product is mixed within the same bins, and physical barriers are used (e.g. chicken wire, paper, etc.).	3	W
e.	Certified product intended to be sold as certified is mixed in the same bins as non-certified product, and no separation measures are used.	0	W

<b>5.5</b>	<b>Which of the following describes your product tracking capability? -- Select ALL that apply --</b>		
a.	Procedures are in place that allow for distributed products to track back to the field of origin.	4	W
b.	A system is in place that can show where harvest from an individual field was eventually distributed.	4	W
c.	Distributed certified product cannot be reconciled to harvest yield and marketable yield data from certified fields.	0	W