



Protected Harvest Certification Standards:
Stonefruit (Peach, Plum, Nectarine)

| Line | Standard | Points NQ=non-qualifier practice | W=whole farm practice F=field practice |
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| 1. | Whole Farm Environmental Management | | |
| 1.1 | Knowledge and Educational Activities (select all that apply) | | |
| 1.1.1 | Grower or farm has membership in at least two organizations that provide information or support for IPM practices or water quality protection practices. | 3 | W |
| 1.1.2 | Grower or representative attends at least 2 University/DPR training sessions within the last 12 months (same person). | 3 | W |
| 1.1.3 | Internet-based sustainable agriculture resources from local sources are used. | 2 | W |
| 1.1.4 | A self audit or external audit of farming operation has been completed using audit information provided by CTFA. | 2 | W |
| 1.1.5 | Grower is a member of the coalition which provides services for compliance with conditional agriculture discharge waiver requirements. | 1 | W |
| 1.1.6 | BONUS POINTS: Participation in current University/USDA/CTFA supported on farm research projects. | Bonus: 3 | W |

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| 1.2 | Wildlife Management Component (select all that apply) | | |
| 1.2.1 | If riparian areas or water bodies are on or adjacent to farm, a vegetative buffer area of at least 35 feet is established. | 2 | F (properties contiguous to area) |
| 1.2.2 | Nesting boxes have been provided for birds, bats, or wild bees, or mature native trees have been preserved within or adjacent to the orchard. | 2 | F (each property has at least one) |
| 1.2.3 | 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 |

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| 2.0 | Soil and Water Quality Management | | |
| 2.1 | Pesticide spill containment planning (Select one) | | |
| 2.1.1 | 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 |
| 2.1.2 | A spill containment plan has been developed, addressing only items 1-3, above. | 2 | W |
| 2.1.3 | No spill containment plan has been written. | 0 | |

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| 2.2 | Pesticide Storage Conditions (select all that apply) - If a commercial applicator is used and no pesticides are stored on-farm, add all points. | | |
| 2.2.1 | When pesticides are stored on the farm, inventories are limited to materials purchased within the last 24 months. | 4 | W |
| 2.2.2 | Pesticides are stored in a locked containment area with a secondary containment device or structure. | 3 | W |
| 2.2.3 | Pesticide containers are not stored sitting on dirt/soil. | 3 | W |
| 2.2.4 | A spill response/cleanup kit is in the pesticide storage facility. | 4 | W |
| 2.2.5 | None of the above apply | 0 | |

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| 2.3 | Nutrients | | |
| 2.3.1 | Nutrients Storage Conditions (Select one) | | |
| 2.3.1.1 | Synthetic nitrogen or phosphorus fertilizers are not present on the farm for more than 30 days prior to application. | 5 | W |
| 2.3.1.2 | 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 |
| 2.3.1.3 | 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 |
| 2.3.1.4 | Fertilizers are stored without cover or secondary containment devices or structures. | 0 | |

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| 2.3.2 | Fertility and Salinity Management Practices (select all that apply) | | |
| 2.3.2.1 | Nutrient management plan for next 3 years is developed outlining the soil /tissue testing method and schedule and the plan for managing proper soil fertility to reach the desired yield results. | 3 | W |
| 2.3.2.2 | A soil nutrient test has been taken in the last 36 months and a tissue analysis in the last 12 months. Records maintained for at least the last 3 years. | 2 | F |
| 2.3.2.3 | Soil pH has been tested in the past 36 months. | 2 | F |
| 2.3.2.4 | Soil salinity has been tested in the past 36 months. | 2 | F |
| 2.3.2.5 | Fertigation and chemigation are used to apply chemicals and fertilizer. | 2 | F |
| 2.3.2.6 | Compost or manure is used as a source of organic matter and/or nutrients. | 3 | F |
| 2.3.2.7 | If well water is used for irrigation, the nitrate level has been tested in the past 5 years and is used to adjust the amount of nitrogen applied to the orchard. | 3 | F |
| 2.3.2.8 | None of the above apply | 0 | |

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| 2.3.3 | Row Middle Management (select all that apply) | | |
| 2.3.3.1 | Orchard row middles are not sprayed or cultivated but managed with resident vegetation or planted cover crop and/or mulch (includes chipped prunings). | 3 | F |
| 2.3.3.2 | Orchard row middles are actively cleaned of vegetation (beyond mowing and beyond seasonal dieback of resident vegetation in dry season). | 0 | |

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| 2.4 | Water Management | | |
| 2.4.1 | Management Practices (select all that apply) | | |
| 2.4.1.1 | ETc data is monitored to determine need for irrigation. | 2 | F |
| 2.4.1.2 | Water penetration is improved by using gypsum or compost, or field records document test results showing a sufficient infiltration rate and that amendments are not needed. | 2 | F |
| 2.4.1.3 | If the field has a slope of greater than 3%, buffer areas (filtering zones) at least 9 feet wide are maintained in permanent vegetation and/or catch basins/recovery systems are used around fields. | 3 | F |
| 2.4.1.4 | Flow meters are used on irrigation pumps. | 2 | F |
| 2.4.1.5 | Grower uses soil probes and/or moisture sensors/meters to determine soil moisture. | 3 | F |

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| 2.4.2 | Type of irrigation utilized - which system best describes your irrigation delivery system? (select one) | | |
| 2.4.2.1 | Micro-irrigation (drip or micro-sprinkler) based upon current ET values. | 4 | F |
| 2.4.2.2 | Combination of micro-irrigation and laser-leveled furrow irrigation. | 2 | F |
| 2.4.2.3 | Furrow irrigation on a laser leveled field. | 2 | F |
| 2.4.2.4 | Sprinklers (non-micro). | 1 | F |
| 2.4.2.5 | Flood or furrow irrigation on a non-laser leveled field. | 0 | |

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| 3.0 | Air Quality Management | | |
| 3.1 | Management Decisions (select all that apply) | | |
| 3.1.1 | Conservation Management Practices plan (CPM) is in place for Air Quality Issues. | 3 | W |
| 3.1.2 | Annual tree prunings are chipped or shredded and remain in orchard. | 3 | F |

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| 3.2 | Road dust management - For unpaved farm roads with greater than 10 daily vehicle trips (select one) | | |
| 3.2.1 | Permanent paved roads are used, or unpaved roads are oiled/coated with a material approved by the NRCS EQIP program or San Joaquin Valley Air Pollution Control District (see companion guide), or roads are watered when dust is visible, or access to field roads is limited with gates/barriers, or driving speed is posted for 10 mph or less. | 5 | F |
| 3.2.2 | The dust control practices described above are not consistently used. | 0 | |

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| 3.3 | Irrigation pump type (select one) | | |
| 3.3.1 | Electric pump with variable frequency pump controllers. | 3 | F |
| 3.3.2 | No pump. Gravity-fed system is used. | 3 | F |
| 3.3.3 | Gravity-fed system is used with occasional supplement by any other pumping technology. | 2 | F |
| 3.3.4 | Electric system is used. | 2 | F |
| 3.3.5 | Low emission diesel, natural gas, or propane pump is used (See companion guide for requirements for EQIP program). | 2 | F |
| 3.3.6 | Standard internal combustion powered pumps (not low emission) are used. | 0 | |
| 3.3.7 | Bonus: solar powered electric pumps are used. (take 2 points for using electric pump and add 3 bonus points.) | Bonus: 3 | F |

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| 4.0 | Integrated Pest Management | | |
| 4.1 | Grower has prepared a long-term evaluation of the farming operation to determine where Bio IPM improvements can be made. | | |
| 4.1.1 | Yes | 3 | W |
| 4.1.2 | No | 0 | |

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| 4.2 | Record keeping activities (Select one) | | |
| 4.2.1 | Complete management records for pest levels and control, orchard fertility measurements and fertilizer application, and irrigation schedules and amounts are retained for minimum of 3 years with accessible storage and retrieval of records. (During the first 3 years after a grower's first application, the requirement will be equal to the number of years since that first application.) | 4 | F |
| 4.2.2 | Less than 3 years of these records maintained (or during the first 3 years, the grower has complete records for less than the number of years of participation in the program [i.e., one year of records at the end of the second season instead of two]). | 3 | F |
| 4.2.3 | No records or incomplete records of production inputs and pest levels maintained | 0 | |

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| 4.3 | Scouting Practices | | |
| 4.3.1 | Who scouts crop (select one) | | |
| 4.3.1.1 | Independent or in-house Farm Employed PCA, with written report to grower. | 3 | W |
| 4.3.1.2 | Dealer/Co-op Employed PCA, with written report to grower. | 2 | W |
| 4.3.1.3 | Non-PCA scout, with written report to grower, or grower is scout and keeps records. | 1 | W |
| 4.3.1.4 | Incomplete scouting report, regardless of scout qualifications. | NQ | |

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| 4.3.2 | What scouting system is used (select one) | | |
| 4.3.2.1 | Scouting is systematic and covers the entire acreage by sampling in blocks of no more than 20 acres each. | 4 | F |
| 4.3.2.2 | Scouting focused on hot spots and previous problem areas only. | 3 | F |
| 4.3.2.3 | Scouting focusing on edges of field. | 1 | F |

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| 4.3.3 | Scouting frequency (select one) | | |
| 4.3.3.1 | Scout inspects orchard at least weekly bloom to harvest. | 3 | F |
| 4.3.3.2 | Pests are scouted less than weekly bloom to harvest. | 2 | F |
| 4.3.3.3 | Documented scouting is performed monthly or less bloom to harvest. | NQ | |

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| 4.3.4 | Scouting and monitoring technique (select all that apply) | | |
| 4.3.4.1 | Beneficials that impact pest dynamics are monitored during scouting activities and a written report given to the grower. | 3 | F |
| 4.3.4.2 | At least 3 insect pest species are monitored using pheromone traps/lures. | 3 | F |
| 4.3.4.3 | Weather is factored into the decisions concerning scouting technique. Example, the increase in temperature will accelerate the development of mites and increase the need for more frequent scouting. For disease control the scouting technique and frequency are adjusted based upon rain patterns and moisture during the bloom period. | 3 | W |
| 4.3.4.4 | Field personnel not involved with scouting are trained to observe pest problems and report to the grower/PCA. | 3 | W |
| 4.3.4.5 | Surrounding neighbors' fields are observed and pest control program adjusted to account for "neighboring field affects." | 4 | F |
| 4.3.4.6 | Orchard is mapped for soil type, weed populations, disease, and insect infestation areas. | 3 | F |
| 4.3.4.7 | Aerial photography is used to scout for changes in growth patterns in the orchard at least once in the past three years. | 1 | F |
| 4.3.4.8 | None of the above apply | 0 | |

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| 4.4 | Post harvest activities (select all that apply) | | |
| 4.4.1 | Ripe unharvested fruit and mummy fruit are knocked to the ground before leaf fall in the autumn to reduce disease inoculum. | 4 | F |
| 4.4.2 | Mummy fruit are collected during winter pruning and removed from the orchard. | 3 | F |
| 4.4.3 | Written evaluations of disease and insect damage and irrigation deficiencies are made at harvest to predict next year's potential problems. | 3 | W |
| 4.4.4 | None of the above apply | 0 | |

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| 4.5 | Pesticide choices (select all that apply) | | |
| 4.5.1 | Pesticide Use Reports are maintained for a minimum of the last 3 years (during the first year of participation in the program, 2 prior years of records will suffice for these points). | 3 | W |
| 4.5.2 | Grower has resources to determine the leaching potential for products. | 3 | W |
| 4.5.3 | At least one pest species is managed using pheromone mating disruption. | 5 | F |
| 4.5.4 | The pH of the source of water used in pesticide mixing has been tested in the last 36 months. | 3 | F |
| 4.5.5 | None of the above apply | 0 | |

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| 4.6. | Pesticide applications (select all that apply) | | |
| 4.6.1 | Pesticide applications are timed to minimize effects on bees, following university guidelines when not specified on the label. | 3 | F |
| 4.6.2 | Grower maintains current information on impact of pesticides on beneficials. | 3 | W |
| 4.6.3 | All persons responsible for on-site supervision of pesticide application have a Private Applicators License, Qualified Applicators Certificate, or Qualified Applicators License (includes commercial applicator businesses), for both restricted and general use pesticides. | 3 | W |
| 4.6.4 | Equipment maintenance logs maintained. | 3 | W |
| 4.6.5 | None of the above apply | 0 | |
| 4.6.6 | Bonus: Sensor-controlled sprayer or tower spray equipment is used. | 5 | W |

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| 4.7 | Pesticide equipment calibration (select one) | | |
| 4.7.1 | Equipment calibration has been documented within 1 month prior to application and after every repair or modification. | 5 | W |
| 4.7.2 | Equipment calibration has been documented within 2 month prior to application and after every repair or modification. | 3 | W |
| 4.7.3 | Equipment calibration is not documented as above. | 0 | |

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| 4.8 | Drift Management Plan (select one) - Drift management plan has been developed and documented applicator training conducted with workers. If a commercial applicator is used for all pesticide applications, plan has been reviewed by applicator. | | |
| 4.8.1 | Yes | 3 | W |
| 4.8.2 | No | 0 | |

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| 4.9 | Weed Control Practices - berm/tree row (select one) | | |
| 4.9.1 | Berm or tree row strip is managed by non-chemical means only. | 2 | F |
| 4.9.2 | Berm or tree row strip is managed by chemical means. | 0 | |

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| 4.10 | Weed Control Practices - row middles (select one) | | |
| 4.10.1 | Row middles are managed by mowing. | 3 | F |
| 4.10.2 | Row middles are managed by discing. | 2 | F |
| 4.10.3 | Row middles are managed by chemical mowing (low rate of glyphosate). | 1 | F |
| 4.10.4 | Row middles are managed by chemicals (other than chemical mowing). | 0 | |

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| 4.11 | Dormant management practices to control scale, mites and peach twig borer. (select one) | | |
| 4.11.1 | No dormant spray is used. | 4 | F |
| 4.11.2 | Only oil is used for insect control during dormant period. | 3 | F |
| 4.11.3 | Combination of non-OP insecticide and oil used during dormant period. | 2 | F |
| 4.11.4 | OP insecticides are used during the dormant period. | NQ | |

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| 4.12 | Insect Control Practices (select all that apply) | | |
| 4.12.1 | Peach Twig Borer scouting has been done and no pesticide applications are needed; OR scouting has indicated the need for Peach Twig Borer control and <i>Bacillus thuringiensis</i> (Bt), diflubenzuron, methoxyfenozide, spinosad or mating disruption are used. | 3 | F |
| 4.12.2 | No pesticide applications are made for Peach Twig Borer; OR PTB is monitored using degree day accumulation calculations and in field trapping; OR PTB is treated using mating disruption and additional scouting is done prior to any other PTB treatments. | 3 | F |
| 4.12.3 | No pesticide applications are made for Oriental Fruit Moth; OR OFM is monitored using degree day accumulation calculations and counts from in field traps; OR OFM is treated using mating disruption and additional scouting is done prior to any other OFM treatments. | 3 | F |
| 4.12.4 | As trees come into bloom, leaves are monitored for Katydid damage or orchard ground cover monitored for katydid nymphs. | 2 | F |
| 4.12.5 | None of the above. | 0 | |
| 4.12.6 | Bonus: A plot of sunflowers of at least 0.3 acres has been planted next to the orchard in the spring as habitat for the alternate host of the beneficial <i>Macrocentrus</i> sp. | Bonus: 5 | F |

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| 4.13 | Prior to any treatment for web spinning mites, monitoring for both pest and predators has been done and the economic threshold has been reached. If no chemical treatments for mites are made, add the 4 points. | | |
| 4.13.1 | Yes | 4 | F |
| 4.13.2 | No | 0 | |

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| 4.14 | A Brown Rot management plan is in place, which considers changes in weather conditions and enhanced disease potential sprays during the bloom period. This plan describes the fungicides to be used and the plans for pre-harvest fungicides for mid and long season varieties. | | |
| 4.14.1 | Yes | 4 | W |
| 4.14.2 | No | 0 | |

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| | Addendum for Nectarine crops: | | |
| 4.15 | Western Flower Thrips Control in Nectarines. (select all that apply) | | |
| 4.15.1 | Resident vegetation is not disked or mowed from bloom to petal fall. | 2 | F |
| 4.15.2 | If a late season pesticide application has been applied for thrips, monitoring was done when fruit began to color. | 1 | F |
| 4.15.3 | Neither of the above. | 0 | |

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| | Addendum for Plum crops: | | |
| 4.16 | Codling Moth Control in Plums (select all that apply) | | |
| 4.16.1 | Codling Moth infestation records and treatment records are maintained from previous years. If orchard has a history of codling moth problems, pheromone traps are also used to monitor codling moth levels (or pheromone mating disruption is used); if pheromone traps are used and insecticide application is made, degree-day calculations and twilight temperatures are also recorded. | 4 | F |
| 4.16.2 | Not as above. | 0 | |

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| 5.0 | Orchard Re-Establishment Practices – Note: this section applies only to fields established or re-established after the first year of application for certification and by the current owner/management. | | |
| 5.1 | Field monitoring. | | |
| 5.1.1 | Spring-Summer mapping or aerial photography is used to analyze growth patterns of trees. | | |
| 5.1.1.1 | Yes | 4 | F |
| 5.1.2.1 | No | 0 | |

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| 5.1.2 | Soil and root samples have been analyzed to identify and quantify nematode populations. | | |
| 5.1.2.1 | Yes | 4 | F |
| 5.1.2.2 | No | 0 | |

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| 5.2 | Use of chipping for tree disposal. (select one) | | |
| 5.2.1 | Trees were only chipped and rototilled into the soil. | 4 | F |
| 5.2.2 | Trees were only chipped and delivered to a co-generation plant. | 3 | F |
| 5.2.3 | Trees burned | 0 | |

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| 5.3 | Bonus Point: Use glyphosate to treat tree stumps at least 60 days prior to removal. | | |
| 5.3.1 | Yes | Bonus: 5 | F |
| 5.3.2 | No | 0 | |

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| 5.4 | Fumigation reduction. (Select one) | | |
| 5.4.1 | Fallow period of at least 24 months and no fumigant used. | 4 | F |
| 5.4.2 | Fallow (if any) was less than 24 months, but no fumigant was used. | 3 | F |
| 5.4.3 | Fumigant was used, but not methyl bromide and only in tree strips. | 2 | F |
| 5.4.4 | Solid fumigation was used (not methyl bromide). | 0 | |
| 5.4.5 | Methyl Bromide was used. | NQ | F |

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| 5.5 | Deep ripping. (Select one) | | |
| 5.5.1 | Field was ripped at least 20 inches deep within 6 months of tree removal. | 2 | F |
| 5.5.2 | Field was not deep ripped at least 20 inches deep within 6 months of tree removal. | 0 | |

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| 5.6 | Trees painted or wrapped within three months of planting to protect from sunburn (prevention of sites for insects and disease) and rodent damage. | | |
| 5.6.1 | Yes | 2 | F |
| 5.6.2 | No | 0 | |

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| 6.0 | Chain of Custody Management - 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. | | |
| 6.1 | How are procedures for handling Protected Harvest certified crops communicated to staff? (select one) | | |
| 6.1.1 | Specific written standard operating procedures (SOP) for handling are in place and are distributed to employees and/or posted. | 5 | W |
| 6.1.2 | Only a summary of procedures is included in other company documentation. (E.g. Production procedure etc.) | 3 | W |
| 6.1.3 | Procedures are only verbally communicated to staff with no formal written procedure. | 1 | W |
| 6.1.4 | No procedures are in place. | 0 | |

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| 6.2 | What documented employee training methods are used? (select one) | | |
| 6.2.1 | Employees attend special handling training sessions. | 3 | W |
| 6.2.2 | Employees are in a documented handling mentoring program with experienced staff. | 1 | W |
| 6.2.3 | Employees are trained, but training is not documented. | 0 | |

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| 6.3 | Which of the following written tracking mechanisms are used? (select all that apply) | | |
| 6.3.1 | Harvest records include a unique field and harvest identification. (E.g. field tags, harvest log, etc.) | 3 | W |
| 6.3.2 | Storage records show the unique product lot identifications and quantities in inventory. If your operation does not store product within the certification program, award yourself points. (E.g. warehouse log, bin log, etc.). | 3 | W |
| 6.3.3 | Distribution records identify the unique product identifications and quantities distributed. (E.g. bill of lading, pull sheet, warehouse log, etc.). | 3 | W |
| 6.3.4 | 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 |

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| 6.4 | What methods are used to ensure the segregation of certified product from non-certified product? (select one) | | |
| 6.4.1 | No separation measures are needed because our facilities only store certified product. | 5 | W |
| 6.4.2 | Designated storage units are used that solely house certified or non-certified product at any given time. | 4 | W |
| 6.4.3 | 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 |
| 6.4.4 | Certified and non-certified product is mixed within the same bins, and physical barriers are used (e.g. chicken wire, paper, etc.). | 3 | W |
| 6.4.5 | 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 | |

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| 6.5 | Which of the following describes your product tracking capability? (select all that apply) | | |
| 6.5.1 | Procedures are in place that allow for distributed products to track back to the field of origin. | 4 | W |
| 6.5.2 | A system is in place that can show where harvest from an individual field was eventually distributed. | 4 | W |
| 6.5.3 | Distributed certified product cannot be reconciled to harvest yield and marketable yield data from certified fields. | 0 | |