

BloomCheck®

Certification Practice Standards, Practice Points, and Audit Requirements

June 2018
Version 1.2



Certified by Protected Harvest



Table of Contents

| | |
|--|----|
| Introduction..... | 2 |
| 1. Production Management - FARM..... | 3 |
| 2. Production Management - BLOCK..... | 5 |
| 3. Pest Management - FARM..... | 7 |
| 4. Pest Management – BLOCK..... | 12 |
| 5. Water Management - FARM..... | 14 |
| 5. Water Management – BLOCK..... | 16 |
| 7. Energy Management – FARM..... | 20 |
| 8. Energy Management – GREENHOUSE..... | 23 |
| 9. Postharvest Management – FARM..... | 25 |
| 10. Habitat Management – FARM..... | 28 |
| 11. Materials Handling – FARM..... | 30 |
| 12. Social Responsibility – FARM..... | 33 |
| Appendix I – BloomCheck® Pesticide Do Not Use List of Pesticide Active Ingredients..... | 37 |
| Appendix II. Some Trade Names of Materials Containing Do Not Use Pesticide Active Ingredients..... | 38 |

Introduction

In 2012 & 2013 the California Cut Flower Commission (CCFC) assembled a self-assessment of best management practices for the sustainable production of cut flowers in California. The practices fell into two groups, those that pertained to the whole farming operation, in other words if used they would be done in every management unit, and those that might differ from one management unit to another. The self-assessment practices were grouped into 13 modules according to the part of flower production to which they pertained. Modules with 'FARM' in the title contain the whole farm practices and modules with 'BLOCK' in the title are those that might vary from one management unit to another. All the practices in topic areas in the last 4 modules are ones that always apply to all management units on the entire farm so there are only 'FARM' modules for them.

There are more than 420 farming practices in the self-assessment workbook. Approximately 200 of the most impactful practices were selected for CCFC's sustainable certification program and are listed in this Companion Document. These practices were submitted to Protected Harvest for accreditation. Protected Harvest had the practice standards scientifically peer reviewed and then voted to approve them on December 16, 2014.

To achieve certification, a flower production management unit must achieve at least 50% of the available practice points in each module as well as 70% or more of the available practices points in all modules combined. Furthermore, pesticides containing the active ingredients listed in Appendix I as Prohibited cannot have been used on the management unit during the last cropping cycle.

On the following pages are tables listing the practices in each module that occur in the self-assessment workbook that were designated as certification questions. To receive the number of practice points indicated for the practice it must have been used on the flower farm and in the production block during the previous calendar year. Listed in the far-right column for each practice is what the auditor must see to verify that the practice was used. The Question Number in each module table refers to the question number assigned to the practice in the self-assessment workbook. Since not all practices were selected for certification, many of these numbers are not consecutive.

1. Production Management - FARM

To be competitive in the marketplace, California flower farmers need to produce high quality flowers and greens that are in demand, while maintaining profitability. Therefore, one of the primary goals of the self-assessment workbook is to provide a roadmap for producing quality flowers and greens at competitive pricing. The practices in the Production Management module focus on the management of soil/ planting substrate, flower nutrition, application of nutrients, and quality control. Nitrogen management on California farms is a major concern due to the high levels of nitrates found in the ground water under many agriculture areas¹. As a result, Regional Water Quality Control Boards have developed regulatory requirements for nitrogen management. Consequently, another goal of this chapter is to include practices that optimize nutrient management, particularly nitrogen, on the flower farm, and those that minimize the offsite movement of nutrients and other water quality impediments, such as sediments. The practices included in this module are those that are used throughout the flower farm and therefore only need to be assessed once each year for the entire farm. Other practices may differ from one management unit to another and are therefore assessed for each management unit on the farm. These practices are found in the Production Management – BLOCK module.

Be sure to review both the Production Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Audit requirements |
|--|--|----------------------|--|
| I. Production Management - Whole Farm | | | |
| 1 | Irrigation water was sampled for nitrates and, if present, the amount was accounted for when determining nitrogen fertilization rates and timing | 3 | Lab results of water sample from past year; fertilization plan |
| Fertilization: Equipment Calibration | | | |
| 2 | Solid fertilizer application equipment was calibrated | 1 | Equipment maintenance record |
| 3 | Fertilizer injectors were calibrated at least every 6 months | 1 | Fertilizer injector equipment maintenance record |
| Erosion | | | |

¹ Harter, T. et al. 2013. Addressing nitrate in California Drinking Water: With a focus on Tulare Lake Basin and Salinas Valley Ground Water. Report for the State Water Resources Control Board Report to the Legislature. Univ. Calif. Davis. 92pp.

I. Production Management FARM

| | | | |
|----|---|---|---|
| 4 | Water permeable mulches or planted ground covers were used in non-farmed areas to minimize erosion due to wind and water | 3 | Photo record or visual inspection of block |
| 8 | Ditches have been planted with grass, hardened, or lined with material such as plastic or weed matting to prevent down-cutting and other types of erosion | 3 | Photo record or visual inspection of block |
| 11 | Potting mixes or other substrates for growing plants were stored in a manner that minimizes their potential for offsite movement (e.g., using storage bins, tarping storage piles, or surrounding storage piles with berms). If potting mixes and/or growing substrates not stored on the farm, Answer (click on) 'N/A' | 1 | Photo record or visual inspection of block |
| | Quality Control & Customer Service | | |
| 12 | Internal product quality assurance protocols have been established for flowers grown by the company (including grades and standards), and processes were in place to meet them and to respond to any identified problems. They were reviewed within the last 12 months | 5 | Copy of protocols and processes. Record of review dates |
| 13 | The company maintains customer service protocols and tracking system for customer complaints, returns, and comments. They were reviewed within the last 12 months | 3 | Copy of protocols; description of tracking system, record of review dates |
| | On-Farm Research | | |
| 17 | The flower farm has established and continues to implement a strategic research and/or development plan with a goal to continuously improve the business | 5 | Copy of strategic research or development plan |
| | Production Management Planning | | |
| 18 | A production management plan for the flower farm has been developed and documented, and includes production goals, and elements such as crop nutrition, substrate management, erosion management, and crop residue management | 3 | Copy of production management plan with required elements |

2. Production Management - BLOCK

Practices included in this module are those that may vary from one production block to another. A production block can be defined as an area of production on the farm that is the smallest area that is managed uniquely from another area. Each production block should be assessed individually using this module.

Be sure to review both the Production Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Audit requirements |
|--------------|--|----------------------|---|
| | 2. Production Management - BLOCK | | |
| | Soil Management | | |
| 1 | In the management unit being assessed, flowers and/or greens are grown in in-ground soil (i.e. not in soil in pots) If No, click 'No' and skip questions 2-6 | -- | -- |
| 2 | The soil types in the production areas have been identified (e.g., using NRCS soils maps) and soil properties including soil moisture holding capacity, cation exchange capacity (CEC), texture, and rooting depth are known and recorded for each soil type and applied to soil management planning and practices | 3 | soil maps of farm; list of soil properties for each soil type; soil management plan |
| 3 | The soil was sampled for organic matter content within the last two years and a program is in place to raise soil organic matter content (e.g., adding compost annually, growing and incorporating a grass-based cover crop, or incorporating crop residues annually) | 1 | soil test results from soils lab of organic matter content; soil management plan |
| 4 | Pick the tillage frequency for the last cropping cycle | | |
| 4.1 | Not tilled | 3 | production block activity record |
| 4.2 | Tilled once | 3 | production block activity record |
| 4.3 | Tilled twice | 1 | production block activity record |
| 4.4 | Tilled three or more times | 1 | production block activity record |

2. Production Management BLOCK

| | | | |
|----|---|----|---|
| 6 | Fallow ground was planted with vegetation, and the species were chosen to enhance soil quality (e.g., nitrogen-fixing plants to increase N, or forage grasses with high carbon content to add organic matter/carbon) | 1 | production block activity record |
| | Flower Nutrition Management: Monitoring | | |
| 7 | If a plant nutrient-related production problem existed, plant tissue was sampled and analyzed for important macro and micro nutrients to identify the problem and correct it by altering fertilization accordingly | 1 | plant tissue lab analyses results; fertilization plan |
| 10 | The soil or planting substrate was sampled pre-planting and analyzed for macro and micro nutrients, electroconductivity (EC) and pH, and the results were used to determine fertilizer makeup, rate and timing | 1 | soil sample lab analyses results |
| 12 | A written nutrition management plan was developed and implemented for this production block for each planting | 3 | Copy of nutrition management plan |
| 16 | The nutrition management program was based on a 'budget' approach, where plant demand is the primary measure of the kinds and amounts of nutrients needed, and the amounts supplied are calculated from all possible sources (e.g. irrigation water, substrate/soil, compost, or any other additives) | 3 | Copy of nutrition management plan |
| | Nutrient Application | | |
| 22 | Compost was added to the soil or planting substrate | 1 | production block management activity records |
| 25 | Fertigation was used If No then click 'No' and skip #26 | -- | -- |
| 26 | The frequency, timing and rate of fertigation was dictated by measured plant demand, resulting in a 'spoon feeding' of small amounts of nutrients over time | 3 | production block fertilization records |
| | Crop Residue Management | | |
| 27 | Crop residues were worked back into the soil or planting substrate or composted on the farm | 1 | production block activity records |
| 29 | Crop residues were sent to a regional green waste recycling program | 1 | Records of materials sent to green waste center |

3. Pest Management - FARM

Integrated pest management (IPM) is a fundamental part of any sustainable farming program. It is cost-effective, flexible, and resilient. Pest management practices being used on the flower farm are assessed using two modules. This one, Pest Management – Whole Farm, assesses IPM practices that are used throughout the entire farm on all production blocks. The other, Pest Management – Management Unit, assesses practices that may vary from one production block to another. One important goal of the Pest Management modules is to provide a roadmap for sound pest management decision-making on the flower farm. The self-assessment questions in these modules will help identify the strengths of your IPM program and any gaps that might exist. Some will list practices not currently being used but might be worth considering for implementation next year. It focuses on pest prevention, pest monitoring, and control methods if a pest problem develops (Remedial Control).

Another important goal of the Pest Management modules is to reduce pesticide risk on the flower farm. Pesticides, whether organically approved or conventional, are an important component of most pest management programs. Because they are designed to kill pests their use involves the risk of side effects. The goal of IPM, and therefore this module, is to reduce not only economic risks from pest outbreaks, but also the potential risks to the environment and the people in it posed by pesticides. Many of the practices contained in the modules are focused on using pesticides only when necessary. If their use is required, there are practices included that ensure they are handled safely and applied in ways that minimize the amount required and maximize their efficacy.

Be sure to review both the Pest Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Audit requirements |
|--------------|--|----------------------|--|
| | 3. Pest Management - FARM | | |
| 2 | Key employees responsible for pest management received updated IPM training by participating in on-line or in-person continuing education classes (e.g., via universities, community colleges, and/or private companies) | 3 | class attendance records or continuing ed certificates |
| | Pest Prevention: Light Brown Apple Moth (LBAM) & Other Insects | | |
| 3 | The company participated in state and/or county trapping programs for invading exotic pests such as LBAM | 1 | CDFA certificate of participation |

3. Pest Management FARM

| | | | |
|----|---|---|--|
| 5 | A list of shipped planting material at highest risk for harboring invasive pests, such as LBAM and/or diseases, was maintained and posted, and employees were trained identify them and to follow documented protocols for rejecting shipments | 1 | List of plant materials of high risk for LBAM and other invasive pests infestation |
| 7 | High-risk planting material was inspected for pests upon arrival, and infested material was destroyed in an isolated area away from production sites. If LBAM-infested material was found it was destroyed per LBAM program guidelines. For more information see: www.cdfa.ca.gov/plant/lbam/rpts/LBAM_BMP-Rev_3.pdf | 3 | Inspection activity records |
| 8 | A plan for preventing LBAM from entering, infesting, or becoming established on the flower farm was created and employees were trained to implement the plan | 3 | Copy of LBAM infestation prevention plan |
| 9 | Vents, doors, and other openings in the screenhouse/greenhouse were appropriately constructed and/or operated to prevent entry of pests, such as LBAM and mites | 3 | Visual inspection of screenhouse/greenhouse |
| 10 | Pheromone mating disruption was used to prevent LBAM from becoming established on the flower farm | 1 | Photo record or visual inspection of pheromone dispensers |
| 11 | The flower farm complied with California Department of Food and Agriculture Standards of Cleanliness, Food and Agriculture Code §3060.2(b). Commercially clean is defined by Code 3060.2(b) as "pests are under effective control, are present only to a light degree, and that only a few of the plants in any lot or block of nursery stock or on the premises show any infestation or infection, and of these none show more than a few individuals of any insect, animal or weed pests or more than a few individual infestations of any plant disease." (CDFA compliance agreement required practice in LBAM quarantine zones) | 3 | Pest monitoring records for production block |
| | Pest Prevention: Viruses, Bacteria & Fungi | | |
| 15 | Planting material and flowers brought onto the farm known to carry pest viruses and/or bacteria was tested for infestation and properly disposed if tests were positive | 3 | Plant testing activity records and/or lab test results |

3. Pest Management FARM

| | | | |
|------|---|----|---|
| 16 | Containers, tools, and equipment that contacted contaminated plants or media were cleaned with water, treated with heat, (e.g., steam or hot water), or disinfected before reuse | 5 | Visual inspection of cleaning process |
| | Pest Monitoring: General | | |
| 18 | Pest monitoring was done by in-house staff; If No then click 'No' and skip #18.1 and #18.2 | -- | |
| 18.1 | Documented pest monitoring protocols have been established and used to train appropriate employees | 3 | Copy of protocols & training records |
| | Pest Monitoring: Light Brown Apple Moth (LBAM) | | |
| 19 | The flower farm is in a Light Brown Apple Moth (LBAM) quarantine zone If No then click 'No' and skip #20 to #25 | -- | -- |
| 20 | The flower farm has had an infestation of LBAM If Yes then click 'Yes' and skip #21 | -- | -- |
| 21 | An assessment of the risk of farm infestation by LBAM has been completed | 5 | Copy of risk assessment and results |
| 22 | An employee was designated to oversee the LBAM CDFA Best Management Practices program for the flower farm, maintain current knowledge of monitoring techniques, and train staff to recognize life stages and signs of infestation and to keep written records of activities mandated by the LBAM Program (CDFA compliance agreement required practice in LBAM quarantine zones) | 3 | Name of employee and list of required records and mandated activities |
| 23 | Farm supervisors and staff have been trained to recognize LBAM life stages and behavior, symptoms of damage caused by each life stage, and its preferred host plants with special attention to in-coming shipments and flower farm surroundings (CDFA compliance agreement required practice in LBAM quarantine zones) | 5 | Training records |
| 24 | To demonstrate the farm is free from LBAM, regular monitoring was done and written records of monitoring dates, findings, and necessary actions were kept (CDFA compliance agreement required practice in LBAM quarantine zones) | 3 | LBAM Monitoring results & records of actions taken if they were necessary |

3. Pest Management FARM

| | | | |
|----|---|----|--|
| 25 | The flower farm maintains records required under the LBAM compliance and BMP agreements and retained in printed form for at least 2 years since the last confirmed LBAM occurrence on the farm. For more information see: www.cdfa.ca.gov/plant/lbam/rpts/LBAM_BMP-Rev_3.pdf (CDFA compliance agreement required practice in LBAM quarantine zones) | | LBAM program compliance record files |
| | Remedial Control: Light Brown Apple Moth (LBAM) | | |
| 26 | If LBAM does not exist on the flower farm skip #27 to #29 | -- | -- |
| 27 | A sample of the LBAM infestation was sent to CDFA for proper identification, using LBAM program guidelines for shipment of specimens. Meanwhile the plants in the area of suspected infestation were defoliated to remove LBAM egg-laying sites while waiting for an official identification | | Production block activity records for LBAM infestation control |
| 28 | A sample of the LBAM infestation was sent to CDFA for proper identification, using LBAM program guidelines for shipping specimens, and the area of suspected infestation was spot-treated with an acceptable material while waiting for an official identification | | Production block activity records for LBAM infestation control |
| 29 | A sample of the LBAM infestation was sent to CDFA for proper identification, using LBAM program guidelines for shipping specimens. While waiting for an official identification, the entire management unit where the infestation was found was treated with an acceptable material | | production block activity records for LBAM infestation control |
| | Remedial Control: Other Pests | | |
| | Pesticide Management | | |
| 35 | Pesticide use including pesticide name and application date, site, and rate was reported to the county Agriculture Commission each month | | State Law |
| 36 | Employees who handle and use pesticides were appropriately trained, which included use of proper notification and/or signage in treated area | | State Law |
| 38 | Sprayer calibration and spray coverage tests were done at least once a season and were based on manufacturers' recommendations and spray target characteristics (e.g., crop canopy) | | Representative sprayer maintenance records |
| 42 | Workers who handle or apply pesticides were provided with necessary personal protective equipment (PPE) and an area to shower after applications, clean PPE clothing was stored separately from personal clothing and provided to workers each day, and employees were not allowed to take PPE home | | State Law |

3. Pest Management FARM

| | | | |
|----|--|---|---|
| 43 | The following information about each pesticide application was posted at a central farm location: treated area, time and date; product name, active ingredient(s), and associated adjuvants; and restricted entry interval | 1 | State Law |
| 49 | Pesticide resistance management was practiced by rotating pesticides with different 'modes of action' from each spray to the next | 1 | Pesticide use reports and copy of pesticide resistance management protocols |
| 50 | Pesticides were selected, and applications were timed to minimize risks to beneficials | 1 | Pesticide use reports |
| | Pest Management Planning | | |
| 52 | A pest management plan with goals for the flower farm has been developed and documented, and includes elements such as prevention, monitoring and action thresholds, and effective and safe remedial actions | 3 | Copy of pest management plan with specified elements |

4. Pest Management – BLOCK

Be sure to review both the Pest Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Auditing requirements |
|--------------|---|----------------------|---|
| | 4. Pest Management - BLOCK | | |
| | Pest Monitoring | | |
| 1 | Pest monitoring of the production block (e.g., glasshouse, shadehouse, or field) was done at least once a week | 3 | Pest monitoring records |
| 7 | Written or electronic pest monitoring records were kept and included important data such as monitoring dates, levels of specific pests, and action decisions made | 3 | Pest monitoring records |
| 10 | Pest monitoring was stratified so that specific problem areas within the field could be detected and treated | 1 | Pest monitoring records |
| 11 | Monitoring accounted for the presence of natural enemies (parasitoids or predators). | 1 | Pest monitoring records |
| 12 | Soil from in-ground areas to be planted with a crop sensitive to nematodes or other soil-borne pests was sampled and treated as necessary before planting | 1 | Soil sample lab analyses and production block activity records if actions taken |
| | Pest Prevention: General | | |
| 13 | Crop rotation was practiced to reduce pest problems | 3 | Production block activity records |
| | Pest Prevention: Diseases | | |
| | Pest Prevention: Weeds | | |
| 23 | Steam was used to control weeds | 3 | Production block activity records |

4. Pest Management BLOCK

| | | | |
|----|--|---|--|
| 24 | Organic mulches were used to control weeds | 3 | Production block activity records |
| 25 | Plastic mulches were used to control weeds | 1 | Production block activity records |
| 26 | Barriers (e.g., geotextile disks) were used in pots to control weeds | 3 | Photo record or visual inspection |
| 27 | Soil solarization was used to control weeds | 3 | Production block activity records |
| | Remedial Control: General | | |
| 28 | Economic thresholds for important pests and diseases have been established, recorded, and used for control decisions | 3 | Economic threshold specifications; pest control action records |
| 29 | An existing pest problem in planting substrate (e.g. soil or coir) was treated before planting with heat/steam or solarization | 3 | Production block activity records |
| 31 | Yellow sticky tape was used to mass trap and control pests (e.g., aphids, whiteflies, and leafhoppers) | 1 | Photo record of installed sticky tape or visual inspection |
| 32 | Beneficial predators and/or parasitoid wasps were released in the management unit and subsequent monitoring was done to verify efficacy | 5 | Production block activity records of beneficial releases |
| | Remedial Control: Diseases | | |
| | Remedial Control: Weeds | | |
| 34 | Hand-weeding was used | 3 | Production block activity records |
| 35 | Spot spraying was used to control weeds | 3 | Production block activity records |
| 37 | Herbicide resistance management was practiced by applying herbicides with different 'modes of action' at least every third spray | 1 | Pesticide use reports |
| 39 | Before spraying, buffer zones based on environmental conditions and proximity to sensitive surroundings were established to minimize non-target exposure | 1 | |

5. Water Management - FARM

One of the reasons California is the leading agriculture state in the US is due to the availability of affordable, high quality surface and ground water for irrigation. California is also the most populace state in the US and therefore affordable, high quality water is needed to support its residents, too. Because of these demands for water, this critical resource needs to be used efficiently and effectively by California flower farmers. Therefore the Water Management module focuses on practices that optimize water quality and water use efficiency.

Be sure to review both the Water Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Audit requirements |
|--------------|---|----------------------|--|
| | 5. Water Management - Whole Farm | | |
| | Water Management Training | | |
| 1 | The person in charge of irrigation for the flower farm participated in the continuing education classes required by the Regional Water Quality Control Board for the Irrigated Lands Regulatory Program | 3 | Class attendance certificate |
| | Water Source | | |
| 2 | Irrigation water can come from many sources. Which of the following sources are used on the flower farm for irrigation: | | |
| 2.4 | Captured rain water | 5 | Photo record or visual inspection of rain capture system |
| 2.5 | Recycled water from source outside flower farm | 5 | Water procurement record |
| | Pumping Plant Efficiency | | |
| 3 | Pumping plant efficiency is measured at least every three years and adjustments are made if efficiency is below 50% | 3 | Pump maintenance records |
| | Water Quality: Irrigation | | |

5. Water Management FARM

| | | | |
|----|---|---|---|
| 4 | The quality of the irrigation water has been tested within the last 12 months for appropriate elements based on the water source(e.g., well water for pH, total salts, nitrates and micronutrients of regional concern like boron), and results were used to make necessary adjustments | 3 | Irrigation water lab analyses results; water treatment action records |
| 5 | Recirculated irrigation water from flower farm is used in irrigation | 3 | Water management records |
| | Water Quality: Postharvest | | |
| 9 | Water used for hydrating flowers and greens during harvest, storage, and packing was tested within the last 12 months for total soluble salts, pH, fluorine, and chlorine, and results were used to make necessary adjustments | 3 | Water management records |
| | Water Use: Production | | |
| 11 | The total amount of water used annually for the entire facility/business was recorded and tracked to measure and manage water stewardship on the flower farm and measure effects of water management BMPs on water use | 3 | Facility water use records or water bill recording amount used |
| 12 | The total amount of water applied annually for irrigation for the entire facility/business was recorded and tracked to measure and manage water stewardship on the flower farm and measure effects of water management BMPs on water use | 5 | Water meter records/water management records |
| | Water Use: Postharvest | | See Post Harvest Module |
| | Offsite Water Movement: Storm Water | | |
| 16 | Drainage systems were built for major roads associated with the farm to capture storm water runoff | 5 | Photo record or visual inspection of drainage system |
| 19 | Storm water is collected in a tailwater pond | 5 | Photo record or visual inspection of tailwater pond |
| | Water Management Planning | | |
| 21 | A water management plan for the flower farm has been developed and documented, and includes elements such water management goals, irrigation scheduling, irrigation system maintenance and performance, water use efficiency, and runoff prevention and management | 3 | Copy of water management plan with specified elements |

5. Water Management – BLOCK

Be sure to review both the Water Management FARM and BLOCK modules before making conclusions on the comprehensiveness of the production management practices.

| Question No. | Practice | Certification Points | Auditing requirements |
|--------------|--|----------------------|--|
| | 6. Water Management - BLOCK | | |
| | Water Quality | | |
| 1 | Irrigation water for this production block required filtering If No then click 'No' and skip #2, #4, #6, #8 & #9 | -- | -- |
| 2 | The flower farm filtered the irrigation water with sand filter | 0 | Photo record or visual inspection of sand filter |
| 4 | A schedule was in place and employees were trained to manually check filter status and flushing system; the frequency was at least twice during the cropping cycle, the status was documented, and corrections are made if necessary | 1 | Filter maintenance records |
| 6 | The irrigation for this management unit was filtered with reverse osmosis filters/membrane filters | 0 | Photo record or visual inspection of reverse osmosis filters |
| 8 | The reverse osmosis filtering system is driven by a variable speed pump | 1 | Photo record or visual inspection of variable speed pump |
| 9 | A schedule was in place and employees were trained to service the reverse osmosis filtering system and it was serviced at least 3 times during the past 12 months, to maintain optimum efficiency, or a private contractor serviced the system at least 3 times during the past year | 1 | Filter maintenance records |
| | Water Use | | |
| 10 | The total amount of water applied annually for irrigation was recorded and tracked for this production block in order to improve water stewardship and measure effects of water management BMPs on water use | 5 | Production block irrigation records |
| | Water Use Efficiency | | |

6. Water Management BLOCK

| | | | |
|------|---|---|--|
| 14 | Various practices can be used to determine when to start irrigation and how much water to apply. Often, the same practices are used for both purposes. Which of the following practices were used to initiate irrigation? Answer #14.1 to #14.6 | | |
| 14.1 | Visual plant cues | 1 | Block monitoring records & irrigation scheduling records |
| 14.2 | Seasonal weather patterns | 1 | Irrigation scheduling records |
| 14.3 | Measurements from a weather station (e.g. rainfall, temperature, radiation, humidity) | 1 | Photo record or visual inspection of weather station |
| 14.4 | Soil/substrate moisture depletion measured directly using weight measures for potted plants, tensiometers for in-ground plants or other soil-based devices | 3 | Irrigation scheduling records |
| 14.5 | Direct measure of plant stress (e.g. pressure bomb) | 3 | Irrigation scheduling records |
| 14.6 | Radiation measurements | 1 | Irrigation scheduling records |
| 15 | Which of following practices were used to determine how much irrigation water to apply? Answer #15.1 to #15.6 | | |
| 15.1 | Visual plant cues | 1 | Block monitoring records & irrigation scheduling records |
| 15.2 | Seasonal weather patterns | 1 | Irrigation scheduling records |
| 15.3 | Measurements from a weather station (e.g. rainfall, temperature, radiation, humidity) | 1 | Weather station records |
| 15.4 | Soil/substrate moisture depletion measured directly using weight measures for potted plants, tensiometers for in-ground plants or other soil-based devices | 3 | Irrigation scheduling records |
| 15.5 | Direct measure of plant stress (e.g. pressure bomb) | 3 | Irrigation scheduling records |
| 15.6 | Radiation measurements | 1 | Irrigation scheduling records |
| 16 | Which type of irrigation system is used on this production block: Drip, sprinkler, flood or ebb and flow, other? | — | No points awarded, this is an information gathering question |
| 17 | A pressure regulator was installed and the system pressure was balanced | 1 | Photo record or visual inspection of pressure regulators |

6. Water Management BLOCK

| | | | |
|------|--|----|---|
| 18 | A documented schedule and process was in place and employees were trained to check for and make necessary adjustments to ensure distribution uniformity at least once every season | 3 | Copy of irrigation maintenance records |
| 19 | A documented schedule and process was in place and employees were trained to check lines for leaks, breaks, and clogs and make necessary repairs at least every other irrigation | 3 | Copy of irrigation maintenance records |
| 22 | A backflow prevention device was installed to prevent contamination of the water source if the pump stops | 1 | State Law |
| 23 | If production is on a slope, system pressure differences at the top and bottom of the slope were compensated for by running the mainline vertical to the slope with pressure controllers at each horizontal sub-line junction, and by running each sub-line horizontal to the slope with a pressure control valve in place | 3 | Physical Inspection |
| 24 | The production block is irrigated with a sprinkler system? If No then click 'No' and skip #24.1 to #24.5 | | |
| 24.1 | Employees were trained not to irrigate outdoor blocks in windy conditions (e.g., > 5mph) | 1 | |
| 24.2 | A documented schedule and process was in place and employees were trained to check for head rotation and nozzle clogging and make necessary repairs at least every other irrigation | 3 | Copy of irrigation maintenance records |
| 24.3 | A documented schedule and process was in place and employees were trained to check nozzle diameters for wear and replace worn heads as necessary every two years to ensure uniform irrigation rate and distribution uniformity | 3 | Copy of irrigation maintenance records |
| 24.4 | A small backflow device was installed on each sprinkler line to ensure water does not drain from some sprinklers between irrigation sets and to improve distribution uniformity | 1 | Photo record or visual inspection of backflow prevention device |
| 24.5 | If pots were used, they were spaced closely together to minimize water losses | 1 | Photo record or visual inspection of pot layouts |
| 25 | The production block is irrigated with a drip system? If No then click 'No' and skip #25.1 to #25.2 | -- | -- |
| 25.1 | Pressure compensating emitters were used if block is drip irrigated | 1 | Photo record or visual inspection of emitters |
| | Offsite Water Movement | | |

6. Water Management BLOCK

| | | | |
|------|---|---|---|
| 27 | Many practices can be used to prevent, minimize or mitigate the effects of runoff from irrigation. Which of the following practices are used on the production block? Answer questions #27.1 to #27.7 | | |
| 27.1 | A wetting agent like polyacrylimide (PAM) was added to irrigation water to increase water infiltration and reduce runoff | 1 | Water treatment records |
| 27.2 | Organic amendments were added to the soil to increase water infiltration | 1 | Production block management activity records |
| 27.3 | Engineered barriers or buffer strips were established between production areas, and between production areas and creeks, ponds and other surface waters to reduce and filter runoff | 3 | Photo record or visual inspection of buffer strips |
| 27.4 | Fabric was in place under container beds to slow runoff and increase water infiltration | 1 | Photo record or visual inspection of container beds |
| 27.5 | Runoff occurring during irrigation is captured in a tailwater pond or by other means of storage | 3 | Photo record or visual inspection of tailwater pond |
| 27.7 | Captured runoff is reused | 5 | Water management records |

7. Energy Management – FARM

Energy is essential for flower production and it comes in several forms; as sunlight to power photosynthesis, as fuel to power internal combustion motorized vehicles and pump motors, and as electricity to power electric motors, shop and office lights and electronic equipment. Tracking energy is very important because it is getting more and more expensive all the time, increasing the cost of production. Burning of fuel produces greenhouse gases (GHG's) affecting air quality and contributing to the atmosphere's greenhouse affects. Minimizing energy consumption saves money and reduces GHG production. Therefore, the Energy Management – Whole Farm module focuses on energy use and energy use efficiency practices that are used throughout the entire business.

| Question No. | Practice | Certification Points | Auditing requirements |
|--------------|--|----------------------|---|
| | 6. Energy Management - FARM | | |
| 1 | The total amount of energy used annually was documented and tracked by source (e.g., electricity, diesel) to measure production performance and is used to assess effects of energy BMPs on energy use | 5 | Fuel use records, electrical use records |
| | Energy Generation | | |
| 5 | Energy was generated on site for the flower farm; If No then click 'No' and skip #6 and #7 | 3 | Photo record or visual inspection of power generation equipment |
| 6 | How is the energy generated? Answer #6.1 to #6.5 | | |
| 6.1 | Wind | 0 | |
| 6.2 | Solar | 0 | |
| 6.3 | Biodiesel production | 0 | |
| 6.4 | Hydrogen fuel cell | 0 | |
| 6.5 | Cogeneration | 0 | |

7. Energy Management FARM

| | | | |
|-----|---|---|--|
| 8 | The following alternative fuels were used on the flower farm: Answer #8.1 to #8.4 | | |
| 8.1 | Biodiesel | 1 | Fuel use records |
| 8.2 | Propane | 1 | Fuel use records |
| 8.3 | Natural gas | 1 | Fuel use records |
| 8.4 | Ethanol/gasoline mixtures | 1 | Fuel use records |
| | Energy-use Efficiency: Vehicles | | |
| 9 | A documented schedule and process was in place and employees were trained to inspect and maintain engines for optimal operating efficiency | 1 | Copy of engine maintenance schedule and training records |
| 14 | Flower and/or greens shipments were consolidated before shipping so that trucks were as full as possible before leaving facility | 3 | Photo record or visual inspection or shipping policy and/or truck packing activity records |
| | Energy-use Efficiency: Stationary Motors | | |
| 15 | Variable-speed drives have been installed on motors that experience variable loads | 5 | Photo record or visual inspection of variable speed pumps |
| 16 | Electrical pump efficiencies were measured and necessary adjustments to improve efficiencies were completed within the last two years | 3 | Pump efficiency test results; pump maintenance records |
| | Energy Use Efficiency: Postharvest & Cold Storage | | |
| 18 | A documented schedule (at least twice a year) and process is in place and employees are trained to check the seams between doors and walls in cold storage rooms for air leaks and reseal them if necessary | 1 | Cooling system maintenance records |
| 19 | High-traffic doors to rooms that are heated or cooled (e.g. cold storage, greenhouses) were equipped with strip/energy curtains | 1 | Photo record or visual inspection of high traffic doors |

7. Energy Management FARM

| | | | |
|----|---|---|---|
| 21 | The operational efficiency of the storage and cooling system was ensured by cleaning and maintaining equipment at least once a year, and by measuring its efficiency at least every two years and making necessary cost-effective upgrades/replacements | 1 | Cooling system maintenance records |
| 23 | Total energy used in cooling and storage was determined annually and tracked over time | 5 | Energy consumption records and calculations for cooling and storage |
| | Energy Use Efficiency: Shop & Offices | | |
| | Energy Audit | | |
| 28 | An energy audit of the flower farm was completed during the last five years | 5 | Copy of energy audit |
| 29 | Audit findings were used to develop, or refine and implement an energy management plan designed to optimize energy-use efficiency | 5 | Copy of energy management plan |
| | Energy Management Planning | | |
| 30 | An energy management plan for the flower farm has been developed and documented, and includes goals (e.g., energy targets) and elements related to equipment, pumps, lighting, heating and cooling. | 3 | Copy of energy management plan with specified elements |

8. Energy Management – GREENHOUSE

Energy management in a greenhouse involves many practices that differ from those used to manage energy in other types of flower production, such as outdoor and shade house, justifying a module devoted to practices that optimize energy use in greenhouses. The practices are grouped into the general topic areas of greenhouse covering, energy losses, and heating. Each greenhouse should be assessed as a separate production block in relation to energy use, because its energy use may differ from another greenhouse because of age, different equipment, or other factors. If you do not use greenhouses to grow flowers skip all the questions in this module and move to another one.

| Question No. | Practice | Certification Points | Audit requirements |
|--------------|--|----------------------|---|
| | 8. Energy Management - Greenhouse | | |
| | Greenhouse Covering | | |
| * | The production block is inside a greenhouse (Yes/No) | | |
| I | The greenhouse was covered with: Choose one | | |
| I.1 | Single pane glass | 0 | No points given for this practice |
| I.2 | Double-pane glass | 3 | Photo record or visual inspection of covering |
| I.3 | High-performance low-energy glass | 3 | Photo record or visual inspection of covering |
| I.4 | 2-wall polycarbonate | 3 | Photo record or visual inspection of covering |
| I.5 | 5-wall polycarbonate | 5 | Photo record or visual inspection of covering |
| I.6 | Acrylic | 1 | Photo record or visual inspection of covering |
| I.7 | Single poly film | 1 | Photo record or visual inspection of covering |
| I.8 | Double poly film | 3 | Photo record or visual inspection of covering |

8. Energy Management GREENHOUSE

| | Energy Losses from Greenhouse | | |
|------|---|---|--|
| 4 | Doors, vents, fan openings, and other openings in the greenhouse covering were weather-stripped | 3 | Photo record or visual inspection of doors, vents and other openings |
| 5 | A process was documented, and staff were trained to check the greenhouse covering for holes or broken panes at least once a year, and repairs made if necessary | 1 | Photo record or visual inspection of greenhouse covering |
| 6 | The greenhouse was equipped with automatic doors, which are operational, to conserve heating and cooling | 3 | Photo record or visual inspection of automatic doors |
| 9 | A humidity/energy curtain was installed and used to optimize heating | 5 | Photo record or visual inspection of curtain |
| | Greenhouse Heating | | |
| 11 | The greenhouse heating is derived from: Choose one | | |
| 11.1 | Hot water boilers | 0 | No points given for this practice |
| 11.2 | Wall installed unit heaters | 0 | No points given for this practice |
| 11.3 | Heat pumps | 1 | Photo record or visual inspection of heat pump |
| 11.4 | Cogeneration | 3 | Photo record or visual inspection of cogeneration system |
| 13 | Horizontal air flow fans are used to get a more uniform temperature in the growing area | 1 | Photo record or visual inspection of fans |
| 14 | All boilers, heating pipes, and heating transfer lines were insulated | 3 | Photo record or visual inspection of heating pipes and/or transfer lines |
| 16 | The heating system was maintained in the last 12 months to ensure it was operating at peak efficiency and adjustments were made if necessary | 3 | Heating system maintenance records |
| 17 | Climate control software was used to optimize greenhouse heating and cooling | 3 | Photo record or visual inspection of software |

9. Postharvest Management – FARM

Postharvest management of flowers entails practices that have a significant influence on flower quality and vase life. They include the use of water, water additives, energy for cooling and transportation, and packaging. All of these practices involve inputs, which cost money. Optimizing postharvest practices will reduce inputs and save money. Therefore the Postharvest Management - Whole Farm module focuses on practices used in handling the flowers once they have been harvested, placed in cold storage, packing and distribution.

| Question No. | Practice | Certification Points | Audit requirements |
|--------------|--|----------------------|--|
| | 9. Postharvest Management - FARM | | |
| | Harvest Operations | | |
| 1 | To minimize flower handling and storage time, and optimize shipping potential, the best timing of harvest has been determined and documented for each flower species and the protocols were followed | 3 | Harvesting schedule and protocols |
| 2 | Employees were trained to keep harvest utensils clean, disinfected, and sharp | 1 | Training records or photo record or visual inspection of tools |
| 3 | Harvested plants were immediately placed in proper post-harvest solutions based on flower or greens species | 5 | Harvest protocols, photo record, or visual inspection of harvest operations |
| 4 | Post-harvest solutions were monitored to ensure consistency among batches | 5 | Post-harvest solution monitoring records |
| 6 | Harvest containers were cleaned and disinfected before use | 5 | Photo record or visual inspection of container cleaning station |
| 8 | Waste water from dyeing was disposed of according to local water quality control regulations | 1 | Waste water disposal protocols or photo record or visual inspection of disposal practices |
| 10 | Post-harvest solutions were disposed of properly, which included following storm-water runoff regulations, such as putting in a containment pond, or used to water dirt roads | 1 | Postharvest solution disposal protocols or photo record or visual inspection of disposal practices |

9. Postharvest Management FARM

| | Cold Storage and Packing | | |
|----|--|--|--|
| 11 | Storage and packing areas, especially benches, were cleaned daily | 1 | Cleaning protocols and schedule, and/or photo record or visual inspection of storage and packing areas |
| 12 | Storage and packing areas were extensively cleaned and sanitized on the following frequency schedule: Choose one (At least weekly; between weekly and biweekly, between biweekly and monthly, between monthly and semi-annually, between semi-annually and annually, less than annually) | Weekly 5 Bi-weekly 3 Monthly 1 Others 0 | Cleaning protocols and schedule, or photo record or visual inspection, cleaning records |
| 13 | Flowers and greens were cooled rapidly after harvest | 3 | Harvest protocols, or photo record or visual inspection of packing/cooling areas |
| 14 | Coolers were run and monitored to achieve optimal temperatures and humidities based on the species of flowers and greens being stored | 5 | Cooler temperature records |
| 18 | Boxes were precooled prior to final distribution to ensure flower species were at optimal core temperatures during shipping | 3 | Packing protocols or visual inspection of packing rooms |
| | Packing Material | | |
| 19 | The total amount of packaging material used annually in shipments from the production facility was known, recorded, and tracked to optimize use of packing material | 1 | Packing material use records |
| 21 | The amount of recycled packaging material used annually in shipments from the production facility was known, recorded, and tracked to optimize use of packing material | 3 | Packing material purchasing records; packaging records |
| | Transport and Distribution | | |
| 24 | The optimum transportation temperature was determined for each flower and greens species and temperatures were monitored for quality assurance | 3 | List of temperatures by species; representative temperature monitoring records for transportation |
| 25 | Prior to loading temperatures of flower boxes, truck and truck contents were monitored and recorded to ensure optimum transportation conditions | 5 | Representative temperature monitoring records from trucks |

9. Postharvest Management FARM

| | | | |
|----|--|---|---|
| 26 | Flower temperatures were monitored during shipment using temperature data loggers in order to ensure transportation conditions | 5 | Representative temperature monitoring log |
| | Postharvest Management Planning | | |
| 27 | A harvest and postharvest management plan with goals has been developed and documented for the flower farm, and includes elements such as harvest, storage, packing, optimum storage time, and shipping operations | 5 | Copy of harvest and postharvest management plan with specified elements |

10. Habitat Management – FARM

Each flower farm exists within a community of living organisms and their physical environment, all of which interact in very complex ways. While one of the primary goals of the flower farm is to maintain economic viability by producing quality flowers, another important goal is to do it in a manner that is environmentally sustainable as well. The Resource and Biodiversity – Whole Farm module focuses on practices that maintain habitat for plants and animals on or near the flower farm, as well as enhancing existing habitat if possible. Watershed stewardship is another important topic addressed by the module.

| Question No. | Question | Certification Points (1, 3, or 5) | Audit Requirements |
|--------------|---|-----------------------------------|---|
| | 10. Habitat Management - FARM | | |
| | Habitat Preservation | | |
| 1 | Unfarmed areas were maintained or enhanced to increase biodiversity, such as wildlife, pollinators, pest natural enemies, and/or other beneficial organisms (e.g., via maintaining or enhancing the health of existing vegetation) | 1 | Photo record or visual inspection of unfarmed areas |
| 5 | The flower farm has at least one water course on the property (e.g. creek, seasonal stream, or other natural water way); If No then click 'No' and skip #6 to #9 | | |
| 6 | The water course has a setback to minimize siltation and other non-point source water pollution (setback is a space between the water course and where farm production begins; roads are not setbacks): Choose one. If no setbacks skip #6, #7 and #8 | | |
| 6.1 | No setbacks - production area goes up to water course edge | 0 | |
| 6.2 | Setbacks of 1 to 10 feet | 1 | Photo record or visual inspection of water course |
| 6.3 | Setbacks of 10 to 25 feet | 1 | Photo record or visual inspection of water course |

10. Habitat FARM

| | | | |
|-----|--|---|--|
| 6.4 | Setbacks of 25 to 50 feet | 3 | Photo record or visual inspection of water course |
| 6.5 | Setbacks greater than 50 feet | 5 | Photo record or visual inspection of water course |
| 7 | Setbacks were vegetated with annual and perennial grasses and weeds to improve its buffering capabilities | 1 | Photo record or visual inspection of water course |
| 8 | Setbacks were vegetated with a mix of grasses, trees and/or shrubs to improve buffering and provide shade for water courses to lower water temperatures to benefit aquatic species | 1 | Photo record or visual inspection of water course |
| | Habitat Enhancement | | |
| 12 | Trees and/or shrubs have been planted and are maintained on farm property borders to provide wildlife habitat | 3 | Photo record or visual inspection of farm property borders |
| | Watershed Stewardship | | |
| 19 | One (or more) member of the farm was active in regional land use planning | 1 | Minutes from regional land use planning meetings that includes attendance record |
| 22 | An NRCS conservation survey or other environmental survey of the farm has been done to determine and record on a map the sensitive areas (e.g., wetlands, riparian areas, creeks, swales, and habitat for endangered species) and other environmental features which affect farmable acres and practices, and was used to guide spraying, irrigation, fertilization, and other management activities | 5 | Copy of NRCS conservation survey or other environmental survey |
| | Habitat Management Planning | | |
| 23 | A habitat management plan with goals has been developed and documented for the flower farm, and includes elements such as monitoring, an environmental survey(s), and habitat preservation and enhancement . | 3 | Copy of habitat management plan with specified elements |

11. Materials Handling – FARM

Materials handling is a technical term for the storage, use, recycling, and disposal, if necessary, of hazardous materials. Hazardous materials are those that, because of its quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. The Materials Handling module contains practices related to hazardous material use, storage of fertilizers and pesticides, mixing and loading of fertilizers and pesticides, fuel storage, recycling, and disposal of materials that cannot be recycled.

| Question No. | Question | Certification Points (1, 3, or 5) | Audit Requirements |
|--------------|---|-----------------------------------|---|
| | 11. Materials Handling Management - FARM | | |
| 1 | A site map of the flower farm has been drawn that locates fuel tanks, waste oil drums, dumpsters, service/maintenance areas, hazardous material storage, storm drains, wells, surface water running through the property, tailwater ponds, leaching basins, municipal sewer lines, septic lines and tanks, green waste piles, and recycling receptacles. The map has been communicated to appropriate local agencies such as the County Agriculture Commissioner's Office and Fire Department | 5 | Site map of farm including specified elements; list of agencies where it is on file |
| | Hazardous Material Use | | |
| 2 | The total amount of on-site hazardous materials, purchased and generated, was known and an inventory was kept and reviewed annually to communicate and manage performance | 3 | Inventory list of hazardous materials |
| | Fertilizer Storage | | |
| 5 | Employees were trained to properly recognize, handle (including spill prevention, containment and cleanup), and dispose hazardous materials (e.g., solvents, cleaning materials, explosives, compressed gases, fuel, fertilizers, pesticides, acids, and lubricants) | 1 | State Law |
| 6 | Fertilizers were stored in a ventilated and locked room or area protected from rainfall (e.g., under awning) and not located near areas where surface or ground | 1 | Photo record or visual inspection of fertilizer storage area |

11. Materials Handling FARM

| | | | |
|----|--|---|--|
| | water could become contaminated (e.g. near creeks, streams, storm drains, or well heads) | | |
| 7 | In case of a spill, the fertilizer storage area had secondary containment including an impermeable floor and waterproof curbs | I | Photo record or visual inspection of fertilizer storage area |
| | Fertilizer Mixing & Loading | | |
| 12 | Fertilizer mixing and loading area has impermeable floor | I | Photo record or visual inspection of fertilizer mixing area |
| | Pesticide Storage | | |
| 15 | Pesticides were stored in a ventilated and locked room that can be unlocked from the inside or in an appropriate locked cabinet clearly marked with appropriate signage readable from 25 feet | I | Photo record or visual inspection of pesticide storage area |
| 16 | The following safe pesticide storage practices were used: dry products above liquids, only undamaged original or spill-proof containers with original labels were stored, products were segregated by type (e.g., insecticides, herbicides, fungicides and rodenticides), storage area was more than 100 feet from the nearest well, and storage area had an impermeable floor and sump to contain leaks | I | Photo record or visual inspection of pesticide storage area |
| 17 | A documented schedule and process was in place and employees were trained to check the storage area for leaky containers and to contain spills and dispose containers according to proper procedures and state law | I | Process for inspection and inspection schedule records |
| 20 | A bilingual emergency response plan, including emergency phone numbers, for pesticide spills and exposure was posted in an appropriate location(s), and employees were made familiar with and trained to follow the plan | I | Photo record or visual inspection of posted emergency response plan |
| | Pesticide Mixing & Loading | | |
| 22 | The outdoor pesticide mixing and loading area was more than 100 feet from the wellhead unless a berm or other physical characteristics protected the well from contamination by surface water | I | Photo record or visual inspection of pesticide mixing and loading area |
| 23 | An eye wash station maintained in good working order was provided at the mixing and loading site | I | State Law |
| 25 | The indoor pesticide mixing and loading area was adequately ventilated | I | Photo record or visual inspection pesticide mixing and loading area |
| 26 | Either a double-check valve, reduced pressure principle backflow prevention device, or an air gap was maintained between the water source and sprayer tank | I | State Law |

11. Materials Handling FARM

| | | | |
|----|--|---|---|
| | Fuel Storage | | |
| 28 | The fueling area had a concrete floor or other mechanism(s) to contain leaks and spills (e.g., berms and/or sump) | 1 | Photo record or visual inspection |
| | Hazardous Material Disposal & Recycling: Dumpster Area | | |
| 32 | Dumpsters and recycling containers were sited to minimize environmental and visual impacts, positioned on cement pads to contain spills and leaks, and had lids or other covering (e.g., awning) to keep water out | 1 | Photo record or visual inspection of dumpsters |
| | Hazardous Material Disposal & Recycling: Tires, Batteries, Lubricants & Paints | | |
| | Recycling of Equipment, Metals, Glass, Cardboards and Plastics | | |
| 41 | The business had an established, documented recycling program for metal, cardboard, plastics, paper and glass | 1 | Copy of recycling program plan and photo record or visual inspection of recycling areas |
| | Materials Handling Management Planning | | |
| 44 | A materials handling and waste management plan with goals has been developed and documented for the flower farm, and includes elements such as packaging, hazardous waste, recycling and waste water | 3 | Copy of plan with specified elements |

12. Social Responsibility – FARM

The flower farm is an integral part of the community. It is responsible to the employees who work on it, the neighbors living around the farm, and the consumers who buy the flowers produced on the farm. Human Resource Management is the part of Social Responsibility that involves the employees of the farming enterprise. Effective human resource management involves planning, designing, implementing and evaluating practices to recruit and retain good employees as well as to improve employee satisfaction, productivity, safety, and wellness. It also includes important issues like succession planning and risk management for the company. Neighbors and Community is the part of Social Responsibility that involves the farms interaction with the people living on neighboring farms and the towns and cities in the landscape in which the farm is located.

| Question No. | Practice | Certification Points | Audit Requirements |
|--------------|--|----------------------|---|
| | 12. Social Responsibility | | |
| | Succession Management | | |
| | Risk Management | | |
| | Staying Informed & Trade Leadership | | |
| 11 | One (or more) member of the flower farm regularly attended regional and/or statewide industry meetings (e.g., irrigation district, Farm Bureau or water coalition), trade shows (e.g., World Ag Expo or Nor Cal Fun N Sun), and seminars (e.g., UC, CDFA, CSU or Commodity Boards) | 1 | Attendance record or minutes from meeting that includes attendance record |
| 14 | One (or more) member of the flower farm had a lead role in local, regional or state industry associations (e.g., CCFC, California Flower Growers and Shippers Association, Society of American Florists, Association of Specialty Cut Flower Growers) | 1 | Evidence of participation such as committee meeting minutes, attendance, etc. |
| | Employee Recruitment, Retention, & Progression | | |
| 17 | Documented job descriptions for each job type have been developed and given to employees and their supervisor | 1 | Job descriptions for each job and record of employee receiving it |
| 19 | The company did not discriminate in its recruiting and the workplace was free of discrimination based on race, sex, political persuasion or opinion, sexual orientation, religion, and national or social origin | 1 | Company statement of non-discrimination |
| | Training | | See Appendix |

12. Social Responsibility FARM

| | | | |
|----|---|--|--|
| 22 | All new employees underwent safety training | | State Law |
| 23 | Safety training was done according to Cal OSHA regulations for when employees begin new assignments, processes, procedures or uses of a substance or equipment that involve a hazard (training topics include hazardous materials, office and shop safety, tractor safety, first aid, and personal hygiene including daily changes to clean clothing) | | State Law |
| 24 | Employees were trained to respond to hazardous events (e.g., earthquakes or floods) | | State Law |
| 26 | All employees have participated in sexual harassment prevention training | | State Law |
| | Worker Safety | | |
| 28 | Safety statistics (e.g., employee time lost to accidents) were tracked and retained for at least two years to communicate and manage performance | | Safety statistical records |
| 30 | An employee trained in first aid was always on site during farming activities | | State Law |
| 31 | Work accidents were investigated with the goal of reducing or eliminating them in the future | | Accident investigation records |
| 32 | A documented process was in place and employees were trained to ensure the adequate and timely on-site treatment of injured or sick workers. | | Process and training records |
| 34 | The company complied with state and federal laws for worker compensation and disability | | State Law |
| | Employee Career Development | | |
| 38 | The company paid employees' wages during training | | Company policy statement on paying wages during training |
| 39 | The company paid or reimbursed employees for tuition for work-related continuing education | | |
| | Workplace Conditions | | |
| 45 | Employees were trained in basic hygiene practices and were provided with conveniently located clean toilet and hand washing facilities in the greenhouse area and in the field | | State Law |
| 46 | Employees were provided shade when temperatures exceed 85 °F | | State Law |

12. Social Responsibility FARM

| | | | |
|----|---|---|--|
| 47 | Employees working in hot environments were provided with at least one quart of drinking water per hour at accessible locations (2 gals per 8-hour day) | I | State Law |
| | Employee Wellness | | See Appendix |
| | Employee Job Performance & Grievance | | |
| 52 | A documented process and timeline for evaluating job performance and determining pay increases and promotions was in place and communicated to employees | I | Copy of job performance evaluation process |
| 54 | A grievance process has been documented in the employee handbook, and grievances are recorded and processed in a timely manner | I | Copy of employee handbook & grievance records |
| | Employee Compensation, Benefits & Incentives | | |
| 56 | The company adhered to child labor laws stipulated in the Fair Labor Standards Act | I | State Law |
| 57 | The company adhered to the California Labor Code for wages and overtime pay | I | State Law |
| 61 | The company complied with state and federal laws for unemployment compensation and social security | I | State Law |
| 62 | The company provided appropriate daily breaks for lunch and rest | I | State Law |
| 63 | Clean facilities were provided for food storage and lunch breaks | I | Photo record or visual inspection of food storage area and lunch room/break room |
| 64 | Employees were provided paid time off for sick leave | I | State Law |
| 65 | Employees were provided paid time off for vacation | I | Copy of company policy on paid vacation |
| 66 | Employees were allowed unpaid time off without reprisal for important events such as child birth, adoption or serious illness (up to 12 weeks is required by federal law) | I | State Law |
| | Team Building | | |
| 72 | A documented employee recognition process was in place to provide peer-to-peer and management-to-employee feedback | I | Copy of recognition process |

12. Social Responsibility FARM

| | | | |
|----|---|---|--|
| 74 | A team-building activity was held within the last 12 months for all employees | 1 | Record of team building activity |
| | Neighbors & Community | | |
| 77 | The flower farm took proactive measures to ensure good community relations, such as holding open houses, making literature available to the public about farming practices and the company's commitment to sustainability, or presenting community members with gifts (e.g., flower arrangements) | 1 | Copies of literature, calendar of relevant events |
| 79 | The flower farm maintained visual aesthetics appropriate for the neighborhood | 1 | Photo record or visual inspection of farm property |
| 81 | One (or more) member of the flower farm was involved in initiatives, through time commitment and/or donations, that enhance the community (e.g., Chamber of Commerce, schools/education programs, churches, public health or affordable housing) | 1 | Record of donations or activities |
| 84 | One (or more) member of the flower farm was involved in community activities to promote careers in the cut flower industry (e.g., FFA, 4-H, career day at local schools, or as local agricultural teachers) | 1 | Record of participation in community activities |
| | Social Responsibility Planning | | |
| 85 | A social responsibility management plan with goals has been developed and documented for the flower farm, and includes elements such as staffing, recruiting, retention, employee wellness and neighbors and community | 3 | Copy of social responsibility management plan |

Appendix I – BloomCheck® Pesticide Do Not Use List of Pesticide Active Ingredients

| Pesticide Active Ingredient | |
|-----------------------------|------------------------|
| acephate | fenvalerate |
| aldicarb | hexachlorobenzene |
| allethrin | lindane |
| amitrole | methamidophos |
| azinphos methyl | methomyl |
| carbaryl | methyl parathion |
| carbofuran | monocrotophos |
| chlorpyrifos | omethoate |
| chlorpyrifos methyl | oxamyl |
| demeton | oxydemeton methyl |
| diazinon | parathion ethyl |
| dichlorvos (DDVP) | pentachlorophenol |
| dicofol | phorate |
| dimethoate | phosmet |
| disulfoton | pirimiphos methyl |
| endosulfan | profenofos |
| ethoprop | propetamphos |
| fenamiphos | resmethrin |
| fenitrothion | sumithrin (phenothrin) |
| | thiazopyr |

Appendix II. Some Trade Names of Materials Containing Do Not Use Pesticide Active Ingredients

| Pesticide Active Ingredient | Pesticide Trade Name |
|------------------------------------|-----------------------------|
| Acephate | 1300 Orthene TR |
| Acephate | Acephate 97 UP |
| Acephate | Orthene TT&O |
| chlorpyrifos | Duraguard ME |
| chlorpyrifos | Dursban 50 W |