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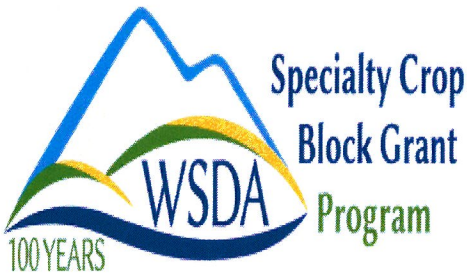
GROWERS RESPONSE
TO AGRICULTURAL
SAFE & SUSTAINABLE PRACTICES

GlobalG.A.P. Certification For Washington State Cranberry Producers



Pacific Coast Cranberry Research Foundation in collaboration with The Washington State Horticultural Association

WASHINGTON STATE
HORTICULTURAL ASSOCIATION
"Representing Orchardists & Shippers Since 1904"

June 2014

Dear Cranberry Grower,

Congratulations!

- You hold the GRAS²P Guidance Manual in your hands.
- You have already taken a significant step in implementing and documenting the food safety practices carried out on your farm.
- You are helping to tell the growers' story to all other members in the produce selling, buying, and consuming chain.

GRAS²P stand for **Growers Response to Agricultural Safe and Sustainable Practices**. As a Washington State fruit grower, it is highly likely that you already utilize many of the practices outlined in this Guidance Manual; it is part of what we do as growers of high quality fruit and it is part of the regulatory mandates under which we farm in this state. The GRAS²P Guidance Manual is intended to bring together, in one place, all of the policies, protocols, and practices that you need in order to meet federal, state, and third-party auditing requirements for food safety and sustainability issues.

GRAS²P is designed to be a grower-friendly program. Its focus is to maximize results without unnecessary or reasonable burdens in terms of additional workload, financial outlay or human resources. Most growers who embark on a documented food safety and sustainability program find that the additional effort involved pays off in terms of improved information and organization that then contribute to better decisions and management practices. We fully expect that you will garner similar results.

GRAS²P will document good agricultural practices recognized within the industry and in collaboration with other members of the supply chain. With this Guidance Manual, your practices are intended to be transferable between warehouses and, subsequently, between markets. GRAS²P represents a baseline of safe and sustainable practices utilized by Washington State tree fruit growers such as you.

Thank you for your participation in the GRAS²P program. The Washington State Horticultural Association looks forward to working with you and further serving you with educational event, political/regulatory effort, and communications programs to synergistically support our collective efforts.

Sincerely Yours,

Tom Hoffmann Kim Patten *Nicole Brunner*

Tom Hoffmann
WSDA Pesticide Management

Kim Patten
WSU Long Beach

Nicole Brunner
GRAS²P Coordinator

2900 Euclid Avenue - Wenatchee, WA 98801
Phone: (509) 665-9641 – Fax: (509) 665-8541

GLOBAL GAP

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Rev. Level	**Doc. #**	**GLOBALGAP Section Documentation/Description**
Updated annually	**WSU**	2014 Cranberry Pest Management Guide
Periodic	**PNW 247**	Cranberry Production in the Pacific Northwest
Periodic	**None**	WSU Cranberry Vine Newsletter
Updated annually	**FASonline**	International Maximum Residue Level Database - http://login.mrldatabase.com/
Ver. 4.0-2		GLOBALGAP Checklists Version 4.0.2 March 2013, obligatory from: June 13

Change Record

Rev:	Date:	App's	Description of Change
1			First release for use
2	May 20, 2013		Update to Global Gap Version 4.0-2

GLOBAL GAP

ALL FARM

Section	Title and Description	Level
AF	**All Farm Base**	
AF.1	**Site History and Site Management**	
AF.1.1	**Site History**	
1.1.1	**Farm Reference System (Field or Bog Maps):** 1. Located in the record and inspection notebook is a map of the farm or bog that identifies the production areas. Identification of field or bog areas is typically in one of two ways: 2. A good method is to use detailed maps (like crop insurance maps, Google maps, or Google Earth maps) that make it clear to workers applying crop protection products any areas references they are to spray. Maps are available to all workers as needed. 3. An option is at the field or bog site; each block is identified with markers for easy block clarification. Markers would be on each corner. This is cost effective on smaller bogs with just one or a few sites.	Minor
1.1.2	**Field or Bog Records:** 1. Each bog or site has a Records and Inspection Notebook or other file location for records (e.g., file cabinet, etc.). ***Note: When the Records and Inspection Notebook is mentioned going forward it may refer to any similar file system that organizes and secures records from being lost. The notebook is typically a large three ring binder. See GP-31: Organizing Grower Records - Forms Use Frequency for assistance in understand and organizing forms.*** 2. There is in the Records and Inspection Notebook a set of notes that contains general bog activities that have been undertaken for the year. 3. The "general activities" <u>can</u> include such activities as dates for and pruning done, bloom dates, irrigation start up dates for the season, special projects, cribbing, sanding, thinning, and new plantings. The forms in this manual are also considered as "general activities".	Major

	4. Also included is information concerning harvest. Note: Include blocks if they are used.	
AF.1.2	**Site Management**	
1.2.1	1. A risk assessment must be done for all new bog sites (at the initial inspection for certification) and in the future if risks change. Use form **GF-15: Risk Assessment for New Agricultural Sites** for this assessment. 2. Growers must have a risk assessment at the initial inspection for all sites registered for certification. During subsequent inspections a risk assessment for new or existing production sites where risks have changed (this includes rented or leased land) is available. This risk assessment must show that the site in question is suitable for production, with regard to food safety, the environment, and animal health where applicable. 3. New agricultural sites (Example: a new, bare site) require a complete risk assessment conducted (see **GF-15: Risk Assessment for New Agricultural Sites**) and the results are in the Records and Inspection Notebook with the answer to the basic question is the land suitable for agricultural production. The risk assessment is reviewed annual for risk changes and the assessment is revised as required. 4. The risk assessment is reviewed annually for risk changes and the assessment is revised as required. Date of annual review is documented.	Major
1.2.2	**Risk Reduction Action:** 1. There is a corrective action plan (included on **GF-15: Risk Assessment for New Agricultural Sites)** established to minimize all identifiable risks on the new agricultural site. 2. Each identified risk has been recorded including the severity and probability of the risk to operators or the environment and what measures were taken to prevent or control the risk. 3. See **GF-15: Risk Assessment for Agricultural Sites.**	Minor

AF.2	**Record Keeping and Internal Self-Assessment / Internal Inspection**	
2.1	**Records:** 1. All pertinent records are maintained at the farm and will be kept for a minimum of two years from the date of first inspection. 2. New certifications require records have been kept for at least three (3) months prior to the date of first external inspection (audit).	Minor
2.2	**Self-inspection (option 1):** 1. All growers must complete one self-assessment per year against the GLOBALG.A.P. standard. This self-assessment must be kept on file in the Records and Inspection Notebook. **Self-Inspection (Option 2 Group)** 1. All growers must complete one self-assessment per year against the GLOBALG.A.P. standard. This self-assessment must be kept on file in the Records and Inspection Notebook. Records must include a date. 2. In addition, for a Group Certification one (1) Internal Group Inspection of each farm is required and must be carried out under the responsibility of the Group.	Major
2.3	**Self-audit or Group Internal Inspection Corrective Action:** Corrective action must be taken as a result of the self-assessment or internal group inspection, documented, and new procedures have been implemented as required.	Major
AF.3	**Worker Health, Safety and Welfare**	
AF.3.1	**Health and Safety**	
3.1.1	**Health and Safety** 1. All workers involved in cranberry growing operations shall receive training in food safety, sanitation, and/or personal hygiene appropriate to their assigned responsibilities and supervisory level. Visitors to the farm will be trained as necessary.	Minor

	2. A written risk assessment has been developed and proper steps taken to promote a safe and healthy work environment in the cranberry growing operation. See **GP-21: Risk Analysis Worksheet for Worker Safety and Welfare.** 3. Areas of concern are new machinery, new buildings, new plant protection products, modified cultivation practices, etc. Examples for risks are moving machine parts, power takeoff (PTO), electricity, excessive noise, dust, vibrations, extreme temperatures, ladders, fuel storage, chemical tanks, etc. 4. All of these areas of concern are typically covered in the Washington State Department of Labor and Industry regulations and guidelines. *Note: These types of training materials are available from the Farm Bureau (or a similar agency).* In the back of the GRAS2P manual there is a section on signage. 5. **Risk Assessment and Action Plan** (**GP-21: Risk Analysis Worksheet for Worker Safety and Welfare**) are reviewed at least annually or when changes in the organization (added activities) occur. *Note: In **GP-21,** Column 5 will require some editing due to the difference in training material used from farm to farm (or group to group in a group certification).*	
3.1.2	**Risk Assessment Based Health and Safety Procedures** 1. Growers have written compliance programs in place to deal with these situations (listed in **3.1.1** above). These materials may come from many sources including Washington State Labor and Industry Programs. 2. Growers will review **GP-21 Risk Analysis Worksheet for Worker Safety and Welfare** and identify all items in column 1 which apply to their farm operation. 3. Based on the above review growers will identify all applicable training materials (procedures) required. These training materials/procedures are then used to train workers, as required.	Minor
3.1.3	1. All workers receive adequate health and safety training and instructed according to the risk assessment in **AF.3.1.1.** 2. **Note:** Workers can demonstrate competency in "Minor Must" responsibilities and tasks through visual observation. If at time of inspection there are no activities, there must be	Minor

	evidence of instructions and training records. The grower can conduct the health and safety training if competence (training records, training material) can be proven.	
AF.3.2	**Hygiene**	
3.2.1	1. A written risk assessment has been developed and proper steps taken to promote hygiene in the production environment. See **GP-08: Harvest Hygiene Risk Assessment Worksheet (HACCP)** for details. 2. Harvest Hygiene Risk Assessment (HACCP). (**GP-08**) is reviewed at least annually or when changes in the organization (added activities) occur.	Minor
3.2.2	The hygiene instructions (**GP-20: Food Safety and Worker Hygiene Training**) are visibly displayed for harvesting of cranberries. 1. Provided by way of clear signs (pictures if possible) or in the predominant language(s) of the workforce. The instructions include: 1.1. The need for hand cleaning; 1.2. The covering of skin cuts; 1.3. Limitation on smoking, eating and drinking to certain areas; 1.4. Notification of any relevant infections or conditions; this includes signs of illness (e.g., vomiting; jaundice, diarrhea). These workers shall be restricted from direct contact with the product or food-contact surfaces. **1.5.** The use of suitable protective clothing.	Minor
3.2.3	1. All workers (including new ones) have received training in personal hygiene, hand washing, the use of bandages, smoking policy, no food in the harvesting area, and proper provisions for waste disposal. 2. Smoking designated areas are clearly indicated and no smoking and hand washing signs are displayed where needed. 3. Both written and verbal training is given as an introduction-training course for hygiene.	Minor

	Qualified people provide training. 4. All instructions from **AF.3.2.2** must be covered in this training. 5. All workers, including the owners and managers, at any time of the year have reviewed and signed for the farm's hygiene instructions.	
3.2.4	Workers with tasks identified in the hygiene procedures must demonstrate competence during the internal and external inspections and there is visual evidence that the hygiene procedures are implemented.	Major
AF.3.3	**Training**	
3.3.1	**Training records:** 1. A record is kept for training activities, including the topic covered, the trainer, the date, and attendees. Evidence of the attendance is required.	Minor
3.3.2	**Training for Hazardous Chemicals or Equipment:** 1. A training program is in place to deal with those workers who operate complex or dangerous equipment or substances (agrichemicals, etc.). 2. Training program records are maintained by the grower in the Records and Inspection Notebook.	Major
AF.3.4	**Hazards and First Aid**	
3.4.1	**Accident procedures** 1. Permanent accident procedures (first aid) are displayed on the safety bulletin board and at all fill sites and pesticide storage locations in appropriate languages and/or pictograms. 2. Accident training is provided, as required by the risk analysis for all workers. 3. The procedures identify, as appropriate, the following. 3.1. Farm or bog map reference or farm address. 3.2. Contact person(s).	Minor

	3.3. Location of the nearest means of communication (e.g., telephone, radio). 3.4. An up-to-date list of relevant phone numbers (police, ambulance, hospital, fire-brigade); access to emergency health care on-site or by means of transport; utility services (electricity and water); and how and where to contact the local medical services (hospital, clinic), and other emergency services. 3.5. Location of fire extinguisher. 3.6. Emergency exits. 3.7. Emergency cut-offs for electricity, gas, and water services. 3.8. How to report accidents or dangerous incidents.	
3.4.2	**Serious hazards**: 1. Hazards are clearly identified and warning signs in place where it is necessary. Examples include waste pits, fuel tanks, workshops, and access doors for plant protection products, fertilizer, or any other chemical storage facilities.	Minor
3.4.3	Safety information is available and accessible for substances hazardous to worker health, when required. Information may include websites, phone numbers, safety data sheets (SDSs), etc.	Minor
3.4.4	Complete and maintained first aid kit(s) according to national regulations and recommendations is available and accessible at all permanent sites and available for transport (tractor, car, pickup, etc.) to the vicinity of the work	Minor
3.4.5	**First Aid:** 1. Workers trained in first aid are present at the farm and a list is kept on the bulletin board to inform employees who is first aid trained. 2. Instructions are supported by symbols, where possible. 3. At least one first aid trained person is present at all times on the farm when work is being performed. As a guideline, one (1) trained person for 50 workers is suggested.	Minor

AF.3.5	**Protective Clothing/Equipment**	
3.5.1	**Protective clothing (PPE):** 1. Complete sets of protective clothing, (e.g., rubber boots, waterproof clothing, protective overalls, rubber gloves, face masks, respirators with cartridges, etc.) compliant with product label instructions are available and in a good state of repair. 2. This includes appropriate respiratory, ear and eye protection devices where necessary.	Major
3.5.2	**PPE Cleaning:** 1. Protective clothing is cleaned after use and properly stored to prevent contamination of clothing or equipment. 2. Protective clothing must be washed separately from private clothing. Gloves must be washed before removal. 3. Dirty, torn or contaminated protective clothing, damaged equipment, and expired filters and cartridges must be disposed of in a proper manner. 4. Single-use items (e.g., gloves, overalls, etc.) are disposed of according to use instructions or policy. 5. All the protective clothing and equipment, including replacements filters, are stored a part and physically separate from the plant protection products and other chemicals that might cause contamination of clothing or equipment. **Clothing use:** 1. Recommendations or procedures for the use of protective clothing and equipment are available and used by all workers handling or applying crop protection products and are used according to label instructions.	Major
AF.3.6	**Worker Welfare**	
3.6.1	**Worker Welfare Issues:** 2. The farm owner (with the cooperation of the Group Manager – for Group Certifications) has	Major

	responsibility for ensuring compliance with existing, current and relevant national and local regulations on worker health, safety, and welfare issues.	
3.6.2	**Safety, Health and Welfare Meetings:** 1. At least yearly a meeting is held between management and employees of the GLOBALG.A.P. farm, at which matters related to the business and worker health, safety, or welfare can be discussed openly and without fear or intimidation or retribution. 2. Safety meeting records are kept in the farm's safety binder.	Recom.
3.6.3	1. Workers are provided access to clean food storage areas, designated rest areas, hand washing facilities and potable drinking water. 1. Growers may designate eating areas anywhere on their farm where no harvestable fruit is present. This includes previously picked areas. Grower must provide hand washing (soap and water), trash receptacles, and signs to remind about hand washing in all eating areas. 2. Workers may eat in or at their cars only if they are not in areas where harvestable fruit is present, such as in-field or harvest containers. 3. NOTE: Harvest workers are allowed to park their cars on the edge of roads between bogs. Cars may also be parked in the ends of bogs as long as they do not interfere with harvest or present a food safety risk.	Minor
3.6.4	1. On-site seasonal worker housing is habitable and does have the basic required services and facilities. 2. Housing is habitable, sound roof, windows, and doors, and has the basic services of running water, toilets, sewer drains, and approved septic tank or outside chemical toilets. 3. Housing is compliant with all applicable state and local regulations.	Minor
AF.4	**Subcontractors**	
4.1	1. If labor subcontractors are used, all the relevant information is available on the farm. They are subject to the same regulations as regular workers (training, licensing, etc.) and records	Minor

	are kept. 2. A signed agreement is kept on record between the labor subcontractor and the farm owner showing they are in full compliance with GLOBALG.A.P. and company requirements. 3. Where the subcontractor has been assessed by a third party certification body, which is GLOBALG.A.P approved, the producer will receive a report with the following information: 1) Date of assessment, 2) CB, 3) Inspector name, 4) Details of the subcontractor, 5) assessment report that lists responses to the relevant GLOBAG.A.P. Control Point Compliance Criteria.	
4.2	**Farm Visitors and Subcontractors:** 1. Visitors or subcontractors are informed of personal hygiene procedures and requirements. The company visitor personal hygiene procedures are in a visible place where all visitors or subcontractors read them. **Visitor Safety:** 2. The farm has visitor personal safety procedures **(GP-05: Visitor Health / Safety Notification)** and requirements that are officially communicated to visitors and subcontractors. The company visitor personal safety procedures are in a visible place where all visitors or subcontractors can read them.	Minor
AF.5	**Waste and Pollution Management, Recycling and Re-use**	
AF.5.1	**Identification of Waste and Pollutants**	
5.1.1	**Waste products:** 1. Waste products that can occur on the farm are identified and listed. 2. The list includes cranberry prunings, vegetation and wood debris, plastics, metals, tires, oils, cardboard, glass, polyethylene, etc. 3. The completed list is in the Records and Inspection Notebook on form **GF-16: Waste and Pollution Management Risk Assessment Log.**	Minor

	Possible Pollutant list: 1. A list of possible sources of pollution **(GF-16)** is listed in the Records and Inspection Notebook. 2. Sources of pollution are excess fertilizer, exhaust smoke, oil, fuel, noise, effluent, agrichemical spills, other chemicals, etc.	
AF.5.2	**Waste and Pollution Action**	
5.2.1	**Waste management** has been addressed: 1. Paper, cardboard, and decontaminated pesticide containers are recycled (when possible), spent oils are recycled, glass and metals, where possible, are recycled. 2. Polyethylene is difficult to keep clean enough to recycle and is disposed of according to state or local regulations. 3. Grower provides adequate waste disposal to handle the needs of their farm sites. 4. See **GF-16**: **Waste and Pollution Management Risk Assessment Log**. 5. Organic crop debris can be composted.	Recom.
5.2.2	**Waste management:** 1. Waste management programs have been implemented. 2. Visual assessment that there is no evidence of waste/litter in the immediate vicinity of the production or storage buildings. 3. Incidental and insignificant litter and waste on the designated areas are acceptable as well as the waste from the current day's work. All other litter and waste has been cleared up, including fuel spills. 4. Areas where produce is handled indoors are cleaned at least once a day. 5. See **GF-16: Waste and Pollution Management Risk Assessment Log**.	Major
5.2.3	1. If organic waste material is composted and used for soil-conditioning, composting method ensured that there is no risk of disease carry-over.	Recom.

AF.6	Environmental and Conservation	
6.1.1	**Environmental Assessment:** 1. An environmental program exists and there are federal and state recommendations concerning wetlands, streams, and wildlife habitat. **Environmental and Conservation Plan:** 1. Environmental and conservation of the land are of concern. Irrigation systems with high distribution uniformity to minimize water runoff and deep leaching and with appropriate configuration to prevent overspray or off-target applications are used when practical. 2. Consideration is given to the impact of water usage on other users. 3. Cover crops are used to keep from soil erosion from water and wind. 4. The soil nutrient levels are maintained. Integrated management practices are less harmful to the environment and beneficial insects, birds, and wildlife in general. 5. Recycling waste materials where possible. Practice caution and give attention to general practices concerning fuel storage and at refueling site to prevent spillage. Initiate measures to enhance farm environmental care. 6. See **GP-13: Conservation Plan** for additional details.	Minor
6.1.2	**Environmental enhancement:** 1. Growers are looking into return flow water, irrigation application, fertilizer use, erosion control, adverse spray drift, clean air through the use of wind machines, frost protection using water systems and no open oil pots and treatment of non-production land. 2. Just by planting trees on the land has enhanced the environment and oxygen replacement. 3. **Sustainable agriculture compatibility:** The conservation plan is compatible with agriculture and will have a positive environmental impact.	Recom.

AF.6.2	**Unproductive Sites**	
6.2.1	**Consideration is given to unproductive sites**. Areas are maintained as natural sites as a refuge for beneficial insects, but monitored for diseases and injurious insects.	Recom.
AF.6.3	**Energy Efficiency**	
6.3.1	1. Growers are monitoring energy use (gas or electric bills) on the farm. 2. For example: Farm equipment is selected and maintained for optimum consumption of energy. Use of non-renewable energy sources is kept to a minimum. Energy audits are conducted.	Recom.
AF.7	**Complaints**	
7.1	**A complaint form (GF-11: Corrective Action Request)** records complaints that are maintained in the Records and Inspection Notebook. All complaints are taken very seriously. **Non-food safety oriented complaint examples** may include, but are not limited to: 1. Overspray on neighboring bogs(s), yards, or animals 2. Extreme noise. 3. Watering that affects neighboring property in a negative way (e.g., washed away parts of roads or creates ruts, etc.) 4. Failing to notify a close neighbor when applying a pesticide. 5. Farm activities which place an unnecessary burden on neighboring lands or structures. 6. Use form **GF-11** for these type of problems and complaints. **Food Safety oriented complaints or problems** which might impact food safety. 1. Pant protection products and other agrichemicals. 2. Metal, other forms of contamination. 3. *Contact Packing Warehouse or if a Group Certification, Growers Group, or Group Administrator for all food safety-related issues.*	Major

AF.8	Recall / Withdrawal Procedure	
8.1	***If a grower believes that they have a possible situation, which may require Trace Back, and/or Recall, they MUST contact the Packing Warehouse(s) or, if it is a Group Certification, the Growers Group Administrator immediately.*** Trace for withdrawal may be initiated from two directions. ***Grower initiated:*** 1. Grower discovers a possible serious food safety problem. He must notify the Food Safety Representative (or senior Management) for any Packing Warehouse that may have received problem fruit from him. 2. Grower provides the proper description of the problem and all fruit that may be impacted. This includes lot numbers, varieties, etc. 3. At this point, it will be up to the Packing Warehouse to follow through with the possible trace and recall (that is, withdrawal) of any product. **Packing Warehouse initiated:** 1. Packing Warehouse discovers a potential serious problem or is notified by an end customer. 2. Packing Warehouse will collect the relevant information to contact the grower who might be the source of the problem. 3. Once contacted, the grower must trace the product in question through his farm activity cycle until a satisfactory resolution is found. 4. Packing Warehouse will coordinate (with appropriate entities) any actual withdrawal or product required. **Grower Groups:** In a Grower Group, all growers have access to documented procedures (through Growers Group packing warehouse documented recall procedure), which identify the type of event that may result in a recall (that is, withdrawal of product), persons responsible for making decisions on the	Major

	possible recall of product, the mechanism for notifying customers and the GLOBALG.A.P. controlling board, or CB, (if a sanction was not issued by the CB and the producer or group recalled the products out of free will) and methods of reconciling stock. The procedure is tested by Growers Group annually to ensure that it is sufficient.	
AF.9	**Food Defense**	
9.1	1. The grower has written procedures (**GP-30: Food Defense and Security Risk Assessment Policy**) that are implemented and maintained to reduce or eliminate the identified risks. The procedures cover Good Agricultural Practices. 2. This includes information, in part, on: 2.1. People entering the farm and premises, 2.2. Overview of all workers, 2.3. Training of workers, 2.4. Harvesting tools, and 2.5. Storage of agrichemicals.	Major
AF.10	**GLOBALG.A.P. Status**	
10.1	1. All sales documents (invoices and, where appropriate, other documentation) include reference to the GLOBALG.A.P status (certified/not certified). Positive identification is enough on transaction documentation (e.g., "GLOBALG.A.P certified <product name>). Non-certified products do not need to be identified as 'non-certified'. Indication of the certified status is obligatory regardless if the certified product was sold as certified or not. N/A only when there is a written agreement available between the producer and the client not to identify the GlobalG.P.A status of the product on the transaction documents.	Major
10.2	1. Growers (producers) have an agreement in place with their direct customers (packers, exporters, importers, etc.) that their GlobalG.A.P. Number (GGN) or sub number (sub GLN) will not be misused and that the customer will follow best practices in traceability and labeling, (e.g., not label other producers' products with the producer's GGN, GLN or sub-GLN	Minor

	nor mix the producer's certified product with other non-certified product, which are then labeled with the producer's GGN, GLN or sub-GLN). The agreement of not misusing the producer's GGN, GLN or sub-GLN, can be (1) an additional clause to any existing contract or agreement between the producer and their direct customers or (2) a letter issued by the customer where she/he declares that no misuse of GGN, GLN or sub-GLN will be done. Other solutions are also possible, like including such declaration (not using the producer's GGN, GLN or sub-GLN) on a purchase order where GG certified product is demanded. N/A only when there is a written agreement available between the producer and the client not to use the GGN, GLN, or sub-GLN on the ready to be sold product.	
AF.11	**Logo Use**	
11.1	1. The GLOBALG.A.P (EUREPGAP) word, trademark or logo and the GGN (GLOBALG.A.P Number), GLN, or sub-GLN must be used according to the General Regulation and according to the Sublicense and Certification Agreement. ***2.*** The GLOBALG.A.P (EUREPGAP) word, trademark or logo never appears on the product, on the consumer packaging or at the point of sale, but can be used by the certificate holder in business-to-business communication.	Major
AF.12	**TRACEABILITY AND SEGREGATION** obligatory when producer is registered for parallel production	
12.1	**Parallel Production and/or Ownership:** 1. This is applicable where certified and non-certified products are produced as well as where certified or non-certified products are sourced and/or handled.	
12.1.1	1. All products originating from GLOBALG.A.P certified and non-certified Production Management Units (PMU), which typically a unique grower and/or lot number, clearly identified at all stages of the flow of materials to enable traceability to their certified origin. This is done through bin tags and inventory control at the packing warehouses. 2. Identification of certified origin must be possible at any stage of the flow of materials on the farm (or in the packing warehouse).	Major

12.1.2	1. All final ready to be sold products (either from farm level or after product handling) shall be identified with GGN or a GLN or a sub-GLN where the product originates from a certified process. Where no GLN or sub-GLN is used, the GGN shall be used to identify the certified product. It can be the GGN of the (Option 2) group, the GGN of the group member, or both GGNs; or the GGN of the individual (Option 1) producer. The GGN must not be used to label non-certified product. In case the producers want to identify the non-certified products as well, sub-GLNs shall be used; at least one for the certified and another for the non-certified products. A system shall be in place to ensure that all final products originating from different certified production processes (own production or purchased) are correctly identified and traceable. N/A only when there is a written agreement available between the producer and the client not to use the GGN, GLN, or sub-GLN on the ready to be sold product. 2. The above requirements are also stated in **QMF-01: GlobalG.A.P. Consent Form.**	Major
12.1.3	1. Procedures are in place to ensure that only certified products are dispatched to fill orders for certified products***. This is typically a warehouse / sales issue.***	Major
12.1.4	1. All sales documents (where possible) include the GGN, GLN, or the sub-GLN of the certificate holder and reference to the GLOBALG.A.P. certified status. Positive identification is enough on transaction documentation. For the correct use of GGN, GLN, or sub-GLN refer to **AF12.1.2**. N/A only when there is a written agreement available between the producer and the client not to use the GGN, GLN, or the sub-GLN on the ready to be sold product.	Major
12.1.5	1. Sales details of certified and non-certified products are recorded, with particular attention to quantities sold and descriptions provided. The sales or associated documents demonstrate the consistent balance between certified and non-certified input and the output.	Major
12.1.6	**1.** Sales details of certified and non-certified products are recorded, with particular attention to quantities sold and descriptions provided. The documents demonstrate the consistent balance between certified and non-certified input and the output.	Major
12.1.7	**1.** Quantities (including information on volumes or weight) of certified, non-certified, incoming, outgoing, and stored product must be recorded and a summary maintained so as to facilitate	Major

	the mass balance verification process. The frequency of the mass balance verification shall be defined and be appropriate to the scale of the operation, but it shall be done at least annually per product. Documents to demonstrate mass balance shall be clearly identified. No N/A.	
12.1.8	**1.** Conversion ratios shall be calculated and available for each relevant handling process. All generated product waste quantities shall be recorded. No N/A	Major

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First issue for use with GLOBALG.A.P. Version 4.0
2	20 May 2013	*NB*	First issue with changes for 4.0-2 revision

GLOBAL GAP

CROP BASE

Section	Title	Level
CB.1	**Traceability**	
1.1	**Product Identification:** 1. All products are properly identified at the bog so that the product maintains its identity through the entire process. 2. Grower or bog identification is assigned prior to harvest. **Container (bin) Identification:** 1. At harvest, a bin tag is placed on the bin prior to being transported to the warehouse. 2. Bin tag has a lot designation, block number designation (if applicable), date of harvest, grower name, and varietal name. **Packing Warehouse (Group Certification)** **Records:** A receiving record is made at the warehouse. A storage designation is noted, recorded, and properly maintained. **Packing:** 1. Is scheduled and the lot identification is maintained and recorded on the final container along with the variety, packing date, quantity and quality information. 2. Identity is maintained at shipping point and noted on the shipping record. 3. The shipping record is placed in a proper file for that shipment and the file is maintained at the packing plant.	Major
CB.2	**Propagation Material**	
CB2.1	**Quality and Health**	
2.1.1	**Pest and Disease Resistance/Tolerance:** 1. This is not applicable for cranberry production. **N/A**	N/A

2.1.2	**Nursery Quality Assurance for Newly Planted Varieties:** 1. Each bog planting new vines (plants) has a letter from the nursery stating that all proper quality assurance measures (required by law) were followed and the nursery guarantees the nursery stock to be at least "virus free". 2. Also included in the letter is a statement that legally required plant protection product records were maintained at the nursery and are on file and available for verification, if necessary.	Minor
2.1.3	**In-house Cranberry Stock** (N/A if no nursery): 1. Nursery means anywhere propagation material is produced (including in-house grafting material selection). 2. If and when in-house nursery work is done, a plant health quality control system is used. 3. The quality control system contains a monitoring system for visible signs of pest and diseases; current records of the monitoring system are available. 4. "Monitoring system" includes recording and identification of the mother plant as applicable. Recording is done at regular periodic intervals. 5. If the cultivated plants are intended for own use only (and not sold), this will suffice. 6. When rootstocks are used, special attention has to be paid to the origin of the rootstocks.	Minor
CB.2.2	**Chemical Treatments and Dressings** (N/A if no Chemical Treatments and Dressings are used)	N/A
2.2.1	**Purchased Plant Propagation Records:** 1. If the bog owner has treated the vine rootstock or cuttings, there are records with the name of the product(s) used and the target pests.	Minor
2.2.2	**Self-grown Cranberry Rooted Cutting Stock:** 1. If there is any nursery stock grown on the property, a complete spray record is located in the Records and Inspection Notebook. 2. Pesticide spray record must include location, date, and trade name and active ingredient, operator, authorized by, justification, quantity, and machinery used.	Minor

CB.2.3	**Genetically Modified Organisms (GMOs). (N/A if no GMOs). None exist for cranberries.**	N/A
2.3.1	**GMOs:** 1. If farms do plantings of or trials with GMOs, they comply with all applicable legislation in the country of production. 2. The registered farm, grower, or grower group of registered bogs have a copy of the legislation applicable in the country of production and comply accordingly. 3. Records must be kept of the specific modification and/or the unique identifier. Specific husbandry and management advice must be obtained.	Major
2.3.2	Farms that use GMO cultivars and/or products derived from genetic modification must document planting, use or production of GMO cultivars, and/or products derived from genetic modification.	Minor
2.3.3	Farms must inform their direct clients (evidence of communication is required) of the GMO status of the product.	Major
2.3.4	There is a plan for handling genetically modified (GM) material (crops and trials) setting out strategies to minimize contamination risks, such as accidental mixing of adjacent non-GM crops and maintaining product integrity.	Minor
2.3.5	GMO crops are stored separately from other crops to avoid adventitious mixing.	Major
CB.3	**Site History and Site Management:** *The choice of propagation material plays an important role in the production process and, by using the appropriate varieties, can help to reduce the number of fertilizer and plant protection product applications. The choice of propagation material is a precondition of good plant growth and product quality.*	
3.1	Growers keep records on planting methods, planting rate, and planting date. See **GF-17: Planting Log.**	Minor
3.2	**Rotations:** *N/A There is no rotation of crops in the cranberry industry.*	N/A
CB.4	**Soil Management**	
4.1	**Soil Map:** A soil map (if available) is in the Records and Inspection Notebook.	Recom.

4.2	**Cultivation:** 1. Some hand cultivation is done on a "as need" basis, general limited to small areas. This is generally not an annual practice. 2. If performed, activity will be recorded in the agronomic activities record.	Minor.
4.3	**Soil erosion:** Is minimized through the use of cribbing and ditch covers, proper irrigation techniques, and minimal cultivation. See **GF-18: Soil Erosion Control**.	N/A
4.4	**Sanding:** A record of when, where, and how beds were sanded.	Minor
CB.5	**Fertilizer Application**	
5.1	**Nutrient Requirement**	
5.1.1	**1.** The application of all fertilizers is done according to the specific needs of the crop and soil condition. **2.** Consideration is given to nutritional needs of the crop and soil fertility of the bog. Records are available. **3.** Soil or leaf analysis is done, as required, to support fertilizer application. Other crop specific literature is sometimes used to support application of fertilizers.	Minor
CB.5.2	**Advice on Quantity and Type of Fertilizer**	
5.2.1	**Technical responsibility:** 1. Fertilizer needs are determined in consultation with qualified consultants and takes into account the best known information available from the USDA, land grant universities, such as Washington State University, Oregon State University, and other sources of technical knowledge. 2. A copy of the consultant's license (i.e., Certified Crop Advisor or equivalent) is available at the time of the audit. If the consultant is working for a fertilizer supplier (or other official advisory services), no further credentials are required.	Minor

	3. **Note: Name of fertilizer consultant is recorded on form GF-03: Fertilizer Application Record.** 4. In some cases, growers may provide their own technical support. They will typically have vitae or resume on file to support their qualifications. 5. Experience can be complemented by technical knowledge (e.g., product technical literature, specific training course attendance, etc.) or the use of tools (software decision-aids, on-farm detection methods, etc.).	
CB.5.3	**Records of Application (N/A if no fertilizer is applied)**	
5.3	**Fertilizer Records:** 1. All fertilizer applications (organic and inorganic) are recorded in the Records and Inspection Notebook. 2. The records **(GF-03: Fertilizer Application Record)** include the following information.	
5.3.1	Location of application (bog or block number)	Minor
5.3.2	Date of application (month, day, year)	Minor
5.3.3	Fertilizer type and trade name	Minor
5.3.4	Amount of product applied by weight or volume	Minor
5.3.5	Method of application and type of machinery used	Minor
5.3.6	Operator details	Minor
CB.5.4	**Fertilizer Storage** (N/A if no fertilizer is stored)	
5.4.1	**Fertilizers:** 1. Fertilizers are stored separately from plant protection products at a different site or physically separate (wall, sheeting, etc.) within the same structure. The storage area is well marked. 2. **Note:** Fertilizer materials that are applied together with plant protection products and/or are packed in a sealed container can be stored with plant protection products.	Minor

5.4.2	1. Fertilizers are stored in: 2. A covered area suitable to protect all inorganic fertilizers formulations (i.e., powder, glandular, liquid) from atmospheric influences like sunlight, freezing, and rain. 3. Based on risk assessment (i.e., fertilizer type, weather conditions, temporary storage), plastic coverage could be acceptable. 4. Storage cannot be directly on the soil. It is allowed to store lime and gypsum in the field for a day or two before spreading. 5. Bulk liquid fertilizers can be stored outside in containers as long as spillage can be prevented and the storage requirements on the safety data sheet and state rule are complied with.	Minor
5.4.3	1. Inorganic fertilizers, regardless of formulation, are stored in an area that is free from waste does not constitute a breeding place for rodents, and where spillage and leakage may be cleaned up and properly disposed.	Minor
5.4.4	1. The storage area for all inorganic fertilizers, regardless of formulation, is well ventilated and free from rainwater or heavy condensation. Storage cannot be directly on the soil. 2. As long as the storage requirements on the Safety Data Sheet (SDS) is complied with, bulk liquid fertilizers can be stored outside in containers.	Minor
5.4.5	1. In a manner where they cannot be contaminated by or contaminate a water source. 2. All inorganic fertilizers, regardless of the formulation, are stored in a manner that possesses minimum risk of contamination to water sources. 3. Liquid fertilizer storage (in proximity to watercourses) must be surrounded by an impermeable barrier according to national, state, and local legislation or contain a capacity to 110% of the volume of the largest container if there is no applicable legislation. 4. Consideration is given to the proximity to water courses and flood risks, etc.	Minor
5.4.6	Fertilizer is not stored with harvested products.	Major

5.4.7	**Inventory Records:** 1. An inventory record of stored fertilizer (type and amount) is kept in the Records and Inspection Notebook. 2. The Records and Inspection Notebook is updated every 3 months or when a fertilizer has been applied. 3. If no fertilizer is kept on-site, then no inventory is required.	Minor
CB.5.5	**Organic Fertilizer** (N/A if no organic fertilizer is used)	
5.5.1	No human waste is used on the bog.	Major
5.5.2	**Organic Fertilizer risk assessment:** 1. The **GF-22: Organic Fertilizer Risk Assessment** is used which considers the type of organic fertilizer, method of composting, weed seed content, heavy metal content, timing of application, placement of organic fertilizer (direct contact to edible part of crop, ground between crops and intended use, etc.), before applications. 2. This is documented in the Records and Inspection Notebook.	Minor
5.5.3	An analysis is carried out or standard recognized values are used, which takes into account the contents of N-P-K nutrients in organic fertilizer applied.	Minor
5.5.4	1. Organic fertilizer is stored in a manner that reduces the risk of contamination of the environment. 2. Organic fertilizers must be stored in a designated area. Appropriate measures have been taken to prevent contamination of surface water (i.e., concrete foundation and walls, specially built leak proof container, etc.) or must be stored at least 75 feet (25 m) from surface water bodies.	Minor
CB.5.6	**Nutrient Content**	
5.6.1	1. Documentary evidence (product label, guaranteed analysis, etc.) detailing chemical content is available for all inorganic fertilizers used on crops grown under GLOBALG.A.P. within the last 12-month period.	Minor

5.6.2	When inorganic fertilizers are purchased, they are accompanied by documentary evidence of chemical content (product label, guaranteed analysis), which includes heavy metals (where applicable) within the last 12-month period.	Recom.
CB.6	**Irrigation and Fertigation** (N/A if no Irrigation or Fertigation is used)	
CB.6.1	**Predicting Irrigation Requirements**	
6.1.1	**Water Use Scheduling:** 1. The use of soil moisture monitoring in conjunction with irrigation scheduling is encouraged. 2. Available meteorological data, such as WSU's AgWeatherNet, along with a soil moisture system and in-bed thermocouple devices s is utilized for irrigation scheduling and frost control.	Recom.
CB.6.2	**Irrigation and Fertigation Method** (N/A if no Irrigation or Fertigation is used)	
6.2.1	**Irrigation Methods:** 1. Use of overhead irrigation (i.e., solid set system) is the standard practice in cranberry production. 2. Irrigation management practices are reviewed, as required, when weather, soil profile, crop, and aquifer conditions warrant. 3. The grower uses the most efficient irrigation system (as technically available and financially affordable) and complies with legislation about local restrictions on water usage.	Major
6.2.2	**Water Usage Management:** 1. Frequent observations are routinely performed to check for leaks, determine if valves that need to be repaired, ensure irrigation pumps are maintained, worn sprinklers are repaired or replaced, and pressure gauges are in good repair. 2. Off-season preventative maintenance needs are scheduled, as required. 3. There is a written action plan to optimize water usage on the farm or bog. This can be either a regional activity or individual plan, if the farm is participating in or covered by it.	Recom.

6.2.3	**Irrigation Records:** 1. A record of irrigation water usage is in the Records and Inspection Notebook. 2. Start up schedules, down time, and hours per set are recorded in the Record and Inspection Notebook.	Recom.
CB.6.3	**Quality of Irrigation Water**	
6.3.1	There is no untreated sewage and reclaimed water used for irrigation without proper treatment and testing as stipulate in applicable regulations.	Major
6.3.2	**Risk Assessment:** 1. A risk assessment program using **GP-19: Irrigation Water Risk Assessment** is in place. 2. At a minimum, the risk assessment must include identification of the water sources, irrigation method, timing of irrigation, and contact of irrigation water with the crop, and type of crop. 2.1. Crops that can be eaten raw and which do not have a protective skin that is removed before eating. 2.2. Crops that can be eaten raw and either have no protective skin that is removed before eating or do have some risk or history of pathogen contamination. 2.3. Crops that can be eaten raw and either have a protective skin that is removed before eating, or grow clear of the ground or have no significance. 2.4. Crops that are always cooked.	Minor
6.3.3	1. Testing will be done annually or in accordance with the risk assessment. 2. Samples to be taken at exit point of irrigation system *or nearest practical sampling point.* ***Note: A Risk Assessment may indicate alternative testing location(s).***	Minor
6.3.4	**Water Testing of Irrigation Water:** 1. Based on the risk assessment, testing will be conducted for the following: 1.1. N, P, K, pH	Minor

	1.2. Microbial pollutants 1.3. Random chemical pollutants 1.4. If required by the Risk Assessment, presence of random mineral (i.e., heavy metal) pollutants will be tested. 1.5. Federal, state, county, or irrigation district test of the water supply will be used when are available. 2. Well water used for irrigation will be tested per the risk assessment.	
6.3.5	A suitable laboratory (certified or licensed for this testing) will be used to test water.	Recom.
6.3.6	1. If the risk analysis so requires, adverse results are acted upon before the next harvest cycle. 2. Records are available of corrective actions or decisions taken.	Minor.
CB6.4	**Supply of Irrigation / Fertigation Water**	
6.4.1	**Water sources:** Irrigation water general comes from one source. 1. Surface water such as ponds or ditches is the primary source. 2. Limited acreage is irrigated by means of irrigation wells. 3. A recorded permit or certification of water rights is available on request from the grower.	Minor
CB.7	**Integrated Pest Management (IPM)**	
7.1	**Assistance in implementation:** 1. Technically responsible person(s) on the farm receive formal documented training and/or an external technical IPM consultant, who can demonstrate their technical qualifications, is used.	Minor
7.2	**Pest Prevention:** 1. Growers work at implementing activities that include the adoption of cultural methods that could reduce the incidence and intensity of pest attacks, thereby reducing the need for intervention. Sanding of bogs is one such measure	Major

	2. Plant nutrition management is employed to maintain the health and vitality of the vines. Foliar nutrient analysis is recommended when deficiencies are noted or every two to three years in select bogs. Soil test analysis is performed about every three years in select bogs. 3. Sanitation: Vines are pruned as needed to reinvigorate plant stands, optimize plant health, improve vine aeration, and improve spray penetration to improve pesticide efficacy.	
7.3	**Observing and monitoring:** 1. Growers work at implementing activities that will determine when, and to what extent, pests and their natural enemies are present, and using this information to plan which pest management techniques are required. Monitoring methods include pheromone traps for monitoring populations of cranberry girdler and fireworm, sweep nets, and visual assessment for pest presence or to gauge levels of damage.	Major
7.4	**Intervention:** 1. Growers can show evidence that in situations where pest attack adversely affects a crop, intervention with specific pest control methods will take place. This may include bog flooding, sanding, or prescribed pesticide applications. 2. Where possible, non-chemical approaches are considered.	Major
7.5	**Anti-Resistance:** 1. When the infestation level of a pest requires repeated controls, anti-resistance or other label recommendations are followed, if specified on the product label.	Minor
CB.8	**Plant Protection Products (PPP)**	
CB.8.1	**Choice of Plant Protection Products**	
8.1.1	**Plant Protection Product lists:** **Individual bog certification (Option 1):** 1. Information is available of the commercial brand names of crop protection products (including their active ingredient composition, or beneficial organisms) that are used on crops being, or	Minor

which have been, grown on the bog under GLOBALG.A.P. within the last 12 months.

2. Plant Protection Product restriction policy is **GP-14: Restriction on Plant Production Products.** (Note: This document is not used when doing an Option 2: Group Certification.) In an Option 2 Group, the Group Administrator will handle Plant Protection Product Lists.

Group Farm Certification (Option 2):

1. The Grower Group Field Technical Staff in conjunction with the Group Administrator will contact his crop protection product supplier(s) and consultant(s) (if used) to determine which products might be used for grower member farm during the current crop year.

2. The Supplier will provide (when asked) an up to date documented annual list of the commercial brand names of crop protection products (including their active ingredient composition, or beneficial organisms) that are used on crops being, or which have been, grown on the bog under GLOBALG.A.P. within the last 12 months.

Plant Protection Product Updates:

Individual Bog Certification:

1. Growers are responsible to communicate regularly with sources such as Field Technical Representative and/or Plant Protection Product supplier to stay up-to-date on changes on national, state, or local legislation for Plant Protection Products. WSU (or similar) Cranberry Pest Management Guide (EB0845E), PNW Insect, Weed, and Disease Control Handbooks, Cranberry Production in the PNW (PNW247) (or similar university guide) is also a good resource.

Grower Group Farm Certification:

1. Grower Group Administrator is responsible to communicate regularly with sources such as Field Technical Representative and/or Plant Protection Product supplier to stay up-to-date on changes on national, state, or local legislation for Plant Protection Products.

2. The Northwest Horticultural Council WSU Long Beach Research and Extension Unit personnel monitors Codex and Foreign Agricultural Service (FAS) changes and issues chemical updates or otherwise informs the industry of these changes or possible changes.

	3. Grower Group Administrator provides information to the growers concerning products that cannot be used for certain markets. The notification is in the Records and Inspection Notebook.	
8.1.2	**Approved Plant Protection Products** 1. Only currently registered United States Environmental Protection Agency (EPA) approved products are used, with the exception of Section 25(b) materials. 2. These products, with the exception of 25(b) materials, have an EPA registration number assigned to them and it is recorded on the application record that is in the Records and Inspection Notebook. 3. Only pesticides currently registered with the Washington State Department of Agriculture (WSDA) can be used. 4. The Washington State University (WSU) Cranberry Pest Management Guide (or similar university guide) is also a good product reference source and the publication is reviewed and updated yearly.	Major
8.1.3	1. Appropriate crop protection products are being used to gain proper control. 2. Product label directions and the Washington State University Cranberry Pest Management Guide Crop Protection Guide and product label directions are adhered to. 3. Technical Consultants also make sure that proper products are used.	Major
8.1.4	**Invoice Records:** Invoices of the registered plant protection products used are kept for record keeping and available at the time as required.	Minor
CB.8.2	**Advice on Quantity and Type of Plant Protection Production**	
8.2.1	**Grower Advisor Qualifications:** 1. In order to purchase registered plant protection products, a grower or applicator must show competency by passing a test administered through the Washington State Department of Agriculture and receive a Private Applicator license. 2. Commercial IPM advisors demonstrate their competency by passing a test administered	Major

	through the Washington State Department of Agriculture and receive a commercial pesticide license. 3. The pesticide license number of the applicator is recorded on the pesticide application record.	
CB.8.3	**Records of Application**	
	Spray Records: Complete application spray records can be found in the Records and Inspection Notebook. Record information must include the following. (Note: State pesticide regulations require information in addition to the following requirements.)	
8.3.1	Name of crop and variety	Major
8.3.2	Application location	Major
8.3.3	Date of application (end date if more than one day applied)	Major
8.3.4	Trade name (or beneficial organism with scientific name) of the product and active ingredient(s) and EPA registration number, with exception of 25(b) materials. *If the active ingredient is not listed on the product label then you do not need to put it on the spray record.*	Major
8.3.5	Name of the operator	Minor
8.3.6	Name of pests or diseases and/or weeds trying to control.	Minor
8.3.7	1. Technical authorization (Name of the IPM consultant or agrichemical field staff. **2.** If the grower makes his own recommendations, his name must also be record as the authorizing part.	Minor
8.3.8	Quantity and rate of material(s) used, including quantity of water and concentration used.	Minor
8.3.9	Type of application machinery (including the equipment I.D. number).	Minor
8.3.10	Pre-harvest interval (as stated on product label or other official sources)	Major
CB.8.4	**Pre-Harvest Interval**	
8.4.1	**Pre-Harvest Intervals**	Major

	1. **Pre-harvest intervals (recorded on GF-05: Plant Protection Product Application Record)** are followed. Growers review their spray records to identify the most restrictive current pre-harvest interval and record that date on the Harvest Log **(GF-07)** form prior to harvest.	
CB.8.5	**Disposal of Surplus Application Mix**	
8.5.1	**Plant Protection Product mixing:** 1. Tank mixes are calculated as to avoid surplus spray mixes. 2. Applying surplus spray and tank washings to the crop is a first priority under the condition that the label application rate is not exceeded. 3. Surplus mix or tank rinsate are disposed of in a way that will not compromise food safety or the environment, and disposal records are kept. 4. **Note:** Care is taken when mixing chemicals to ensure that the correct chemical is used and properly measured and special instructions are followed. The spray tank is properly completed. See the application record for mixing information.	Minor
CB.8.6	**Plant Protection Product Residue Analysis**	
8.6.1	**1. Individual Farm Certification:** 1.1. **Country of destination:** Grower will ask their packing warehouse for any Export MRLs that may apply to their fruit. If none is available, it is assumed that all fruit is only "domestic sales" and will only need to meet U.S. MRLs. **2. Grower Group Certification (Option 2):** 2.1. **Country of destination:** GLOBALG.A.P. Group Administrator will make available a list of current applicable Maximum Residue Levels (MRLs) for the market(s) where fruit is intended to be traded. The Grower Group Administrator will notify all growers of any sensitive plant protection products. 2.2. **GP-14: Restrictions on Plant Protection Products** outlines the procedure Grower Group follows annually for plant protection products restrictions.	Major

	3. Where a group of countries is targeted together for trading, the residue screening system will meet the strictest current applicable MRLs in the group.	
8.6.2	**Plant Protection Product Use Updates:** 1. GLOBALG.A.P. Group Administrator compares the current list of plant protection products used against the MRLs for target export countries to determine if specific plant protection products require special care. 2. WSU Long Beach Research and Extension Unit personnel monitor Codex and FAS changes and issues chemical updates and informs the industry of these changes or possible changes. 3. Information is given to the growers concerning products that cannot be used for certain markets. Notification is usually done through WSU Extension staff. The notification is in the GLOBALG.A.P. manual.	Major
8.6.3	1. The grower (or grower group) completes a risk assessment that evaluates the Plant Protection Product use and the potential risk of MRLs being exceeded. **2.** Note: The risk assessment is based on the criteria explained in Annex CB.6 Guidance to MRLs being exceeded.	Major
8.6.4	1. If required after the risk assessment, current documented evidence or records are available of plant protection product residue analysis results for the GLOBALG.A.P. registered product crops, or of participation in a third-party plant protection product residue monitoring system that is traceable to the farm. 2. When residue tests are required as a result of the risk assessment, the criteria relating to sampling procedures, accredited labs, etc. is followed.	Major
8.6.5	1. **Individual Certification (Option 1):** Growers keep records showing they have followed the residue sampling procedures **(GP-18: Plant Protection Product – Residue Risk Assessment).** **2. Group Certification (Option 2):** Group Administrator (in a Group Certification) or by the grower, providing the procedure (**GP-18: Pant Protection Product – Residue Risk Assessment**) is adhered to by the Group when they take test samples (usually at receiving).	Minor

8.6.6	**Testing Laboratory:** 1. An accredited laboratory following ISO 17025 or an equivalent standard will conduct the residue testing. 2. Testing standards and procedures followed are noted on the test results.	Minor
8.6.7	**MRL Corrective Action:** 1. An action plan is in place if a recommended maximum residue level (MRL) is exceeded. See **GP-14: Restrictions on Plant Protection Products**. 2. In Option 2, the Group Entity, usually a packing warehouse, is responsible for MRL action.	Major
CB.8.7	**Plant Protection Product Storage**	
8.7.1	**Storage:** Plant protection products are stored in a safe and effective manner according to State regulations.	Major
	Storage: Plant protection products are stored in a location that is:	Minor
8.7.2	Sound construction.	Minor
8.7.3	Secure (under lock and key).	Major
8.7.4	Control temperature extremes.	Minor
8.7.5	Plant Protection Product storage facility or room where the plant protection product storage facility is located is constructed of materials that are fire resistant for 20-30 minutes (i.e., metal sides or type "X" sheet rock or equivalent are examples).	Minor
8.7.6	Well-ventilated (for walk-in storage).	Minor
8.7.7	Adequate lighting (natural or artificial) that allows the operator to read the label.	Minor
8.7.8	Plant protection products storage cannot be used for storage of any other materials. The minimum requirement is to prevent cross contamination between plant protection products and other materials (fertilizer, etc.) by the use of a physical barrier (wall, sheeting, etc.). Mixing and measuring equipment are allowed.	Minor

8.7.9	1. The plant protection product storage facilities are equipped with shelving which is not absorbent in case of spillage, such as metal, rigid plastic, or covered with impermeable liner.	Minor.
8.7.10	1. The storage can retain spillage or secondary storage containment capable of containing the spillage. No drains in the floor are allowed.	Minor
8.7.11	**Measuring Equipment:** 1. There are scales and measuring devices for measuring materials for mixing. Scales must be calibrated at least annually and documented. (See **GF-19: Calibration** for scale calibration). 2. Plant protection product storage facilities or mixing/loading area, if different, are equipped with utensils (e.g., buckets, water source, spill response equipment, etc.) for the safe and efficient handling of plant protection products.	Major
8.7.12	1. Near the storage facility, there is adequate clean water and absorbent materials to deal with emergencies. 2. At a minimum, there are absorbent materials such as cat litter, floor brush or broom, dustpan, plastic bags, and a sign designating the emergency materials storage area.	Minor
8.7.13	Keys and access to the plant protection product storage facility are limited to workers with formal training in the handling of plant protection products.	Minor
8.7.14	**Storage:** 1. Plant protection products are stored in their original containers with the original labels attached. 2. In the case of breakage only, the replacement package must contain ALL the information of the original label.	Major
8.7.15	1. Plant protection products that are approved for use on the crops registered for GLOBALG.A.P certification are stored separately within the storage from plant protection products used for other purposes. These other products are clearly marked to prevent misuse.	Minor
8.7.16	Powders are stored on shelves above liquids or in a separate area within the storage unit.	Minor

8.7.17	Growers keep an up-to-date plant protection product stock inventory or record of use available and updated every 3 months when products are being used.	Minor
CB.8.8	**Plant Protection Product Handling**	
8.8.1	**Annual Health Checks**: 1. Health assessments are a part of the state requirements for those who handle certain plant protection products. 2. For plant protection products other than those required by the state, workers cannot be forced to take health tests.	Recom.
8.8.2	**Re-entry After Spraying:** 1. The re-entry period is always observed for all treated bogs. 2. The re-entry period is listed on the pesticide label. 3. Where no re-entry information is available on the label, the spray must have dried on the plants before workers re-enter the application site. 4. Re-entry signs, when required, are posted per the pesticide label, the Worker Protection Standard, and state rules and are monitored by the bog owner or a designee.	Major
8.8.3	**Accident procedures:** 1. An accident procedures document (**GP-10, GP-10s Emergency Procedure – First Aid**) is displayed on the safety bulletin board and within 10 meters (30 feet) of plant protection products/chemical storage and mix/load stations. 2. An accident procedures document (**GP-11, GP-11s Emergency Procedure – Chemical Spill Clean-up**) is displayed on the safety bulletin board and within 10 meters (30 feet) of plant protection products/chemical storage and mix/load stations.	Minor
8.8.4	**Accident / Emergency:** 1. All plant protection products storage facilities and all mixing/loading areas present on the farm have:	Minor

	1.1. Emergency eyeflush capability, 1.2. A source of clean water located no more than 10 meters (30 feet) from these areas to be used for a decontamination shower and/or emergency eyewash consistent with Washington State Labor and Industry requirements, 1.3. A complete first aid kit, 1.4. A clear accident procedure with emergency contact telephone numbers or basic steps of primary accident care, and 1.5. All of the above information is permanently and clearly posted. Bright colored copies, which are laminated, are preferred.	
8.8.5	**Mixing and handling:** 1. When loading and mixing plant protection products, the correct measuring, handling, and filling procedures are followed as stated on the label and state regulations. 2. Facilities, including appropriate measuring equipment, are adequate for mixing plant protection products, so that the correct handling and filling procedures, as indicated on the label, can be followed.	Minor
CB.8.9	**Empty Plant Protection Product Containers**	
8.9.1	**Empty plant protection products containers** are never reused.	Minor
8.9.2	**Disposal:** 1. Proper label or state mandated regulations are followed for disposal of empty containers. 2. These regulations guard against *human exposure*.	Minor
8.9.3	**Environment Safety:** 1. Proper label or state mandated regulations are followed for disposal of empty containers. 2. These regulations guard against *environmental exposure*.	Minor
8.9.4	**Collection:** Plant protection product containers are disposed of through a collection program.	Minor

8.9.5	**Empty Container Storage and Handling**: 1. All the empty plant protection products containers, once emptied, are rendered unusable and are stored, labeled, and handled according to the requirements of an-industry-recognized collection programs or disposal schemes, where applicable.	Minor
8.9.6	**Empty Container Cleaning:** 1. Containers are rinsed three times with the rinse water placed into the sprayer tank. The container is rendered unusable and secured.	Major Minor
8.9.7	**Empty Containers**: 1. Properly rinses containers are kept in a secure area (locked) until they can be disposed of. Note: An unrinsed container is deemed to be a hazardous waste, and must be managed accordingly. 2. Example: Broken bin with a plywood lid is painted and a lock is applied using a hasp. A fenced area at least 5 feet high with a simple gate is used.	Minor
8.9.8	**Regulations:** All local regulations are followed for disposing of empty containers.	Major
CB.8.10	**Obsolete Plant Protection Products**	
8.10.1	**Obsolete Chemicals:** Obsolete plant protection products products are securely maintained, identifiable, and stored separately until they can be disposed of properly. State turn-in days for obsolete chemicals are an excellent resource. Grower will bag, catalog, remove, and turn in old or obsolete plant protection products to the WA State Department of Agriculture at a waste pesticide collection event.	Minor
CB.8.11	**Application of Substances Other than Fertilizer and Plant Protection Products**	
8.11.1	1. Records are available if substances are used on crops and/or soil is not covered under the Fertilizer and Plant Protection Products section. 2. If substances such as homemade plant protection, plant strengtheners, soil conditioners or similar materials are used on GlobalGAP certified crops, records have to be kept and available.	Minor

	3. These records include the name of the substance (and plant from which it was derived from), the trade name (if a purchased product), the bog applied to, the date, and the amount. **4.** The material must be approved if a registration scheme for this substance(s) exists in its country of production. N/A if no such substances are used.	
CB.9	**Equipment**	
9.1	1. All sensitive equipment like fertilizer spreaders, plant protection product sprayers, irrigation systems, equipment used for weighing and temperature control are routinely verified and where applicable calibrated at least annually. 2. The equipment is kept in a good state of repair with documented evidence of up to date maintenance records (**GF-26: Maintenance Log** or available from equipment supplier) for all repairs, oil changes, etc. undertaken. 3. Fertilizer spreader: There must, as a minimum, be documented records stating that the verification of calibration has been carried out by a specialized company, supplier of fertilization equipment or by the technically responsible person of the farm within the last 12 months. **4.** Plant protection product sprayers: The plant protection product application machinery (automatic and non-automatic) has been verified (calibrated) for correct operation within the last 12 months and this is certified or documented either by grower in an official scheme (where it exists) or by having been carried out by a person who can demonstrate their competence.	Minor
9.2	Growers are generally not involved in an independent calibration-certification scheme due to the unavailability of such training.	Recom.

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First issue for use with GLOBALG.A.P. Version 4.0
2	20 May 2013	*NB*	Revision from GlobalGAP V4 to V4.0-2

GLOBAL GAP

FRUITS & VEGETABLES

Section	Title	Level
FV.1	**Soil Management** (N/A if no substrates are used)	
FV.1.1	**Soil and Fumigation** (N/A if no fumigation is done)	
1.1.1	**Soil fumigation:** 1. When and if soil fumigation is used, there is written evidence and justification for its use. 2. This includes location, date, active ingredient, doses, method of application and operator. 3. *Example:* The WSU Cranberry Pest Management Guide provides a rudimentary "justification" for soil fumigants **4. *The use of the soil fumigant Methyl Bromide is not permitted.***	Minor
1.1.2	**Intervals**: If any pre-planting intervals are required, they are strictly followed and recorded.	Minor
FV.2	**Substrates – Not application to the cranberry industry**	N/A
FV.3	**PRE-HARVEST (Refer to Annex CB 1. GLOBALG.A.P. Guidelines – Microbiological Hazards)**	
3.1	**Quality of Water used for Plant Protection Product Application**	
3.1.1	**Risk Assessment for water used in plant protection product mixtures:** 1. A risk assessment (**GP-19: Irrigation Water Risk Assessment)** is conducted. It includes water source, type of plant protection product (herbicide, insecticide, etc.), application timing (growth stage of the crop), placement of application (edible part of the crop, other parts of the crop, ground between crops). (See also **CB.5.6.2.**) **2.** At least annually the grower has plant protection product water tested according to the risk assessment. All test results, through a laboratory analysis, are kept on file.	Major
3.2	**Application of Organic Fertilizer**	
3.2.1	1. Organic fertilizer, providing it is a highly soluble material, is applied prior to upright growth break. (New growth emerges through the bud scales. The tips of uppermost new leaves are visible.)	Major

	2. Interval between application and harvest does not compromise food safety (see also **CB 5.5.2**) (See Guideline for Microbiological contamination). Fertilizer application and harvest records should show this.	
3.3	**Pre-Harvest Check**	
3.3.1	1. Growers check for evidence of *excessive* animal activity in the crop that is a potential food safety risk. 2. Growers must review **GP-27: Animal Risk Assessment** to help determine if they have a significant food safety hazard with animal activity that would require special action to control or eliminate. **3.** Appropriate measures are taken to reduce possible contamination onto the growing area. Subjects to be considered include livestock near the bog, high concentrations of wildlife on the bog, rodents, and domestic animals (e.g., own animals, dog walkers, etc.) **4.** Where appropriate, buffer areas, physical barriers, fences, etc. should be used.	Minor
FV.4	**Harvesting**	
FV.4.1	**General**	
4.1.1	**Hygiene Risk assessment:** 1. **GP-08: Harvest Hygiene Risk Assessment Worksheet:** The risk assessment is reviewed and signed annually by the producer. <u>The worksheet is completed prior to harvest.</u> 2. This analysis covers physical, chemical, and microbiological contaminants; and human transmissible diseases. The worksheet is customized to the products. It includes **FV.4.1.2** to **FV.4.1.12**. 3. In addition to **GF-08: Harvest Hygiene Risk Assessment Worksheet**, there is an inspection of the toilet facilities, verification there is no visible sewage contamination in the production area, employees are instructed in personal hygiene, a written hygiene program, no known employee working that has a transferable disease, and harvest equipment and containers are clean.	Major

	4. The application record is examined to make sure only approved chemicals have been applied and re-entry and pre-harvest intervals have been followed.	
4.1.2	There is a documented hygiene procedure (**GP-20: Food Safety and Worker Hygiene Training**) for the harvesting process.	Major
4.1.3	**Personal Hygiene Implementation:** 1. Workers are instructed in personal hygiene and are aware of the requirement to notify management of any transferable disease. 2. The bog owner / manager or his designee is responsible for implementation of the hygiene procedures and verifying training is effective by visually observing workers performing daily harvest routines. **Hygiene Documentation:** 3. **GP-20 Food Safety & Worker Hygiene Training** is typically used for this training. A training video may be used also.	Major
4.1.4	**Records of Training**: 1. Records are kept for ALL workers receiving specific training on hygiene procedures for the harvesting process. **2. GP-20: Food Safety & Worker Hygiene Training** specific topics include personal cleanliness and clothing, hand washing, wearing of jewelry, fingernail length or cleaning, personal behavior, no smoking or spitting, cell phones, etc. (reference **AF.3.2.2**). Also see **GP-08: Harvest Hygiene Risk Assessment Worksheet (HACCP)**.	Major
4.1.5	**Hygiene Instruction:** 1. Bog owner/manager ensures that workers are complying with the documented hygiene instructions and procedures. **2.** Harvest workers are trained, using written (in appropriate languages) and/or pictorial instructions, to prevent physical contaminants during harvest. Examples: dead animals (frogs, salamanders, mice, gophers, etc.), insects, fruit residue, mold, pest droppings, etc.	Major

4.1.6	**Cleaning of Reusable Equipment:** 1. Reusable harvesting containers, harvesting tools (i.e. scissors, knifes, cranberry harvesters, shaker tables, etc.) are cleaned and maintained. 2. A cleaning and disinfection schedule (at least once a year) is in place to prevent produce contamination, in accordance with **GP-08: Harvest Hygiene Risk Assessment Worksheet (HACCP)**. 3. See procedure **GP-07: Harvest Hygiene Annual Inspection and Cleaning Procedure and GF-08: Harvest Hygiene Cleaning and Inspection Sheet**. 4. Reusable containers or packages are cleaned to ensure that they are free from foreign material. 5. Bins, containers, and bags are checked to ensure they are clean when delivered to the bog.	Major
4.1.7	**Equipment cleaning and maintenance:** 1. Farm vehicles are maintained and cleaned to be free from materials that could contaminate product where necessary according to the risk assessment. 2. Records are kept of equipment cleaning and maintenance using **GF-26: Maintenance Log**.	Major
4.1.8	**Hygiene Facilities (hand washing):** 1. There are hand-washing facilities located on the farm. 2. These are located at a close proximity to the workers and are properly maintained so that they do not cause any hygiene risk. 3. These include soap, disposable towels, and potable water. <u>Hand sanitizer may complement but cannot replace hand-washing facilities.</u> 4. Wash stations are maintained in a clean and sanitary condition to allow workers to clean and disinfect their hands. 5. Workers wash their hands or use an alcohol-based hand sanitizer prior to start of work; after each visit to a toilet; after using a handkerchief/tissue; after handling contaminated material; after smoking, eating or drinking; after breaks; prior to returning to work; or at any other time	Major

	when their hands may have become a source of contamination.	
4.1.9	**Toilet Facilities:** 1. There are clean toilet facilities located on the farm or, if necessary, at the bog with hand washing facilities available at the toilet (preferably on the outside). 2. Field sanitation units are designed, constructed, and located in a manner that minimizes the potential risk for product contamination and are directly accessible for servicing. 3. Fixed or mobile toilets (including pit latrines) are constructed of materials that are easy to clean and they are in good state of hygiene. 4. Toilets are expected to be in a reasonable proximity (500 meters or 7 minutes) to place of work. (Note: Failure point = no or insufficient toilet in reasonable proximity to place of work.) 5. Not applicable is only possible when harvest workers don't come in contact with marketable produce during harvesting (e.g., mechanical harvesting). 6. **Note:** *It is required to do random verification of workers washing their hands after using the toilet. Hand washing devices must be mounted onto the outside of the toilet facility.*	Minor
4.1.10	**Produce containers**: 1. Containers for fruit are only used to contain fruit (i.e., no agricultural chemicals, lubricants, oil, cleaning chemicals, plant or other debris, lunch bags, tools, clothing, etc.). 2. If multi-purpose trailers, carts, etc. are used as produce containers, they must be cleaned prior to use. *Example:* Produce containers used for purposes other than storing fruit are marked so as not to be used for produce in the future. Marking with a **white "X" is recommended**.	Major
4.1.11	Written glass and clear hard plastic handling procedures are in place for greenhouses, where applicable.	Minor
4.1.12	If ice (or water) is used in produce handling at point of during any operations relating to harvest, it made with potable water and handled under sanitary conditions to prevent produce contamination.	Major

FV.4.2	**Final Produce Packing at Point of Harvest** (field packing). ***GP-04: Produce Handling Declaration states no produce packing is done at the field or bog (unless otherwise noted).***	
FV5	Section FV5 applies only to the packer. However, cranberry growers have equipment that removes some of the vines before it is sent to the packing house. Most have a "shed, barn, etc." where the process is handled. The food safety of this process is an important part of cranberry production that we need to consider. Exposed light fixtures, proper cleaning of shed and equipment, etc. The certification body (BSI/NCSI) should be consulted to determine if any portion of FV5 will be applicable to cranberry growers due to this process.	

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First issue for use with GLOBALG.A.P. Version 4.0 Checklists.
2	20 May 2013	*NB*	Revision of GlobalGAP V.4 to V.4.0-2 obligatory June 2013

GLOBAL GAP

PROCEDURES

Understanding the QMS Manual

1. **Table of Contents (TOC)** = Master list of all documents in manual. The TOC is designed to "control" the manual and prevent having and using "obsolete" documents. All documents in the manual are listed in the TOC.
    a. First column on the far left is the revision level (which appears as "REV") of the document. This is what "controls" the document. All documents in each binder must match the revision level for that document in the TOC. (Refer to example at the end of this section.)
    b. Second column is the document number. This is most commonly used when referring to a document. It is easier to write **GF-05** then "Plant Protection Application Record".
    c. Third column is the title or description of the document.
2. **Document Headers:** All documents have the same header information at the top. Upper left is the name of the group. Middle top is the title of the document. Upper right is the document number, revision level, and number of pages. *See the top of this page or example below.*

CranGAP: GRAS²P	Visitor Health / Safety Notification	GP-05 REV 2 Page 1 of 4

3. **Master Procedures:** First three (3) sections (GlobalG.A.P. All Farms, Crop Base, and Fruit and Vegetables) are based on the three GLOBALGAP Checklists; the sections follow the exact same numbering scheme. For every clause in each GLOBALGAP Checklist, there will be a corresponding number in a procedure with a similar name.
    a. The first checklist is called **All Farm Base (AFP) Checklist**. The first master procedure is called **AFP-01: All Farm Procedure**. The numbering of all the sections in the procedure exactly matches the GLOBALGAP Checklist of the same name. In both cases, the numbers run down the left column on all pages.
    b. The TOC lists the master procedure title and each of the main sections. This allows you to locate the approximate area of the master procedure containing what you need to know.
    c. Each number in the first column of the master procedure is followed with an explanation (generally in grower language) as to how the grower could comply with that GLOBALGAP requirement. These are not meant to force a grower to "grow" his fruit using only certain methods. It does allow good flexibility in most areas.

d. **Detailed procedures:** When significant additional detail is required to meet GLOBALGAP requirements, a procedure is provided and it is listed in the procedure section that matches the GLOBAGAP Checklist clause number. Example: **GP-01: Introduction to GLOBALGAP** is a four page procedure which gives a basic explanation of GLOBALGAP's origin and recent history. This would make the master procedure much longer so a separate procedure is provided.

e. **Records (forms):** When a record is required, the form name and number is listed in that procedure. All forms are listed on the TOC. Example: **GF-05: Plant Protection Product Application Record.**

4. **General Procedures:** These "detailed" procedures and forms are grouped together and found in their own sections.

5. There is a cross-reference list **(GP-23: Training and Document Cross Reference)** of GLOBAPG.A.P. required procedures and forms (by clause number and topic).

6. **Manual revisions:**

   a. Most forms will be best used "as is" with no changes in order to keep consistency and help implement the GLOBALGAP Standard efficiently. If you are in a Grower Group, consult the Group Administrator if you believe you need to deviate from using the forms in the manual or you do not understand how to fill them out.

   b. Procedures should only be changed carefully to prevent loss of compliance with GLOBALGAP requirements. (If you are in a Grower Group, consult the Grower Group Administrator). Changes may be proposed and will be reviewed by the Grower Group technical staff and the Group Administrator. *NOTE: From time to time GRAS2P may revise the manual and send out revisions to manual owners. If you heavily customize a procedure replacing it with a new GRAS2P revision could become overly complicated.*

7. **Manual Customization:** Some documents will need to have limited customization due to unique requirements on the farm. These are:

   a. **GP-21: Risk Analysis Worksheet for Worker Safety and Welfare**: The far right column (Number 5) lists preventive or protective measures used. This is typically referring to training procedures. Since growers may use very difference training materials for these health and safety issues, this needs some editing to be accurate. In many cases, the grower may have been provided with a "training manual." In this case, the table of contents of the manual will show individual training topics. Example: If mechanical harvester safety was on page 12 of your worker health and safety training manual, then you would list that in the column 5 box for harvest equipment safety. The entry might read, "Furford harvester training for all field

workers; see *Accident Prevention Program, page 12*. Records are kept of all training".

b. **The Change record** for each procedure will need to have the date of first approval for use and the approver's initials.

Using the QMS Manual

Option 1 – Individual Certification:

1. Review all the procedures as soon as is practical.
2. Some minor customization "may" be required but should be kept to an ABSOLUTE minimum.
3. Review all forms, particularly in reference to your farming activities. Use **GP-31: Organizing Grower Records** as a reference tool to better grasp form use and how to organize them.
4. Completed records must be kept secure (from accidental loss, damage, etc.). You should file completed records promptly.

Option 2 – Group Certification:

1. Review all the procedures as soon as is practical; refer all questions to the Group Administrator.
2. Group Administrator should coordinate all customization required in the manual.
3. Review all forms. Begin using them as they refer to your current farming activities. Use **GP-31: Organizing Grower Records** as a reference tool to better grasp form use and how to organize them.
4. Completed records must be kept secure (from accidental loss, damage, etc.). You should file completed records promptly.

Note: The following procedures require the grower and farm name on them and a signature and date indicating they have been reviewed. This indicates that the grower acknowledges his farming operation falls within the outlined risk parameters and typical controls indicated on each procedure. If the operation does NOT fall inside the parameters of the procedure (mainly risk assessments), then the grower must indicate this on the document what extra controls or corrections will be taken as required by his unique situation.

GP-08: Harvest Hygiene Risk Assessment Worksheet (HACCP)

GP-13: Conservation Plan

GP-19: Irrigation Water Risk Assessment

GP-21: Risk Analysis Worksheet for Worker Safety and Welfare

GP-24: Pit Toilet Risk Assessment

GP-27: Animal Risk Assessment

GP-29: Fertilizer and Micronutrients Storage Risk Assessment

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First issue for use GLOBALG.A.P. Version 4.0 Checklists.
2	20 May 2013	*NB*	Revision of GG V.4 to V.4.0-2

GLOBALG.A.P. History

- GLOBALG.A.P. is a non-profit organization representing a worldwide grower/exporter/importer/retailer community for the global partnership for safe and sustainable agriculture. GLOBALG.A.P. standard incorporates Integrated Pest Management (IPM) and Integrated Crop Management (ICM) concepts within the framework of commercial agricultural production for *long-term improvement and sustainability*.
- It addressees the growing concerns and demands for Good Agricultural Practices (GAPs), including food safety and hygiene, at the primary production level of the food chain.

Scope of GLOBALGAP

- Grower will address and implement control points in 3 sections (All Farm Base, Crop Base, and Fruit and Vegetables).
- Growers will be able to demonstrate their commitment to:Maintain consumer confidence in food quality and safety;Minimize detrimental impact on the environment, while conserving nature and wildlife;Reduce the use of agrochemicals through adoption of integrated production systems;Improve efficiency of use of natural resources such as soil, water, air, and energy;Ensure a responsible attitude to worker health and safety, welfare, and training.**Benefits of GLOBALGAP**
- Greater acceptance of their products by domestic and international market chains.Enhances consumer confidence in food quality and safety and assures confidence to the regulatory authorities.Global acceptance for export sale and supply of food processing units, and serves as a tool in meeting requirements of the World Trade Organization (WTO).
- Increase demand for produce.
- Reduced cost of cultivation and improved quality of produce.
- Continual improvement through periodic monitoring of farm management practices by an independent accredited verification body.**Current Status**
- Retailers are requiring GLOBALGAP certification (or an equivalent standard), As a result, non-certified producers may lose sales to GLOBALGAP- certified suppliers. Many retailers are willing to work with producers who are working towards certification.Producers worldwide are currently adopting GLOBALGAP, with over 100,000 certified in 2010.
- Mad cow disease in England, the dioxin scandal in Belgium, and the rapid introduction of genetically modified foods prompted European legislators to pass a law making retail stores liable for the safety of the food they sell.

In the UK, government pesticide safety inspectors began to test samples of fruit from supermarkets for pesticide residues. *If residues were found to be higher than the maximum allowable, then the stores were prosecuted, and the name of the store carrying the offending fruit was published.*

- Consumers throughout the world are asking how food is produced. They don't understand all the techniques employed in modern agriculture and need assurance that it is grown and harvested in a safe manner. Food Safety and Good Agricultural Practices are a global issue, hence the need for a common internationally recognized standard. **Flexibility**
- The GLOBALG.A.P. protocol allows individual retailers to have the option of overlaying their additional requirements (called "Add-ons") to the GLOBALGAP criteria (e.g., UK retailer Tesco's 'Nature's Choice' production program). This needs to be balanced with the rationale for GLOBALG.A.P., that is, the need for critical mass and efficiencies to limit the number of assurance program).

GLOBALG.A.P.

- GLOBALGAP allows a benchmarking of local standards against their standard for compliance.
- The GLOBALGAP standard is also based on Hazard Analysis and Critical Control Point (HACCP) system, often layered on top of official (national) legislation.
- By adhering to good agricultural practices, the risk of food born illness outbreaks associated with fresh packed produce should be reduced. There are a number of other significant benefits with respect to environmental quality and worker safety and welfare.
- There are **three key elements** to the standard with **food safety** being the first priority. **Environmental protection** and **worker welfare** are also important.These requirements are extensive and each of these issues has three category control points: "Major Musts" (100% compliance), "Minor Musts" (95% compliance) and "Recommended" practices.
- MUSTS are points that have to be achieved, as they are basic requirements for good agricultural practices. In fact, many of them are legal requirements. Regarding RECOMMENDATIONS, the standard intends to be a continuously improving based document, and these points describe criteria that are requested for this purpose, eventually, they could start becoming MUSTS. Thus, we require the RECOMMENDATIONS to be audited and the results given to the audited growers as valuable feedback and orientation.

Where are We Now?

- Many growers are doing "most" of the required things but are not necessarily doing them "**CONSISTANTLY**" or documenting them.

What's Next?

- Growers will need to see that a GAP analysis is done on their farm to determine the difference between what GLOBALGAP requires and what that farm is currently doing.
- A farm will create a corrective action plan, based on the GAP analysis to become compliant with GLOBAPG.A.P. within the timeframe required by the packinghouse or buyer within 4 to 6 months (depending on farm condition).
- Grower will seek certification through a certification body.

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First issue for use With GLOBALG.A.P. Version 4.0 Checklists.
2	20 May 2013	*NB*	Revision of GlobalGAP V4.0 to V4.0-2

This procedure describes the GLOBALGAP group certification process.

1. **Suitability for Certification:** Grower Group, GLOBALG.A.P. Administrator determines suitability of a farm for entry into the GLOBALG.A.P. Program. See "adding New Fields or Bogs" **QMP-01** for criteria.
2. **Training:** The GLOBALG.A.P. Manager provides training and manuals as outlined in the "Adding New Fields or Bogs" procedure (**QMP-01**).
3. **Audits** (internal and external)
    a. A Certification Body (CB) is used to independently review and certify the Grower Group Quality Management System (QMS) to GLOBALG.A.P. standards.
    b. Certification audits are conducted by Certification Body (hired by the grower or grower group) approximately every 12 months with an unannounced external audit occurring annually. During these audits, Certification Body audit team members along with company representatives will visit the GLOBALG.A.P. farms listed in the GLOBALG.A.P. program. A consent form is signed by the Farm Owner or Manager that includes permission for these visits by Certification Body.
    c. During audit visits (internal or external), farm operations, documentation, and records will be examined to determine if they comply with GLOBALG.A.P. standard requirements. Any non-conformances will be noted and explained in detail either during the audit or at the end. These corrective actions must be completed within the specified time (found on the audit report).
4. **Certified**: Once ALL GLOBALG.A.P. requirements are met, as outlined in this document and GLOBALG.A.P standard; a farm is listed as certified to the GLOBALG.A.P standard.
5. **Out of Compliance**:
    a. External audit: If the GLOBALG.A.P. Management (administrative) Program or part of a farm is found to be out of compliance after an external audit it may be temporarily withdrawn from certification until all corrective actions are completed.
    b. Internal audit: If during an internal audit a farm is found to be out of compliance (one major finding or more than 5% of minor findings out of compliance), it may be temporarily withdrawn from certification until all corrective actions are completed. Major findings MUST be corrected and closed out ASAP or within two weeks, whichever comes first. Minor findings MUST be corrected and closed out within 28 days or as noted on audit form. *See **QMF-01: Consent Form** for details on sanctions when corrective action is not completed on time or happens repeatedly*.
    c. Notification of this action will be forwarded to external audit company as required.
6. **Trademark, Logo, and Registration Number use**
    a. The GLOBALGAP Logo and Trademark may not be used on boxes, crates, or pallets (or similar containers).

b. GLOBALGAP registration number may be used on product that is NOT to be viewed by the public. The registration number may be used on correspondence with wholesale customers or buyers for the purpose of communicating registration information.

c. See GLOBALGAP Regulations Fruits and Vegetables, Annex 1 for additional details (Group Manager has copy of this).

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 13	*NB*	Revision of GlobalGAP V.4 to V.4.0-2

Produce Handling Declaration

This document defines "Produce Handling" and outlines it's practice at the Growers Group GLOBALGAP farms.

Harvest year is defined as October-to-September the following year.

GLOBALGAP Standard General Regulations Definitions Annex:

Produce handling: Low Risk produce handling activities consist of on-farm activities, (e.g., packing, storage), and transport off-farm, but excluding the harvest operation and transport from point of harvest to the first point of storage/packing. Packing carried out at point of harvest is considered Produce Handling. This can include storage, chemical treatments, trimming, washing, or any other handling where the product may have physical contact with other materials or substances. Some growers use a vibrating separator (screen) to remove vines and other plant debris as a cursory cleaning.

- **Note: Based on this definition, produce handling is not performed on the farm. No packing is done at the farm or in the field.**

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	*NB*	Revision of GlobalGAP V.4 to V.4.0-2

Welcome to this GLOBALGAP Certified Farm. We would like to thank you for your interest in our farm. We are committed to providing a safe atmosphere for workers and visitors. We ask that you please observe all of our Food and Health Safety Rules as listed below. We are very proud of our Safe-Quality Fruit and ask that all visitors (and workers) follow our rules when on the farm or related areas.

1. **You MUST check-in** with the Farm Manager or a designee BEFORE proceeding to or entering any bog.
2. **Please check the spray boards** (at the central posting area) before entering the bog. Recent spraying is posted on the spray broads. Areas with an active restricted entry interval (REI) cannot be entered.
3. **Please observe ALL signs** – various activities are being performed on the farm at any given time; some are hazardous (such as pest spraying) if you are not properly protected. Please obey all signs posted at the bog.
4. **Please note both potable (drinkable)** and non-potable water sources are on the farm. Please make sure water is potable before you drink.
5. **Please be sure to wash your hands** BEFORE handling any fruit. Hand washing facilities are at the farm office or may be located at a bog.
6. **Be aware of rail cars** and other vehicles and stay clear of their path.
7. **Watch for irrigation ponds or open drainage ditches, which can be a drowning hazard**.
8. **If you are contagious due to a sickness** or have recently recovered from an infectious disease, you must leave and return another day. Food safety is critical and can be compromised by a personal illness. Infectious agents can be spread to fruit.
9. **In case of emergency**, do as instructed by farm employees.

Thank You for Your Cooperation!

Harvest Hygiene Annual Inspection and Cleaning Procedure

1. **Prior to harvest, growers will clean and disinfect bins, trays, totes, burlap harvest bags, or other containers (collectively, containers).**

   1.1. All containers will be inspected for wear and tear and repairs made prior to harvest.

   1.2. Containers will be washed with soapy water and areas of heavy build up of dirt and debris will be scrubbed to lessen the potential contamination of or injury to fruit. The cleaning and inspection is documented on **GF-08: Harvest Hygiene Annual Cleaning and Inspection Worksheet.**

   1.3. During harvest, containers will be randomly inspected for cleanliness and replaced/washed, if needed. Containers deemed non-serviceable (i.e., dirty or broken) will be pulled from service until they can be fixed or cleaned.

   1.4. If harvest containers are provided, it is the growers' responsibility to make sure the containers are clean and serviceable prior to picking.

2. **Prior to harvest, growers will clean and disinfect their reusable harvesting equipment.**

   2.1. All reusable harvesting equipment will be inspected for wear and tear and repairs made prior to harvest.

   2.2. All reusable harvesting equipment will be washed with soapy water and areas of heavy build up of dirt and debris will be scrubbed to lessen the potential contamination of fruit. The cleaning and inspection process is documented on **GF-08: Harvest Hygiene Annual Cleaning and Inspection Worksheet**.

   2.3. During harvest, reusable-harvesting equipment will be randomly inspected for cleanliness and replaced/washed when needed. Reusable harvesting equipment deemed non-serviceable (dirty or broken) will be pulled from service to be fixed or cleaned.

3. **Prior to harvest, growers will clean vehicles used for transporting fruit.**

   3.1. All transport vehicles will be inspected for wear and tear and repairs made prior to harvest. Maintenance will be documented in grower maintenance records.

   3.2. Transport vehicles will be cleaned annually prior to harvest or as needed to avoid contamination (e.g., soil, dirt, plant debris, fertilizer or pesticide residue, petroleum residue, etc.) of fruit. The cleaning is documented on **GF-08: Harvest Hygiene Annual Cleaning and Inspection Worksheet**.

   3.3. During harvest, transport vehicles will be randomly inspected for cleanliness and cleaned, if needed.

References

None

Change Record

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Harvest Hygiene Risk Assessment Worksheet

Note: Must be reviewed annually and updated as required.

Farm / Grower Name: _____

Note: This risk assessment is for cranberry fruit only. Cranberry fruit, in general, does not capture dust and water on rough surfaces and does not come into direct contact with soil during harvest, therefore it is considered to be lower hazard risk. If organic fertilizer is used, a risk assessment must be supplied from the fertilizer's source or the growers must do their own risk assessment using **GF-22: Organic Fertilizer Risk Assessment**.

(1) Material / Equipment	(2) Identify Potential Hazards Introduced, Controlled, or Enhanced by this Material / Equipment	(3) Are any Potential Food Safety Hazards Significant? (Yes/No)	(4) Justify your Decision for Column 3	(5) What Preventive Measure(s) can be Applied to Prevent the Significant Hazards in the Finished Product?	(6) Is this Material or Equipment Critical? (Yes/No)
1 – Water (including irrigation water)	Biological – Yes Chemical - Yes Physical - none	**No**	Pathogens may be present in irrigation water. Chemical residue may be present from chemigating or fertigating the crop.	Well, ditch, stream, and pond water is used on our GLOBALG.A.P. or bogs. This is tested annually for the presence of E. coli and total coliforms (more frequently if problems are found) and adverse results are acted upon pursuant to **GP-19: Irrigation Water Risk Assessment**. Irrigation systems used for chemigation and fertigation must be flushed after each application.	**No**
2 – Reusable equipment and tools	Biological – Yes Chemical – None Physical - Yes	**Yes**	Residue from fruit can build up on tools causing microbiological contamination. Safety guards and other protective devices are installed, maintained, and functional.	Tools must be washed and sanitized before harvest and during harvest as required based on random visual inspection by supervisors. Equipment safety devices are randomly checked by supervisors for functionality.	**No**

(1) Material / Equipment	(2) Identify Potential Hazards Introduced, Controlled, or Enhanced by this Material / Equipment	(3) Are any Potential Food Safety Hazards Significant? (Yes/No)	(4) Justify your Decision for Column 3	(5) What Preventive Measure(s) can be Applied to Prevent the Significant Hazards in the Finished Product?	(6) Is this Material or Equipment Critical? (Yes/No)
3 – Transport (truck, tractor)	Biological – None Chemical – Fluids Physical – Limited	**Yes**	Leaks of hydraulic fluid, motor or lubricant oil, gasoline, diesel, or grease can contaminate fruit or bins.	Careful inspection of all equipment prior to harvest and regularly during harvest. Repair all problems (leaks) before using again.	**No**
4 – Product Containers (bins, totes, trays, buckets, lugs, burlap picking bags)	Biological – Yes Chemical – None Physical – Yes	**Yes**	Animal droppings can be a hazard. Pest harborage during storage. Staples or nails can puncture fruit.	Clean bins before use and sanitize as needed. If provided clean, request documentation from provider. Remove old staples and keep bins in good repair. Store burlap picking bags dry and in an area free of rodents and bats.	**No**
5 – Human Hands	Biological –Yes Chemical – None Physical – None	**Yes**	Proper hand washing procedures are not followed after use of toilet, eating, drinking, sneezing, smoking, etc.	Proper training on and monitoring of hand washing procedures.	**No**
6 – Blood on Hands (cut or open wound)	Biological – Yes Chemical – None Physical – None	**Yes**	Blood-borne illness (pathogens) may be present if cut on hands or arms are not cared for properly. (Use band-aid or other approved covering).	Check workers for open cuts based on random visual inspection by supervisors. Explain to workers about blood-borne pathogens. Train workers that wounds must be covered by bandages and a disposable glove.	**No**

(1) Material / Equipment	(2) Identify Potential Hazards Introduced, Controlled, or Enhanced by this Material / Equipment	(3) Are any Potential Food Safety Hazards Significant? (Yes/No)	(4) Justify your Decision for Column 3	(5) What Preventive Measure(s) can be Applied to Prevent the Significant Hazards in the Finished Product?	(6) Is this Material or Equipment Critical? (Yes/No)
7 – Harvest Workers' Cars	Biological – None Chemical – Motor oil, transmission fluid Physical – none	**No**	Picker's cars may leak fluids such as oil and transmission fluids. Workers can then step in these fluids and track them around. Fluids may also contaminate water used during harvest.	If possible, cars cannot be parked within 50 feet of a field or bog being harvested. If not feasible, a parking plan should be developed by the grower to maximize distance between the field/bog and vehicles.	**No**
8 – Harvest Workers Eating	Biological – Food and associated bacteria Chemical – None Physical – Trash, bottles	**Yes**	Pickers eating in an area with fruit remaining in the bog present a possible contamination issue. Picker's lunches or sacks (with glass) may be left in or on bins. Workers may spill food on bins or fruit creating a suitable environment for bacterial growth, if present.	Designate an eating and drinking area with no harvestable or harvested product present. Trash containers are provided, signs are posted for "eating area," and no bins are moved through this area. Hand washing must be provided. Harvest supervisors should monitor these eating areas to be sure workers are following rules. Glass containers are not permitted in the bog. *Note: Completely harvested areas present no risk since fruit is present in the bog for approximately 8 to 9 months.*	**No**
9 - Fixed or Mobile Toilets near Bogs	Biological – Yes Chemical – Yes Physical – None	**Yes** **Yes** **No**	Overflow of waste if overfilled. Contamination of water if located too close to wells, streams or ditches.	Monitor levels of waste in outhouses annually (prior to harvest) to insure they aren't reaching the top of the hole. Move outhouse and fill in hole if levels get too high. Maintain a pumping schedule	**No**

(1) Material / Equipment	(2) Identify Potential Hazards Introduced, Controlled, or Enhanced by this Material / Equipment	(3) Are any Potential Food Safety Hazards Significant? (Yes/No)	(4) Justify your Decision for Column 3	(5) What Preventive Measure(s) can be Applied to Prevent the Significant Hazards in the Finished Product?	(6) Is this Material or Equipment Critical? (Yes/No)
			High water table. Overflow from flooding (e.g., rain or irrigation water). Sanitation/cleaning chemicals may leak or spill if maintenance is not handled properly.	according to use to prevent potential overflow. Locate pit toilets at least of 100 feet from drinking water wells, ponds, springs, ditches, streams, or other surface water conveyance system. Locate pit toilets in areas not subject to runoff from rain or irrigation water. Locate toilets away from harvestable or harvested fruit.	

Reviewer Signature: _____ **Annual Review Date:** _____

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Traceability for Recall or Withdrawal of Product

1. **Purpose**: To provide clear guidance for all "incidents "where food safety, quality, or legality are a significant issue. *An Incident is defined as: "an event or circumstance that has or could affect food safety in such a way as to compromise public safety or health".*
2. **Scope**: The document covers all incidents that might occur at the grower's farm. Note: This procedure does not apply in a Group situation where a Packing Warehouse is the Group Administrator. In such as case, the warehouse will have a Product Traceability procedure, which will be used.
3. **Responsibility**: It is the responsibility of the grower to respond in a timely fashion to all incidents as required based on the situation.
4. **Procedure**:

   4.1. Incidents are classed as:

      4.1.1. **Class I** – a situation in which there is a reasonable probability that the use of or exposure to a contaminated product will cause serious adverse health consequences or death. **Note: This will always prompt a product recall in accordance with local and/or federal guidelines.**

      4.1.2. **Class II** – a situation in which the use of or exposure to a contaminated product may cause temporary adverse health consequences or where the probability of serious adverse health consequences is remote. **Note: This "may" require a recall but is not likely in all cases.**

      4.1.3. **Class III** – a situation in which the use of or exposure to a contaminated product is not likely to cause any health consequence is remote. **Note: No product recall is required.**

   4.2. **ALL** contaminated product MUST be accounted for during incident response.

   4.3. Use this document to record all results in "Action Taken" column, attach additional sheets as required.

   4.4. Any team member can be contacted; that person will then contact other team members.

   4.5. Follow the steps listed below on following pages until incident is resolved.

When a grower identifies a problem or is notified of a potential problem with their fruit, use this form to collect data. Use this traceability document to record all information of a Trace/Recall. **Record all results in the "Comments" column.**

Step	Description	Comments
1	**What is the Potential Problem (e.g. MRL, PHI violation, foreign object in bin/container):**	
	• Field, bog, or lot number verification	
	• Commodity	
	• Variety	
	• Date warehouse received fruit from farm (if available)	
	• Date packed	
	• What has been done with the fruit? Was it used in some market or dumped?	
2	**Notify all appropriate people of problem**:	
	• GLOBALG.A.P. Group Manager	
	• Field staff	
	• Farm owner	
3	**Verify farm records against warehouse records** to make sure the information is accurate. (Example: If Stevens is the variety but the farm does not grow Stevens, the information is not accurate.)	
4	**Locate** the bog - Review and determine the bog from which the fruit in question was harvested. Document which records were examined to determine this.	

5	**Chemical use (if applicable):**	
	• Chemical residue that exceeds MRL	
	• Determine if the chemical in question was used (review spray records)	
	• How was MRL verified? (Ex: testing lab, etc.)	
	• Who did the testing (lab or company name)?	
	• Was the lab accredited or certified in some fashion?	
	• Determine how much chemical was applied and the circumstances which would lead to a higher than acceptable MRL for this chemical.	
	• Determine if MRL is exceeded based on spray record. Record conclusions with supporting evidence.	
6	**Determine root cause (**if the MRL was exceeded or other problem) or what was the likely root cause.	
7	**Solutions** - What can or will be done to prevent this from happening again.	
8	**Communicate results** - Contact all appropriate people listed in step 2 with results, including a copy of the completed Traceability Report (fax or e-mail). **NOTE:** Be sure the original complaint source (ex. sales desk or end customer) receives notification of investigation results.	
9	**Implement solution** for root cause(s) of problem.	
10	**Audit or verify that solution** has eliminated problem. Record name of person who audited solution.	
11	**Report Close out Date.**	

Conclusion:

References

None

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1. Know who is first aid qualified to give you assistance.
2. Do not make yourself a potential problem in case of a spill or accident by becoming a victim. Error on the side of caution by putting on protective clothing and protective facemask and goggles until you know what chemical you are dealing with and what PPE (Personal Protective Equipment) is required.
3. Get the SDS (Safety Data Sheet) for the chemical or the label and follow the emergency first aid procedures. Notify your supervisor and appropriate personnel from the list of emergency phone numbers listed. (In some cases, call 9-1-1.)
4. The SDS has a 24-hour emergency number to call to obtain more needed information.
5. Remember that the routes by which you can get pesticide exposure are: skin (dermal), eyes, nose (inhalation), and mouth (swallowing).
   - If in the eyes: Make sure you flush with plenty of water for at least 15 to 20-minutes. Make sure to use proper water temperature so as not to damage the eyes. Obtain medical attention.
   - If on the skin: Remove contaminated clothing. Wash material off the skin with plenty of water and soap. If needed seek medical attention.
   - If swallowed: Check the label first, then SDS, to determine whether to induce vomiting or not. If someone is injured and unconscious, do not give anything by mouth and do not induce vomiting. Seek medical assistance and take label, if possible, or a copy of the label and, ideally, the SDS with you.
   - If inhaled: Remove victim or yourself to fresh air. If victim is unconscious seek medical attention. If victim is not breathing perform CPR and seek medical help. (Call 9-1-1.)
6. *Be careful if you administer CPR. Take precautions to ensure that you are safe so that you do not put yourself into a position in which you become a victim.*
7. If you have been exposed to a chemical, pay close attention to how you are feeling for several hours or even a few days after to make sure that signs or symptoms do not appear. If signs or symptoms occur, notify your supervisor and seek medical attention.

Emergency Phone Numbers	
Police, Fire, Ambulance (if not 9-1-1)	
Hospital or Emergency Clinic	
Poison Control Center	800-222-1222
Doctor or Licensed Health Care Provider	
Supervisor	

References

None

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Emergency Chemical Spill Cleanup

General Guidelines:

- Control the Site
- Contain the Spill
- Cleanup and Decontamination
- Contact Appropriate Authorities

Identify pesticide spilled.

1. Wear appropriate protective clothing. This includes goggles, respirator (when needed), label-specified chemical resistant gloves, chemical resistant coveralls or rain suit, and rubber boots or overshoes.
2. Prevent further leakage by repositioning the pesticide container or by applying a seal to the leak.
3. Separate leaking container(s) from other containers.
4. Keep unprotected personnel from entering the area.
5. Confine the spill to prevent it from spreading. Encircle the spill area with a dike of sand or absorbent material. If necessary, dig a ditch or redirect the spill flow from sensitive areas.
6. Cover the spill with an absorbent material if the spill is liquid; if the spill is dry chemical, cover it with a polyethylene material and secure.
7. Prevent ignition of flammable materials.
8. Do not flush the spill into a ditch, sewer, or drain.

Guideline for a liquid spill.

1. Use an absorbent material to soak up the spill. Use only enough material to absorb the spill.
2. Spread the absorbent material around the perimeter of the spill and sweep toward the center.
3. Shovel the absorbent and pesticide into a leak-proof container for subsequent disposal.
4. Label all containers properly and legibly.

Guideline for dry spill.

1. Immediately cover powders or dusts with polyethylene plastic to prevent pesticide materials from becoming airborne. Dampening the dust with a fine mist of water can also minimize spreading.
2. Clean up by rolling back the plastic little by little while sweeping. Ensure that dust remains dampened.
3. Shovel the material into a plastic bag or recovery container.
4. Label all bags and containers properly and legibly.

Properly decontaminate the area and properly dispose of decontaminate material. Use the same process as cleaning up the spill.

Properly decontaminate PPE and tools used.

Make sure that proper disposal regulations are followed as a result of the cleanup.

References

None

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1. Identificar el pesticida derramado
2. Usar ropa protegible apropiada. Esto incluye gafas, respirador, (cuando se necesiten),guantes de goma apropiados , traje o chaqueta resistente al quimíco, botas de plastico o zapatos protectores.
3. Reposando el contenedor de pestecidas se previenen grandes escapes o aplicando sello a la fuga.
4. Separar contenedores de fuga, de otros contenedores.
5. Mantener personal no protegido afuera del area.
6. Límitar el derrame para prevenirlo de extenderse. Rodear el area de derrame con un canal de arena o material absorbente. Si es necesario cabar una zanja o redirigir el flujo de derrame.
7. Cubrir el derrame con material absorbente si el derrame es líquido; ó si el derrame es quimíco seco cubrirlo con material politileno y asegurarlo.
8. Prevenir ignicios de materiales incendiaries.
9. No sacar el derrame a una zanja, drenaje o coladera.

Guías para un Derrame Líquido:

1. Usar material absorbente que subtraíga el derrame.
2. Extender el material absorbente alrededor del perimetro del derrame y barrerlo hacía el centro.
3. Ponga el material absorbente y pesticida con una pala en un frasco bien sellado para guardarlo bien hasta que lo tires despues.
4. Nombrar todos los frascos apropiadamente con una etiqueta o escrita permanente.

Guías para un derrame seco:

1. Inmediatamente cubrir el pesticida de polvo con un plastico politileno para prevenir que lleguen al aire. Tambien se puede minimizar el polvo regandole bastante agua.
2. Limpiar por volteandolo el plastico poco a poco y barrer. Aseguranse que el polvo salio completamente y queda mojado.
3. Poner el material con una pala en una bolsa de plastico o en un frasco protector.
4. Nombrar todas las bolsas y frascos apropiadamente con una etiqueta o escrita permanente.

Descontamine el area apropiadamente y disponga del material derramado apropiado. Use el mismo proceso de limpiar un derrrame.

Descontamine apropiado el PPE y las herramientas usadas.

Asegurarse que todas las regulaciones de limpiar un quimíco son seguidas como resulta de limpieza.

References

None

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Farm operations embrace conservation as a preeminent concern and adhere to responsible production practices for a sustainable farm business while protecting environmental quality. These principles focus on soil heath, water quality, wildlife habitat, and worker welfare.

Soil Health

Weeds are primarily controlled with contact herbicides and residual pre-emergent herbicides are kept to a minimum, allowing noncompetitive weed growth to provide beneficial habitat and soil cover. Drainage systems are maintained to ensure that fields drain quickly and that there is minimal impounding of water. Sand used for sanding is free of weed seeds. Plant nutrients are applied on the basis of the 4-Rs: at the right time (based on soil tests or plant tissue sampling), in the right amount, at the right placement, and using the right formulation.

Water Quality

Sprinkler irrigation systems are assessed for distribution uniformity and irrigation scheduling is practiced to determine timing and quantity of water applied. Systems are designed and operated to prevent offsite application or overspray of sensitive areas. Irrigation scheduling employs soil moisture monitoring that minimizes the potential for over irrigating, resulting in deep leaching of agrichemicals. Drainage ditches have been cribbed and covered or covered drain lines are installed according to USDA-NRCS specifications to minimize contamination during agrochemical applications and to maintain drainage ditch integrity and function.

Environmental Impact

The waste stream is segregated to allow for recycling plastic pesticide containers and cardboard. Burning of dry waste materials is not allowed. Everything that is not recycled is disposed of through waste disposal contractors or landfill sites. Waste oil and used filters are picked up or delivered to a recycling service.

Wildlife Habitat and Conservation

We are aware and concerned with the importance of nurturing an environment that enhances wildlife. Many predators, such as coyotes, hawks, owls, snakes, and raptors are important for the control of meadow voles, mice, gophers, and other problematic rodents. Using lower impact pesticides in an IPM program allows these predators to thrive. Natural wetlands native vegetation on the borders provide habitat for many other types of wildlife and forms the basis for a complex biosphere on the farm.

Specific Environmentally Sensitive Areas on the Farm:

Additional Farm Specific Information:

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

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1. Near the beginning of each growing season, the grower develops a recommended spray program for each commodity. This recommendation is based on their collective experience, crop consultant recommendations, university and industry research, and university and industry publications (e.g., WSU Cranberry Pest Management Guide).
2. The grower will need to consult with the packer/shipper(s), the Cranberry Institute, and WSU to obtain any lists of problematic MRLs or banned plant protection products that need to consider when spraying.
3. The grower, based on their expertise and in consultation with crop advisors or university contacts, will determine the most appropriate pesticides and time of year to use them.
4. The grower will only use products legal and labeled for use on cranberries in their particular location.
5. The grower will abide by any restrictions imposed by the packing warehouse and/or shipper.
6. **Banned products in the EU: Regulation (EC) No 1107/2009 and No 850/2004 Banned and Non-Authorized Pesticide and Persistent Organic Pollutants in the EU.**

   6.1. Each year the grower or grower representative at the packing warehouse and/or shipper reviews **Regulation (EC) No 1107/2009 and No 850/2004**. If it is determined that a chemical in use in the US is banned in the EU, then fruit sprayed with those chemicals will not be exported to the EU.

References

None

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Export Declaration

This document defines the countries that are typical for cranberry exports from the coastal and intercoastal regions of Oregon and Washington State. This list may change during the year based on new customers. The Packing Warehouse and/or Shipper will make the final determination for fruit destination. ***Note: Grower has NO control whatever on the final destination of the fruit they grow.***

Export year is September to October of the following year.

Current Approved Countries (Agrichemicals used were reviewed against MRLs.)

- **EU**

Countries <u>Under Review</u> for Export:

<u>North America</u>

- Canada

<u>Europe</u>

- **<u>Germany</u>**
- **<u>Netherlands</u>**
- **<u>France</u>**
- **<u>Spain</u>**
- **<u>Austria</u>**
- **<u>Switzerland</u>**
- **<u>Poland</u>**
- **<u>Czech Republic</u>**

<u>Asia</u>

- Japan
- South Korea

<u>Central America</u>

- Mexico

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Growers, packing warehouses, and shippers are committed to packing nutritious, high quality cranberries for the fresh fruit market. Most of the cranberries are grown in the western regions of Washington (Pacific and Grays Harbor Counties) and Oregon (Clatsop, Curry, and Coos Counties).

The management of the bogs that grow fruit for the packing warehouse or shipper is monitored by the grower and field technical staff with the packing warehouse or shipper. Farmers or their designee typically have maintained a WSDA pesticide applicators license. This requires the farmer to attend continuing education programs to acquire recertification credits in order to maintain their license. Growers are aware of Integrated Pest Management (IPM) strategies, the safe and proper use of pesticides, and importance of resistance management.

All growers rely on pesticide recommendations from a group of dedicated IPM consultants. Because of the limited size of the industry and of its geographic concentration, oversight of pest management programs used by all producers is overseen by WSU Extension personnel and technical advisors employed by the packing warehouse or shipper.

Pesticides are used in the production of cranberries according to label instructions to combat a range of weed, insect, and disease pests. Pesticides are used only when necessary based on accepted (IPM) practices, which are based on the regular scouting for pests and WSU recommendations. This has proven to be a safe and effective method of dealing with pest pressures in cranberry bogs.

With the relative uniformity of cropping conditions and pest management strategies employed by growers for the packing warehouse or shipper, the following residue-sampling scheme will be employed to provide assurance that MRLs of target markets are not exceeded.

Hazard Analysis:

Hazard	Risk Factor	Risk Level	Mitigation Strategy
Pesticide residues in excess of MRLs in target markets	Crop harvested within PHI	Low	Record PHI on spray application records; verify that no crop has been harvested within interval. (See GF-05 & GF-07.)
	Excessive pesticide application	Low	**Equipment error** – Annual calibration and maintenance of pesticide application equipment including scales and spray equipment. (See GF-19 & GF-26.) **Operator error** – All applicators and handlers either have a WSDA-issued pesticide applicators licenses or are trained according to State and Federal regulations and working under the direct supervision of a licensed applicator. Training includes reading and understanding label directions.
	Exceeding market country tolerances	Low	Maintain list of market countries with current MRLs (see GP-17)

Number of Samples. Sample number will be taken based on the square-root of the number of growers in the certification pool for cranberries. A single sample will be taken from fruit harvested by each selected grower.

Sampling Frequency. Annual fruit samples will be taken at harvest upon delivery of product at the packing warehouse.

Sampling Method. Samples will be taken directly from the bog, field bins at harvest, or from fruit received at the packing warehouse before any postharvest chemical treatments are applied. Samples

will be placed in new, clean plastic bags clearly labeled with the date, lot number or grower name, crop, and variety (or cultivar; e.g., Stevens ,Pilgrim, McFarlin, Grygleski), and any other information required by the analytical lab.

- Cranberries: Arbitrarily select ¼ pound of fruit from each of 10 bins from the selected grower lot and place into labeled plastic bags for a total of 2 to 3 pounds of fruit per sample.

Bagged fruit will be placed into a clean cooler and transported to the analytical lab within the time frame and manner required according their protocols. If transport to the lab is not possible within the required timeframe, samples will be frozen and remain frozen until delivery to the lab is possible.

Procedures for Follow-up if Excess Residue is Detected on Fruit. Although the risk of encountering excess residues is low, in the event such residues are detected, that growers fruit will be segregated and resampled, as described above, and retested for the pesticide(s) in question to determine the validity and/or extent of the problem. Fruit will be directed only toward those markets whose standards can be met.

For MRL testing History for Cranberries, see QMS-06:

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

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2	20 May 2013	*NB*	Revision from GG V4.0 to GG V4.0-2.

Irrigation and Plant Protection Product Water Risk Assessment

Grower 1: _____

Grower 2: _____

Grower 3: _____

Background

Cranberry production in the coastal and inland coastal regions of the Pacific Northwest is dependent on irrigation to supply the water needs of the crop during the spring frost season, during the growing season, and with a "wet harvest" (i.e., flooding bogs). Source water used by producers for irrigation is from ponds, sumps, ditches, and shallow wells.

Microbial Contamination Risk.

Coliform standards. Washington State water quality standards have a two-part criterion for fecal coliform (FC) bacteria for each water classification. For Primary Contact/Recreation (Class A "excellent") water, the FC bacteria geometric mean of samples may not exceed 100 colony forming units (cfu)/dL, and no more than 10% of all samples may exceed 200 cfu/dL. This is the standard used for classification of waters into those that require development of TDMLs for FC bacteria. It should be noted that GLOBAL G.A.P. has no standards for tree fruits, but that these standards are an order of magnitude stricter than those accepted by GLOBAL G.A.P (<1,000 cfu/dl) for crops likely to eaten uncooked.

List of Irrigation/Application Water Sources: _____

_____

_____

HACCP Based Risk Assessment					
Category of Water Source	**ID of Potential Hazards Introduced, Controlled in this Water Source**	**Are There Potential Food Safety Hazards Present?**	**Justification for Decision**	**What Preventative Measures can be Applied to Avoid or Prevent Significant Hazards in the Water Source?**	**Is this Critical?**
Sources of Water					
Ditches	Biological – Yes Chemical – Yes Physical – None	Yes Yes No	Ditches can have higher levels of bacteria and chemicals if they are bordered by pollution sources like horse, cattle, and sheep operations or agricultural areas with excessive fertilizer or pesticide runoff, or by dwellings with malfunctioning or poorly maintained septic systems.	Ditches need to be surveyed for ready access of pollution sources like livestock operations, known agricultural pollution, or failed septic systems. More frequent testing must be done if these pollution sources are present along the ditch system.	No No No
Lakes/Ponds/ Sumps	Biological – Yes Chemical – Yes Physical – None	Yes Yes No	Lakes/ponds/sumps (open sources) typically have higher levels of bacteria and chemicals.	Lakes/ponds/sumps need to be surveyed for ready access of pollution sources like livestock operations, water birds (i.e., birds that are ecologically tied to bodies of water for some part or parts of their lives, such as seagulls, geese, ducks), known agricultural pollution, failed septic systems, and road/highway runoff.	No No No

				More frequent testing must be done if these pollution sources are present along the lake system. Mixing and fill stations include chemical spill kits and chemical storage sheds must be able to contain accidental spills. A spill response plan use be maintained on-site and periodically updated. Application tank and the injection point for chemigation and fertigation must be located at least 25 feet from a water source. Irrigation systems used for chemigation and fertigation must comply with federal regulations and Washington State rules. Agrichemicals cannot be stored within 25 feet of a well or surface water. The structure must be of sound construction with no drains and securable to deter entry by unauthorized personnel. Additional mitigations such as chlorination systems may have to be implemented if irrigation/plant protection product application is expected to	

				occur when harvestable fruit is present.	
Irrigation Well	Biological –Yes Chemical – Yes Physical – None	No No No	Irrigation wells below 100 feet, in most cases, are not a problem due to filtering of water through soil, sand, gravel, rock, etc. However, most wells used in cranberry production are less than 30 feet. Some issues may be present with heavy metals naturally occurring in well areas.	Wells deeper than 100 feet and no know history of heavy metal issues can be tested annually. Shallower wells or those with known contamination issues must be tested quarterly or as required based on results. A well may be "shocked treated" when adverse results are received.	No No No
Irrigation methods (regardless of the source)					
Overhead (e.g., solid set)	Biological – None Chemical – None Physical – None	No No No	Good sprinkler systems that are reasonably maintained do not present a pollution issue for irrigation work.	Regular preventive maintenance on piping and joints, as required.	No No No
Timing of Irrigation					
	Biological – Yes Chemical – Yes Physical – None	No No No	If pollution or contamination is present in irrigation water, then application of water above ground such as overhead could leave contamination on the fruit at harvest. Water used to flood bogs for harvest can also pose a	If pollution may be present, then above ground irrigation may require additional water testing to verify that fruit is safe for harvest. A two-week period of no above ground water on fruit will allow UV light to kill many forms of bacteria but will not necessarily	No No No

			contamination risk to fruit.	eliminate all chemical pollution.	
Crop Contact					
	Biological – Yes Chemical – None Physical – None	Yes No No	Water applications by overhead sprinklers applied just prior to harvest are of concern if the water source is in question. Using a water source in question to flood a bog as an aid to harvest can be a concern.	Make sure water source is clean before using it in overhead irrigation or cooling, especially in the last two weeks before harvest. Conduct additional water testing to verify that source water is safe for fruit harvest.	No No No
Summary of Water Quality					
Irrigation and Plant Protection Application Water Quality	Biological – Yes Chemical – Yes Physical – None	Yes Yes No	Bacteria & chemicals from animals and humans.	Per **WACs 16-202-1003 and 2003 and good practices**, all irrigation systems that chemigate or fertigate must be flushed after each application. **WACs 16-202-1003 and 2003** require that the irrigation system cannot draw water from any water supply unless that supply is protected from contamination.	No No No

Overall Susceptibility for Pollutants and Drain Water of the Sources and the Environment					
Frequency of Analysis					
Frequency of Analysis	Biological – Yes Chemical – None Physical – None	Yes No No	Irrigation water sources are tested in order to determine what GAPs could be implemented to protect water quality.	Random sample tests taken **annually from each source of irrigation water.** Sampling is rotated among the bogs and the location is noted along with results. Not all farms are tested annually but all sources of water are. *Protect waters from uncontrolled livestock or wildlife. **Testing is best done between mid- September and just prior to harvest due to higher risk of bacterial growth or water contact with the fruit.**	No No No

Sampling Scheme and Protocols:

E. coli and fecal coliform bacteria. The level of risk that irrigation water would be contaminated by E. coli and fecal coliform bacteria varies by water system. Therefore, sampling schemes specific to that each water system are described below.

- Sampling periods: Samples will be taken about 2-4 weeks before harvest and during harvest.
- Sampling method:

- Samples will be collected from water sources by either the grower or packing warehouse staff. Samples will be taken by the grower from wells, ponds, ditches, and other surface water being used as an irrigation source.
- Samples will be taken directly from the water source(s) using the sample bottles supplied by Pacific or Grays Harbor Department of Health or an approved laboratory.
- Samples will be properly collected, identified, handled, and stored, and then taken to an approved laboratory for analysis.

Procedures if non-conformance is found. Definition of compliance. For the purposes of this risk assessment, irrigation water will be considered to be in compliance if it meets the GLOBALG.A.P. standard of < 1,000 cfu/100 ml. Additionally, E. coli levels < 126 cfu/100 ml will be considered in compliance.

Irrigation water systems. If irrigation water is determined to be in nonconformance, attempts will be made to identify the source of contamination and prevent further contamination and/or to sanitize the system if such methods are available and approved by state and local standards and regulations.

- Follow-up tests will be conducted to determine if initial findings were valid and if amelioration procedures were effective, should any be undertaken.
- Growers will be required to either sanitize water or find alternative water sources for irrigation in the three-week period before harvest.

Fruit packing/handling systems. At packing house where water is used to flush or remove fruit from trucks, this is a critical control point for the packing house food safety program. This water is treated with a biocide to prevent spread of organisms that can cause fruit decay and food-borne disease causing organisms. Control of concentrations of these chemicals is monitored and controlled with records kept as part of the food safety program.

Summary of Risk Analysis and Action Required:

Water Source	Hazard	Monitoring and Mitigation Strategies

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Change Record

	Date:	App's	Description of Change
1	15 Nov. 2011	NB	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	NB	Revised from GlobalGAP V4.0 to V4.0-2

Purpose:

1) To insure safe worker hygiene practices.
2) Reduce the potential for fruit contamination by an employee.

Introduction

When people go to the grocery store and buy fruit, we want to make sure they get the best fruit possible. Also, grocery stores require us to guarantee that the fruit they sell is not contaminated. Because of this we are asking you to follow a few simple rules when picking fruit.

Summary

It is important that all workers who harvest fruit or handle bins follow proper hygiene practices and establish good work habits. If workers fail to follow these practices or establish good habits the fruit may become contaminated, which may result in insanitary, potentially injurious fruit reaching the store and a customer becoming ill.

Specific Training

1. Avoid spreading germs. Keep your hands clean by washing them thoroughly with soap and water and drying them with a paper towel. Wash your hands before coming to work and after using the toilet, eating food, or smoking a cigarette. Let your supervisor know if there is no soap, towels, or hand-washing water.
2. If you have any open wounds, sores, boils that are not covered or infectious diseases, you are not allowed to handle fruit. Gloves are available from your supervisor. If you are feeling ill, you need to inform your supervisor immediately.
3. Avoid contaminating the fruit. Any fruit that has come into contact with blood due to a worker's cut, abrasion, or other injury must be discarded. Dirty clothing can contaminate the fruit. Always wear a clean shirt and pants to work. Shoes are required while in the bog. If you wear gloves, make sure they are clean.
4. Keep unwanted objects from getting into the fruit. Remove any loose or dangling jewelry and other objects such as pins or broaches that might fall into the bin, container, etc. If items can't be secured in your pockets, remove them and leave them in your car. Personal belongings, like clothing, should be placed in your vehicle or in an area that your supervisor has designated for personal belongings, but never left in the bog.
5. Keep unwanted objects out of fruit container. Thoroughly inspect the container, remove objects before placing fruit into it. If the container is dirty or objects can't be removed, do not use the container. Notify your supervisor that the container should be removed from service. If you remove your jacket, sweatshirt, or other article of clothing, never place the item into a container.
6. Avoid getting food or food containers in the fruit bins. Keep food out of the bog. All food must be eaten away from where fruit is present. Smoking is allowed in areas where fruit is not present. Put garbage in trashcans or bags; never leave it on the ground. Drinking water taken into the bog must be in a plastic jug or bottle. Never take glass into the bog. Never recover fruit that has been spilt or dumped onto the ground. Once fruit hits the ground, it must stay on the ground.
7. No spitting or chewing gum in the field or bog. Avoid coughing or sneezing on unprotected fruit as you may pass along your sickness.

Seguridad de comida y entrenamiento de higiene del empleado.

Meta:

1. De asegurar la practica de higiene.
2. Reducir la contaminacion de la fruta por el empleado.

Introduction

- *Cuando la gente va al super mercado, nosotros queremos dar la mejor calidad de fruta possible. Las tiendas son los que nos reqieren garantizar que la fruta no esten contaminadas. Por esta razon les pedimos que sigan unas simple reglas cuando esten piscando la fruta.*

Resumen

- *Es importante que todos quien cosechan o tienen contacto con los cajones pongan en practica y establescan una buena costumbre de higiene en el trabajo. Si no practican o establesen estas costumbres de higiene la fruta puede ser contaminada, cual puede resultar que la fruta llege contaminada a la tienda y se enfermen los clientes.*

Entrenamiento Basico

1 Para evitar correr germenes. Mantener las manos limpias lavándose con agua y jabon y secandolas con papel. Lavar las manos antes de entrar a trabajar, despues de usar el bano, de comer, y de fumar. Darle a saber a su supervisor si ya no hay agua, jabon o papel para secar las manos.

2 Si tiene una herida abierta, llaga, o un infeccion que no esta tapada no estan permitidos a trabajar con la fruta. Guantes estan disponibles con su supervisor. Si usted se siente enfermo, deberá informar a su supervisor inmediato

3. Evitar a contaminar la fruta. Una fruta que tenga sangre por causa de una cortada o de una herida debe ser descartada. Ropa sucia puede contaminar la fruta. Siempre debe traer ropa limpia al trabajo. Zapatos son requeridos en la huerta. Si usa guantes deben de estar limpios.

4. Eviten objetos no necesarios fuera de la fruta como sogillas, pulseras, y plumas que se puedan caer en sus bolsas de piscar o en los benes. Si no esta seguro de que no se salgan de su bolsa de pantalon porfavor de llevar lo a su carro. No cuelgue objetos personales como las chaquetas o camisas de los árboles. Deben ser colocados fuera de la huerta, de preferencia en su vehículo o en un área que su supervisor ha designado para las pertenencias personales.

5. Eviten objetos no necesarios fuera de los cajones. Revisar sus cajones antes de poner fruta y si hay objetos porfavor de quitarlos. Si su cajon esta sucio o un objeto esta pegado porfavor de no usarlo. Avise a su supervisor si tiene un cajon sucio para que no lo use. Favor de no poner sus chamarra o sueter adentro de los cajones.

6. Mantengan la comida y recipientes afuera de los cajones. La comida deben de ser comido lejos de donde se pisca. Se permite fumar en las zonas donde la fruta no está. Poner la basura en el basurero o en una bolsa, no lo dejen en el suelo. Pueden llevar agua a la huerta en botella de plastico o una yoga. No es permitido llevar trastes de cristal en la huerta. Nunca recoga fruta que esta en el suelo. Fruta que esta en el suelo se queda en el suelo.

7. No escupir en el huerta o goma de mascar. Evite toser o estornudar en la fruta sin protección, ya que puede pasar a lo largo de su enfermedad.

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Risk Analysis Worksheet For Worker Safety and Welfare

Grower / Orchard Name _____

(1)	(2)	(3)	(4)	(5)
Location / Activity	Identify Potential Hazards Introduced, Controlled, or Enhanced by this Step or Process (for Workers).	Are any Potential Food Safety Hazards Significant? (Yes/No)	Justify Your decision for Column 3	What Preventive or Protective Measure(s) can be Applied to prevent the Significant Hazards to Workers
Heat illness (heat stroke)	**Biological** – None **Chemical** – None **Physical** Dehydration, pass out, coma, death	**Yes**	If workers are working in temperatures about 90 degrees without enough water, they may become dehydrated and suffer heat exhaustion (stroke).	Heat/hydration training for all field workers; see Accident Prevention Program, page ____ of Records are kept of all training.
Tractors and Rail Cars	**Biological** – None **Chemical** – None **Physical** - Injury or death	**Yes**	Improper operation	Tractor training for all field workers; see Accident Prevention Program, page ___ of Records are kept of all training.
Cranberry Harvester	**Biological** – None **Chemical** – None **Physical** – Cuts and abrasions on body, pinching and crushing hazard from chains or pulleys.	**No**	Improper operation.	Basic safety awareness of machine operation.
Spraying	**Biological** – None **Chemical** – Yes **Physical** – Injury to eyes, contamination thru skin exposure, inhalation, or ingestion.	**Yes**	Contamination resulting from accidental exposure during use or from drift.	Training is conducted for all plant protection products. Application records are kept. In some cases, workers will have a WSDA private applicator license or be WPS handler trained.
Electrical (shop equipment)	**Biological** – None **Chemical** – None **Physical** - Electrocution	**No**	Possibility of electrical injury.	Periodic building safety inspections that would include building and equipment electrical inspection (power panels, power cords, etc.).
Lifting Safety	**Biological** – None **Chemical** – None **Physical** - Can injure back	**No**	Lifting injuries	Lifting training is covered in the Accident Prevention Program, page ____.of Records are kept of all training.

(1)	(2)	(3)	(4)	(5)
Location / Activity	Identify Potential Hazards Introduced, Controlled, or Enhanced by this Step or Process (for Workers).	Are any Potential Food Safety Hazards Significant? (Yes/No)	Justify Your decision for Column 3	What Preventive or Protective Measure(s) can be Applied to prevent the Significant Hazards to Workers
Hand Tools	**Biological** – None **Chemical** – None **Physical** Injury to hand, eye, or body from accidents	**Yes**	Hand or eye injuries.	Hand tool training is covered in the Accident Prevention Program, page ____.of Records are kept of all training.
Chemical Handling	**Biological** –None **Chemical** – Contamination thru skin, inhalation, or ingestion **Physical** – Chemical burns	**Yes**	Chemical handling injuries	Training is covered in the Accident Prevention Program, page ____.of Records are kept of all training.
Harvest Platform (loading cranberries into trucks)	**Biological** – None **Chemical** – None **Physical** – Bruises or broken bones	**No**	Harvest platforms injury (falls etc.)	Training is covered in the Accident Prevention Program, page ____.of Records are kept of all training.
Fire Prevention	**Biological** – None **Chemical** – None **Physical** – burns	**No**	Burns	Training is covered in the Accident Prevention Program, page ____.of Records are kept of all training.
PPE	**Biological** – None **Chemical** – Contamination exposure in eyes, on skin, or by inhalation **Physical** - None	**Yes**	Exposure to toxic chemicals through the skin, eyes, or lungs.	Training is covered in the Accident Prevention Program, page ____ of Records and through WSDA programs. Records are kept of all training.
Shop Tools (bench grinders, welding equipment)	**Biological** – None **Chemical** – None **Physical** – Metal shavings, slag, hot metal, saw blades	**No**	Eyes and hands injuries.	Shop tool training is covered in the Accident Prevention Program, page _____.of Records are kept of all training.
Forklift	**Biological** – None **Chemical** – None **Physical** – Explosion of fuel and tipping and crushing hazard	**No**	General injuries and filling propane tanks on the fork lift. Improper operation.	Fork Lift training is covered in the Accident Prevention Program, page _____.of Records are kept of all training.

(1)	(2)	(3)	(4)	(5)
Location / Activity	Identify Potential Hazards Introduced, Controlled, or Enhanced by this Step or Process (for Workers).	Are any Potential Food Safety Hazards Significant? (Yes/No)	Justify Your decision for Column 3	What Preventive or Protective Measure(s) can be Applied to prevent the Significant Hazards to Workers
Motor Vehicle	**Biological** – None **Chemical** – None **Physical** – Injury due to accidents	**No**	Operating in an "unsafe" manner.	Motor vehicle training is covered in the Accident Prevention Program, page _____.of Records are kept of all training.
Irrigation Ponds	**Biological** – None **Chemical** – None **Physical** – Can be injured if they fall into a pond	**No**	Ponds can be difficult to climb out. Potential drowning hazard.	Training is conducted for all field staff that work around irrigation ponds. Training outlines the dangers of falling in and how to get out.

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Main Training Requirements:

Note: Items in *Italics* are the only ones that will require significant training at the farm level. The remaining training should already be occurring due to WSDA and Labor and Industry (LNI) requirements. These are all at the "farm level" and do not include Group Administration and Management training. Some additional training may be required for people filling out new forms, but this should be "minimal."

Description	GG #	Source
Safe use of agrochemicals	AF.3.2.2	WSDA, Supplier
Use of dangerous or complex equipment	AF.3.2.2	State L & I Required docs
Health and safety training	AF.3.2.3	State L & I Required docs
First-aid training	AF.3.2.4	State L & I Required docs
Basic hygiene instructions	***AF.3.2.6***	***GP-20, GRASP DVD***
Fertilizer application recommendations	CB.5.2.2	WSDA, Supplier
IPM principles	CB.7.1	GF-25, WSDA, Supplier
Pesticide application recommendations	CB.8.1.6	WSDA, Supplier
Maintenance and calibration of machinery	CB.5.4.1 & CB.8.4.1	Supplier, Grower
Hygiene during harvesting	***FV.4.3.2***	***GP-08, GRASP DVD***

General Documents Required

This cross reference list provides the Control Point, description, and QMS Reference document meeting that requirement,

Note: The first three (3) documents in the manual cover a great many GLOBALG.A.P. requirements and give explanations in farmworker-oriented language of what needs to be done and in many cases how to do it. When requirements are such that more extensive detail is needed, a separate procedure and form is provided.

Control Point	All Farm	QMS Procedure	QMS Form (Record)	How Often is Record Required?
AF.2.2.1	Risk assessment for new sites and when risks have changed	**AFP-01, AF.2.2.1**	**GF-15**	**Annual or with a change in a site's risk**
AF.2.2.2	Management plan to mitigate identified risks		**GF-15**	**Annual or with a change in a site's risk**
AF.3.1.1	Risk assessment for safe and healthy working conditions	**GP-21**		
AF.3.1.2	Health, safety and hygiene policy and procedures	**GP-08, GP-20**		
AF.3.2.1	Training records (templates of records)	**AFP-01, AF.3.2.1**	**GF-10**	**Only as training is done**
AF.3.2.5	Hygiene instructions	**GP-20**		
AF.3.2.8	Procedures for visitors and subcontractors (health, safety and hygiene)	**GP-05**		
AF.3.3.1	Accident and emergency procedures	**GP-10, GP-11**		
AF.3.3.3	Information on hazardous substances (Safety Data Sheets [SDSs], etc.)	**SDS**		
AF.4.1.1	Identification of sources of waste and pollution	**AFP-01, AF.4.1.1**	**GF-16**	**Once, then an annual review**
AF.4.2.1	Waste management plan	**GF-16**	**GF-16**	**Once, then an annual review**

AF.5.1.1	Environmental conservation plan	**GP-13**		
AF.6.1	Complaint procedure	**AFP-01, AF.7**	**GF-11**	**Periodically as needed**

Control Point	Crop Base	QMS Procedure	QMS Form (Record)	How Often is Record Required?
CB.1.1	Traceability system	**AFP-01, AF.7 CBP-01, CB.1, GP-09**		
CB.2.5.2	Policy/Records on use of Genetically Modified Organisms	**CBP-01, CB.2**		
CB.5.3	Template for fertilizer application records	**CBP-01, CB.5,**	**GF-03**	**Each application**
CB.5.5.1, 8.7.14	Template for fertilizer and PPP stock inventory	**Yellow tablet**		
CB.5.6.2	Risk assessment for use of organic fertilizer	**GF-22**		
CB.6.2.2	Water management plan	**CBP-01, CB.6**		
CB.6.2.3	Templates for irrigation/fertigation water usage records		**GF-14**	**Periodic, recommended only**
CB.6.3.2	Risk assessment for irrigation water	**GP-20**		
CB.8.1.4	List of PPPs used	**LNI**		
CB.8.2, 8.3	Template for PPP application records	**LNI**		
CB.5.4.1, 8.4.1	Template for records of maintenance of equipment	**GF-26**	**GF-26**	**Periodically, as work is done**
CB.8.5	Template for records of disposal of surplus application mixtures		**GF-04, at bottom**	**Recommended only**

Control Point	Fruit and Vegetables	QMS Procedure	QMS Form (Record)	How Often is Record Required?
FV.2.1	Templates for justification of soil fumigation and records		**GF-27**	**Rare**
FV.2.2	Templates for records of substrate sterilization	**N/A**		
FV.4.1.1	Hygiene risk analysis at harvesting	**GP-08**		
FV.4.1.2	Hygiene procedures	**GP-20**		
FV.4.1.4	Hygiene instructions implemented		**GF-08**	**Every day of harvest**
FV.4.2.2, 5.5.1	Procedures for inspection process	**N/A. Field packing only**		
FV.5.1.1	Hygiene risk assessment for produce handling	**Warehouse Food Safety Program**		
FV.5.1.2	Hygiene procedures	**Warehouse Food Safety Program**		
FV.5.2.3-5, 5.3.2	Policies, work instructions about hygiene	**Warehouse Food Safety Program**		
FV.5.4.5	Polices and work instructions for rejected produce	**Warehouse Food Safety Program**		
FV.5.4.7	Glass and hard plastic handling procedures	**Warehouse Food Safety Program**		

FV.5.5	Documentation on quality control	**Warehouse Food Safety Program**		
FV.5.6	Procedures and records for pest control	**Warehouse Food Safety Program**		

Quality Management System Manual Development

Quality Management System (QMS) Manual should contain all of the following documents:

QMS Ref. Document	Document Description
GF-01	Contract document template
GF-01	Contract signed by members
GF-14	Farmer register completed
GP-01, GP-02, GP-03	Membership application procedure
GP-04	Management structure
GP-19	Responsibilities and qualifications personnel
GP-06	Document and record control
GP-12	Internal audits and inspections
AFP-01, AF.7	Complaint handling

QMS Ref. Document	Document Description
AFP-01, AF.7, GP-09	Traceability
AFP-01, AF.7, GP-02	Sanctions
AFP-01, AF.7	Withdrawal of product
AF-01, AF.3?	Subcontractors (if any are used)
AF-01, AF.2	Site management
GP-08, GP-20	Hygiene
GP-21	Health, Safety and Welfare Policy
AF-01, AF.4	Waste and Pollution Management Plan
AF-01, AF.5, GP-13	Environmental Conservation Policy
CB-01, CB.2	Propagation Material
CB-01, CB.4	Soil Management
CB-01, CB.5	Fertilizer use
CB-01, CB.6	Irrigation
CB-01, CB.8	Plant protection
FV-01, FV.4	Harvesting
Warehouse (SQF 20000	Produce handling (if applicable)

Below is a listing of GLOBAGAP Checklist clauses that have corresponding State or Federal Regulations.

Description	GLOBALGAP Standard Number	State or Federal Regulations
	AF.3.5.4	WAC 296-800-230
	AF.3.5.5	WAC 246-358; WAC 246-361
Bulletin Board		WAC 16-233; WAC 296-800-190; WAC 296-307-036
Signage posted		WAC 296-307l WAC 296-307-330; WAC 296-800-14005; WAC 16-233
Employee know (and can speak to)		*WA*C 296-307-095
Potable Drinking water		WAC 296-307-095
Restrooms / Portable Toilets		WAC 296-307-095; WAC 296-307-24024; WAC 16-233
First Aid kits		WAC-296-800-150; WAC 16-233-250; WAC 296-307-039
Tools and Equipment		WAC 296-806-200; WAC 296-800-300; WAC 296-307 (e.g. 340, 050, 055)
Hand tool handles are not spilt, broken or loose		WAC 296-307-055 and 296-876
Ladders, stairs and handrails in good repair		WAC 296-306-055 and 296-876
Flammable items		WAC 296-307-5501; WAC 296-307, WAC 296-307-340
Chemical shed		WAC 296-800-1703; WAC 16-228-1220; WAC 296-307-14510

Portable Toilet Risk Assessment

Note: Must be reviewed annually and updated as required.

Grower / Orchard Name: _____

(1) Material / Equipment	(2) Identify potential hazards Introduced, controlled, or Enhanced by this Material / Equipment	(3) Are any Potential food Safety hazards Significant? (Yes/No)	(4) Justify your decision for Column 3	(5) What preventive Measure(s) can be applied To prevent the significant Hazards in the finished Product?	(6) Is this Ingredient Or material Critical? (Yes/No)
Portable Toilets	Biological – Yes Chemical – None Physical – None	Yes No No	Overflow of waste if levels of waste not monitored. Contamination of water if located too close to wells, streams, or springs. Impedance to equipment operation and traffic movement.	Periodically monitor levels of waste in to ensure waste/effluent level is excessive. Locate toilets a minimum of 30 feet from wells, springs, and streams. Locate toilets away from traffic throughways and equipment operational areas.	No

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2	20 May 2013	NB	Revised from GlobalGAP V4.0 to V4.0-2

Portable Toilets

1. Farms with Portable Toilets will need to conduct a risk assessment of siting and using portable toilets pursuant to **FV 4.1.1**. A generic assessment is provided, but it will need to be reviewed annually.
2. There is no exemption for hand washing facilities located at portable toilets for employee use. When farmworkers are on-site, hand washing facilities will be available AT EACH LOCATION unless portable toilets are within 35 feet of each other. Each portable toilet will be checked twice weekly (depending on use) for cleanliness, toilet paper, paper towels, soap, etc. and that it is in serviceable condition (e.g., the door works, there are no holes in the walls, etc.)
3. If toilets will not to be used but workers are nevertheless on-site, the portable toilets will be locked.
4. Toilets must be accessible but located to minimize impedance of vehicular traffic and equipment operation. Toilets should not be located within 30 feet of surface water or wellheads.
5. Portable toilets must be constructed of materials that are easy to clean and with catch basins designed to prevent contamination by wash water.
6. A period inspection schedule based on use must be prepared and implemented. During scheduled inspections, the grower or designated person will assess location safety, cleanliness, supply replenishment, and level of effluent. Observations and actions will be noted on your inspection worksheet (**GF-12: Portable Toilet Inspection Checklist**).

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	NB	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	NB	Revised from GlobalGAP V4.0 to V4.0-2

Plant Protection Product Application Record
Explanation of Terms

1. Include **First and Last Name.**
2. The **physical address of each location is noted**. Agricultural land includes areas producing an agricultural or horticultural commodity. It doesn't include transportation and utility right-of-way.
3. If the **person's name** is the same as No. 1, write "same" in the space for the licensed applicators name and include the license number (if applicable) and telephone number. Include first and last name(s) of person(s) who applied the pesticide. Include license number(s) if applicable.
4. **Bog number(s)** associated with the physical address are noted and the bog designation is recorded. Multiple bog numbers require multiple block treatments unless the entire bog is being treated. Indicate type of land or site treated, not a location. Example: Cranberries, right-of-way, lawn, trees and shrubs, banks or berms, etc.
5. **Date** may be spelled out or indicated numerically. Application start and stop time must be indicated. Weather conditions must include the direction from which the wind is blowing. Measure velocity in mph. If the wind varies in direction and velocity during the application, indicate a range (i.e., S-SW at 3-7 mph). Temperature must also be indicated in degrees Fahrenheit and may be listed as a range experienced during the application. Wind and temperature readings must be obtained at the application site.
6. **The longest (most restrictive) Re-Entry Interval** (REI) of the product in a tank mix is recorded along with the date and time that workers are allowed in to that area. This information along with a application date/time is posted at the central posting area as required by the Worker Protection Standard.
7. **The longest (most restrictive) Pre-Harvest Interval** preempts products with a shorter interval.
8. **Gallons applied per acre**.
9. May also be stated in terms such as linear feet, cubic feet, etc. (Specify the term to which the number refer.) If spot treatment, write spot treatment.
10. **Recommendation:** Unique identifier showing what information was given to apply that application. If the application was not based on a consultant's recommendation (that is, you made the recommendation), then write "Self."
11. **Method of application**. Circle one.
12. **Brand name** found on the pesticide label including adjuvants (e.g., buffer, spreader, sticker, surfactant, etc.). **Active Ingredient** must be recorded at the central posting area, as by the Worker Protection Standard.
13. **EPA No.:** This number is found on the plant protection product container label. If the material is being applied under a federal experimental use permit and no EPA Reg. No. exits, list the federal experimental use permit number. If the material is a spray adjuvant (e.g., buffer, spreader, sticker, surfactant, etc.) write "adjuvant" in this space and record the state registration number.
14. **Rate per acre:** Other measures may include amount/square foot, amount/linear foot., etc. Specify the term to which the number refers. Total product applied is the total product applied between start and stop times. This may be listed in various ways, such as: Amount of product/100 gallons water, percent formulation in the tank mix (i.e., 1%), gallons per acre of output volume, ppm (or other measure), or inches of water applied (chemigation). Specify the term to which the number refers.
15. **The specific pest** of which the pesticide is being applied.

Grower / Orchard: _____

Type of Animal	ID of Potential Problem Controlled or Enhanced by Location or Method of Storage	Are There any Potential Storage Hazards Present?	Justification for Decision	What Preventative Measures can be Applied to Avoid or Prevent Significant Issues in the Product?	Is this Critical?
Large Wild Animals (Deer, Elk, etc.) and Water birds (i.e., Birds that are ecologically tied to bodies of water for some part or parts of their lives; geese, ducks, seagulls.)	Feces – Yes Dead animals - Yes Plant damage – Yes	Yes Yes No	Concentrations of water birds and groups of large animals may leave considerable feces when foraging on beds. If this occurs close to harvest, animal presence may result in some contamination of fruit. Large dead animals are very rare. Cranberry beds and sprinkler systems are damaged from animal feeding and trampling.	Large herds are fairly rare in most areas. Growers are aware of their problems and remove animals from the bogs regularly by warning shots from guns or by harassment, fencing, etc. They may be present around harvest time as fruit ripens and becomes more palatable. Bogs are monitored frequently at night during this time to mitigate large animal-related problems. If the problem is severe, the Washington Department of Fish and Wildlife is contacted to have a Master Hunter remove problem animals that have become habituated to feeding at sites or the property is fenced with deer/elk proof fencing. Dead carcasses are removed immediately and area is cleaned as required. If harvestable fruit is present at the time, a perimeter must be delineated wherein product cannot be harvested.	No No No

Small Wild Animals (i.e., frogs, salamanders squirrels, ground hogs, etc.)	Feces – Yes Dead animals – Yes	No No	Small, dead animals do happen and are cleaned up quickly. Since this is not very frequent in most cases, it is not a serious cause of possible contamination.	Bins and burlap harvest sacks are checked for dead animals (and foreign matter) before they are used. Contaminated bins and sacks are set aside until they can be cleaned and sanitized. Visual inspection of harvested fruit for frogs and salamanders. Fruit known to have come in contact with such should not be harvested.	No No
Rodents (Rats, moles, gophers, etc.	Feces – None Dead animals – None	No No	Rodent feces are certainly present on farms and in fields or bogs but not in great quantity.	Farmyard and area around bogs are kept clean and free from debris that would serve as food or shelter to harbor rodent populations. Raptor posts and perches are encouraged.	No No
Domestic Animals	Feces – Yes Dead animals – None	No No	Some farms have domestic dogs for wild animal control (elk, deer, etc.). They have proven very effective in scaring off these animals. Dogs are in limited quantity and are a limited source of animal feces.	While dogs (and similar domestic animals) could potentially leave some feces in a bog, it is limited. Growers are cautioned to keep domestic animals (dogs, etc.) out of their bogs to help limit animal feces.	No No

List of Animal Issues (if any):	Control Measures Taken?

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **First Review Date:** _____

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	*NB*	Revised from GlobalGAP V4.0 to V4.0-2

CB. 7.2 Preventative measures for pest management in cranberry production.

1. Cranberry producers in the coastal and intercoastal regions of Oregon and Washington utilize the following methods for preventative pest management:
2. **Plant nutrition management.** Both soil and foliar fertilizers are applied in amounts needed to ensure optimal prescriptions of major and minor nutrients to maintain the health and vigor of cranberry vines. This practice reduces the effects of diseases such as Rose bloom, field rot, and storage rot, and lessens pressure from attack by insect pests such as tipworm. Frequent field scouting throughout the growing season as well as pack-out and cull analysis of harvested fruit are the foundation for soil fertility programs used by growers. These assessments verified with foliar tissue analysis soil test sampling, which are undertaken every three years.
3. **Sanitation.** Vines are pruned and trained annually during the dormant season or during harvest. Pruning also destroys hiding areas for insect pests and improves spray penetration so pesticides can be used more efficiently. Old leaf and shoot debris along with fruit from pruning, sorting, and cleaning is removed from and around the beds. Debris is oftentimes burned to reduce its potential as a source of disease inoculum.
4. **Disease free nursery stock.** If new patented varieties are used, like Crimson Queen, nursery stock used for both bed renovation and new plantings are purchased from reputable nurseries that provide certification that their plant material is disease free. For traditional vines – like Stevens, beds are inspected to ensure that they are disease and insect free prior to purchase.
5. **Drainage.** Beds are well-drained using cribbed and covered ditches and in-bed drain lines.
6. **Irrigation.** Beds are not over-irrigated. Irrigation scheduling is based on calculated evapotranspiration rates or on soil moisture sensor readings.
7. **Weed Control.** Weed populations are kept at a minimum to improve bed air drainage and spray penetration, and to prevent fruit damage during harvest.

CB. 7.3 Observation and monitoring methods used for pest management in cranberry production.

1. Continuous monitoring of pests during the growing season is conducted by trained IPM consultants or knowledgeable experts.
2. Monitoring methods include:
    a. Pheromone traps for monitoring populations of Blackheaded Fireworm and Cranberry Girdler.
    b. Night sweeping to assess population densities of Blackvine Weevil.
    c. Hand lens inspections of uprights for the presence of Tipworm.

3. In addition, presence and relative population densities of other pests, such as Cranberry Fruitworm, Twig Blight, Rose Bloom, Lecanium Scale, Phytophtora Root Rot, Red Leaf Spot, and Cottonball, are monitored by visual observation on a regular basis.
4. Chemical controls are only applied when significant risk of infection has been determined.

CB. 7.4 Intervention measures used for pest management in cranberry production.

1. Flooding, practiced with wet-harvested beds, is used to kill Blackvine Weevil larvae.
2. A wide array of insecticides and fungicides are used for the control of cranberry pests. Products with different modes of action are used to balance efficacy with resistance management strategies. The majority of these products have very low mammalian toxicity (i.e., signal word "Caution") and minimal non-target effects on parasitoids.
3. Selective pre- and post-emergent herbicides are used only as needed. Herbicides are applied as "spot treatments" to control minor infestations. Weeds that are difficult to control are removed by hand.

Change Record

Rev.	Date	Approval	Description of Change
1	15 Nov. 2011	*NB*	First release for use (provided by Dr. Peter Sanderson)
2	20 May 2013	NB	Revised from GlobalGAP V4.0 to V4.0-2

Fertilizer and Micronutrients Storage
Risk Assessment

Grower / Bog: _____

Type of Fertilizer	ID of potential problem controlled or enhanced by location or method of storage	Are there any potential storage hazards present?	Justification for Decision	What preventative measures can be applied to avoid or prevent significant issues in the product?	Is this Critical?
Bags	Moisture – Rain or irrigation water Heat – UV light Wind – None	Yes Yes No	Moisture can result in the degradation of fertilizer products, rendering the material unusable. Some fertilizer materials, especially micronutrients, may deteriorate in the presence of sunlight. Wind is not likely to cause any problems	Bags must be protected from moisture and direct sunlight. Material must be placed on a pallet in a sound, securable storage structure or a utility building.	Yes No No
Plastic Containers (0.5 to 5 gallons are typical)	Moisture – Rain or irrigation water Heat – UV light Wind – None	Yes Yes No	Plastic containers are UV stabilized. Containers are sealable to prevent spillage and to keep moisture and contaminates out.	Store plastic containers on a pallet in a sound, securable storage structure or a utility building with secondary containment.	No No No
Other	Moisture – Heat – Wind –	Yes Yes No			No No No

Fertilizer and Micronutrients Storage
Risk Assessment

List of Fertilizer Issues (if any):	Corrective Measures Taken?

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **First Review Date:** _____

Change Record

Rev:	Date:	App's	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 13	NB	Revised from GlobalGAP V4.0 to V4.0-2

1. Purpose

1.1. This policy is to outline the handling of general food security on the farm.

2. Scope

2.1. These policies and procedures cover all aspects of the cranberry operation and include all employees.

3. Responsibility

3.1. Farm owner or manager is responsible for food defense and security on the farm.

3.2. All workers are responsible to report unusual activities or behavior.

3.3. Growers promote food defense and security to all employees in an effort to make them more aware of the risks and dangers and the steps required to protect our food supply from many different types of problems.

4. Procedures

4.1. Product trace and recall are outlined in **GP-09: Traceability for Recall or Withdrawal of Product.**

4.2. Investigation of Suspicious Activities

4.2.1. Growers or their designee will investigate all reported signs of tampering, or other malicious, criminal, or terrorist-like actions.

4.2.2. Growers will alert appropriate law enforcement and public health authorities about any threats or suspected tampering, or other malicious, criminal, or terrorist actions.

4.3. Evaluation of Suspicious Activities

4.3.1. Growers or their designee will examine the results of any past tampering or other malicious, criminal, or terrorist actions.

4.3.2. Growers review and verify, at least annually, the effectiveness of their food security policies, and implement program changes accordingly.

4.3.3. Growers perform random food security inspections of all appropriate areas on the farm.

4.3.4. Growers will verify that security contractors are doing an appropriate job, when applicable.

4.4. Staff Screening

4.4.1. Growers will examine the background of all new workers who work in sensitive areas, such as using agrichemicals (pesticide application).

4.4.2. Note: Screening will be applied to all people in sensitive positions regardless of race, national origin, religion, citizenship, or immigration status.

4.5. **Daily Work Assignments**

4.5.1. Growers or Farm Managers will know who should be on the farm premises and what they are assigned to do. This information will be kept updated.

4.6. **Identification**

4.6.1. Grower has established a system of identifying workers with a badge or another means, where required.

4.7. **Restricted Access**

4.7.1. Growers have identified chemical storage areas and have placed procedures into practice that limit access to these critical areas. Chemical areas are in a sealed room with locks. All keys/combinations are controlled and monitored.

4.7.2. Access to keys/combinations is periodically reviewed to be sure it is controlled well.

4.7.3. When workers with restricted access keys leave farm employment, their keys are retrieved before they leave. In the event a key is not recovered, the locks will be immediately changed to all restricted areas for which the key or keys are missing. New keys will be issued as required. If combination locks are used, combinations will be changed.

4.7.4. The activities of off-duty workers and visitors are monitored by means of an escort at the discretion of the grower (based on potential threats). In special cases entrance points are used and must be clearly marked and monitored as required.

4.8. **Personal Items**

4.8.1. No personal items are allowed in picking areas.

4.8.2. Personal medicines are allowed but must be kept in employee vehicles until needed (unless they have a physician's note).

4.9. **Unusual Behavior**

4.9.1. Periodically the grower will hold awareness sessions to remind workers (permanent, seasonal, temporary, contract, or volunteer staff) on how to prevent, detect, and respond to tampering or other malicious, criminal, or terrorist actions or threats.

4.9.2. Reminders usually take the form of meetings.

4.9.3. Watching for unusual or suspicious behavior by workers. For example: Workers who, without an identifiable or justifiable purpose, stay unusually late after the end of their normal work period, arrive unusually early, access areas of the farm outside their area of

responsibility; remove documents from the farm office; ask questions on sensitive subjects; bring cameras to work, etc.

4.10. **Staff Health**

4.10.1. Growers will be on alert for untypical worker health conditions that workers may voluntarily report and unwarranted absences that could be an early warning indicator of tampering or other malicious, criminal or terrorist actions. (Example: An unusual number of workers who work in the same part of the farm reporting similar symptoms within a short time frame or reporting such conditions to local health authorities.)

4.11. **Public Access**

4.11.1. The grower, as required, may inspect incoming and outgoing vehicles for suspicious, inappropriate, or unusual items or activity to the extent practical.

4.11.2. Access to the farm or bog may be restricted to certain entrances during picking hours.

4.11.3. Visitors will be asked to validate their reason for visiting and may be denied access for any reason which leads the grower to believe that their visit is not required or not in the best interest of food safety and security.

4.12. **Physical Security**

4.12.1. All sensitive areas, such as chemical and fertilizer storage structures, are to be secured when picking is done for the day or as security requires. Consult relevant federal, state, and local codes before locking certain areas.

4.12.2. All keys to the farm (in particular, storage areas) are controlled and accounted for with special attention to plant protection product storage.

4.13. **Storage and use of Chemicals**

4.13.1. Access to plant protectant products are limited and controlled by means of keys. These substances are stored away from food products and picking containers.

4.13.2. All poisonous and toxic chemicals are labeled properly and stored safety and according to all federal and state requirements.

4.13.3. An up-to-date inventory of all agrichemicals will be kept in the storage room or the farm office.

4.13.4. Stock will be checked regularly and the grower or a designee will report and investigate any discrepancy immediately. Appropriate law enforcement agencies will be notified, as required.

4.14. **Storage**

4.14.1. Track the use of all plant protection products through spray records.

4.14.2. Investigate missing or extra stock or other irregularities outside a normal range of variability and report unresolved problems to appropriate law enforcement and public health authorities, when appropriate.

4.15. **Security of Water and Utilities**

4.15.1. Growers will limit access, where practical, to controls for water and electricity.

4.15.2. Irrigation water will be tested annually.

4.16. **Finished products**

4.16.1. Growers perform random inspections of container storage areas and of vehicles (trucks) for suspicious conditions.

4.16.2. Investigate missing or extra stock or other irregularities outside the normal range of variation and alerting appropriate law enforcement and public health authorities about unresolved problems, when appropriate.

Risk Assessment Table					
Type of Risk	**Example of Potential Risk**	**Are Potential Risks Present or Significant?**	**Is this Likely?**	**Justification for Decision**	**What preventative measures can be applied to avoid or prevent significant issues in the product?**
Suspicious Activities	Product (fruit) tampering with metal blades, toxic fluids, etc. Malicious actions such as damaging (bruise, gouge, etc.) fruit.	No	No	Tampering is all but unheard of in cranberry operations, due to the cleaning and sanitizing activities in most packing warehouses. Occasional problems with harvest workers dropping things in a container, but this is usually not on purpose or malicious.	**Investigation:** The farm owner is in charge of food defense for their farm. All workers are responsible to report unusual activities or behavior. Growers or their designee will investigate all reported signs of tampering or other malicious, criminal, or terrorist-like actions. Grower promotes food defense and security to all employees in an effort to make them more aware of the risks, dangers and steps required to protect the food supply from many different types of problems. Growers will alert appropriate law enforcement and public health authorities about any threats of or suspected tampering or other malicious, criminal or terrorist actions.
Unusual Behavior	Workers without an identifiable purpose stay unusually late after the end of their normal work hours arrive unusually early, access areas of the farm outside of the areas of their responsibility; remove documents from the farm office; ask questions on sensitive subjects; bring cameras to work).	No	No	Although rare, it is possible for workers to steal, damage, or adulterate food products.	**Investigation**: Grower follows up on all reports of unusual behavior as listed in Column 2. Periodically, the grower will conduct awareness sessions to remind workers (permanent, seasonal, temporary, contract, and volunteer staff) and respond to tampering or other malicious, criminal actions or threats.

Plant Protection Product Access	Theft of sensitive or hazardous plant protection products that could be used for malicious, criminal or terrorist activities. Some staff will work with hazardous or sensitive plant protection products.	Yes	No	Although plant protection products are hazardous, they are much safer now than any previous period of agriculture. It is still possible that workers may intentionally contaminate fruit. This is largely limited to those who handle plant protection products.	**Securing**: Growers have identified chemical storage areas, which are restricted and put procedures into place which limit access to these structures. Chemical areas are in a secure structure or secure area within a structure with locks. All key/combinations are controlled and monitored. Access to keys is periodically reviewed to be sure it is controlled well. When workers with restricted access keys leave farm employment, their keys are retrieved before they leave. If a key is not recovered, the locks will be immediately changed. If combination locks are used, combinations will be changed. Growers will alert appropriate law enforcement and public health authorities about any threats, suspected tampering, or other malicious, criminal, or terrorist actions.
Public Access to Orchard Areas	Pesticide application can pose a danger to employees or to the public before the REI has expired. Fruit could be adulterated (tampered with).	No	No	Public access is not a serious issue at this time. Occasionally, curious onlookers may enter a bog at harvest time.	**Limiting**: Visitors will be asked to validate their reason for visiting and may be denied access for any reason which leads the grower to believe their visit is not required or not in the best interest of food safety and security. The grower may inspect incoming and outgoing vehicles for suspicious, inappropriate, or unusual items or questionable activity, to the extent practical.

Personal Items	Fruit is exposed to personal medications or blood, or to other fluids on personal clothing.	Yes	No	Personal items that will contaminate the individual and render them unfit for consumption.	**Prevention**: No personal items are allowed in picking areas. Personal medicines are allowed but must be kept in employee vehicles until needed (unless they have a doctor's note) Employees are monitored daily to GP-08. They are monitored for cleanliness, jewelry, plastic water containers, or personal items that don't belong in the picking area.
Physical Security of Farm Areas	Limited issue except during harvest time. Malicious or terrorist activities possible by people entering areas on the farm.	No	No	Growers should take ownership of food safety without relying on the packing house or post0farm subsequent steps.	**Limiting**: All areas are to be secured when picking is done for the day or as security requires, for example, location relative to chemical and fertilizer storage rooms. All keys to the farm facility are controlled and accounted for with special attention to chemical or other ingredient storage.
Storage and use of Chemicals	Theft of sensitive or hazardous plant protection products that could be used for malicious, criminal, or terrorist activities.	No	Yes		**Securing**: Access to poisonous and toxic chemicals or substances is limited and controlled by keys. Stock will be checked regularly and grower or a designee will investigate any inventory discrepancy immediately.
Security of Water and Utilities	Water and to a lesser degree utilities can be tampered with.	No	No		**Securing**: Growers will limit access, where practical, to controls for water and electricity. Irrigation water will be tested annually at least, unless in the incidence of possible tampering.

References

None

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	11 Oct. 2012	*NB*	Revised to add risk assessment table with additional detail.

Revision	Form No.	Form Name	Review Frequency
2	GF-02	Orchard Emergency Contact Information	Annual
2	GF-02s	Orchard Emergency Contact Information (Spanish)	Annual
2	GF-03	Fertilizer Application Record	Periodic
2	GF-04	Spray Recommendation for Application Sheet	Seldom or never
2	GF-05	Plant Protection Product Application Record	Frequently
2	GF-06	Toilet and Hand Washing Facility Inpection Sheet	Twice a week if needed
2	GF-07	Harvest Log	Periodic
2	GF-08	Harvest Hygiene Annual Cleaning and Inspection Worksheet	Annual
2	GF-09	Visitor Sign In / Out Form	Periodic
2	GF-10	Training Attendance Record	Periodic
2	GF-11	Customer Corrective Action Request Form	Seldom
2	GF-12	Portable Toilet Annual Inspection Works~~S~~heet	Periodic
2	GF-13	Maintenance and Calibration of Application Equipment	Obsolete
2	GF-14	Agricultural Activities Log	Seldom or never
2	GF-15	Risk Assessment for New Agricultural Sites	Annual
2	GF-16	Waste and Pollution Management Risk Assessment Log	Annual
2	GF-17	Planting Log	Annual
2	GF-18	Soil Erosion Control	Annual
2	GF-19	Calibration	Annual
2	GF-22	Organic Fertilizer Risk Assessment	Annual
2	GF-23	Preventive Techniques Integrated Pest Management	Annual
2	GF-24	Monitoring and Observing Techniques Integrated Pest Management	Annual
2	GF-25	Intervention Techniques Integrated Pest Management	Annual
2	GF-26	Maintenance Log	Periodic
2	GF-27	Soil Fumigation	Annual

Instructions: Review each record and determine if it "applies" to your farm, then place an "X" in the "Used" box. The completed list will be all the record each grower is responsible for and how often they are to be filled out. This gives a broad overview of the real record requirements which should not involve much more time than is already required by Federal and State requirements.

Used?	Number	Name or Description	How Often Used?	Tab Name in Binder	Control Point(s)
	GF-02	Orchard Emergency Contact Information	Annual	**Review Annually (fill and file)**	AF.3.4.1
	GF-02s	Orchard Emergency Contact Information (Spanish)	Annual		AF.3.4.1
	GF-08	Harvest Hygiene Annual Cleaning and Inspection Worksheet	Annual		FV.4.1.4
	GF-15	Risk Assessment (and plan) for New Agricultural Sites	Annual		AF.1.2.1
	GF-16	Waste and Pollution Management Risk Assessment Log	Annual		AF.5.1.1
	GF-17	Planting Log	Annual		FV.1.1.2
	GF-18	Soil Erosion Control	Annual		CB.4.3
	GF-19	Calibration (scale, sprayer, spreader)	Annual		CB.8.7.11, 9.1
	GF-22	Organic Fertilizer Risk Assessment (only if using organic fertilizer)	Annual		CB.5.5.2
	GF-27	Soil Fumigation	Annual		FV.2.1
	GF-05	Plant Protection Product Application Record (pesticide etc.)	Frequently	**Sprays**	CB.8.3
	GF-04	Plant Protection Product Recommendation for Application Sheet	Seldom		CB.8.5
	GF-03	Fertilizer Application Record	Periodic	**Fertilizer**	CB.5.3
	GF-07	Harvest Log	Periodic	**Harvest**	CB.8.3.10
	GF-10	Training Attendance Record	Periodic	**Training**	AF.3.3.1
	GF-12	Portable Toilet Annual Inspection Worksheet	Periodic	**Toilets**	3.2.4.1 Infrastructure for employees
	GF-06	Toilet and Hand Washing Facility Inpection Sheet	Periodic		3.2.4.1 Infrastructure for employees

Used?	Number	Name or Description	How Often Used?	Tab Name in Binder	Control Point(s)
	GF-26	Equipment Maintenance (mainly tractor, sprayer, spreader)	Periodic	**Maintenance**	CB.9.1
	GP-27	Animal Risk Assessment Worksheet	Periodic	**Maintenance**	FV.2.1
	GF-11	Customer Corrective Action Request Form	Seldom	**Complaints**	AF.7.1
	GF-14	Agricultural Activities Log	Seldom	**Ag Log**	CB.6.2.3 etc.

GLOBAL GAP

FORMS

Farm Name and Address of this Location:	**Call 911 first for Fire, Medical or Police**

In the event of an emergency, contact: _____

at_____ (Phone number)

Location of Nearest Phone:

Location of Nearest Fire Extinguisher:

Additional Information:

Physical Address of Nearest Medical Facility:

Prior to spraying, make sure you have a chemical spill kit present and first aid kit with you at the mix/load site.

Nombre de rancho y dirección de la Granja: The Funny Farm	**LLAME AL 911 PRIMERO** PARA CONTACTAR AL SERVICIO MÉDICO DE EMERGENCIA, BOMBEROS O POLICÍA
Teléfono más cercano:	

En caso de emergencia, llame_____

a_____

Teléfono más cercano:

El extintor de incendio Más cercano esta:

Información adicional:

ANTES DE LA APLICACIÓN DE PRODUCTOS QUÍMICOS POR ROCIO ASEGÚRESE DE QUE TENGA UN EQUIPO CONTRA DERRAME DE PRODUCTOS QUÍMICOS Y UN EQUIPO DE PRIMEROS AUXILIOS CERCA.

Fertilizer Application Record

Farm Number or Name: _____

Location: _____ **Field or Bog:** _____

Date of Application: _____ **Record No.:** _____

Operator Name: _____

Method of Application: _____

Machinery Used: _____

Type of Fertilizer	Trade Name	Quantity per Acre (by volume or weight)

Name of Consultant or Source: _____

Signed: _____

CranGAP: GRAS^{2}P	Plant Protection Product Recommendation for Application Sheet	GF-04 REV 2 Page 1 of 1

Recommendation Number: _____

Farm Number or Name: _____ **Field or Bog Number or Name:** _____

Proposed Date of Application: _____

Target Pest(s): _____

Equipment to be Used: (circle one)

Boom sprayer, Chemigation, Backpack sprayer, Handgun sprayer, Other: _____

No. of Acres: _____ **Pressure Setting:** _____PSI

Complete Product Name	EPA Reg. Number	Product Application Rate per Acre	Gallons Water per Acre

Any special instructions (notification, posting, buffer zones, sensitive areas):

Required PPE (circle)

Full-Spray Suit – Spray Hat or Hood – Gloves –Boots – Apron - Eye Protection – Respirator with cartridge(s) – Long Sleeve Shirt and Pants – Coveralls.

Date Started: _____ **Date Completed:** _____

Operator: _____ **Supervisor:** _____

CranGAP:
GRAS2P

Plant Protection Product Application Record

GF-05A
Rev 2

Name and Address of Farm:	Applicators Name and Address (if different):	
Complete Location of Farm:	Additional Applicator:	
	Telephone #	License #

***REI = Re-Entry Interval** ***PHI = Pre-Harvest Interval** ***First Harvest Date= Date sprayed + Pre Harvest Interval + 1 day**

		Full Product Name	**Active Ingredient**	**EPA Registration Number**	Rate per Acre or Rate/100 gal	Total Product Applied	Total Amount Applied / OTHER
Application Date/Time (Start & Stop Time):							Recommendation #
							Target Pest:
Weather Conditions[5]							REI* / PHI*
							AIR GROUND CHEMIGATION
Lot #							Equipment #
Block or Bog:							Equipment #
Acres Treated:							Applicator:
Gallons/Acre:							

		Full Product Name	**Active Ingredient**	**EPA Registration Number**	Rate per Acre or Rate/100 gal	Total Product Applied	
Application Date/Time (Start & Stop Time):							Recommendation #
							Target Pest:
Weather Conditions[5]							REI / PHI
							AIR GROUND CHEMIGATION
Lot #							Equipment #
Block Bog:							Equipment #
Acres Treated[7]							Applicator:
Gallons/Acre							

WSHA:
GRAS2P

Plant Protection Product Application Record

GF-05A
Rev1

Location of Application: (if the application covers more than one township or range, please indicate the township and range for the top left section of the map only.
PLEASE NOTE: The map is divided into 4 sections with each section divided into quarter-quarter sections. Please comlete it by marking the appropirate section number(s) on the map and indicate as accurately as possible the location of the area treated.

Township:_____ N

Range:_____ E or W (Please Indic

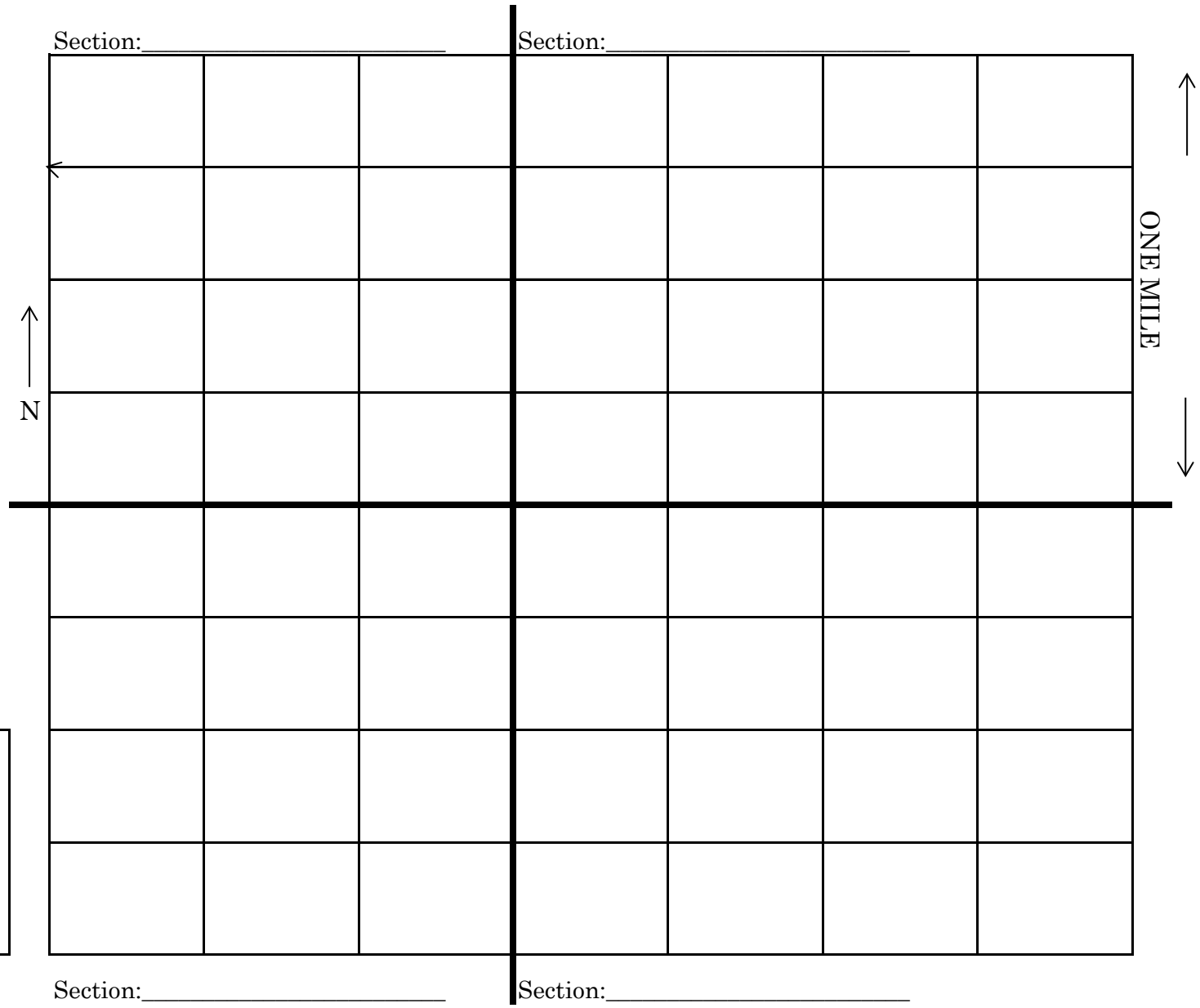
Section:(s)_____

Block_____ Farm Unit_____

or GPS:_____

County:_____

Misc. Info:



CranGAP:
GRAS2P

Plant Protection Product Application Record

GF-05 Map
Rev 2

Farm/Grower Name and Location:	Applicator Name, Address, and Phone Number:		License #
	Lot No.:	Block or Bog Number and Acres Treated:	Equipment ID:
	Applicator name, Address, and Phone Number:		License #
Date, Time, and Weather Conditions:	Lot No.:	Block or Bog Number and Acres Treated:	Equipment ID:
	Applicator Name, Address, and Phone Number:		License #
	Lot No.:	Block or Bog Number and Acres Treated:	Equipment ID:

Full Product Name and Active Ingredient	EPA Registration #	Rate Per Acre or Rate per 100 Gallons	Total Product Applied	Target Pest Common Name or Purpose

Longest Re-Entry Interval (REI):	Longest Pre-Harvest Interval (PHI):	Gallons per Acre:	AIR GROUND CHEMIGATION	Recommendation #

WSHA:
GRAS2P

Plant Protection Product Application Record

GF-05 Map
Rev1

Location of Application: (if the application covers more than one township or range, please indicate the township and range for the top left section of the map only.
PLEASE NOTE: The map is divided into 4 sections with each section divided into quarter-quarter sections. Please comlete it by marking the appropriate section number(s) on the map and indicate as accurately as possible the location of the area treated.

Township:_____ N

Range:_____ E or W (Please Indi

Section:(s)_____

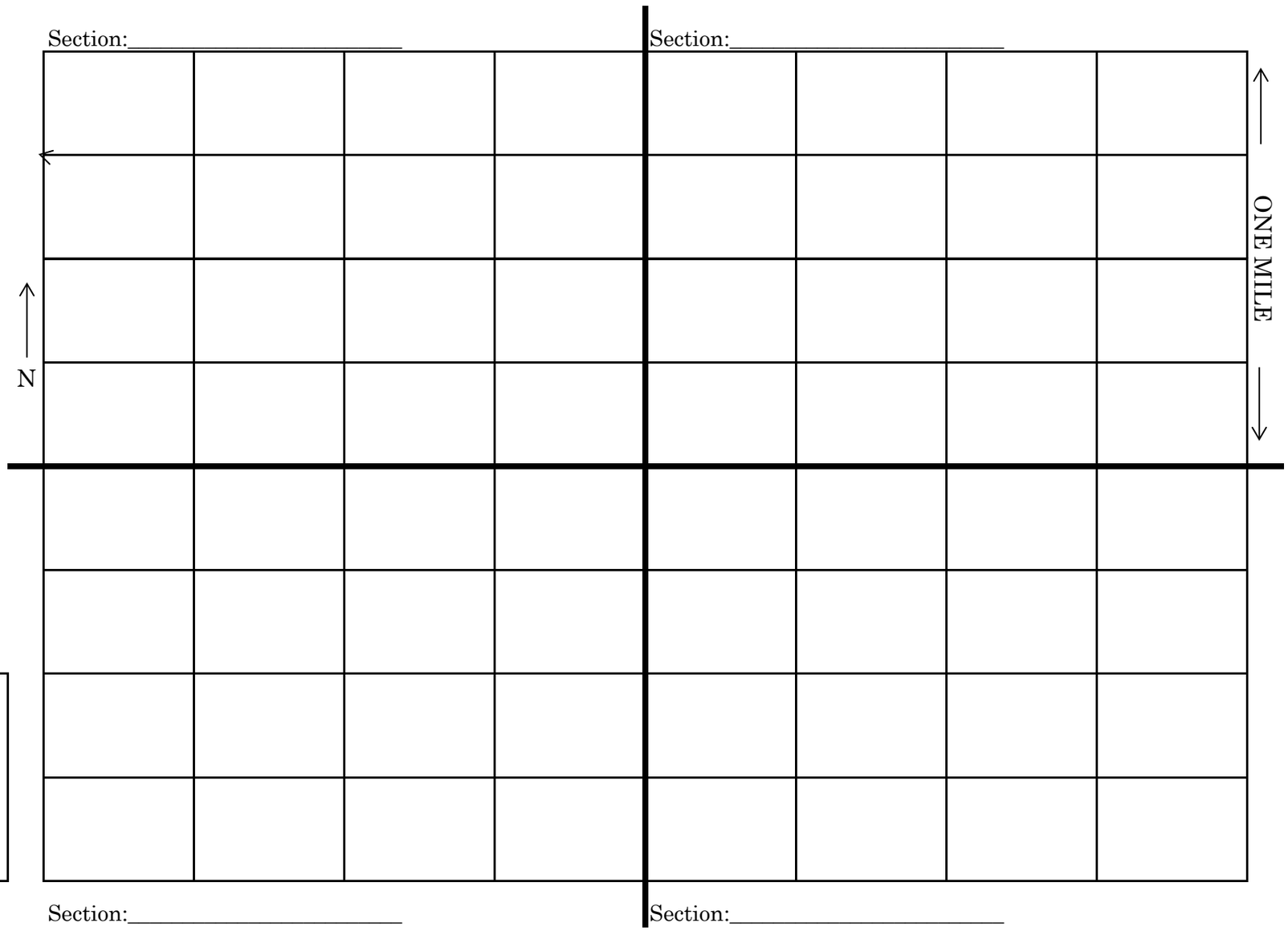
Block_____ Farm Unit_____

or GPS:_____

County:_____

Misc. Info:

Section:_____ Section:_____



Section:_____ Section:_____

Date	Variety	Lot No. or Unique ID (if applicable)	Field or Bog No.	Comments

CranGAP: GRAS2P

Harvest Hygiene Annual Cleaning and Inspection Worksheet

GF-08 Rev 2

Cranberry pickers and cleaning equipment, bins, totes, and reusable equipment are washed with soapy water and areas of heavy build up are scrubbed. This is to minimize potential contaminants from contacting the fruit.

PRE-HARVEST

Equipment	Quantity Checked and Cleaned	Date
Cranberry Picker/Harvester		
Cranberry Cleaning Equipment		
Reusable Equipment		
Transports: Track Cars and Trucks		See Maintenance Records
Bins, Totes, Lugs, Containers		Washed at shed and checked in field
Burlap Bags		Cleaned at shed and checked in field
Other:		

MID-HARVEST (IF APPLICABLE)

Equipment	Quantity Checked and Cleaned	Date
Cranberry Picker/Harvester		
Cranberry Cleaning Equipment		
Reusable Equipment		
Transports: Track Cars and Trucks		See Maintenance Records
Bins, Totes, Lugs, Containers		Washed at shed and checked in field
Burlap Bags		Cleaned at shed and checked in field
Other:		

Visitor Sign In / Out Form

Visitor Name	Company or Farm	Date	Time Arrived	Time Left

CranGAP: GRAS^{2}P

Training Attendance Record

GF-10
REV 2

Training Topic(s):

Trainer:	**Date:**	**Time:**

I have received and understand the training given on the topics listed above:

Employee Name	**Signature**	**Employee Name**	**Signature**

Note: If using a separate attendance list, please fill out the upper portion of this form and attach the list to it.

Complaints relating to the GLOBALGAP integrity of your products must be recorded on this form. Please record information below as accurately as possible. Verification must be performed to be sure problems are corrected effectively.

To be filled out by the Farmer/Grower

Initiator of Complaint:	**Date:**
Address:	**Phone #:**
City, State, Zip:	
Email:	

Describe Nature of Complaint (description)**:**	
Describe Action Taken (solution used)**:**	**Date:**
Verification (solution worked?):	**Date:**

Date of Inspection	Toilet #	Inspection Criteria	Comments
Example 06/30/2016	1	Waste was close to the top Hand sanitizer was empty.	Service company was called to pump the reservoir. Hand sanitizer was refilled.

NOTES:
Service company phone number: (509) 988-1234

CranGAP/ GRAS2P

Maintenance and Calibration of Application Equipment

GF-13
REV 2

Grower Name:_____ **Farm:** _____

Activity Performed	Date	Equipment No.	Initials	Comments
Free from leaks (pump, tank, nozzles, filters, hoses)?				
Are adequately working the ignition, regulation of flow and pressure adjustment systems?				
Are nozzles of the same type, size, material, and origin?				
Do the nozzles form a uniform spray pattern (homogenous and uniform)				
Does dripping from the nozzle stop when shutting down the equipment?				
Are all components of the equipment working properly and in good condition?				
Is the measuring equipment in good condition and working properly without spills?				
Other:				

NOTES:

Agricultural Activities Log

Date	Farm / Bog	Activity	Supervisor	Observations

Crops:	
Farm:	
Location:	

Risk Considerations	Y or N	Comments	What is the Risk?	Acceptable: Y or N
Does the ground use comply with local legislation? Attach Permits.				
Previous Ground and Adjacent Ground Use				
Does the previous ground or adjacent ground use pose a risk of product contamination, risk to the workers, or the health of the crop? Describe the ground use for the last 5 years.				
Does the adjacent ground use pose a risk of product contamination, risk to the workers, or the health of the product? Describe the use of the neighboring ground.				
Does the adjacent ground pose a risk from the runoff?				
Ground Structure and Soil Composition				
Is the soil composition adequate for the crop that you plan to plant? Attach copy of soil analysis, if available.				
Is the ground structurally adequate for the planned crop?				
Taking into account the structure, drainage, and/or composition, does the ground have a pre-disposition to erosion?				
Does the ground have a pre-disposition for flooding?				
Does the ground and/or its location pose any risk to the personnel in charge of field work or fruit transport?				
Does the risk exist that there will be losses to the crop as a result of high-speed winds?				
Water Evaluation				
Has there been a chemical and microbiological water analysis completed in an adequate lab? Attach results				
Is the water source protected to prevent chemical, physical, or biological contamination?				

Is there sufficient water available for the year?				
Are the permits required by law available for water use in the quantities needed by the crop? Attach permits.				
Will the water use have an adverse effect on the flora and fauna associated with the water source?				
Impact Analysis				
Has the effect the agricultural machinery may have on the area been taken into consideration (dust issues, smoke, and noise, etc.)?				
Do contamination risks exist for the pesticide applications made in the neighboring grounds?				
Has it been taken into account how to prevent contamination from water runoff?				
Have the presence of insects or diseases in the new zone and neighboring zones been taken into consideration that they may be attracted by the crop?				
Are there any risks associated with the agricultural, industrial, or any other activities that take place in the area?				
Is there sufficient labor available in the new area?				

	Summary:

Date Completed: _____

Name: _____

Position: _____

Annual Review Date: _____ Signature: _____

- Management Action Plan -

Issue to Correct or Control	Action to Complete	Completion Date	Completed By

Reviewed By: _____ **Date:** _____

Waste & Pollution Management Risk Assessment Log

Farm / Grower _____ **Date:** _____

Crops: _____

Practice	Disposition
Cranberry Vines	
Plastics – Containers, Bags, Empty Fertilizer and Pesticide Containers	
Worn/Unusable Harvest Bags	
Metals	
Tires	
Oils (Petroleum Products)	
Cardboard	
Glass	
Excess Fertilizer	
Pesticides	
Harvest Crew Garbage	
Sewage from Portable Toilets	
Garbage and waste generated by general public adjacent to cranberry fields/bogs.	
Other:	

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

CranGAP: GRAS^{2}P

Planting Log

GF-17
REV 2

Grower Name:_____ **Farm:** _____

Date	Re-plant or New?	Variety	Bog(s) to be Planted	Acres	Comments

Soil Erosion Control

Mark in the "Used" box the practices that you use:

Practice	Used (Yes or No)	Comments
Sanding		
Ditch Cribbing and Covering		
Tree and/or Bushes on Borders		
Irrigation Scheduling		
Soil Moisture Monitoring		
Distribution Uniformity Assessment of Irrigation System		
Other:		

Verification of Pesticide Scale Calibration

1. Annually, at the start of the spray season, all scales used for mixing of pesticides are to be calibrated with an unopened bag of a pesticide.
2. Note scale and verification date for each scale calibrated.

	Scale ID No.	Date Calibrated	Method of Calibration	By Whom
1.				
2.				
3.				
4.				
5.				

Verification of Pesticide Sprayer Calibration

1. Annually, at the start of the spray season, all sprayers used to apply pesticides (herbicides, insecticides, fungicides, etc.) must be calibrated.
2. Note equipment and verification date for each sprayer calibration:

	Sprayer ID.	Date Calibrated	Method of Calibration	By Whom
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Verification of Fertilizer Spreader Calibration

1. Annually, prior to fertilizer application, calibration of fertilizer spreaders must be verified.
2. Note equipment and verification date for each spreader calibration:

	Spreader ID.	Date Calibrated	Method of Calibration	By Whom
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

Verification of Chemigation or Fertigation Calibration

1. The chemigation or fertigation injection system must be calibrated for **each** application.

	Injection System Used	Date Calibrated	Method of Calibration	By Whom
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Change Record

Rev:	Date:	App's	Description of Change
1	15 Nov. 2011		First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	NB	Revision from 4.0 to GG V 4.0-2

Organic Fertilizer Risk Assessment

Bog(s) on which Product is Used: _____

Crop: Cranberries

Commercial Name of Product: _____

Physical Characteristics: _____

Composition: _____

Origin: _____

Evaluation Points	Comments	Control Measures
If you are planning on using the product on an organic certified field or bog, is the product found in the most recent WSDA Organic List?	Not organic certified farm or bog.	Does not apply
Does the use of this product pose any risk to the health of the crop, for example presence of disease, weed seeds, etc?	No risk posed.	Cultural, mechanical, or chemical practices are used to control unwanted weeds in fields or bogs.
If this organic fertilizer is applied could it propagate undesirable plants such as weeds?	No	Cultural, mechanical, or chemical practices are used to control unwanted weeds infields or bogs.
If the organic fertilizer is compost, is the composting method sufficient to assure a reduction in pathogenic bacteria.	Yes	Material is composted for one year before use. Compost is turned on a regular basis. Compost is only applied when there is no fruit present on vines, primarily after harvest and during winter months.

Organic Fertilizer Risk Assessment

Evaluation Points	Comments	Control Measures
Are there risks for the consumer as a result of the use of this organic fertilizer?	No	Material is composted for one year before use. Compost is turned on a regular basis. Compost is only applied when there is no fruit present on vines, primarily after harvest and during winter months.
Is there a risk to the health of the personnel in charge of preparing and applying organic fertilizer?	No	Proper protective suits and dusts masks are provided to applicators when application is taking place.
Could the organic fertilizer have a negative impact on the environment?	No	Organic fertilizer is applied only to fields or bogs in a measured and controlled basis.

Approved for Use: _____ **Date:** _____ **By:** _____

Reviewer Signature: _____ **First Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Reviewer Signature: _____ **Annual Review Date:** _____

Change Record

Rev:	Date:	Approvals	Description of Change
1	15 Nov. 2011	*NB*	First release for use with Version 4.0 of GLOBALG.A.P. Standard and Checklists.
2	20 May 2013	*NB*	Revision from GG V.4 to GG V4.0-2

CranGAP/ GRAS2P

Preventative Techniques (Integrated Pest Management) Log

GF-23
Rev. 2

Mark Which is Used Practice	Against Which Problem(s)?				Comments
	Weeds	Insect and Invertebrates	Disease and Nematodes	Vertebrate Pests	
Ground Selection					
Physical Barriers					
Biological Barriers					
Ground Improvement					
Use of mulch					
Ground Fumigation					
Removal of Damaged or Infested Foliage					
Host Plant Control					
Cleaning and disinfection of equipment and machinery					
Crop Rotation					
Use of cover crops					
Crops between beds					
Crop Nutrition					
Planting Dates					
Irrigation Method					
Pest Mechanical Removal (pruning, aspired, etc.)					

Monitoring Techniques (Integrated Pest Management) Log

Indicate the Practice that is Used	Against Which Problem(s)?				Comments
	Weeds	Insect and Invertebrates	Disease and Nematodes	Vertebrate Pests	
Pest / Disease Monitoring (sweep net, observation, etc.)					
Mechanical Traps					
Pheromone Use					
Use of Economic Threshold					
Use of Application Threshold					
Other:					
Other:					

CranGAP/ GRAS2P

Intervention Techniques (Integrated Pest Management) Log

GF-25
Rev. 2

Mark Which is Used Practice	Against Which Problem(s)?				Comments
	Weeds	Insect and Invertebrates	Disease and Nematodes	Vertebrate Pests	
Selective use of Pesticides					
Use of Mineral and Vegetable Oils					
Use of Vegetable Extracts					
Use of Insect Growth Regulators					
Pesticide Rotation					
Release of beneficial Insects					
Use of Biological Pesticides					
Aid in Growth of Natural Predators					
Mechanical Control of Weeds					
Traps					
Other:					

Grower Name: _____ **Farm:** _____

Activity Performed	Date	Equipment No.	Initials	Comments

Soil Fumigation

Grower Name: _____

Date	Field or Bog No.	Product(s)	Active Ingredient	Rate/ Acre	Pre Plant Interval	Application Method	Company/ Operator

GLOBAL GAP

QUALITY MANAGEMENT SYSTEM (QMS)