

**CONFIDENTIAL**

***SIMON CREEK PROCESSORS***

***SUSTAINABLE AGRICULTURE PROGRAM***

***February 16, 2016***

***Improving Stewardship in  
Canned and Frozen Fruit and Vegetable Production***

***Prepared by:***

***Simon Creek Processors Sustainable Agriculture Committee***

## ***Table of Contents***

<i>Foreward</i>	3
<i>Mission</i>	3
<i>Scope</i>	3
<i>Timeline</i>	3
<i>Specifications</i>	3
<i>Guiding Principles</i>	4
<i>Criteria and Indicators</i>	5
<i>Program Specifics</i>	
<i>Team Members</i>	7
<i>Biosolids</i>	7
<i>Legal Requirements</i>	7
<i>Pesticide and Nutrient Records</i>	7
<i>Genetically Modified Organisms</i>	8
<i>Spot Purchasing</i>	9
<i>Environmentally Sensitive Areas</i>	10
<i>Pollinator Habitat and Forage</i>	10
<i>Environmental Emergency Management Plans</i>	11
<i>Drift Management</i>	11
<i>Soil Erosion Control</i>	11
<i>Soil Quality</i>	12
<i>Open Burning</i>	12
<i>Water Usage</i>	12
<i>Energy Use</i>	13
<i>On-site Use of Renewables</i>	13
<i>Recycling</i>	13
<i>Fair and Open Communications</i>	14
<i>Employee Opportunities</i>	14
<i>Employee Incentives</i>	14
<i>Company Operations</i>	14
<i>Stewardship Improvement Indicators</i>	14
<i>On-Farm, On-Site Research</i>	15
<i>Opportunities for Improvement</i>	15
<i>Pesticide/Nutrient Use Tracking</i>	16
<i>Sustainable Ag/IPM Training</i>	16
<i>Resistance Management</i>	16
<i>Crop-Specific Standards</i>	
<i>Papples</i>	17
<i>Carpeas</i>	20
<i>Fingermater</i>	23
<i>Appendix A. Contract Terms</i>	26

### ***Foreword***

*Simon Creek Processors intends to improve the level of performance in the production of its processed fruit and vegetable products to meet the expressed desires of our customers for sustainably grown food products. Our first step was to survey our growers regarding Sustainable Agriculture and Integrated Pest Management practices. Supplier participation in the survey was excellent. The survey provided valuable information to guide our program development.*

***Mission***

*To improve the quality of resources we pass down to succeeding generations of Simon Creek Processors customers, suppliers, employees, families and friends.*

***Scope***

*Under the management of Simon Creek Processors, Sustainable will focus on the production of our canned and frozen fruit and vegetable products.*

***Time Line***

- |  |                          |
|--|--------------------------|
| ◆ <i>Developmental meeting with management</i>     | <i>November 1, 2014</i>  |
| ◆ <i>Survey of Grower Community</i>                | <i>December 1, 2014</i>  |
| ◆ <i>Draft Standard Developed</i>                  | <i>January 1, 2015</i>   |
| ◆ <i>Final Revision of Standard</i>                | <i>February 2, 2015</i>  |
| ◆ <i>Final Release to Growers</i>                  | <i>February 15, 2015</i> |
| ◆ <i>Grower Handbook Developed</i>                 | <i>March 1, 2015</i>     |
| ◆ <i>Grower Handbook Completed and Distributed</i> | <i>April 1, 2015</i>     |
| ◆ <i>Third Party Verification Audits</i>           | <i>Fall 2015</i>         |

***Specifications***

*As we work to develop and implement our program, we recognize the following key goals for our customers, our growers of Simon Creek Processors:*

- ◆ *Meaningful and measurable results.*
- ◆ *Brevity, simplicity, clarity.*
- ◆ *Focus on critical control points: key needs, key leverage points for major improvements.*
- ◆ *Cost effective.*
- ◆ *Encourage innovation: focus on key desirable outcomes; allow great flexibility in identifying, developing and implementing practices to achieve those outcomes.*
- ◆ *Integrate with existing programs such as food safety to avoid duplication of cost and effort.*
- ◆ *Facilitate electronic reporting and processing.*
- ◆ *Create value for Simon Creek Processors Growers within and beyond the grower relationship; develop opportunities for growers to showcase their accomplishments.*
- ◆ *Let our customers be the ultimate judge of our success.*

## **Guiding Principles**

*Our customers expect and deserve exceptional quality food produced in a way that protects our natural resources, promotes personal and environmental health, and sets a high standard for ethical conduct. Through Simon Creek Processors Sustainable Agriculture Program, we will improve the quality of our renewable resources, conserve non-renewables, promote fairness in our trade relationships, maintain economic viability and continue to exceed our customers' expectations for food safety and quality.*

*Under the stewardship of Simon Creek Processors Management, we will continuously improve our practices and program scope, maintain a leading position in our industry and continually expand our integration of sustainability within the products processed.*

*Simon Creek Processors commits to the following principles:*

### **I. Environmental Stewardship**

*Our goal is to ensure a healthy environment. In partnership with our growers, we use economically viable practices to protect sensitive areas, improve air, water, soil and wildlife resources and conserve non-renewable mineral resources. We reduce waste and pollution through recycling and energy conservation, and limit use of water, pesticide and nutrient inputs to those needed for a successful crop.*

### **II. Personal Health and Wellness**

*Our goal is health and happiness for our customers, suppliers, employees, families and friends. We make food safety number one. We believe that a healthy, attractive environment is key to personal health and enjoyment of life.*

### **III. Business Integrity**

*Our goal is long-term economic success for our customers, employees and growers. We communicate openly, provide our employees the support and respect they deserve, pay suppliers and growers within terms and resolve disputes fairly. We expect our suppliers and growers to share our high standards for courtesy, reliability, productivity and innovation.*

### **IV. Exceptional Quality**

*Our goal is to exceed our customers' expectations for wholesome, flavorful food. We take great care in selecting and building our supplier relationships and in creating demanding product specifications. We thoroughly inspect and evaluate our products and processes from field to table, to ensure consistent, exceptional food service products for our customers.*

### **V. Continuous Improvement**

*Our goal is to learn and implement new, scientifically sound approaches to improve the sustainability of our business on an ongoing basis. We invest in research, development, education and training with customers, employees and suppliers. We set measurable goals, assign responsibilities, adhere to timelines, verify performance and validate results. Wherever possible, we assess outcomes and not simply implementation of practices. We work to ensure that our programs encourage and reward innovation by our employees and our trade partners.*

## **Criteria and Indicators**

*Our Guiding Principles are further described by specific criteria and measurable indicators we work to improve.*

### **I. Environmental Stewardship**

*Criterion 1. Protect ecologically sensitive areas, i.e. locations highly susceptible to environmental damage or containing critical habitat for endangered or threatened species.*

- a. Ecologically sensitive areas are identified, monitored and protected including highly erodible land, aquifers, lakes, rivers, streams, wetlands, wellheads.*
- b. Ecologically sensitive areas are periodically inspected or monitored to track conditions and identify and neutralize threats.*
- c. New production is not established in ecologically sensitive areas.*
- d. Appropriate additional measures are taken to reduce the impacts of existing production in ecologically sensitive areas.*
- e. Potential environmental emergencies and responses are identified, staff responsibilities are assigned and training and other necessary resources are provided to prepare for emergencies.*
- f. Improve ecologically sensitive areas, e.g., identify and increase native species, restore disrupted areas, increase buffer size, etc.*

*Criterion 2. Improve air, water and soil quality.*

- a. Manage wind and water soil erosion, and associated agrochemical movement off-site, e.g., establish wind breaks, cover crops, terracing; improve drainage, infiltration.*
- b. Manage agrochemical drift, e.g., implement a written drift management plan specifying procedures and training to minimize drift.*
- c. Reduce reliance on polluting fuels.*
- d. Improve soil quality, e.g., reduced tillage, cover crops, use of organic amendments.*
- e. Do not burn trash or vegetation, except where burning is an accepted Best Management Practice (BMP) for a specific crop.*
- f. Monitor and report improvements in air, water and soil quality.*

*Criterion 3. Reduce, reuse, recycle*

- a. Track and reduce use of water for irrigation and processing to minimum amount necessary for a successful crop.*
- b. Track and reduce use of non-renewable resources, e.g., petroleum products.*
- c. Track and increase renewable and non-renewables reused on site, e.g., land-apply clean organic waste.*
- d. Track and increase materials returned for recycling.*

*Criterion 4. Conserve energy*

- a. Track and reduce petroleum product use.*
- b. Track and reduce electricity use.*

*Criterion 5. Minimize agrochemical inputs*

- a. Follow all applicable regulations for pesticides, nutrients and other inputs.*
- b. Track and reduce fertilizer use to the amount needed for a successful crop, e.g., implement a nutrient management plan conforming to science-based sampling and crediting protocols; use precision application technology such as intensive soil sampling and variable rate nutrient application, or precision application guidance to eliminate overlap or limit application to plant root zones, etc.*
- c. Track and reduce pesticide use to the amount needed to maintain pests below economically damaging levels, e.g., learn and take advantage of most susceptible pest life stages; implement systematic scouting and monitoring, and follow science-based thresholds; use precision application technology.*
- d. Track and reduce toxicity of pest management strategies, e.g., implement cultural strategies, target most toxic pesticides for replacement.*
- e. Conserve effective pest management tools, e.g., implement a resistance management plan.*

**II. Personal Health and Wellness**

*Criterion 1. Food safety*

- a. Follow established Sysco protocols for field inspection, plant audit, product set-aside, traceability and recalls.*

**III. Business Integrity**

*Criterion 1. Open communications*

- a. Provide opportunities for and participate in two-way feedback and mutual problem solving with employees and trade partners.*

*Criterion 2. Employee respect*

- a. Meet all legal requirements for employee health and safety.*
- b. Provide access to learning and advancement opportunities.*
- c. Provide rewards and incentives for innovation and improvement by employees and sub-suppliers.*

**IV. Exceptional Quality**

*Criterion 1. Adhere to Customer protocols for product quality specifications.*

**V. Continuous Improvement**

*Criterion 1. Planning*

- a. Identify opportunities for improvement; evaluate and prioritize on basis of impact.*

*Criterion 2. Verification*

- a. Document pesticide and nutrient use, recycling rates, energy use.*

*Criterion 3. Validation*

- a. Evaluate effectiveness of new techniques; use controlled comparisons where possible.*
- b. Evaluate cost-benefit of sustainability initiatives.*
- c. Solicit and apply customer feedback.*

## **Simon Creek Sustainable Program Specifics - 2014**

**Date: January 15, 2014**

**Supersedes previous version date January 14, 2013**

### **A. Simon Creek Processors Sustainable Agriculture Team**

Simon Creek maintains a team responsible for oversight of its Sustainable/IPM program.

Team members include:

1. Mike Johnson – Vice President Operations. Mr. Johnson has more than 15 years experience in quality assurance and operations, including managing water and fuel conservation programs for Simon Creek.
2. Anthony Brown – Technical Director. Mr. Brown has a degree in entomology, started as a pesticide applicator with a Simon Creek grower in 1980 and joined Simon Creek field operations in 1986.
3. Sara Mitchell – Director of Field Operations. Ms. Mitchell has advanced training in plant pathology and pest management from Washington State University and is a Certified Crop Advisor.
4. Jean Walker – Crop Field Manager. Mrs. Walker was raised on her family's fruit farm, has an undergraduate degree in horticulture and is a licensed pest control advisor.
5. Fred Krump – Grower. Mr. Krump is a third-generation fruit and vegetable farmer. His family's operation has been supplying Simon Creek since its founding.
6. Jim Gonzales – Crop Advisor – Bumble Bee County Extension Service. Mr. Gonzales has a Master's degree in weed science.
7. Katherine Kommunity – Business Owner. Ms. Kommunity is a local resident who is a member of national environmental organizations and is also interested in seeing agriculture continue to be a part of the local landscape. Simon Creek became acquainted with Ms. Kommunity during public hearings related to our expansion in 2001. She has agreed to participate in at least three meetings per year, and to review our first annual stewardship report due out at the end of 2005.

**Meeting frequency:** The team meets monthly on the second Monday. All team meeting agendas, attendance and minutes are documented and on file in the office of the Technical Director. Additional persons may be asked to participate, for example when the agenda deals with practices for a specific crop.

### **B. Minimum Program Requirements**

The following items will be in 100% compliance for Simon Creek product for the 2015 season, with the exception of product purchased on the spot market (see #5 below). **These requirements are detailed in the 2015 grower contracts, see terms in Appendix A.**

#### **1. Biosolids**

Biosolids, i.e., residues generated during treatment of domestic sanitary sewage and treated to reduce pathogens and attractiveness to pests such as flies, mosquitoes or rodents, is not

used on fields within one year prior to planting of a fruit or vegetable crop grown for Simon Creek Processors. Untreated residues are never used.

## **2. Genetically Modified Organisms**

Genetically Modified Crops are not grown for Simon Creek Processors. Except for spot purchases, Simon Creek provides all seeds to its growers for crops produced. Seed companies are required to provide written non-GMO certificates to Simon Creek Processors before delivery of all seed.

Growers are to employ agricultural practices that discourage the cross pollination of GMOs with non-GMO crops. Simon Creek Processors will develop a written protocol for growers to follow for the 2016 growing season.

Simon Creek maintains an annual testing program for GMO content for crops for which GMO seeds are available on the market to assess compliance and degree of cross-contamination with GMO crops.

## **3. Legal Requirements**

Simon Creek Processors expects its employees and suppliers to meet all legal requirements for health and safety during pesticide applications and other production operations. This includes following all label requirements of the products applied, wearing the appropriate protective equipment and only applying the pesticide product during weather conditions that are acceptable.

Growers and suppliers are expected to meet legal requirements for nutrient applications including amounts, timing and protection of surface water bodies.

Simon Creek Processors maintains a safety committee to oversee compliance with all regulatory requirements and voluntary measures. Simon Creek maintains a tally of work days without accidents at all of its locations.

Simon Creek Processors schedules a compliance assistance visit with Department of Agriculture and Employment inspectors at least once every three years to review changes in regulations and compliance strategies. These meetings have been very helpful in maintaining Simon Creek's violation-free record over the past five years.

## **4. Pesticide and Nutrient Application Records**

Pesticide and nutrient application records are very important to track progress in improving input efficiency, and for investigating and resolving problems if and when they occur.

Growers for Simon Creek Processors raw material are to keep all pesticide and nutritional application records for three years (see Supplier Contract, Appendix A.). The records are to be made available upon request by Simon Creek Processor personnel. The pesticide application card (including pre-harvest and re-entry intervals) provided by Simon Creek must be completed and sent to Simon Creek Processors at least two days prior to harvest



and delivery of the raw material. All other records are kept on site with the grower. The records are to include the following:

- Date of application
- Time of application
- Location
- Material applied
- Application rate
- Applicator name
- Application method

For pesticide applications, records must also include the following

- Target pest
- Weather conditions including wind speed and direction, and air temperature

In addition, Simon Creek Processors will maintain records of all pesticides (excluding disinfectants) and fertilizers applied to processing plant buildings and grounds for a minimum of three years. Records and corresponding MSDS sheets and pesticide labels will be maintained in a binder in the office of the Technical Director.

## **5. Spot Purchasing**

Simon Creek Processing purchases product on the spot market from time to time to fill in when unexpected demand or unfavorable growing conditions occur. Simon Creek Processing endeavors to keep spot purchasing to a minimum for most crops to maximize control over final product quality and security, and to support our long-term relationships with our grower suppliers.

In several crops, Simon Creek purchases all product as seconds from fresh fruit and vegetable producers.

For all product purchased on the spot market, Simon Creek will obtain copies of pesticide applications records prior to delivery of the product, along with nutrient application records where available. These records may not include all information required of regular suppliers. In 2015, spot market suppliers used in the previous two seasons will be informed of Simon Creek's minimum desired requirements (Appendix A) prior to the growing season. Simon Creek will establish a new "pre-approved" spot supplier list in 2015, and will add suppliers to the list who agree to abide by Simon Creek's minimum requirements. Spot purchases will be made from these suppliers wherever possible.

For crops where Simon Creek purchases all raw product as seconds, its regular suppliers will be informed of the minimum Sustainable/IPM program requirements in 2015 and asked to participate in a training offered by Simon Creek and to comply with the minimum requirements for the 2016 season.

## **C. Scored General Program Requirements**

The following requirements are important to Simon Creek, its customers and community. Simon Creek will initiate efforts to encourage, monitor and measure its own and its supplier's performance in these areas starting in 2014.

### **1. Environmentally Sensitive Areas**

Beginning in 2014, growers for Simon Creek Processors are to map the land nearby the processing plant and used for agricultural practices. The map is to include designations for wells, roads, and environmentally sensitive areas such as creeks, irrigation canals, surface water, green ways and designated forested areas.

The map is to be reviewed and updated annually, including a documented walk-through of sensitive areas to confirm changes have not occurred. No new production of crops is to take place in ecologically sensitive areas.

Special protective measures should be in place such as reserves, buffers, filter strips, signage, fencing, removal of invasive plants, reestablishment of native species, etc to protect the ecologically sensitive areas.

Simon Creek Processors initiated this process for its processing plant sites in the fall of 2014, and now has this documentation in place for auditor review.

Sensitive areas identified in this process include a stream along the property border at one site, and an aquifer recharge area under a portion of second site. Protective measures implemented include a twice annual inspection by Simon Creek operations staff, seeding of a damaged area with native plants, and monthly inspection and trash removal from the roadside adjacent to the recharge area.

### **2. Pollinator Habitat and Forage**

Beginning in 2014, Simon Creek Processors have created habitat and forage sources on the farm for pollinators by planting a variety of plant species attractive to pollinators; existing plantings have been maintained in non-cropped areas and so provide nectar and pollen sources throughout the foraging season.

Flowering cover crops with abundant pollen and nectar have been planted wherever possible.

Since 2013, Simon Creek Processors has created nesting sites such as areas of semi-bare, untilled ground for ground nesting bees and tube bundles and blocks for wood and cavity nesting bees

Clean water sources are always available on the farm for pollinators.

### **3. Environmental Emergency Management Plans**

Each applicator of pesticides must be licensed by the state where they are located for commercial application of pesticides.

In addition, each processing plant location and supplier must have a written Environmental Emergency Management Plan that includes a list of possible emergencies; directions on what to do in case of an emergency; a list of resources to be used for control, containment and cleanup and their locations; and a training protocol for new and existing staff. The plan must also include contact information for local, county and state authorities that assist in emergency response.

Potential emergencies we expect to be covered include fuel, lubricant, pesticide and nutrient spills; fire; and flood in low-lying areas. A copy of an example plan is located in the office of Technical Director. Applicators must have a copy of the plan with them at all times when applying pesticides or nutrients.

### **4. Drift Management**

All insecticide and fungicide applications are completed by Simon Creek Processor staff or contracted applicators. Chemical drift is minimized by proper equipment selection and calibration, and weather monitoring and recording including wind speed, direction, relative humidity and temperature at the beginning and end of the application. All aerial application equipment will be calibrated before each application by ABC Equipment Services. The use of non-GPS air application is not allowed unless approved by Simon Creek Processors Field Management. All ground application equipment will be calibrated at the beginning and half-way through each season. Calibration records will be maintained in writing and available for inspection on request. These conditions are outlined in our contract with all custom applicators, available in the office of Technical Director.

Herbicide applications are made by growers. Our survey indicated only 6 of 50 growers currently have drift management plans in place. Each grower will be required to have a written drift management plan in place by the end of 2016.

### **5. Soil Erosion Control**

Soil and associated agrochemical movement off-site should be minimal and well controlled at processing and field production sites. Visibly eroded areas should be extremely limited in size. Where threat of soil erosion exists, bare soil should only be present in limited areas for short periods of time, e.g., under tree drip lines, or post-harvest and prior to cover crop emergence in row crops. Protective measures such as wind breaks, cover crops, terracing, managed drainage, etc. should be in place in areas subject to erosion.

Simon Creek Processors initiated twice yearly soil erosion monitoring at processing sites in 2013 and corrected an eroded area by planting native vegetation.

## **6. Soil Quality**

Growers are responsible for nutrient applications, and perform soil fertility and pH testing on a regular basis. Other than fertility and pH, Simon Creek Processors currently has no idea what soil quality is like on its supplier's farms, or what practices are related to drainage, compaction, infiltration, salinity, structure, etc. We have not included soil quality measures in its 2014 supplier survey. We generally like the sound of it and agree on the importance of soil health in the long-term sustainability of production in our region. We have noticed a great difference in appearance, smell and productivity in native soils recently brought into production vs. soils that have been in production for many years, but do not understand the details. We have added soil quality to our agenda for our May 2015 team meeting and will invite our county soil specialist in to review the topic and set priorities and a timeline for monitoring and improvement.

## **7. Open Burning**

Growers of Simon Creek Processors are not to burn trash; burning vegetation is limited to crops where it is an accepted Best Management Practice (BMP), e.g., for pest management. Debris from orchard thinning should be chipped and reapplied to the farming operation. The only BMP where burning is approved is where papple orchards are confirmed to be infested by the yellow-spotted scale, in which case tree trimmings may be burned from locations within the orchard confirmed to be infested by visual sampling of tree bark.

Simon Creek Processors does not crop residue at any of its processing plants. The use of burn barrels for wood trash (packaging crates, bins) was discontinued in 1996.

## **8. Water Usage**

Water used for processing fruit and vegetables by Simon Creek Processors is to be kept at a minimum. Water usage at the processing facility will be tracked annually and projects identified to reduce the amount required per unit of production over a period of time. We recognize that during some processing seasons weather may impact the amount of water required to acceptably process a crop, i.e. increased washing due to mud on the inbound crop.

In 2013, Simon Creek installed a water recycling system that filters and re-uses processing wash water to perform the initial rinse of incoming product and bins. This system reduced our overall water use (and pump electricity) by 15%.

Water used by our growers will be tracked and amount used per unit of production reduced over time where applicable. If actual water for a field cannot be tracked, tracking electricity use from a pump or total farm water input are acceptable alternative measures. There is no need to track water usage on dry land crops.

Our 2014 survey of grower practices indicates that all flood-irrigated land is now laser-leveled to improve efficiency. Seventy-five percent of growers reported using drip or trickle irrigation in tree fruit.

## **9. Energy Used for Processing and Growing**

The processing facility will track electrical usage on an annual basis and identify projects that will reduce the use of electrical usage per unit of production over time.

Simon Creek Processors operates and maintains all harvesting and transport equipment. Each vehicle is required to undergo scheduled maintenance, including tune-ups. In 2016, a local supplier will begin to carry bio-diesel made from soybeans. We will experiment with this fuel in several of our vehicles at that time.

Each processing plant is scheduled for an energy use audit with the local utility to be completed in 2014. Recommendations will be prioritized and scheduled for implementation after the audit.

Growers for Simon Creek Processors have been asked to track the use of diesel and gasoline on an annual basis and identify opportunities to reduce fuel use per unit of production over time by 2012. The total usage per farm, not necessarily per crop is acceptable. Any new equipment purchased should include the consideration for fuel efficiency and decrease the number of passes required to cover a field where possible (i.e. swath size increase, balloon tire to decrease compaction, auto-steering and fuel efficient diesel engines.)

## **10. On-site reuse of renewable and non-renewables:**

Simon Creek Processors promotes the increase in the reuse of on-site renewables and non-renewables in manufacturing and with our grower community. Some of the programs include:

- Water reuse at the manufacturing location for first stage cleaning of raw product.
- Composting vegetable waste for use on corporate owned farm.
- 100% of our growers reported chipping orchard debris and leaving that material to replenish soil in the orchard, except where infested brush needs to be burned.

## **11. Recycling**

Simon Creek Processors promotes the increase in the amount of recycling at our processing facility and with our growers. The following are currently recycled at our processing facilities:

- Cans from manufacturing rework
- Cardboard at the processing facility
- Metal from the mechanic shop
- Oil and cleaning fluids from the mechanic shop
- Office paper from the plant office
- Pop cans from the vending machines
- Batteries from the trucks and fork lifts.

The following are not currently recycled, but an employee has been assigned to investigate and report to the team in March of 2015:

- Computer monitors (many are scheduled for replacement this year)
- Computers
- Building material from a structure slated for demolition in 2016

In addition, 100% of our growers currently participate in used pesticide container recycling. We have asked our growers to identify other opportunities for recycling in 2016 and to begin documenting performance.

### **12. Fair and Open Communications**

Simon Creek Processors maintains fair and open communications and mutual agreements with employees and trade partners through our employee/management manual and grower contract. The contract is available for inspection in our Operations Director's office. We have not surveyed grower practices in this area, and have scheduled that work for 2012.

### **13. Employee Opportunities**

Simon Creek Processors provides opportunities for our employee education and advancement. In addition to training for job-related tasks, approximately 18% of our employees participated in our education cost-share program for employees and employee family members in 2014, an increase of 3% over 2013. Details on training and education are documented in our employee handbook, available in our Operations Director's office.

In addition, we encourage our grower base to offer opportunities for their employees in continuing education. We have not surveyed grower practices in this area, and have scheduled that work for 2012.

### **14. Rewards/Incentives for Innovation and Improvement**

Simon Creek Processors provides rewards for innovation and improvement, including....

### **15. Company Operations**

Simon Creek Processors will improve the sustainability of company operations by transitioning all packaging to recyclable materials by 2015. Our new building at our office and processing campus will be LEED Certified at the Bronze level.

We will report on improvements annually through our company website and our annual stewardship report that will be made available at the end of each year. It will be available on-line and in print form.

### **16. Stewardship Improvement Indicators**

Simon Creek Processors documents and reports concrete improvements in stewardship indicators through our Agriculture Quest Information System. This system contains all pesticide application records that can be summarized annually. The amount of active ingredient per acre is documented annually and compared to previous year's records. Any

significant changes in amounts are justified in our annual agriculture report that is reviewed internally.

In addition, we will report overall results in our first annual stewardship report that will be made available to our customers, employees, shareholders and the public for the first time at the end of 2015. It will be available on-line and in print form.

We have not surveyed grower practices in this area, and have scheduled that work for 2012.

### **17. On-Farm, On-Site Research**

Simon Creek Processors prides itself in evaluating new technologies for processing in a scientific manner. We examine new equipment for evidence of cost-benefit before investing, and test new ideas and equipment at one location before implementing company wide.

We have invested an average of 0.25% of annual revenue in research and development on the field production side through a contribution to a regional research committee made up of growers, Extension and others, which sets priorities and funds research on varieties and production practices. An annual research report is produced by the committee and is available for inspection in our technical director's office.

### **18. Opportunities for Improvement:**

Simon Creek Processors has identified numerous opportunities for improvement including the following:

- We will develop a written protocol for avoiding GMO contamination for growers to follow for the 2015 growing season.
- In 2014, spot market suppliers used in the previous two seasons will be informed of Simon Creek's minimum desired minimum requirements (Appendix A) prior to the growing season.
- Simon Creek will establish a new "pre-approved" spot supplier list in 2014, and will add suppliers to the list who agree to abide by Simon Creek's minimum requirements.
- Each grower will be required to have a written drift management plan in place by the end of 2015.
- Each processing plant is scheduled for an energy use audit with the local utility to be completed in 2015.

- We have added soil quality to our agenda for our May 2014 team meeting and will invite our county soil specialist in to review the topic and set priorities and timeline.
- We will experiment with biodiesel in several of our vehicles in 2015 when the fuel becomes locally available.
- In 2014, we will conduct a review of all on-site opportunities to reuse resources and will set priorities and timeline.
- Stewardship improvements will be reported through a new annual agriculture report at the end of 2014. The report is made available to customers, employees and public.
- Simon Creek Processors will begin sponsoring a sustainable ag session at the grower annual meeting beginning in 2015, and covering some of our priorities for improving our program for the year.

### **19. Pesticide Use Tracking**

Pesticides are tracked using the computer tracking system. Each product has a list of pesticides that are recognized as acceptable by the EPA and Simon Creek Processors. The list is then identified as High, Medium and Low toxicity. Growers are encouraged to reduce the toxicity level of the pesticide applied where ever possible. In addition, the amount of pesticide and nutrient use is summarized from the tracking system on an amount per acre per product and summarized in the annual environmental impact report. We will set targets for specific pesticide on a crop basis, identifying problematic pesticides and nutrients for reduction or transition to less toxic alternatives.

### **20. Sustainable Ag/IPM Training**

All Simon Creek field staff participates in sustainable agriculture training annually at the January annual grower association meetings sponsored by Extension and industry. Training is mandatory for our staff, and records are maintained of attendance. Field days during the season sponsored by Extension are also mandatory for our staff.

100% of our growers reported attending this meeting in 2013 and 2012. Simon Creek Processors will begin sponsoring a session at the meeting focusing on sustainable agriculture beginning in 2015.

### **21. Resistance Strategies**

Simon Creek Processors feels that resistance management is a grower option. We don't think our growers should have to bear the extra expense of managing resistance if they choose not to. They will be at a competitive disadvantage if they do and other growers don't. Pesticide manufacturers and regulators should level the playing field by making resistance management mandatory where it is needed, and enforce the regulations evenly.



#### **IV. Crop-Specific Standards: Canned Papples**

**Introduction:** Papples are a tree fruit grown in the Northwestern United State in the States of Oregon and Washington. The fruit is similar to pears and apples of the region. The orchards lie dormant over the winter with blossom in early May. Fruit is developed over the summer with harvest beginning in September and finishing in early October. The fruit is canned seasonally from September through December. The orchards are trimmed after harvest to enhance the next harvest and prevent disease.

##### **1. Resources:**

- Oregon State University IPM Guidelines
- Washington State Papple Grower Guideline
- Oregon and Washington State Extension Service
- Papple IPM Handbook
- Our field staff, with a combined 125 years' experience in papple production

##### **2. Key Pests:**

Papple Purple Penetrator: This is a medium sized pest (8 mm) that infects the fruit usually two weeks prior to harvest. The pest penetrates the fruit causing the effected fruit to drop prior to harvest. This pest reduces the finished product yield to the grower.

Black Smudge Smut: A mold spore the attaches to the fruit during periods of high humidity and mostly during the fall.

Strangle Weed: A vine that is common in the orchard area that if left uncontrolled will climb the tree and overtake the canopy of the orchard.

These pests are also recognized as key problems in the Papple IPM Handbook.

##### **3. Chemical and Non-Chemical Management Strategies:**

Pest a, strategy...

Pest b, strategy...

See table on following page.

##### **4. Scouting, Sampling, Monitoring Techniques:**

Crop a, techniques...

##### **5. Threshold Establishment:**

Crop a, type of threshold, threshold levels...

##### **6. Documented Need for Pesticide Use:**

Crop a, Pesticide Application a, justification for application...

Pesticide use efficiency...

Pesticide use tracking and reduction... (see #17 on pg. 17)

Alternative pest management strategies employed...

## **7. Nutrient Management:**

### **Reduction Targets:**

We are targeting a 25% reduction in nitrogen use on this crop. Historically, nitrogen (N) overuse has been encouraged because it produces larger fruit and more bushels per acre. However, larger fruit are more susceptible to water core, which is difficult to detect and hampers product quality. In addition, excess nitrogen can pollute surface water, particularly in years where heavy spring rains follow application. We are working with our growers to develop a system to reduce the incentive to overapply N.

Crop a, nutrient management plan...

Justification for nutrient application (e.g., soil/tissue sampling, etc.)...

Nutrient use efficiency...

Nutrient use tracking and reduction...

Alternative nutrient management strategies employed...

## **8. Pesticide Applicator Liscensing**

Supplier and sub-supplier meet CEUs...

Participate in multiple-ag topic training events beyond minimum requirements...

Training attendance lists...

## **9. Resistance Issues:**

The Penetrator is very adept at developing resistance and many pesticide tools have been lost over the years for this pest. Pyrethroids are the only remaining effective pesticide group, and we're in for it if we lose it. If they choose, growers can rotate pesticides with mating disruption or predator insect releases, but that's more expensive. We also encourage treating only when over threshold to minimize pesticide use and selection for resistance. We also discourage applying reduced rates, which might encourage survival of resistant or tolerant individuals.

Other pests at risk for resistance...

Strategies to delay resistance...

## **10. High-Risk Pesticides**

Rank pesticides for residue risk at harvest or post-harvest..., reduce use...

Rank pesticides for acute toxicity to mammals..., reduce use...

Rank pesticides for toxicity to beneficials, including pollinators..., reduce use...

Rank pesticides for chronic toxicity to mammals..., reduce use...

Rank pesticides for eco-toxicity..., reduce use...

## **11. Pollinator Protection from Pesticides**

Protect bees and other pollinators from pesticides by reducing pesticides toxic to bees, not applying pesticides during bloom, buffering pollinator habitat, avoiding pesticide applications during colder and dewey times, spraying only during times when bees are inactive, communicating pesticide regiment to hive managers, registering apiaries and sensitive crops at [driftwatch.org](http://driftwatch.org)

**Chemical and Non-Chemical Strategies, Scouting and monitoring, thresholds:**

Pest	Strategies	Scouting/Monitoring	Threshold	Reference	Documentation
<b>Papple Purple Penetrator</b>	Pyrethroid Application	Pheremone Trap Monitoring	More than 200 units in a night, 500 heat units or 40 units in the pheremone trap	Papple IPM Handbook, Washington State University	Scouting records are on file with each grower
	Pheremone Disruption	Heat Index Tracking			
	Predatory Insect Release	Flight Pattern Monitoring			
<b>Black Smudge Smut</b>	Anti Smut Spray	Weekly random samples of visual smut	More than 10% of the fruit that exhibits smut	Papple IPM Handbook, Washington State University	Scouting records are on file with each grower
	Improve air movement by summer pruning Harvest prior to October 1 to avoid permanent staining	Assess in June, identify vigorously growing plantings	Can't throw cat through the tree  More than 20% of the fruit that exhibits smut		
<b>Strangle Weed</b>	Round Up Spray	Monitor the orchard in the spring for signs of the young weed.	More than 10 units per acre that are longer than 4 feet	Stangle Weed: A noxious invasive in the NW. Oregon State University	Scouting records are on file with each grower
	Winter Cover Crop Physical hoeing				

**Simon Creek Processors Product Specific Approved Pesticide List  
Prapples**

Pesticide	Active Ingredient	Target Pest	Harvest Interval	SCP Toxicity Level
Irretate	Nichatine	Black Smudge Smut	1 day	1 Green
Maximizer	2,3,4 C2	Black Smudge Smut	1 week	2 Yellow
Napom	Pyrethym	Purple Penetrator	2 days	1 Green
Kill'em	2, 3 Toluene	Purple Penetrator	4 weeks	2 Yellow
Destroyer	Organohologen	Purple Penetrator	1 week	2 Yellow
Knounleft	DDT	Purple Penetrator	10 years	3 Red
Round Down	Oregano	Strangle Weed	None	1 Green
2-4 DE	2-4 DE	Strangle Weed	3 days	2 Yellow

#### **IV. Crop-Specific Standards: Frozen Carpeas**

**Introduction:** Carpeas is a row crop grown in the Northwestern United States in the States of Oregon and Washington. The row crop is similar to a green pea but is bright orange like a carrot. This vegetable is high in vitamin A. It is planted in early spring with harvest through the summer. The pea pods are mechanically harvested and shelled in the field with the bright orange crop being transported to the processing facility by large tank trucks. Water is used in the field to cool the product prior to transportation.

##### **1. Resources:**

- Oregon State University: Slugs, snails and slime.
- Washington State Grower Guideline
- Oregon and Washington State Extension Service
- Control of large game animals: Author Burt Betterline

##### **2. Key Pests:**

Mule Deer: Mule deer have discovered the high protein feed of this crop and are a constant nuisance causing lower yields and potential fecal material contamination.

Slugs: The Northwest Slug or *Mucus muchamus* feeds in fields and can become a contaminant of the harvested crop and destructive to the plants.

##### **3. Chemical and Non-Chemical Management Strategies:**

Pest a, strategy...

Pest b, strategy...

See table on following page.

##### **4. Scouting, Sampling, Monitoring Techniques:**

Crop a, techniques...

##### **5. Threshold Establishment:**

Crop a, type of threshold, threshold levels...

##### **6. Documented Need for Pesticide Use:**

###### **Reduction Targets:**

Knounleft is targeted for complete elimination in 2005. Many growers purchased this broad-spectrum, highly persistent pesticide many years ago in bulk quantities. It is legal to use remaining stocks, but detection methods have improved to the point where detectable residues can be found in the processed product. The chemical persists in the environment and in human fatty tissue, although no known health effects have been documented. We have worked with state and county officials to develop a "Clean Sweep" program to remove leftover supplies at no cost to the grower, and to reduce costs for Old Milwaukee, which is a more expensive bait.

Crop a, Pesticide Application a, justification for application...

Pesticide use efficiency...

Pesticide use tracking and reduction... (see #17 on pg. 17)

Alternative pest management strategies employed...

### **7. Nutrient Management:**

Crop a, nutrient management plan...

Justification for nutrient application (e.g., soil/tissue sampling, etc.)...

Nutrient use efficiency...

Nutrient use tracking and reduction...

Alternative nutrient management strategies employed...

### **8. Pesticide Applicator Liscensing**

Supplier and sub-supplier meet CEUs...

Participate in multiple-ag topic training events beyond minimum requirements...

Training attendance lists...

### **9. Resistance Issues:**

No pressing issues for this crop.

### **10. High-Risk Pesticides**

Rank pesticides for residue risk at harvest or post-harvest..., reduce use...

Rank pesticides for acute toxicity..., reduce use...

Rank pesticides for toxicity to beneficials..., reduce use...

Rank pesticides for chronic toxicity..., reduce use...

Rank pesticides for eco-toxicity..., reduce use...

### **11. Pollinator Protection from Pesticides**

Protect bees and other pollinators from pesticides by reducing pesticides toxic to bees, not applying pesticides during bloom, buffering pollinator habitat, avoiding pesticide applications during colder and dewey times, spraying only during times when bees are inactive, communicating pesticide regiment to hive managers, registering apiaries and sensitive crops at [driftwatch.org](http://driftwatch.org)

**Chemical and Non-Chemical Strategies, Scouting and monitoring, thresholds:**

Pest	Strategies	Scouting/Monitoring	Threshold	Reference	Documentation
<b>Mule Deer</b>	Fencing	Weekly field monitoring for non fenced fields	More than 15 tracks in a 10 square foot area indicated a need to add additional methods of exclusion	Controlling Large Game Animals: Burt Betterline	Scouting records are on file with each grower
	Depredation Hunting		Annual, in season hunting encouraged at all locations at safe distance from housing, travelways		
	During the growing season, motion-activated scarecrows are placed in fields with over-threshold populations.				
<b>Slugs</b>	Baiting	Weekly random scouting of fields	More than 10 slugs in a 2' by 2' area	Washington State Slug Book	Scouting records are on file with each grower
	Salt Sprays		More than 20 slugs per 2' by 2' area		
	Physical removal for consumption in area restaurants during months with an "R"				

**Approved Pesticide List and Toxicity**

Pesticide	Active Ingredient	Target Pest	Harvest Interval	SCP Toxicity Level
Irretate	Nichatine	Mule Deer	1 day	1 Green
Maximizer	2,3,4 C2	Mule Deer	1 week	2 Yellow
Old Milwaukee	Beer	Slugs	2 days	1 Green
Kill'em	2, 3 Toluene	Slugs	4 weeks	2 Yellow
Destroyer	Organohologen	Slugs	1 week	2 Yellow
Knounleft	DDT	Slugs	10 years	3 Red

#### **IV. Crop-Specific Standards: Fingermater**

**Introduction:** A Fingermater is a long green fruit harvested from an annual plant. The finger mater seedling is planted and raised to height of four inches in greenhouses where it is then mechanically transplanted into fields. After ninety days crop is mechanically harvested and the fruit is transported to the cannery in large gondolas.

##### **1. Resources:**

- Oregon State University IPM Guidelines
- Washington State Grower Guideline
- Diseases of the Fingermater that remind one of fingers

##### **2. Key Pests:**

Index Mold: Black mold that destroys the usability of the fruit. Usually forms five days after heavy rain.

Thumbrosis: Virus that is spread by the white fly, causing the fruit to grow in the shape of a thumb

Pinkee Worm: Small pink worm the eats the flesh of the fingermater fruit.

##### **3. Chemical and Non-Chemical Management Strategies:**

Pest a, strategy...

Pest b, strategy...

See table on following page.

##### **4. Scouting, Sampling, Monitoring Techniques:**

Crop a, techniques...

##### **5. Threshold Establishment:**

Crop a, type of threshold, threshold levels...

##### **6. Documented Need for Pesticide Use:**

###### **Reduction Targets:**

Pesticide use for diseases have been virtually eliminated by transitioning to a resistant variety. Pinkee Worm control has been transitioned to Bt, light trap or area-wide mating disruption on 90% of production over the past two years according to our grower survey, largely in response to a cost-sharing program offered by USDA. Until a non-chemical or less toxic approach is developed for white fly, we do not believe we have further potential for reductions in pesticide use.

Crop a, Pesticide Application a, justification for application...

Pesticide use efficiency...

Pesticide use tracking and reduction... (see #17 on pg. 17)

Alternative pest management strategies employed...

## **7. Nutrient Management:**

### **Reduction Targets:**

This legume requires no additional nutrients.

Crop a, nutrient management plan...

Justification for nutrient application (e.g., soil/tissue sampling, etc.)...

Nutrient use efficiency...

Nutrient use tracking and reduction...

Alternative nutrient management strategies employed...

## **8. Pesticide Applicator Liscensing**

Supplier and sub-supplier meet CEUs...

Participate in multiple-ag topic training events beyond minimum requirements...

Training attendance lists...

## **9. Resistance Issues:**

White Fly, the vector for Thrumbrois, is notorious for development of resistance. Only one effective material remains. We would like to see trap monitoring and threshold use made mandatory for all growers to preserve pesticide options.

## **10. High-Risk Pesticides**

Rank pesticides for residue risk at harvest or post-harvest..., reduce use...

Rank pesticides for acute toxicity..., reduce use...

Rank pesticides for toxicity to beneficials..., reduce use...

Rank pesticides for chronic toxicity..., reduce use...

Rank pesticides for eco-toxicity..., reduce use...

## **11. Pollinator Protection from Pesticides**

Protect bees and other pollinators from pesticides by reducing pesticides toxic to bees, not applying pesticides during bloom, buffering pollinator habitat, avoiding pesticide applications during colder and dewey times, spraying only during times when bees are inactive, communicating pesticide regiment to hive managers, registering apiaries and sensitive crops at [driftwatch.org](http://driftwatch.org)



## Chemical and Non-Chemical Strategies, Scouting and monitoring, thresholds:

Pest	Strategies	Scouting/Monitoring	Threshold	Reference	Documentation
<b>Index Mold</b>	Fungicide Application	Weekly random scouting of all fields	More than 10% of the fruit exhibiting 1/2" or more of mold	Mold Handbook, UC Davis	Scouting records are on file with each grower
	3 foot row plantings: No rows closer than 3 ft used by growers Resistant Varieties	Use Resistent Varieties in lower valley		Simon Creek Processors Experience Higher humidity in lower valley	
<b>Thumbrrosis</b>	Spray for White Fly	Weekly inspection of insect traps	an average of over 5 females per trap surrounding a field	UC Davis IPM handbook	Scouting Records are with the grower
<b>Pinkee Worm</b>	BT Spray	Souting of plants on a biweekly basis for larve	More than 10 units per acre that are longer than 4 feet	Stangle Weed: An obnoxius pest in the NW. Oregon State University	Scouting records are on file with each grower
	Pyrethum Spray	Use of Extention data for swarm migration	Extension service advises based on area trapping to spray crop.		
	Mating Disruption	spray pherome every three weeks	None	Crop Advisor Handbook:	
	Insect Lights	None	Use during August/September	Pinkee Worm Study	Notes on when installed and removed with grower

## Approved Pesticide List and Toxicity

Pesticide	Active Ingredient	Target Pest	Harvest Interval	SCP Toxicity Level
Irretate	Nichatine	Index Mold	1 day	1 Green
Maximizer	2,3,4 C2	Index Mold	1 week	2 Yellow
Napom	Pyrethym	Pinkee Worm	2 days	1 Green
Kill'em	2, 3 Toluene	Pinkee Worm	4 weeks	2 Yellow
Destroyer	Organohologen	Pinkee Worm	1 week	2 Yellow
Knounleft	DDT	Pinkee Worm	10 years	3 Red
Round Down	Oregano	Thumbrrosis	None	1 Green
2-4 DE	2-4 DE	Thumbrrosis	3 days	2 Yellow

## **Appendix A. Grower Contract Terms**

The following contract terms have been inserted into grower contracts for all crops processed by Simon Creek Processors. Signed copies of the contracts are available in our Technical Director's office.

1. Grower agrees not to apply biosolids (treated domestic sewage residuals) to any land within one year prior to production for Simon Creek Processors on that land.
2. Grower agrees not to produce crops for Simon Creek Processors on any land that has had untreated domestic sewage applied to it at any time.
3. Grower agrees to plant only seed provided by Simon Creek Processors for crops to be purchased by Simon Creek Processors. No other seed may be used for crops delivered to Simon Creek Processors.
4. Grower agrees to abide by all laws and regulations regarding pesticide and nutrient use, and employee health and safety. Grower agrees to inform Simon Creek Processors within thirty days of any violations, including the date and nature of the violation, current status and plan for resolution.
5. Grower agrees to maintain accurate pesticide and nutrient application cards supplied by Simon Creek Processing, and in addition, to maintain records of wind speed and direction, and air temperature at the beginning and end of all pesticide applications. These records are to be written, legible and available for inspection for the previous three years. Application cards are to be submitted to Simon Creek Processing at least 48 hours prior to harvest and delivery of product.