

**SHARWIL AVOCADO GROWER  
COMPLIANCE AGREEMENT  
09/21/2018 Season 2018-2019**

**Attachment to Compliance Agreement, Section 5**

**Purpose:**

This Compliance Agreement authorizes the Sharwil avocado grove owner/operator, «*Company*», «*Address*», «*City*», «*Zip\_Code*», and designated personnel to harvest Sharwil fruit from approved and certified Sharwil avocado trees, between November 1 and March 31, for the purpose of delivering the fruit to a USDA approved packinghouse in accordance with the provisions of the applicable Federal Quarantines and under the following conditions approved by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (USDA, APHIS, PPQ). By signing this agreement the grove owner/operator and designated personnel agree to abide by all stipulations as described in this addendum.

**Authority:**

- Title 7, Code of Federal Regulations, 7 CFR 318.13 - Hawaiian Fruits and Vegetables.
- Title 7, Code of Federal Regulations, Part 330 (7 CFR 330) - Federal Plant Pest Regulations.

**Definitions:**

For the purpose of the regulations and requirements in this document, the following words, names, or terms shall be construed, respectively to mean or refer to:

**Grove owner/operator** refers to, «*Company*», «*Address*», «*City*», «*Zip\_Code*».

**USDA (PPQ)** refers to the United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (USDA, APHIS, PPQ), 73-300 Kupipi Street, Kailua-Kona, Hawaii 96740, telephone number, (808)326-1252 and fax, (808)329-3756.

**Certified place of production** means the process whereby the USDA has granted certification to a grove that meets the conditions of this regulation. Certified places of production will be issued a specific tracking number to identify and track the origin of fruit received and packed under this compliance agreement.

**USDA Certified Sharwil Avocado Trees** refers to trees at registered places of production (commercial groves) that have been determined by USDA to be of the Sharwil variety of avocado.

**Grove Sanitation** refers to weekly maintenance of the production area to remove all fallen fruit for the purpose of reducing the presence of the oriental fruit fly in the area.

**Certified Packinghouse** refers to an USDA approved insect-exclusionary packing facility that is authorized, with advance notification to USDA, to accept Sharwil avocado fruit from certified places of production (commercial groves) certified under this program. Certified packinghouses may only receive fruit that is delivered in approved field boxes that have been marked and identified with an assigned grove number from the registered place of production.

**Tracking Numbers** refer to USDA assigned grove numbers that must be marked on all field boxes used to harvest and transport fruit to the packinghouse. Fruit delivered to the approved packinghouse must be handled in such a way as to maintain the identity of the place of production, and all boxes packed for this program must be marked with the place of production for tracking purposes.

**Trapping** refers to the use of commercially produced McPhail fruit fly traps used in this program to monitor the places of production for the presence of the oriental fruit fly, *Bactrocer dorsalis*. Traps are to be deployed at least one month prior to harvest and continue through the end of the harvest period. A minimum of two traps per place of production, baited and maintained with USDA approved protein baits, must be serviced weekly and flies recovered must be identified and the total number recorded.

**Trapping and Treatment Record** refers to attachment 3 of this compliance agreement. This record must be maintained from the start of the trapping and treatment period for each certified place of production, and must be available for USDA review. Records must be kept for one year following the end of the trapping and treatment period. This record may be utilized in investigating any fruit from approved groves that have been found to contain quarantine pests.

**Treatment** refers to the use of commercially available GF-120 Fruit Fly Bait for the purpose of reducing fruit fly population at places of production. Users of the approved bait must follow the direction of the product label to comply with EPA regulations.

## Grove survey and certification

Grove survey and certification must be conducted each season. Grove owners must contact USDA, APHIS, PPQ, in writing to request grove survey and certification. Survey and certification will only be conducted at the discretion of the USDA, APHIS, PPQ, during times when officers are available. Appointments will be made only after all of the provisions listed below are met. At the time of the request, PPQ officers will describe the following procedures that must be followed to ensure compliance with the regulations:

**Mapping:** In order to be certified for this program, all groves containing Sharwil trees must be plotted on a detailed map. The map will indicate the GPS location or county Tax Map Key (TMK) location, as well as the grower's name, address and telephone number. The grove map should include all avocado trees, showing the variety names as well as locations. The general age of the trees must also be indicated as an aid in estimating the yield of the grove. Once approved, the map will be attached to the compliance agreement. A copy of this map is also to be maintained on file at the certified packinghouse.

**Field Marking:** All avocado trees that are not the Sharwil variety must be field marked with a band of white paint. All trees of other varieties must be marked approximately three feet from the ground with at least a six inch wide band of white paint. If necessary to maintain organic status, growers can propose alternative methods of marking trees. USDA may authorize growers to place placards, flagging tape, or some other acceptable indicator to identify other varieties. Alternative methods of marking must be maintained throughout the certification period. The purpose of the field marking is to identify all non-Sharwil varieties in a certified grove. Other varieties cannot be harvested on days that a certified Sharwil harvest is being conducted.

**Pruning:** To ensure that only Sharwil fruit will be harvested, other varieties growing in contact with the canopy of a Sharwil tree must be pruned away and remain so throughout the harvest period. The survey Officer will certify only those groves where Sharwil trees are growing free and clear of other varieties. The pruning must be conducted in such a fashion as to maintain the integrity of the Sharwil trees.

**Site Survey Inspection of Groves:** Officers will conduct a site survey of all groves to identify and certify all Sharwil trees, as well as to verify the accuracy of the map. At this time, all mapping, field marking, and pruning must be completed before certification will be granted. All trees (100%) will be inspected to determine that all of the above provisions are met.

**Grove Tracking Number:** PPQ will assign a specific grove number to certified Sharwil groves to be used to identify the fruit from the place of production. This grove tracking number must

be used on all field boxes or other approved containers from harvest, through the transportation to the packinghouse, and must be marked on the final box of packed fruit.

As a condition of movement, Sharwil avocados from Hawaii will have to be produced in accordance with a systems approach that includes requirements for registration and monitoring places of production, grove sanitation, fruit fly trapping and orchard control for oriental fruit flies, limits on harvest periods (November 1 through March 31), and limited distribution to 32 States and the District of Columbia.

Additional harvesting and packing requirements will need to be met to ensure that only blemish free, hard ripe mature green fruits with stems attached, and fruit not indenting with moderate finger pressure, are packed and shipped under this program.

**SAFEGUARDING PROCEDURES** The following procedures and measures are prescribed:

1. Harvest, assemble, pack, handle, move and transport Sharwil avocados in accordance with this compliance agreement.
2. Maintain safeguards against fruit fly infestation by complying with such conditions as grove sanitation, trapping and orchard control for oriental fruit flies, maintenance and cleaning of approved field boxes, packing and storage places, means of conveyance, and containers used, as required by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (USDA, APHIS, PPQ).
3. Articles moved under this authorization are subject to inspection at any time by PPQ, USDA.
4. Any deviation from the standard operating procedures, whether for harvesting, transporting, or storage, must be approved by PPQ, USDA before implementation.
5. PPQ, USDA officers will have access to growing and storage premises as deemed necessary by U S D A , A P H I S , PPQ, to see that the provisions of this agreement are observed.

6. Notify PPQ, USDA within five (5) days in writing (USDA, APHIS, PPQ 73-300 Kupipi Street, Kailua-Kona, Hawaii 96740) of any change in business address, ownership, or if the establishment is dissolved.
7. Growers will be responsible for informing and training all employees to ensure that these provisions are complied with and to ensure that only avocados from approved trees are harvested.
8. Sharwil avocados are to be picked only from premises determined by PPQ, USDA to contain only the Sharwil variety or from mixed fields that have varieties other than Sharwil avocados that are readily distinguishable from the Sharwil variety. Varieties in approved fields other than Sharwil will have the trunk of the trees painted white in a band twelve inches wide and about three feet from the ground. If necessary to maintain organic status, growers can propose alternative methods of marking trees. USDA may authorize growers to place placards, flagging tape, or some other acceptable indicator to identify other varieties. Alternative methods of marking must be maintained throughout the certification period. (12/19/13)
9. The location of approved trees must be identified and approved by PPQ, USDA. A map showing locations of all Sharwil orchards and exact location of trees must be presented to USDA for certification and will be attached to the compliance agreement. GPS coordinates and Tax Map Key (TMK) locations must be included on the map.
10. Beginning at least one month before harvest and through the end of the harvest period, the place of production of the avocados must have an approved trapping system in place for *Bactrocera dorsalis*, (oriental fruit fly). APHIS approved McPhail traps baited with approved lures must be used. (See attachment 2, Approved Traps, Lures and Population Suppression Procedures.)
11. Fruit fly traps will be deployed at the rate of one trap per 24 acres, with a minimum of two traps per place of production.
12. Traps are to be serviced weekly and fruit flies recovered must be identified, and the total number recorded. Trap records must be maintained for one year and made available to APHIS staff upon request. (See attachment 3, Fruit Fly Trapping and Treatment Record.)
13. If the average trap catch for a week is  $> 0.4$  flies per trap per day, bait spray must be applied in the orchard for oriental

fruit fly population suppression. GF-120 Fruit Fly Bait will need to be applied. (See attachment 5, GF-120 Specimen Label.)

14. The GF-120 spray must be repeated at 7-10 day intervals (more frequently during rainy periods) until the fruit fly population drops below 0.4 flies/trap/day, or harvesting is completed for the season.
15. Grove sanitation requires that host fruit that has fallen from the trees must be removed from each place of production at least once every seven days. All fallen fruit within the certified place of production must be removed from the certified production area and disposed of in an approved manner (see attachment 4, best practices). It is recommended that other fruit fly host material in the area is minimized to further reduce the fruit fly population in the avocado grove. (10/30/13) (12/19/2013) (12/26/13)
16. The culls and other discarded fruit must be removed from the production area after harvest.
17. The person having control over a picking operation (grower) will be under a written agreement with a PPQ, USDA approved packinghouse.
18. Growers are required to call the USDA office (Kona 326-1252) to confirm that they are authorized to conduct harvest operations. This call must be placed no less than twenty-four (24) hours prior to the day of intended harvest. (Growers must also notify USDA if they do not intend to harvest after an appointment with USDA has already been made.) Packinghouse managers are required to call the USDA office requesting permission to conduct certified packinghouse operations, as well as supply a list of all growers who will be providing certified fruit for that day of operation. Packinghouses can fax a list of growers that will be harvesting. The USDA Kona fax number is 329-3756. (12/26/13)
19. Avocados, immediately after being picked, are to be placed in approved field boxes or containers identified with a USDA assigned grove number. Sharwil avocados must be harvested only at the mature green stage with stems attached. Fruit must not indent with moderate finger pressure and no part of the fruit shall be soft. Fruits must also be sound, free from nicks, cracks, or other blemishes. (12/26/13)

20. Field containers of Sharwil avocados must be identified with an assigned grove number for tracking purposes. The containers will be covered at all times with an approved covering while in the field and while being transported to the approved packinghouse to prevent fruit fly oviposition and hitchhiking pests. No other fruit or agricultural commodities may be transported along with the Sharwil program fruit. (12/26/13)
21. Within twelve hours after being picked, the avocados must be moved into a PPQ, USDA, approved, screened, fruit fly free packing facility in which operations are conducted in accordance with the provisions of this compliance agreement and USDA regulations. All field boxes or containers must be continuously safeguarded with an approved screen or tarp. The safeguarded field containers must be taken to an approved packinghouse within 12 hours of harvest. (12/26/13)
22. The responsibility of following all pre-harvest and post-harvest requirements will be that of the grower. If USDA, PPQ finds that all requirements are not being met it will be deemed a violation of the compliance agreement and may render the fruit already harvested ineligible for shipment, and in the termination of this agreement. Growers will need to get their safeguard procedures and policies approved in advance by USDA. (12/26/13)
23. The grower should make sure that the packinghouse has been inspected by the plant supervisor before moving his/her avocados into the packinghouse. The plant supervisor must be sure that all doors and screened areas are fruit fly proof and that there are no fruit fly host material and no live insects in the area. If live insects are found, the area must be sprayed with an approved insecticide and the area rechecked for compliance.
24. Avocados being held in an unattended packinghouse must be covered completely with an approved covering and the packing room locked under the supervision of the packinghouse manager. This procedure will be done only after receiving prior approval from PPQ, USDA.
25. Within twenty-four (24) hours after harvest, the avocados must be packed, taped, and sealed in cartons that are marked with the specific grove number assigned to the place of production for tracking purposes. All boxes must be inspected and approved by USDA before they can be moved from an approved packinghouse. (12/19/2013)
26. It is agreed that all activities relating to the harvesting and handling of avocados for movement from Hawaii are subject

to monitoring at any time by USDA. It is further agreed that said activities will be conducted only during times previously approved in writing by PPQ. Inspections and monitoring performed outside of our regular scheduled hours M-F 0800-1600, (excluding holidays) will be offered on a reimbursable overtime basis.

27. Non-compliance with any of the requirements will be deemed a violation and may result in the immediate cancellation of this compliance agreement. This compliance agreement may be cancelled orally or in writing by the USDA, PPQ Officer. A list of fruit fly host material is attached, as attachment 5. (12/26/13)
28. USDA will not allow growers to harvest fruit under this program unless PPQ officers are available to adequately monitor the harvest and packing process, and complete final inspection.

### **VIOLATIONS/SUSPENSION/REVOCAION**

This compliance agreement may be immediately suspended, canceled or revoked for noncompliance. Any deviations from the above procedures must have prior PPQ approval. Any person who knowingly violates the Plant Protection Act (PPA) (7 U.S.C. §§ 7701 et. seq.) and/or the Animal Health Protection Act (AHPA) (7 U.S.C. §§ 8301 et. seq.) may be criminally prosecuted and found guilty of a misdemeanor which can result in penalties, and one year prison term, or both. Additionally, any person violating the PPA and/or the AHPA may be assessed civil penalties of up to \$250,000 per violation or twice the gross gain or gross loss for any violation or twice the gross gain or gross loss for any violation that results in the person deriving pecuniary gain or causing pecuniary loss to another, whichever is greater.

### **X. APPEALS OF REGULATORY ACTIONS**

Appeals of regulatory decisions as applied by the Port Director concerning the enforcement of the compliance agreement requirements should be sent in writing to the office of the State Plant Health Director, USDA, APHIS, PPQ, 300 Ala Moana Blvd., Room 8-120, Honolulu, Hawaii 96850.



USDA, APHIS, PPQ (September 21, 2018)  
ATTACHMENT 1 Application for Registration of a Sharwil Grove

Persons wishing to move Sharwil avocados in accordance with this compliance agreement must register the avocados' place of production.

(This form is being offered to commercial Sharwil growers who have interest in obtaining a compliance agreement with USDA. Growers will also need to provide USDA a map of the grove they wish to register. The map will need to show the location of Sharwil and other avocado varieties within the grove.)

Name of applicant:

Mailing address:

Phone number:

e-mail;

Places of Production:

Name of Farm (DBA):

Location of Farm:

GPS:

Elevation:

Estimated harvest period for your location start/stop:

Number of Acres:

Number of Sharwil trees:

Other avocado varieties and numbers in grove:

Name of Packinghouse accepting fruit: \_\_\_\_\_

Please return this form to:

USDA, APHIS, PPQ

Kona International Airport

73-300 Kupipi Street

Kailua-Kona, HI 96740

USDA, APHIS, PPQ  
Sharwil Avocado Grower Compliance Agreement  
ATTACHMENT 2 Approved Traps, Lures, and Population Suppression Procedures

*Trapping and orchard control.* (1) Beginning at least 1 month before harvest and continuing through the end of the harvest period, the place of production of the avocados must have a trapping system in place for *B. dorsalis* that complies with all conditions specified in the compliance agreement required in paragraph (h) of this section. APHIS-approved (McPhail) traps and APHIS-approved lures (hydrolyzed protein bait) must be used, and the place of production or the packinghouse must retain for at least 1 year data regarding the number and location of the traps, as well as any fruit flies that have been caught, and make this information available to APHIS upon request.

Traps must be deployed at the rate of one trap per 24 acres, with a minimum of 2 traps per place of production. Both traps should be placed in avocado trees, at least 4 feet off the ground and surrounded by (nestled within) foliage. One trap should be in an avocado tree in a border row of the orchard while the other should be in a tree located inside, preferably near the middle, of the orchard.

Use a commercially available yellow bottom McPhail-type trap, baited with 300 ml hydrolyzed protein bait. Acceptable baits include torula yeast pellets (3 pellets dissolved into 300 ml water) or NuLure (a 330 g mix of prepared solution will contain 30 g of NuLure and 15 g of borax).

Traps should be serviced weekly, by pouring the bait through a strainer into a container to retain the bait. Fruit flies recovered into the strainer must be identified, and the total number recorded. Average catch per trap per day of oriental fruit flies should be calculated ( $[\text{catch-trap 1} + \text{catch-trap 2}] / 2 \text{ traps}/7\text{days}$ ). The bait should be topped off to 300 ml at the one week service and replaced with fresh bait at the two week service.

(2) If *B. dorsalis* is detected by the trapping at an actionable rate of 0.4 flies/trap/day as specified in the compliance agreement, control actions required by the compliance agreement or ordered by an inspector must be taken.

If the average trap catch for the week is 0.4 flies per trap per day, bait spray must be applied in the orchard for oriental fruit fly population suppression (note that a total of  $\geq 6$  flies caught in the two traps will trigger the bait spray requirement). GF-120 Fruit Fly bait will need to be applied. The commercially purchased concentrate should be diluted four parts concentrate to 6-8 parts water before applying. The bait spray should be applied as spots on the underside of leaves of each avocado tree in the orchard and on the underside of the leaves of each oriental fruit fly host plant, and each prospective roosting host plant, which borders the avocado orchard. Care must be made to provide complete coverage of the orchard and the borders without exceeding the label maximum allowable rate of application. The spray must be repeated at 7-10 day intervals (more frequently during rainy periods) until the oriental fruit fly population drops below 0.4 flies/trap/day or harvesting

is complete. It should be noted that there is no set upper limit for the number of fruit flies trapped for shipping to continue as long as orchard control continues. (October 23, 2013)

SAMPLE

<b>McPhail Trap #</b>		<b>Attachment 3 Sharwil Avocado Certified Grove</b>  <b>Fruit Fly Trapping &amp; Treatment Record</b>			
<b>Date Installed:</b>					
<b>Week</b>	<b>Service Date</b>	<b>Service Action (replenish/new bait)</b>	<b>Number of Oriental Fruit Flies</b>	<b>GF-120 Treatment Date</b>	<b>Name of Grower:</b>
1					
2					
3					
4					<b>USDA GROVE #:</b>
5					
6					
7					<b>Grower's Phone Contact:</b>
8					
9					
10					<b>GPS of GROVE (decimal degrees)</b>  <b>Lat:</b> _____ °  <b>Long: -</b> _____ °
11					
12					
13					
14					
15					
16					

<b>17</b>					
<b>18</b>					
<b>19</b>					
<b>20</b>					
<b>21</b>					
<b>22</b>					
<b>23</b>					

Attachment 3 Sharwil Avocado Certified Grove Fruit Fly Trapping & Treatment Record

SAMPLE

### Orchard Sanitation ~ Best Practices

Sanitation, the process of disposing of infested fruit so that fruit fly larvae will not survive, is important to prevent within orchard increases of fruit fly populations. The following are ways that infested fruits could be removed from the orchard environment:

- (1) **Compost:** For this approach to be effective, one needs to make sure that the compost pile is covered with plastic and “working” (i.e., generating internal heat above 140°F).
- (2) **Animal Feed:** The infested fruits can be fed to animals. It is important, though, to avoid leaving fruit piled on the ground for more than a day.
- (3) **Drowning:** To ensure that larvae are killed, infested fruits must be submerged in water for at least 48 hours. It is important to keep fruits from becoming infested after the drowning treatment is completed.
- (4) **Bagging:** When bagging fruits in plastic bags, it is important to make sure that the bag openings are sealed tightly and that there are no holes in the bags. Fruit fly larvae can wiggle through very small openings. After one month all of the fruit fly larvae in the bags will have died, and the fruit remains can be applied as an organic amendment to a field.
- (5) **Grinding:** Mechanically destroying larvae requires a mechanical process as thorough as a garbage disposal. Crushing or smashing the fruit is not an effective way to kill larvae.
- (6) **Burying:** Fruit flies have been known to burrow 12 inches up to the surface in loose soil. Therefore, if one chooses to bury infested fruits, the fruits should be buried at least 18 inches deep.

**“Augmentorium”:** Use of a tent-like screen structure designed to retain the fruit flies both under and above ground has the added advantages that it allows the natural enemies of the fruit flies to reenter the farm environment, and it does not remove the fruit organic matter from the farm