

GOOD BINES: FOUNDATIONS OF FOOD SAFETY

This educational module is intended to assist farms in the development of a farm food safety policy by drawing on principles of operational risk assessments and industry-recognized certification programs. By working through this module, any U.S. hop grower, regardless of access to 3rd party programs or resources, can still strive to provide their customers with a food-safe and quality crop.

Foundations of Food Safety outlines practices from common industry and 3rd party audited food safety programs. Examples are provided for reference only. Each grower should consider their farm's unique operations when determining how to implement practices. The practices outlined in this module focus on the harvesting portion of the hop production cycle, rather than field operations prior to harvest.

Hop Growers of America is providing this module as an educational tool to help Members evaluate their current farming practices and develop their own, personalized set of best practices for their particular operation. This guidance tool was developed by Hop Growers of America Best Practices Committee, drawing on primary principles found in the Hazard Analysis and Critical Control Points (HACCP) approach. Hop Growers of America does not specifically endorse or recommend any of the provided text, policies or practices referenced in the module. The policies and practices contained in this module should be customized to reflect your specific goals and particular circumstances. Ultimately, Members must comply with all local, state, federal and international laws and practices and you should consult with the appropriate professionals if you have questions or concerns related thereto.

The Foundations of Food Safety module includes five sections:

1. General
2. Records
3. Health and Human Safety
4. Hop Harvesting: Field and Handling
5. Summary and Final Checklist

PLEASE NOTE: Farms with **multiple harvesting facility locations** must complete a separate assessment for **each location**.

SECTION A - GENERAL

Farm Name:	
Primary Contact:	
Mailing Address	
Farm facility name and location covered by this assessment:	
Primary Contact Phone:	Primary Contact Email:
Food Safety Contact:	
Food Safety Contact Phone:	Food Safety Contact Email:
24 Hour Contact Number for Food Safety Emergency:	
Grower Number(s)* at this facility:	

** Grower numbers are assigned free of charge by Hop Growers of America (membership is not required). This is the US hop industry's standardized system for crop traceability and identification. If you do not have a grower number click, please complete Attachment A1 to apply for one. Standardized grower numbers are a key aspect of food safety and traceability programs.*

SECTION B - RECORDS

B.1. Chemical Application Record Requirements

B.2. Chemical Application Training Records

B.3. Export Chemical Regulations

B.4. Irrigation Water Testing

B.5. Traceability Records

B.6. Maintenance Records

B.1. Chemical Application Record Requirements

All chemical application records meet USDA/EPA requirements. Records are complete and available for review.

Use of agricultural chemicals complies with label instructions and prevailing regulations. Chemical application records are completed either online or using the correct hardcopy forms for the specific area and/or state. These records include, but not limited to; active ingredient, EPA registration number, target pests, and method of application.

- Review Sample Pesticide Label (or others specific to your state or local jurisdiction).
“*The label is the law!*” means all applications are in compliance with label instructions including:
 - Application rate
 - Application timing
 - Total number of applications per season
 - Total allowable applications per season
 - Re-entry interval
 - Pre-harvest interval
 - Personal protective equipment
 - Other requirements and restrictions.

- All chemicals applied to the crop (organic or conventional) have been legally approved for application to hop products intended for commercial sale.

- Chemical Application record templates may be available from your State Department of Agriculture or another pesticide regulatory agency. **See section B.1 in Appendix for examples.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

B.2. Chemical Application Training Records

Agricultural chemicals (organic and conventional) are applied only by trained, licensed and/or certified application personnel, as required by prevailing regulations and the pesticide label.

- Copy of spray license and/or training record is on file and available for review. Training records keep track of personnel trained. Educational material to support training is kept on file to review. **See section B.2 in Appendix for example of Training Record.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

B.3. Export Chemical Regulations

If the product is intended for export, all agricultural chemical use complies with regulatory requirements of the intended country of destination.

- If selling to a merchant who may export the crop, confirm with their list of chemicals for usage restrictions.
- Reference the US Hop Industry Plant Protection Committee's international MRL chart for guidance. **Review <https://www.usahops.org/growers/plant-protection.html>.**

I certify that my crop is destined only for Domestic customers and all applied pesticides (conventional or organic) are legally allowed for application to hops in my state/area and are detailed in full on the spray reports submitted.

If hops produced on this farm will be exported to foreign customers, I certify that no pesticide residues are present that do not comply with the regulatory requirements of that country. Laboratory testing for pesticide residues is recommended to validate compliance for export.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

B.4. Irrigation Water Testing

Irrigation water testing requirements have been fulfilled and records are complete and available for review.

- Irrigation water contains no human sewage, sludge or human waste contamination.
- All water sources are protected from contamination from adjacent livestock.
- Microbial food safety testing for irrigation sources are conducted regularly. **(See UCGAP's Grower Guide to Irrigation Water Sampling example).**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

B.5. Traceability Records

Records for harvesting, drying, cooling and baling are complete and available for review to ensure full traceability from farm to customer.

- All crops are tracked from field to warehouse in a documented farm traceability program communicated as an official Farm Policy. **See section B.5 of Appendix for example.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

B.6. Maintenance Records

Cleaning and maintenance records are complete and available for review.

Maintain records for the following maintenance conducted both before harvest and daily during harvest season: **See section B.6 for examples of Pre-harvest and Daily Checklist.**

- Harvesting equipment/tools such as:
 - Trucks
 - Tractors
 - Field tools and equipment
- Receiving area & Picking Machine maintenance such as:
 - Floors are cleaned and free of debris
 - Belts and conveyors are clean
 - No loose clothing or tools near equipment
- Kiln, cooling and baling area maintenance such as:
 - Burner area is secure
 - Kiln cloths are clean
 - Floors are cleaned and free of debris
 - Magnets and foreign material mitigation are functional
 - Pest traps are checked
 - Bird netting is intact

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

END OF SECTION B

SECTION C - HEALTH & HUMAN SAFETY

C.1. Employee Health & Safety Training

C.2. Farm Food Safety Policy

C.3. First Aid Posting, Supplies, and Protocols.

C.4. No Smoking Signs.

C.5. Farm Visitor Policy

C.6. Health & Human Safety Policy

C.7. Lock-out/Tag-out Policy

C.8. Domestic Animal & Wildlife Control Policy

C.9. Safety Precaution Signs

C.10. Food, Drink and Break Areas

C.11. Toilet & Hand Wash Facilities

C.12. Access to Drinking Water

C.13. Harvest & Crop Handling Hygiene Policy

C.14. Injury, Illness & Contamination Training

C.1. Employee Health & Safety Training

All employees receive at least required health and safety training per OSHA guidelines. A written policy on Personal Protective Equipment (PPE) is available for employees to review at all times.

- If required by state regulations, a person certified in CPR/first aid is present on the farm at all times. Farm has CPR/first aid cards on file.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.2. Farm Food Safety Policy

Employees receive food safety training specific to the Farm's Food Safety Policy. The Farm Policy is clearly communicated and is available for employees to review at all times.

- **See Section C.2 in Appendix for example**

- All food safety & facility hygiene signs are posted & visible with clear instructions for employees & visitors.
- All employee training is documented and available for review.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.3. First Aid Posting, Supplies, and Protocols.

- First aid kits, supplies, and protocols are available and clearly labeled throughout the farm. First aid kits are located near working areas.
- All first aid kits are checked during pre-harvest and restocked as needed during the harvest season. All first aid kits include labeling in English and other major languages spoken by employees.
- All accidents are documented, regardless of the need for professional medical treatment.
 - If an accident resulted in professional medical treatment, an official note is submitted to Farm for documentation, investigation and new training as needed (OSHA requirements).
- All injured employees have an official release from their health care provider before returning to work for light duty or full duty work.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.4. No Smoking Signs.

"NO SMOKING" signs are clearly posted throughout the Farm in both English and other major languages spoken by employees.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.5. Farm Visitor Policy

Formal visitor check-in/check-out protocol is in place. All visitors are made aware of safety expectations in the Farm Policy. **See section C.5 in Appendix for Visitor Policy example.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.6. Health & Human Safety Policy

A health and human safety policy specific to the Farm is posted and clearly communicated to all employees. Farm must be able to provide documentation of training.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.7. Lock-out/Tag-out Policy

Lock-out/Tag-out policy and procedures are in place and clearly communicated to all employees. **See section C.7 in Appendix for Lock Out/Tag out Policy example.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.8. Domestic Animal & Wildlife Control Policy

No animals (wildlife or domestic) are allowed in harvesting and handling areas.

- Document efforts to minimize contamination risk.
- If domestic animals are utilized in fields for weed control, a risk assessment is performed and practices to reduce risk are documented.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.9. Safety Precaution Signs

Safety precaution signs are clearly posted throughout the Farm.

- Examples include propane and fuel tanks (“Flammable”), burners (fenced or enclosed), etc.
- Signs designate restricted areas open to only authorized personnel.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.10. Food, Drink and Break Areas

No food or drink (except water) in harvesting/crop handling areas; designated eating/break areas are clearly defined.

- Water is acceptable in all areas, in non-breakable containers such as plastic bottles.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.11. Toilet & Hand Wash Facilities

Policy for employee toilets, hygiene and health is included in Farm Food Safety Policy.

- Toilet and hand washing stations are available and maintained to meet clean and sanitary conditions. **See section C.11 for example of Checklist.**
- Personnel wash hands any time hands may be a source of contamination, including:
 - Before entering work area.
 - Before and after using the toilet.
 - Before and after eating/drinking/using tobacco products.
- Signs for hand washing stations are clearly posted throughout the Farm.
- No gloves should enter toilet facilities.
- Hand wash stations have potable water, single-use paper towels, and hand soap.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.12. Access to Drinking Water

Drinking water is always available to all employees.

- Water is acceptable in all areas, in non-breakable containers.
- If drinking water is provided by the Farm, it must meet drinking water standards designated by the Department of Health.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.13. Harvest & Crop Handling Hygiene Policy

Using tobacco products, chewing, eating, drinking (other than water), urinating, defecating, or spitting is not permitted in any crop growing areas, harvesting or handling facilities.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

C.14. Injury, Illness & Contamination Training

The Farm has an Injury & Illness Policy as well as a Contamination Policy that has been clearly communicated to all employees. **See section C.14 in Appendix for example.**

- Include education on employees with illness, exposed cuts, sores or lesions not in direct contact with product.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

END OF SECTION C

SECTION D - HOP HARVESTING: FIELD & HANDLING

D.1. Employee Access to Hand Washing

D.2. Food & Drink Policy

D.3. Food Grade Lubricants

D.4. Equipment Maintenance, Repair, and Calibration

D.5. Facility Maintenance & Repair

D.6. Pest Management

D.7. Floors

D.8. Safety Guards

D.9. Lighting

D.10. Emergency Stops

D.11. Tool Storage

D.12. Facility Entrances

D.13. Physical Hazards

D.14 Packaging

D.15 Bale Traceability

D.16 Loading and Unloading Product

D.17 Hop Contamination

D.18 Chemical Storage

D.19 Ambient Air Drying

D.1. Employee Access to Hand washing

Employees have access to adequately stocked sanitation and hand washing facilities with clear signage and hygiene expectations.

- Refer to section C.11 in Module for details.
- Facilities are inspected daily, cleaned and restocked with supplies as needed. Cleaning and inspection records are kept and available for review.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.2. Food & Drink Policy

Only water is allowed in the Harvest and Handling areas, all other food and drink are prohibited. Food and drinks are allowed only in designated eating/break areas.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.3. Food Grade Lubricants

Only food grade lubricants are used on equipment that may come in contact with product. All lubricants are clearly labeled if food grade or not.

- Get statement or certificate from the vendor if not stated on the label.
- Safety Data Sheets are current and kept on file and available for review.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.4. Equipment Maintenance, Repair, and Calibration

All Equipment is properly maintained, calibrated and serviced; anything that comes in contact with produce is in good repair and not a source of contamination. This includes all field equipment, tools and all vehicles used for transporting hop bines. All maintenance logs and checklists are completed during a pre-harvest inspection and daily during the harvest season.

- A preventative maintenance and/or master cleaning schedule, with related standard procedures is established as part of a greater farm policy.
- **See Section D.4 in Appendix for example of Checklist and Maintenance Policy.**

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.5. Facility Maintenance & Repair

Cleaning and maintenance records are maintained for buildings and facilities. All maintenance logs and checklists are completed during a pre-harvest inspection and daily during harvest the season.

- Inspections include: Receiving area/picker, kiln, cooling/baling room, magnet, any storage areas.
- **See section D.5 in Appendix for Pre-Harvest Checklist** for pre-harvest inspection.
- **See section D.5 for Harvest & Handling Checklist example** for daily use during harvest.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.6. Pest Management

Pest management plan has been established and preventative measures are in place to protect harvesting/handling areas.

- A procedure is in place to monitor, record and mitigate any pest presence in harvest, handling and storage areas.
- Only rodent traps are used in facility interiors. Traps are set at adequate distance from potential product contamination.
- Bait stations are exclusively used around facility exteriors.
- Bird control measures protect facilities during harvesting and post-harvesting seasons (includes netting, screening, air curtains, etc.).

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.7. Floors

All floor areas and conveyor belts are free of grease, dust, dirt and other potential contaminants.

- Conduct daily visual inspections.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.8. Safety Guards

All safety guards are installed and maintained.

- Conduct daily visual inspections.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.9. Lighting

Shatter-proof lighting throughout all facilities.

- Retain appropriate documentation.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.10. Emergency Stops

Emergency stop buttons are in place and functional.

- Stops are clearly marked/labeled in all major languages spoken by employees.
- Employees have been trained in emergency stop procedure.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.11. Tool Storage

Tools and spare parts are collected and properly stored.

- Designated areas for all tools to be kept while working.
- When tools are not being used, they are properly stored in a secure area.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.12. Facility Entrances

All facility entrances and openings to harvesting/handling areas are secured.

- Signage designates for entry of only authorized personnel.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.13. Physical Hazards

Safety Policy includes procedures to prevent, inspect and remove significant physical hazards.

- Clear signage in place for potential physical hazards such as gaps in walkway, catwalks, narrow stairs and confined spaces.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.14. Packaging

All packaging, bale cloth, and other primary packaging are stored in clean and dry conditions to prevent contamination. All material directly contacting product is inspected prior to use.

- Purchasing policy includes a procedure for rejecting damaged packaging material.
- All hop packaging materials are food-grade.
- If ink is used to mark bales, it is food-grade.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.15. Bale Traceability

All bales are clearly labeled with a numbering scheme that includes grower number, lot number, crop year, and variety.

- Documented traceability procedures can trace hops from field to finished bale and are available for review.
- Grower numbers are issued by Hop Growers of America to ensure numbering standardization. See section A of Module for details.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.16. Loading and Unloading Product

Loading and unloading of product are conducted in a way to minimize damage and prevent contamination.

- Document inspection of harvest areas to prevent contamination of product.
- Document inspection of equipment to prevent contamination of product.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.17. Hop Contamination

Loose and baled hops are protected from contamination.

- If water is used during the harvesting and handling process on the final product, the water is potable.
- Handling procedures prevent co-mingling and cross-contamination of varieties. Varieties are clearly identified and documented.
- No foreign materials come in contact with product.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.18. Chemical Storage

All chemicals are stored in a secured, separate area to prevent contamination with product. All chemicals are properly labeled.

- All chemicals are to be kept in the original containers.
- Cleaning solutions in other containers are clearly labeled for contents

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

D.19. Ambient Air Drying

If using ambient air or sun for the drying of harvested hops in the field, adequate methods to prevent contamination and maintain product integrity have been implemented.

I have implemented these practices on my farm and will continue to do so. (Check box to confirm completion).

END OF SECTION D

SECTION E - SUMMARY & FINAL CHECKLIST

E.1. Traceability and contamination policies in place.

E.2. The Farm Food Safety Policy shall be reviewed at least annually.

E.3. The Farm Food Safety policy is in place.

E.4. Corrective action plans for food safety violations.

E.5. All documentation shall be readily available for inspection.

E.6. Documentation is kept to demonstrate the Farm Food Safety Policy is being followed.

