

Hop Growing & Harvesting Standards Verification: Audit Checklist¹

(file: 20180326 Growing Harvesting Standards Verification Checklist V.3)



This checklist is a resource for use by grower/managers and auditors when inspecting a hopyard and the associated farming, harvesting and baling operations for product quality, consistency, and food safety procedures and practices.

This February 2018 version replaces the August 2017 DRAFT Checklist. We welcome feedback, comments, and suggestion – send to Joe Colyn joe.colyn@originz.com / Mark Trowbridge trophopllc@gmail.com

Score each item on 3-point scale: **3=Premium, 2=Acceptable, 1=Needs Improvement, 0=Unacceptable, or NA=Not Applicable** by circling the number in the **3 / 2 / 1 / 0 / NA** box, then totaling each section in the **/ / / / /** box. **** highlighted items are MUST HAVE – scoring of 0 or 1 results in automatic audit failure).** **Items with ## and highlighted in Yellow are specific areas unique to this HGM Checklist that require specific attention.**



To qualify for the “HGM Verified Source Seal” growers must be HGM members in good standing and complete both the HGA Module I - <https://www.usahops.org/growers/food-safety.html> (through to securing the Certificate upon completion) and this Checklist, achieving a 75% or higher score. A copy of both the HGA Certificate and this completed Checklist must be filed with the HGM Quality Program Committee annually.

Further information on the listed items can be found in the **Grower Quality Standards and Food Safety Requirements manual**, a resource available online at <http://hopgrowersofmichigan.com> should the grower/manager, or auditor, require additional information. Note: this Checklist does not cover the further processing (pelleting, etc.) of hops – a separate Hop Process Checklist is available at the HGM website for processing.

Auditor/Responsible Person: _____
Farm/Facility Name: _____
Location/Address: _____
Acres: _____
At This Location: ___ Hopyard, ___ Harvest Center
Date: _____

¹ This checklist was developed as part of the Hop Growers of Michigan Hops Quality project 2016-18, funded in part by a USDA SCBG (Specialty Crop Block Grant) awarded by the Michigan Department of Agriculture and Rural Development

1 - Documentation, Record Keeping, Reporting

- **3 / 2 / 1 / 0 / NA** ** Grower has completed HGA Food Safety Module 1 – Harvest Practices
 - Available online at: <https://www.usahops.org/growers/food-safety.html>
 - Note: the HGA’s **Module I Attachments** resource includes many forms and templates that can be used by growers to establish policy, procedure, practices and records
- **3 / 2 / 1 / 0 / NA** ** Operating procedures are documented for all key processes
- **3 / 2 / 1 / 0 / NA** ** Farm records are complete for growing, harvesting, kilning, and baling
- **3 / 2 / 1 / 0 / NA** ** Work-in-process and final product labeling is clear, prominent
- **3 / 2 / 1 / 0 / NA** ** Product traceability policy and procedure are in place and tested annually
- **3 / 2 / 1 / 0 / NA** Documentation available for review by auditors/inspectors
- **3 / 2 / 1 / 0 / NA** Compliance to pertinent government law is documented
- **3 / 2 / 1 / 0 / NA** Internal and third party lab procedures are documented, accredited, and confirmed to meet requirements
- **3 / 2 / 1 / 0 / NA** COAs, lab reports and other quality/food safety data are recorded/associated to lots/lot codes/customers

Section Comments: _____

/ / / / / **Section Total Score** (out of 27, or reduce by 3 for each NA line)

2 - Hopyard & Farming

- **3 / 2 / 1 / 0 / NA** ## **Site Map – including buildings, hopyards, well heads, pesticide storage, flammable storage** (elements of First Responder Emergency Plan)
- **3 / 2 / 1 / 0 / NA** Written Property Maintenance Program: mowing, buffer strips, drains, non-crop areas
- **3 / 2 / 1 / 0 / NA** Hopyard map: location of each variety (labeled), including planting dates.
- **3 / 2 / 1 / 0 / NA** Written Integrated Pest Management Program addresses disease, insects, weeds, rodents, and wildlife pests etc.
 - pesticide usage plans, procedures, and reporting requirements
 - regulatory and label compliance in pesticide application
 - Proper storage facilities for pesticides and hazardous materials
 - SDS documents on file and available/communicate to employees
 - Responsible personnel identified
- **3 / 2 / 1 / 0 / NA** ** Pesticide treatment records are current, dated, signed and including pre-harvest Interval compliance

- **3/2/1/0/NA** If product is intended for export, ag chemical use complies with regulatory requirements of destination country
- **3/2/1/0/NA** ## Written Fertilization Program: soil sampling, products, forms, rates, timing
- **3/2/1/0/NA** ## Written Irrigation Program: water sources, schedule and/or application records,
- **3/2/1/0/NA** Well/Surface Water testing requirements are fulfilled/ records are complete
- **3/2/1/0/NA** Written Training Plan for Hopyard Personnel outlines best practices and tasks
 - Employee training and written procedures are in place for: safe machinery operation, food-grade handling and housekeeping requirements, traceability & inventory record keeping, health and safety, pesticide application, quality records, food safety compliance, waste and pollutant management/disposal, and site/facility cleanliness.
- **3/2/1/0/NA** Manager can articulate his hopyard 'walk-through' practices and schedule,
- **3/2/1/0/NA** Pre-harvest alpha and other assay protocols are in place and records retained
- **3/2/1/0/NA** Petiole/leaf evaluation/sampling/testing plan and practices, as required by customers, are in place.

Section Comments:

Section Total Score (out of 39, or reduce by 3 for each NA line)

3 - Health and Human Safety

- **3/2/1/0/NA** Health and Safety policies in place, posed, and training provided for workers, contractors, and subcontractor
 - A manager is designated with health and safety responsibility.
 - Manager is knowledgeable on health and safety laws and regulation pertaining to the workplace.
 - Personal Protective Equipment is available and used, as needed (clothing, hearing protection, gloves, footwear, respirators, hardhats/bump-caps, etc).
- **3/2/1/0/NA** A Food Defense risk identification is on record to assure that all inputs (chemicals, tools, equipment) and personnel comply to food safety regulation and customer expectations.
- **3/2/1/0/NA** Proper break station, toilets, and smoking areas are designated outside of fields and harvest center areas
 - Employees have unlimited access to clean drinking water during work hours
- **3/2/1/0/NA** Animal/bird controls in place to keep out of harvesting/handling areas
- **3/2/1/0/NA** Safety precaution signs (MIOSHA compliant) posted and Lock-out/Tag-out policy and procedures are in place

3

- **3/2/1/0/NA** First aid supplies available, signed properly
- **3/2/1/0/NA** Accident documentation reporting in place and return-to work policy is in place and enforced
 - includes policy and practices for dealing with blood/bodily fluid spills.
- **3/2/1/0/NA** Visitor check-in/checkout and hygiene/safety protocols in place.

Section Comments:

Section Total Score (out of 27, or reduce by 3 for each NA line)

4 - Harvesting

- **3/2/1/0/NA** Pre-harvest and in-season cleaning and maintenance records are complete (equipment & building)
- **3/2/1/0/NA** Facility is closed-off during off-season in order to mitigate pest harborage
- **3/2/1/0/NA** Procedures documented and available to operators
- **3/2/1/0/NA** Equipment operation logs and service schedules established/maintained
- **3/2/1/0/NA** Sanitation and handwashing facilities available, signed, in working order
- **3/2/1/0/NA** Free of food, drink, cigarettes, and employee personal effects
- **3/2/1/0/NA** Food grade lubricant only are used
- **3/2/1/0/NA** Facility pest management plan in place
- **3/2/1/0/NA** All floors, conveyors and contact surfaces free of grease, dirt, contaminants
- **3/2/1/0/NA** All safety guard installed and maintained
- **3/2/1/0/NA** Shatterproof lighting in all areas
- **3/2/1/0/NA** Emergency stop buttons in place and functioning properly
- **3/2/1/0/NA** Tools and spare parts properly stored
- **3/2/1/0/NA** Entrances/opening to harvesting/handling areas are controlled/monitored
- **3/2/1/0/NA** Fresh/Wet/Green hops food-grade handled/storage/packaging/delivery practices are defined: including temperature, timeliness of delivery
- **3/2/1/0/NA** Harvest records are complete and satisfy product traceability, inventory and recall requirements

Section Comments:

Section Total Score (out of 48, or reduce by 3 for each NA line)

4

5- Drying, Cooling, and Baling (or loose hops)

- 3 / 2 / 1 / 0 / NA ## Kiln area/surfaces/cloth clean and free of dust/dirt/grease and other contaminants
- 3 / 2 / 1 / 0 / NA ## Light fixtures are of proper design or shielded/enclosed to avoid product contamination risk.
- 3 / 2 / 1 / 0 / NA ## Process in place to ensure kiln temperature matches set point and is within preferred range of 120-140F
- 3 / 2 / 1 / 0 / NA Hop cooling is adequate and timely (ideally to <45F in <24 hrs., season dependent) before baling/packaging
- 3 / 2 / 1 / 0 / NA ## Magnets and/or Metal detection is in place and regularly cleaned/maintained
- 3 / 2 / 1 / 0 / NA ## Packaging, bale-wrap and containers are stored in clean/dry location to prevent contamination
- 3 / 2 / 1 / 0 / NA ## Bale press area is clean and properly maintained
- 3 / 2 / 1 / 0 / NA ## Bales clearly labeled using industry-standard format
- 3 / 2 / 1 / 0 / NA ## Facility entrances and opening are/can be controlled/monitored.
- 3 / 2 / 1 / 0 / NA ## Record and retain process parameters, product variety/moisture/temperature/other quality attributes

Section Comments:

Section Total Score (out of 30, or reduce by 3 for each NA line)

6 - Storage and Transportation

- 3 / 2 / 1 / 0 / NA ## Designated storage area is clean, dry, and properly cooled to retain hop quality
- 3 / 2 / 1 / 0 / NA ## Chemical, tools, trash, unrelated equipment stored properly and away from storage, handling and process areas
- 3 / 2 / 1 / 0 / NA ## Work-in-process/finished product stored only in proper, clean, designated areas
 - Policies, Procedures, and Practices are in place to prevent Co-Mingling of product within the farm, facility, and in transit
- 3 / 2 / 1 / 0 / NA Pest controls in place, clean, documented, functioning.
- 3 / 2 / 1 / 0 / NA ## Temperature controls in place, maintained, and records retained
- 3 / 2 / 1 / 0 / NA ## Product (baled &/or leaf hops) contact surface are clean, dry, free of contamination & condensation risk
- 3 / 2 / 1 / 0 / NA ## Vehicles are clean, properly maintained, operated in manner not negatively impact food safety/quality

Section Comments:

Section Total Score (out of 21, or reduce by 3 for each NA line)

Summary Sheet / Aggregate Score:

Section 1 Total Score
 Section 2 Total Score
 Section 3 Total Score
 Section 4 Total Score
 Section 5 Total Score
 Section 6 Total Score
 / 192 (deduct 3 points from denominator for each N/A scores) x 100 = %

Number of 0 (zero) or 1 (one) score in a "Must Have" Item (NOTE: one or more results in automatic audit failure)

A minimum Score of 144 (or 75%), and no 'Must Have' deficiencies, is required to qualify for the "HGM Process Verified" Seal.

Auditors Notes, Summary of Findings, and Recommendations:

Commendations (affirmation/recognition of best practice compliance novel solutions):

Recommendations (not mandatory, for consideration to improve):

Corrective Actions Required (Itemized, with Target Completion Date):

Summary Comments, by Auditor: Pass/Fail (and/or status pending corrective actions – based on scoring and other items noted above)

Corrective Actions Taken:

Item: _____ Action: _____
 Date: _____ By Whom: _____ Signed off by: _____ Signature: _____

Item: _____ Action: _____
 Date: _____ By Whom: _____ Signed off by: _____ Signature: _____

Item: _____ Action: _____
 Date: _____ By Whom: _____ Signed off by: _____ Signature: _____