

Hop Grower Quality Standards: Audit Checklist Format¹

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

This August 2017 DRAFT Checklist (list format) is shared for immediate use. Final version to be published in 2018. We welcome feedback, comments, and suggestion – send to Joe Colyn joe.colyn@originz.com / Mark Trowbridge [tophopllc@gmail.com](mailto:tophopluc@gmail.com)

Score each item on 3-point scale: **3=Premium, 2=Acceptable, 1=Needs Improvement, 0=Unacceptable, or NA=Not Applicable** in the box, then totaling each section in the box. **Red highlighted items are MUST HAVE – scoring of 0 or 1 results in automatic audit failure**
Further information on the listed items can be found on the indicated page in the HGM *Grower Quality Standards & Requirements PPT* resource (at <http://hopgrowersofmichigan.com/quality>) should the auditor or grower require additional information.

Auditor: _____ **Facility Name/Location/Acres:** _____, _____, _____ **Date:** _____

1- Hopyard & Farming

Section Aggregate Score: ___/39

- Site Map – including buildings, hopyards, well heads, pesticide storage, flammable storage (elements of First Responder Emergency Plan)
- Written Property Maintenance Program: mowing, buffer strips, drains, non-crop areas
- Hopyard map: location of each variety labeled, planting dates,
- 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
- **Pesticide treatment records are current, dated, signed and including pre-harvest Interval compliance**

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

- If product is intended for export, ag chemical use complies with regulatory requirements of destination country
- Written Fertilization Program: soil sampling, products, forms, rates, timing
- Written Irrigation Program: sources, schedules,
- Well/Surface Water testing requirements are fulfilled/ records are complete (p.8)
- 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.

- Manager can articulate his hopyard 'walk-through' practices and schedule.
- Pre-harvest alpha and other assay protocols are in place and records retained
- Petiole/leaf evaluation/sampling/testing plan and practices are in place.
- Section Total Score**

2 - Health and Human Safety

Section Aggregate Score: ___/21

- Policies in place, posted, and training provided (p.32ff)
 - A manager is designated with health and safety responsibility.
 - Manager is knowledgeable on health and safety laws and regulation pertaining to the workplace.
- Proper break station, toilets, smoking areas designated outside of fields/process areas (p.33, 36, 38)
 - Employees have unlimited access to clean drinking water during work hours
- Animal/bird controls in place to keep out of harvesting/handling areas
- Safety precaution signs (MIOSHA compliant) posted, Lock-out/Tag-out policy and procedures in place (p.37)
- First aid supplies available, signed properly (p.35)
- Accident documentation reporting in place and return-to work policy enforce (p.35)
 - includes policy and practices for dealing with blood/bodily fluid spills.
- Visitor check-in/checkout and hygiene/safety protocols in place. (p.36)
- Section Total Score**

3 - Harvesting

Section Aggregate Score: ___/45

- Pre-harvest and in-season cleaning and maintenance records are complete (equipment & building, p.46)
- Facility is closed-off during off-season in order to mitigate pest harborage

- Procedures documented and available to operators
- Equipment operation logs and service schedules established/maintained (p.45)
- Sanitation and handwashing facilities available, signed, in working order
- Free of food, drink, cigarettes, and employee personal effects
- Food grade lubricant only are used
- Facility pest management plan in place (p.47)
- All floors, conveyors and contact surfaces free of grease, dirt, contaminants (p.41)
- All safety guard installed and maintained (p.48)
- Shatterproof lighting in all areas (p.48)
- Emergency stop buttons in place and functioning properly (p.48)
- Tools and spare parts properly stored (p.49)
- Entrances/opening to harvesting/handling areas are controlled/monitored (p.49)
- Fresh/Wet/Green hops food-grade handled/storage/packaging/delivery practices are defined: including temperature, timeliness of delivery
- Harvest records are complete and satisfy product traceability, inventory and recall requirements

Section Total Score

4 – Drying, Cooling, and Baling (loose hops)

Section Aggregate Score: ___/27

- Kiln area/surfaces/cloth clean and free of dust/dirt/grease and other contaminants
- Light fixtures are of proper design or shielded/enclosed to avoid product contamination risk.
- Process in place to ensure kiln temperature matches set point and is within preferred range of 120-140F (Max=145F)
- Hop cooling is adequate and timely (ideally <24 hrs., season and temperature dependent) before baling/packaging
- Magnets and/or Metal detection is in place and regularly cleaned/maintained
- Packaging, bale-wrap and containers are stored in clean/dry location to prevent contamination (p.42, 50)
- Bale press area is clean and properly maintained
- Bales clearly labeled using industry-standard format (p.42, 61,62)
- Facility entrances and opening are/can be controlled/monitored.
- Recording and retention of process parameters, product variety/moisture/temperature/other quality attributes data

Section Total Score

5 - Storage and Transportation

Section Aggregate Score: ___/21

- Designated storage area is clean, dry, and properly cooled to retain hop quality
 - Chemical, tools, trash, unrelated equipment stored properly and away from storage, handling and process areas (p.52)
 - Work-in-process/finished product stored only in proper, clean, designated areas (p.51)
 - Pest controls in place, clean, documented, functioning. (p.47)
 - Temperature controls in place, maintained, and records retained
 - Product (baled and/or leaf hops) contact surface are clean, dry, free of contamination and condensation risk
 - Vehicles are clean, properly maintained, and operated in a manner that does not negatively impact food safety/quality
- Section Total Score**

6 - Documentation, Record Keeping, Reporting Section Aggregate Score: ___/27

- Grower has completed HGA Food Safety Harvest Practices Module 1 (p.21-55)
- Operating procedures are documented for all key processes (p.22-53)
- Farm records are complete for growing, harvesting, kilning, and baling
- Work-in-process and final product labeling is clear, prominent (p.61,62)
- Product traceability policy and procedure are in place and tested annually
- Documentation available for review by auditors/inspectors
- Compliance to pertinent government law is documented
- Internal and third party lab procedures are documented, accredited, and confirmed to meet performance requirements.
- COAs, lab reports and other quality and food safety data are recorded and associated to product lots, lot codes, and customer

Section Total Score

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
	___ / 180 (deduct 1 points from denominator for each N/A scores) x 100 = ___ %

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

Auditors Notes, Summary of Findings, and Recommendations:

Notes:

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

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

Recommendations (*not mandatory, for consideration to improve*): _____

Auditor's **Summary** Comments (*current status of this hopyard/related facilities and/or status pending corrective actions – based on scoring and other items noted above*)

(end)