

Hop Processor Standards Verification: Audit Checklist ¹

(file: 20180327 Processing Quality Audit Checklist Format V.2)



This March 2018 version replaces the September 14, 2017 DRAFT Checklist. We welcome feedback, comments, and suggestion – send to Joe Colyn joe.colyn@originz.com / Mark Trowbridge tophopllc@gmail.com

This checklist is a resource for use by processor in conducting self-audits of their operation and by auditors when inspecting a hop processing facility for product quality, consistency and food safety procedures and practices.

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. NOTE: **** and highlighted items are MUST HAVE – scoring of 0 or 1 results in automatic audit failure).**



To qualify for the “HGM Verified Source Seal” growers must be HGM members in good standing and have a 3rd Party audit of their facility completed every 2 years, using this Checklist, achieving a 75% or higher score. A copy of the completed Checklist must be filed with the HGM Quality Program Committee

Further information on the listed items can be found in the Hop Processing Guide V.2 manual, a resource available online at <http://hopgrowersofmichigan.com> Quality menu should the managers/operators, or auditor, require.

Auditor/Responsible Person: _____
Facility Name: _____
Location/Address: _____
Nominal capacity/through-put: _____
Hopyards serviced, typical, number: _____
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

A – Bale Supply

- **3 / 2 / 1 / 0 / NA** Inbound Baled/Leaf Hop Quality: comply to the HGM “Grower Quality Standards and Requirements” Guide?
- **3 / 2 / 1 / 0 / NA** Transportation & Handling: Inbound vehicles inspected for cleanliness, bale integrity, cold-chain integrity
- **3 / 2 / 1 / 0 / NA** Sanitation - Handled as food, avoid floor contact, use only food-grade/food-specific tools & contact-surfaces
- **3 / 2 / 1 / 0 / NA** Temperature control: At minimum, refrigerate to <40F, For long-term storage and transportation: to <28F

Section Comments: _____

Section Total Score (out of 12, or reduce by 3 for each NA line)

B – Bale Breaking

- **3 / 2 / 1 / 0 / NA** ****** Temperature Control: Keep Cool/Cold: Break from frozen (25-28F) or refrigerated (<40F) state
- **3 / 2 / 1 / 0 / NA** Screen/Sort: of foreign material (wood, rocks, infestation, metal, etc.). Magnets, stone traps, visual, screen
- **3 / 2 / 1 / 0 / NA** Product protection: Covered/enclose to prevent contamination risk and to adequately contain dust/fines.

Section Comments: _____

Section Total Score (out of 9, or reduce by 3 for each NA line)

C – Conveyance & Handling

- **3 / 2 / 1 / 0 / NA** Use food grade and/or easy to clean materials
- **3 / 2 / 1 / 0 / NA** Design/build for clean operation and ease of inspection/cleaning
- **3 / 2 / 1 / 0 / NA** ****** Product must not touch ground/floor (any that does is diverted from the food stream)
- **3 / 2 / 1 / 0 / NA** Shovels & other tools: Distinct color/label for food grade, waste, other. Properly racked, near use point

Section Comments: _____

Section Total Score (out of 12, or reduce by 3 for each NA line)

D – Milling

- **3 / 2 / 1 / 0 / NA** Design: for clean operation and ease of cleaning
- **3 / 2 / 1 / 0 / NA** Granulation Control: Proper screens in mill and/or proper mills speed/feed setting (may be variety specific)
- **3 / 2 / 1 / 0 / NA** Maintenance: Free of corrosion, caking, coatings. etc.
- **3 / 2 / 1 / 0 / NA** Dust control – as needed for proper fines capture and/or reuse/rework
- **3 / 2 / 1 / 0 / NA** Granulation Verification: Sampling port to collect whole-stream sample. Lab equipment for proper testing.

Section Comments:

Section Total Score (out of 15, or reduce by 3 for each NA line)

E – Blending/Batching (if applicable)

- **3 / 2 / 1 / 0 / NA** **Batch Documentation:** lot identification, weights, percentages
- **3 / 2 / 1 / 0 / NA** **Mixing Protocol:** Defined mixing time, maximum holding time, paddle speeds & specification documented
- **3 / 2 / 1 / 0 / NA** **Batch Isolation/integrity:** gates/slides or other barriers to ensure batches integrity, protocols documented
 - ensure no inadvertent addition of other hops, complete vessel emptying between batches.
- **3 / 2 / 1 / 0 / NA** **Sanitation:** Vessel clean-out between batches – procedures defined and used to ensure batch integrity
 - Inspection ports suitable for validation

Section Comments:

Section Total Score (out of 12, or reduce by 3 for each NA line)

F – Pellet Processing

- **3 / 2 / 1 / 0 / NA** **Mill Parameters:** Die Pressure – uniform across the mill, consistent pellet density/texture;
 - Uniform die-face openings
- **3 / 2 / 1 / 0 / NA** **Quality: Temperature** – Discharge product temp monitoring: <50C (120F), preferably <47C (117F).
- **3 / 2 / 1 / 0 / NA** ****Quality: Color** – Green, typical of dry hops – uniform through-out the pellet and the surface
- **3 / 2 / 1 / 0 / NA** **Quality: Length/Cut-off:** Uniform
- **3 / 2 / 1 / 0 / NA** **Structure:** Not glazed or scorched; good integrity, yet friable (Fines: <2.5%, preferred <1% (thru USSS #8)
- **3 / 2 / 1 / 0 / NA** **Pellet density:** monitoring to required specification (optional)

Section Comments:

Section Total Score (out of 18, or reduce by 3 for each NA line)

G – Sifting/Rework (if applicable)

- **3 / 2 / 1 / 0 / NA** **Controlled/Managed/Documented:** to optimize product quality/consistency; Manage to avoid lot cross contamination

Section Comments:

3

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

H – Cooling

- **3 / 2 / 1 / 0 / NA** **Temperature:** To a safe into-storage temperature (typically <10C, <50F max) before/into packaging
- **3 / 2 / 1 / 0 / NA** **Timeliness:** Typically to a safe long-term storage temperature (ideally ~28F or -2C) within 24 hours.

Section Comments:

Section Total Score (out of 6, or reduce by 3 for each NA line)

I – Holding/Binning/Blending

- **3 / 2 / 1 / 0 / NA** **Holding/Binning:** Minimize time exposure to elevated temperature/ air; transfer to sealed package quickly.
- **3 / 2 / 1 / 0 / NA** **Pellet Blending:** Specify/manage process to maximize quality/consistency, minimize fines/broken

Section Comments:

Section Total Score (out of 6, or reduce by 3 for each NA line)

J – Packaging

- **3 / 2 / 1 / 0 / NA** ****Film & Finished Pack integrity & Seal:** Protocols for leak detection & finished seal pack integrity (100%).
- **3 / 2 / 1 / 0 / NA** **Package Flush/Purge:** Defined protocol/procedure
- **3 / 2 / 1 / 0 / NA** **Case Loading:** Pouch pack integrity retained.

Section Comments:

Section Total Score (out of 9, or reduce by 3 for each NA line)

K – Storage

- **3 / 2 / 1 / 0 / NA** ****Temperature** (recommended at <28F): Ongoing monitoring
- **3 / 2 / 1 / 0 / NA** **Oxidation Control:** pouch/pack integrity monitored.
- **3 / 2 / 1 / 0 / NA** **Sanitation:** Cooler/Freezer is clean; No non-food-product contact

Section Comments:

Section Total Score (out of 9, or reduce by 3 for each NA line)

4

L – Shipping

- **3 / 2 / 1 / 0 / NA** **Vehicle Inspection:** Clean and free of any potential contaminants; Suitable for transport of food products
- **3 / 2 / 1 / 0 / NA** **Temperature Control:** – appropriate to the outbound need (to retain quality: factor in ambient temp & transit time).

Section Comments: _____

Section Total Score (out of 6, or reduce by 3 for each NA line)

M - Documentation, Record Keeping, Reporting

- **3 / 2 / 1 / 0 / NA** **Facility has documented policies, procedures, and practices:** Suitable for producing food-safe quality hops
- **3 / 2 / 1 / 0 / NA** **Records:** documentation of process operation and quality control; self-audits; 2nd/3rd-Party Audits

Section Comments: _____

Section Total Score (out of 6, or reduce by 3 for each NA line)

N - Personnel Practices & Supporting Resources:

- **3 / 2 / 1 / 0 / NA** **Food Safety:** Appropriate Apparel and Appearance; Compliance to HACCP and GMP requirements
- **3 / 2 / 1 / 0 / NA** ****Facility Access/Bio-Security:** Employee and Visitor Check-in and Access Policy and Protocols
- **3 / 2 / 1 / 0 / NA** **Personnel Health and Safety:** Machinery Lock-out / Tag-out
- **3 / 2 / 1 / 0 / NA** **Facilities:** Appropriate rest-rooms, hand-washing facilities, eye-wash station, staff lunch/breakroom
- **3 / 2 / 1 / 0 / NA** **First Aid Stations** - including access to kits, documentation of use
- **3 / 2 / 1 / 0 / NA** **Policies, Procedures, Practices:** documented for smoking, drugs, pets, animals, food/drink, sundry storage
 - in support of quality, food safety, and regulatory compliance in the processing facilities
- **3 / 2 / 1 / 0 / NA** **Training:** offered, documented – In support of all above

Section Comments: _____

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

Aggregate Score:

- Section A Total Score**
- Section B Total Score**
- Section C Total Score**
- Section D Total Score**
- Section E Total Score**
- Section F Total Score**
- Section G Total Score**
- Section H Total Score**
- Section I Total Score**
- Section J Total Score**
- Section K Total Score**
- Section L Total Score**
- Section L Total Score**
- Section M Total Score**
- Section N Total Score**

/132 (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, until corrective action is taken and verified)

<p>Auditors Notes, Summary of Findings, and Recommendations:</p> <p>Commendations (affirmation/recognition of best practice compliance novel solutions):</p> <p>_____</p> <p>Recommendations (not mandatory, for consideration to improve):</p> <p>_____</p> <p>Corrective Actions Required (Itemized, with Target Completion Date):</p> <p>_____</p> <p>Summary Comments, by Auditor: Pass/Fail (and/or status pending corrective actions – based on scoring and other items noted above)</p> <p>_____</p>
--

<p>Corrective Actions Taken:</p> <p>Item: _____ Action: _____</p> <p>Date: _____ By Whom: _____ Signed off by: _____ Signature: _____</p> <p>Item: _____ Action: _____</p> <p>Date: _____ By Whom: _____ Signed off by: _____ Signature: _____</p> <p>Item: _____ Action: _____</p> <p>Date: _____ By Whom: _____ Signed off by: _____ Signature: _____</p>
--