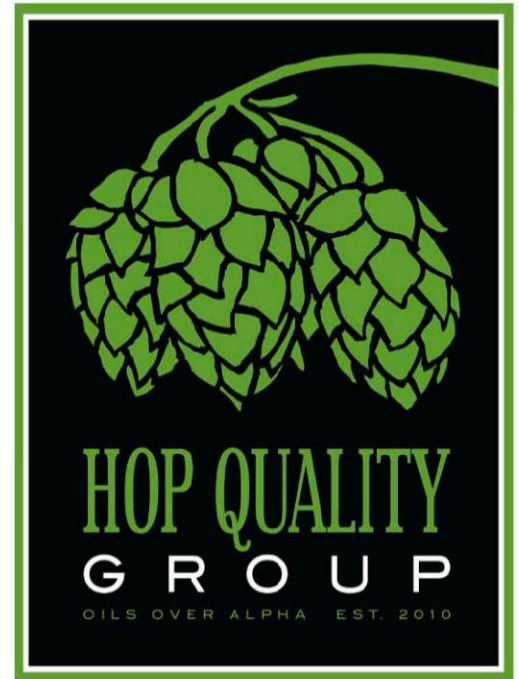


HQG Pellet Mill Visit Date:	06-24-21
Primary Owner/Operator:	MI Local Hops
Physical Address of Facility:	5720 Bates Rd, Williamsburg, MI 49690
Pellet Mill Contact:	Mike Moran
Contact's Email Address:	mikem@milocalhops.com
Contact's Phone:	231-620-5627



HQG Attendee & Brewery	
Alec Mull-Founders	
Jason Vrosh-Founders	
Chris Boggess-3 Floyds	
Matt Gallagher-Half Acre	
Geoff Wenzel-Industrial Arts	

Operations Description:

Full scale commercial hop pelletizing operation utilizing food safe practices with acceptable blending capabilities with adequate frozen storage and lot traceability. The HQG was satisfied and impressed with the GMPs and general operational processes. Good housekeeping, labeling, ppe requirements, Quality testing protocol, maintenance, record keeping and supplier relations. MI Local does toll for other growers and brewers. MI Local provides a quality service to all brewing stakeholders and can be utilized to confidently toll or provide food safe Quality hop pellets. Bales all get barcode upon receipt for tracking, hammer mill gets cleaned every 3 or 4 bales and complete line between lots and daily at end of shift, regular bag integrity testing (2 per pallet), routine metal detection testing. MI Local does not put finished hop pellet bags into cardboard boxes until ready to ship (for box integrity and storage density and stacking confidence). Instead, they store the bags 63 to a bin.

Areas of Concern:

None really. Roller infeed conveyance of bales would be great to eliminate any bales touching the floor and help with worker ergonomics, but their current operation is very common and like most facilities. Liquid Nitrogen cooling of pellet die is available but seldom used; evaluate operational techniques to utilize effectively when necessary.

Recommendations:

The HQG is very pleased with the Pellet Mill Operations at MI Local. Our members should feel confident that any tolling arrangements would be satisfactorily executed in a food safe and high-quality manner. As mentioned previously, we'd like to see different bale infeed and more confidence on utilizing the liquid Nitrogen, but MI Local is a top-notch Michigan hop pellet producer. Thanks to MI Local for their commitment to food safety and hop quality! MI Local indicated they are working on Global Gap and that is recommended.

Hop Quality Group

Hop Pellet Mill Survey

Facility Address- 5720 Bates Rd, Williamsburg, MI 49690

Primary Owner/Operator- Mark Johnson

Manufacturer of Hammer Mill- Bliss

Date of manufacture or installation- Installed 2016

Motor size in KW or HP- 50 HP

Manufacturer of Pellet Mill- Bliss

Date of manufacture or installation- Installed 2016

Motor size in KW or HP- two 40 HP

Blending capacity

Bale breaker bin capacity- maximum of 15 165 lb bales, variety dependent

Powder tank capacity- 750 lbs

Blender type (Ribbon or Conical)- Ribbon

Throughput capacity (per 24 hours)- Variety dependent, can produce 6,000 to 11,000 lbs per one shift

Magnet locations- Magnet located above hammermill, magnet located above pellet mill, metal detector at packaging to alert of any metal in pellets missed by magnets

Pellet diameter and number of die sizes owned- two dies owed 3" and 3 ½"

Target temperature of pellet and cooling method- target temperature of pellets directly out of the mill is under 125 degrees F. Pellets go directly into the pellet cooler that brings in ambient air to cool pellets before bagging.

Vacuum hard pack or soft pack and flush gas type- soft packed with nitrogen flush

Quality tests performed- Before production begins, magnets are inspected and metal test balls are ran through the metal detector to make sure it is in working order. Bale breaker operator inspects each bale as it is opened and reports any quality issues to Quality Assurance manager. At the pellet mill, Quality Assurance tech preforms powder/pellet temperature checks, visual inspection of pellet quality and density checks upon start up to determine run speed. Once desired quality pellet is being produced, pellets are directed into the pellet cooler. Temperature/visual checks are taken at the mill every 20 mins throughout entire run. At the bagging station, the

first two bags that are created are seal checked. Every 20th bag made is check weighed to make sure it is in our established tolerance range of 10.97 to 11.03 pounds. Two times per every pallet made (63 bags/pallet) a bag is taken for the following tests: temperature of pellets in bag, percentage of fines, percentage of oxygen, and pellet density. Our target temperature for bagged product is under 60 degrees F. Target percent fines in a bag is less than 1%. Target oxygen in a bag is under 2%. Target density is 65-70 lbs/square inch. A retain sample is taken from each pallet.

Laminate foil integrity tests performed and frequency of tests- The first two bags produced are seal tested by submerging the bag into a water tank and visually inspecting for stream of bubbles leaking from the bag. Two bags per pallet are tested throughout entire run.

Standard label information- All pellet bags are individually labeled with the variety, date produced, weight, and a lot code. Boxes are labeled with the variety, pellet type, crop year, date produced, lot code including pallet number, farm logo and website. Pallets are labeled with variety and lot code including pallet number.

Frozen storage capacity- 8,000 square ft.

Any third party certification- Tabitha completed the Produce Safety Alliance course “PSA Grower Training Course” on 11/17/2020. She also completed the Hop Growers of Michigan 2018 Hop Quality Spring Training Program.

Additional Comments:

Great work MI Local and thanks for the commitment to Quality Hops and Food Safety!

