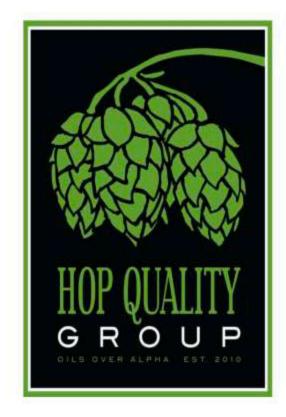
HQG Pellet Mill Visit Date:	6/19/19
Primary Owner/Operator:	Indie Hops
Physical Address of Facility:	31251 S. Meridian Rd.
	Hubbard, OR 97032
Pellet Mill Contact:	Matt Sage, Jim Solberg
Contact's Email Address:	matt@indiehops,
	jim@indiehops
Contact's Phone:	503.452.4677
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HQG Attendee & Brewery	Alec Mull, Founders
Matt Sandoval, Modern Times	Ben Edmunds, Breakside
Chris Boggess, 3 Floyds	Van Havig, Gigantic
Jamie Floyd, Ninkasi	John Gaugler, Fieldwork
Daniel Sharp, Ninkasi	Steve Luke, Cloudburst



Operations Description:

Medium-size operation built in 2010 focusing entirely on Oregon hops. Sourced hops come primarily from two suppliers, Coleman Ag. & Gayle Goschie. Indie is formerly Certified Organic and have maintained procedures, just not the certification. Indie is almost entirely Salmon Safe. Fairly clean and well organized, clear process to distinguish lots. During pelletizing, this mill runs two shifts. Facility is not run around the clock, total daily cleanout with oats. The first 50 pounds of hops is destroyed with every new lot to ensure total cleanout of oats. Indie does not have a dedicated lab and relies on a 3rd party for all quality testing procedures. HQG felt that Indie could do a good job maintaining hop quality in this operation.

Areas of Concern:

Break room and restroom areas were not adequately removed from production area; more clear signage and distinct policies should be put in place. Lubrications were not clearly labeled but stated as all food grade. Almost all conveyance was open, but this has since been covered (Thanks!). Very small blending capacity. Some of the HQG attendees commented that they would like to see some worker safety measures implemented for the bale infeed method.

Recommendations:

We noticed most of the conveyance is uncovered, but this has since all been covered (thanks!). We would like to see a breakroom and restroom area separate from the pelletizing area with more signage. The lubricants should also be segregated and labelled food grade/nonfood grade for clear distinction. Operationally seemed very nice, but larger lots would be challenging to maintain homogeneity due to relatively small size of powder blending tank, therefore if Indie wished to service large customers, a larger blending tank would help that cause. Cooling capacity and storage was excellent, high density and mostly automated. Thanks for letting the HQG visit your facility! We greatly appreciate your partnership and focus on food safety!

Hop Pellet Mill Survey

Primary Owner/Operator: Indie Hops, LLC

Manufacturer of Hammer Mill: Bliss Industries (shhh...they are our secret weapon!)

Date of manufacture or installation: Winter, 2010.

Motor size in HP: 106 HP.

Manufacturer of Pellet Mill: Bliss Industries (shhh....)

<u>Date of manufacture or installation</u>: Winter, 2010.

Motor size in HP: Twin Motor Mounts, 30 HP each.

Bale breaker bin capacity: No bin- 16-bale feed conveyor.

Powder tank capacity: 3.5 bales.

Blender type: Ribbon.

Throughput capacity (per 24 hours): 48,000 pounds.

Magnet locations: One at bale breaker outlet; and one at pellet mill feed.

Pellet diameter and number of die sizes owned: 1/4 inch. One die size.

Target temperature of pellet and cooling method: 105°F. Ambient air heat exchange cooling.

<u>Vacuum hard pack or soft pack and flush gas type</u>: Light vacuum on finished pack. Double Nitrogen flush.

<u>Quality tests performed</u>: bale moisture/temp; grist temp in/pellet temp out of pellet mill; package residual O2 at time of packaging; foil seal integrity.

Laminate foil integrity tests performed and frequency of tests:

- 1. Two boxes per pallet, in conjunction with residual O2 tests. Bags set aside for 15 minutes. If light vacuum no longer shows, seal problem.
- 2. Follow-up visual check at time of shipment. Again, if light vacuum seal is no longer there, there is a seal problem.

<u>Standard label information</u>: Variety Name; Lot# (crop year, variety code, farm code, field/lot code); Time/Date of processing/packaging; Sequence number in processing run; Alpha/ Beta/ HSI (harvest HSI unless a blend).

Frozen storage capacity: 3 million pounds. Third party facility additional as needed.

<u>Any third-party certification</u>: Not any longer. We were Oregon Tilth Certified Organic for a few years, but abandoned the organic business. Still operating under the same regimen though.