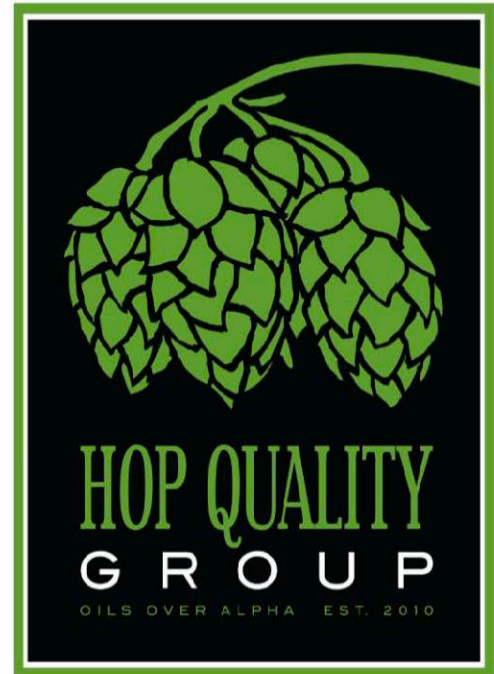


HQG Pellet Mill Visit Date:	7/20/21
Primary Owner/Operator:	HAAS
Physical Address of Facility:	1716 Gordon Road, Yakima, WA 98901
Pellet Mill Contact:	Brice Hiatt
Contact's Email Address:	Brice.hiatt@johnihaas.com
Contact's Email Phone:	Micah Cawley-509-834-0594



HQG Attendee & Brewery	
Alec Mull-Founders	Brad Benson-Stoup
Jeremy Moynier-Stone	Sam Pecoraro-Von Ebert
JT Albright-Stone	
Jamie Floyd-Ninkasi	
Van Havig-Gigantic	

Operations Description:

HAAS operate two Pellet Mill lines at this facility that can run simultaneously and share infeed areas and packaging equipment. Line 1 is the Concentrated line (or T45 line) and diverts hops into new Buhler Vibratory sifters in cold room (negative 26 F). Line 2 is the T90 line. All hop pellets produced are assumed to be used for dry hopping. Entire hop processing area is refrigerated. Bale infeed is controlled area where trained operators sanitize footwear prior to working. Visual runways of LEDs for bale staging and loading for both lines. Blend is set to specifications and all paperwork Work Orders are Line specific color coded throughout, with digital displays for operators and is currently working toward bar coding each bale. HAAS has enormous blending and homogenization capacity. HAAS operates with LED lighting throughout the facility with proper magnets at proper locations prior to the hammer and pellet mills that get inspected and tested daily. Annual pull check verification on magnets by manufacturer. All foreign material information is shared with growers inside specific grower portals for historical records. Metal detection employed that can detect nonferrous metals. Breakroom and washing facilities all labeled and safely away from production area. 3rd Line going in and will be ready for 2022 harvest. Colorimetric pneumatic vision system in works on Line 3 for “bad pellet or foreign material” removal. If proves successful would be installed on Lines 1 and 2. Brice Hiatt sets all the blends and controls all operations and Capex currently. He is training 3 additional Production Managers for his impending departure.

Warm air capture system from air compressors. Purchased laundered uniforms for team. Good 5S system. “Tell us what you think” board: operators get positive feedback. Good system for company feedback. Great signage throughout facility. Auto sink for water! Currently still doing socially distanced lunches.

Same crew come in every summer to work on fabrication, maintenance, etc. Order needed materials in April for following year to maintain surety of supply.

50% of HAAS’s Concentrated pellet production is Lupomax, which is a pre-selected true to type annually consistent concentrated pellet. 135,000 lbs production avg per day (145,000 – 155,000 if running just T90). Four large blending tanks that hold 5,000 lbs each (except Mixer 4 = 3,600). (New Line will have 5,000 capacity for each). Hallertau Green. Conical blenders throughout with one Ribbon Blender that is typically only used as a surge tank. Sample points = scoop only with proper PPE. Dry Ice cleaner used for Pellet Mill and Die cleaning. Everything is disassembled annually, blown out and cleaned. Purge Die with next hop variety and accept loss. Colored containers for various streams: Green containers = product; Grey = garbage; White = flush hops (and they are all labeled). HAAS packages T90 pellets into 10 kg bags and not 20kg any longer, but still does 20kg for Iso Pellets and do thorough cleanout between Iso runs. Everything is kept separate = Line 1 white and Line 2 green. Paperwork will match these colors. Very nice scoreboard screens! Switched to bigger and sturdier boxes for better stacking integrity. They can custom label for re-pack.

Areas of Concern:

No areas of concern! It is industry standard practice, but please think about alternatives to staging bales on ground prior to bale breaker. (We've seen roller conveyor work for this application). Yes the bale wrap is a protective covering, but we'd like to see this practice be critically evaluated industry wide .

Improvements since last HQG visit (if applicable):

Continual upgrades and improvements! TMTC- All new LED lights throughout the facility with rows of LEDs for bale staging lanes. All covered conveyance throughout. New PLC in 2018. Switching to all stainless piping and have abandoned paint in favor of stainless and powder coating. All new electrical wiring for entire plant.

Additional Comments:

Quality test performed (explain):

Leak checks and oxygen tests. Metal detection. 2 bags every pallet – minimum (end up testing more). Destructive test: new elevator being put in to assist with loading back into the mix but any product returned to process is done in a food safe manner.

Third Party Certification: FSSC 22000 (Food Safety Certification System)

Additional Comments about the operation?

A world class facility! It's obvious by the continual upgrades and expansion that HAAS is always striving to grow and improve. Excited to see Line 3 next year! Thanks for your continued focus on food safety and Quality! Keep it up. Cheers!

Recommendations:

None currently. Thanks again for your support and partnership with the HQG!

Hop Quality Group

Hop Pellet Mill Survey

Facility Address- 1716 Gordon Road, Yakima, WA 98901

Primary Owner/Operator- Barth-Haas Group

Manufacturer of Hammer Mill- Confidential

Date of manufacture or installation- Confidential

Motor size in KW or HP- Confidential

Manufacturer of Pellet Mill- CPM

Date of manufacture or installation- Confidential

Motor size in KW or HP-150

Blending capacity

Bale breaker bin capacity- N/A

Powder tank capacity- 5,000-lb

Blender type (Ribbon or Conical)- Conical

Throughput capacity (per 24 hours)- 130,000-lbs average assuming all pellet types produced

Magnet locations- Hammer Mill, Pellet Mill, metal detector reject point

Pellet diameter and number of die sizes owned- ¼" (6mm) and 7 die sizes

Target temperature of pellet and cooling method- less than 55 C / refrigerated air flow through pellet bed.

Vacuum hard pack or soft pack and flush gas type- soft pack and Nitrogen / CO2 blend for flush

Quality tests performed- leak checks and O2 checks

Laminate foil integrity tests performed and frequency of tests- seal integrity (minute by minute), laminate integrity (on delivery and daily)

Standard label information- crop year, variety, package size

Frozen storage capacity- Confidential but a lot.

Any third party certification-FFC 2200