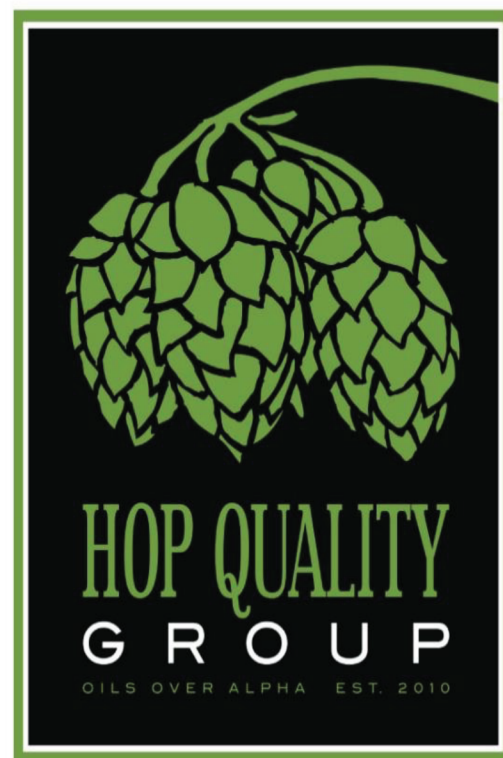


<b>HQG Picking Facility Visit Date:</b>	4/2/2023
<b>Primary Owner/Operator:</b>	Blake Crosby/ Crosby Farms
<b>Physical Address of Facility:</b>	8648 Crosby Rd. NE Woodburn OR. 97071
<b>Pellet Mill Contact:</b>	Blake Crosby
<b>Contact's Email Address:</b>	Blake.crosby@crosbyhops.com
<b>Contact's Email Phone:</b>	(503) 982-5166



<b>HQG Attendee &amp; Brewery</b>	Scott Mohr- Pelican
Jamie Floyd- Ninkasi	Coren Tradd- Pelican
Van Havig- Gigantic	
Sam Pecoraro- Von Ebert	
Eric Ebel- Von Ebert	
Natalie Rose Baldwin- Wayfinder	

**Operations Description: CGX Line**

The group was able to visit the CGX Line while it was in operation. The CGX line separates the lupulin from the rest of the hops ahead of pelletizing which happens on the original pelletizer that is set up in the adjacent and connected building. This report focuses on the CGX line. A separate report is filed for the T- 90 pelletizer itself. Blake shared that there are plans to add a second pelletizer if demand should make it necessary, but they are able to process all of their standard and CGX pellets on the original T 90 line currently. The line was set up in a simple format with lots of room to work around. The line operates from October 1<sup>st</sup> to March 1<sup>st</sup>. Southern Hemisphere hops are kept bailed, in cold storage until October so that they are processed in colder months. Lots of efficiency loss when operating in warmer parts of the year so they stay clear.

Operational Flow is as follows: Bale Breaker, No Hammer Mill (shattered), Shakers, Filters, Mixers then sent to T- 90. Lack of hammer mill and use of Nitrogen allow for lupulin to separate without bursting lupulin. Main difference between this and other similar processes no use of hammer mill. There are Nitrogen points of contact throughout process. 18 Baies can be staged at Bale Breaker with 2000 lbs. per hour throughput that turn into around 1000 pounds of GGX. Rock trap and magnets at base of Bale Breaker. There is a log for the traps and magnets. Blake asked for us to follow up about Magnet validation. Combination of Pneumatic and Auger conveyance from bale Breaker then becomes Pneumatic for the rest of the line. Separation is at – 50 F at beginning. Some hop varieties leave almost 0% AA in bract. Last set of shakers is – 20 F.

Samples are pulled at mixers and shakers and are pulled without port that leads directly into process. Port drops are into labeled buckets. Bract samples pulled are not returned to product stream. Mixers: 13 F was temp of mixer at time of inspection. 2x Day Nahta Mixers with 1800 lbs capacity per mixer. Mixers are at 30 – 40 F but Nitrogen is introduced reducing it to 15 F. Nitrogen gets pulled through all the way to the T 90 plant. Magnets are also after the CGX freezing as well as after the cyclone mixers.

We were offered PPE of vests, glasses and booties for shoes. 8 and half hours of processing and 1 and half hours of cleanup for 10 hour day. Vibrosifters get maintenance every 500 hours of use and there are also prompted reminders for other maintenance. Screens inside sifters are cleaned daily. Quality Code Certified. The entire process including QA/QC is SQF Certified which is excellent! We were able to see the QA/QC lab as well as real time readings of Alpha acids and HSI. N2 monitors throughout facility with auto shut off systems if triggered. All cleaning tools organized on racks, held off floor. Labeled in English and Spanish and for “CGX Only” and “T90 Only.” Really nice to see! High quality

LED lighting throughout. Harnesses are used for working up high and around mixers. Confined Space signs, SDS sheets folder, and LOTO station all present. Spray bottles labeled for distilled water. Earmuffs are used by workers instead of ear plugs.

**Areas of Concern:**

Almost no designated area markings on ground. No Bale staging areas, forklift lanes, limited caution areas. When building is in high use what do the building enclosures look like? Two large garage doors at both sides of building.

Some rust coming through paint near areas of high Nitrogen use. Not widespread and most paint in facility was clean and even but some spots to paint in downtime.

No pest mitigation was talked about but is likely there. Need to ask next time.

If looking closely there were some cobwebs in higher corners, but the facility was very clean otherwise.

**Improvements since last HQG visit (if applicable):**

Not Applicable as it was first visit.

**Additional Comments:**

Quality test performed (explain): CGX line had tests run on Alpha Acids,

Standard Label information on:

- Carton
- Foil

Third Party Certification, if any? SQF certified! Quality Code certified.

Additional Comments about the operation?

This operation was running at the time and workers kept the area really clean and it all flowed simply and effectively. Blake and the team continue to strive for best of class in their operations. We were there for a little under 2 hours and all questions we could think of were answered.

**Recommendations:**

Keep up the excellent work on this site. A little paint and consideration of visual cues for staging of pallets and forklift lanes and zones would bring it even further to the world class facility in process at Crosby!

Follow up on magnet validation from Blake.