

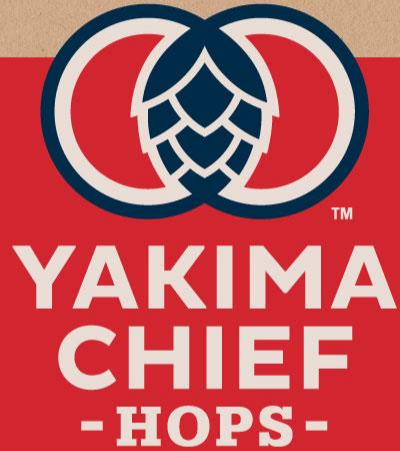


QUALITY PANEL

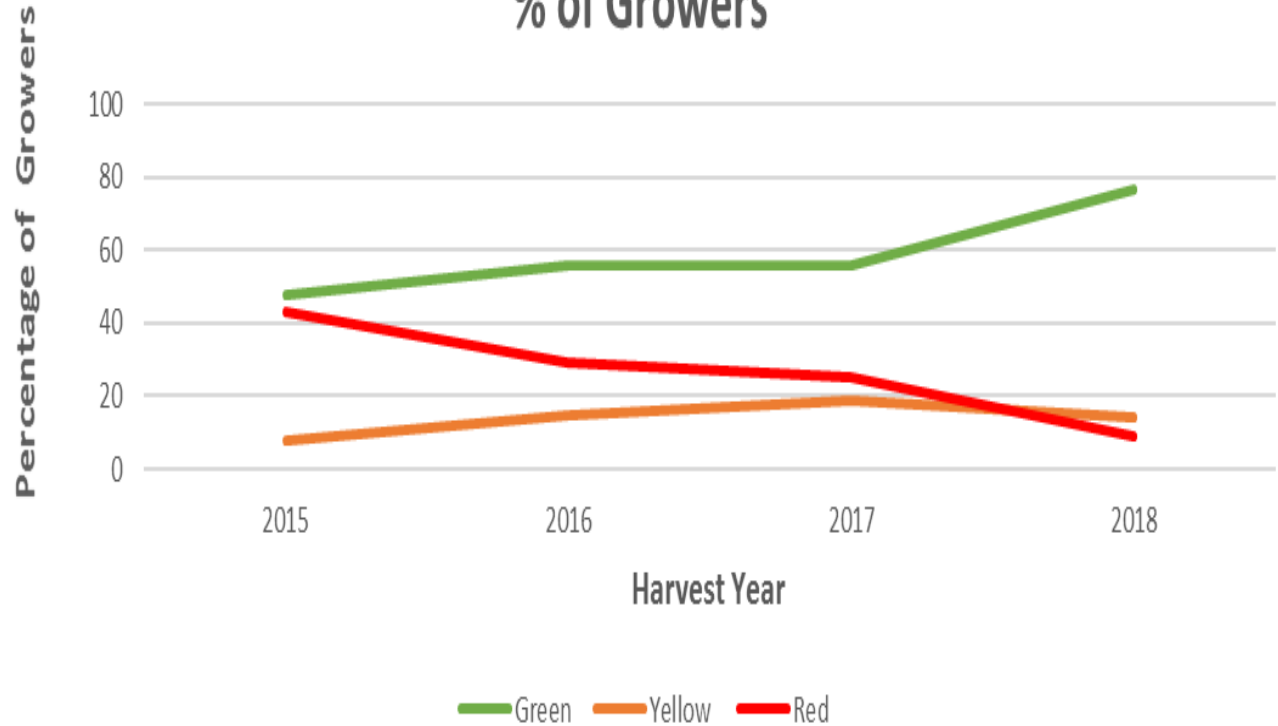


JOE NIEMANN

**GREEN CHIEF®
AND
HARVEST ASSESSMENTS**



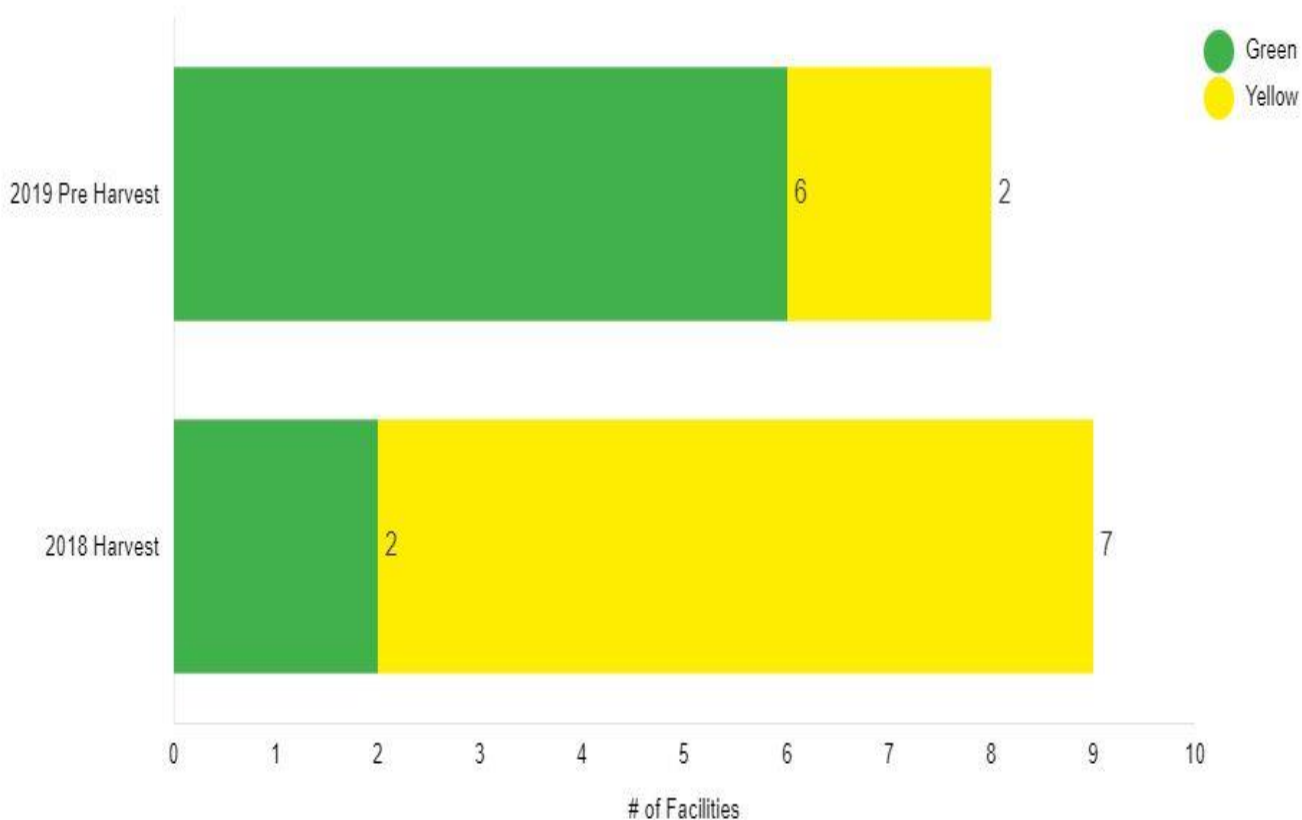
Green Chief Levels by Year % of Growers





**YAKIMA
CHIEF
- HOPS -**

2018 Harvest vs 2019 Pre Harvest



Drawing for Green Chief® Level Growers



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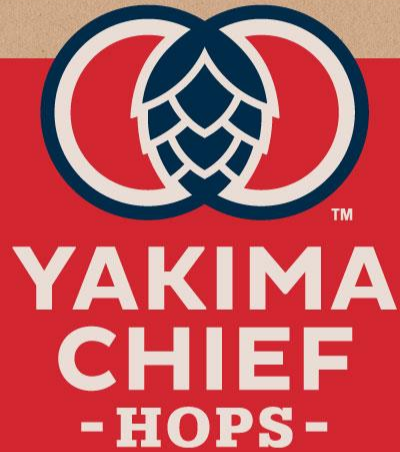


photo : Javid Nikpour

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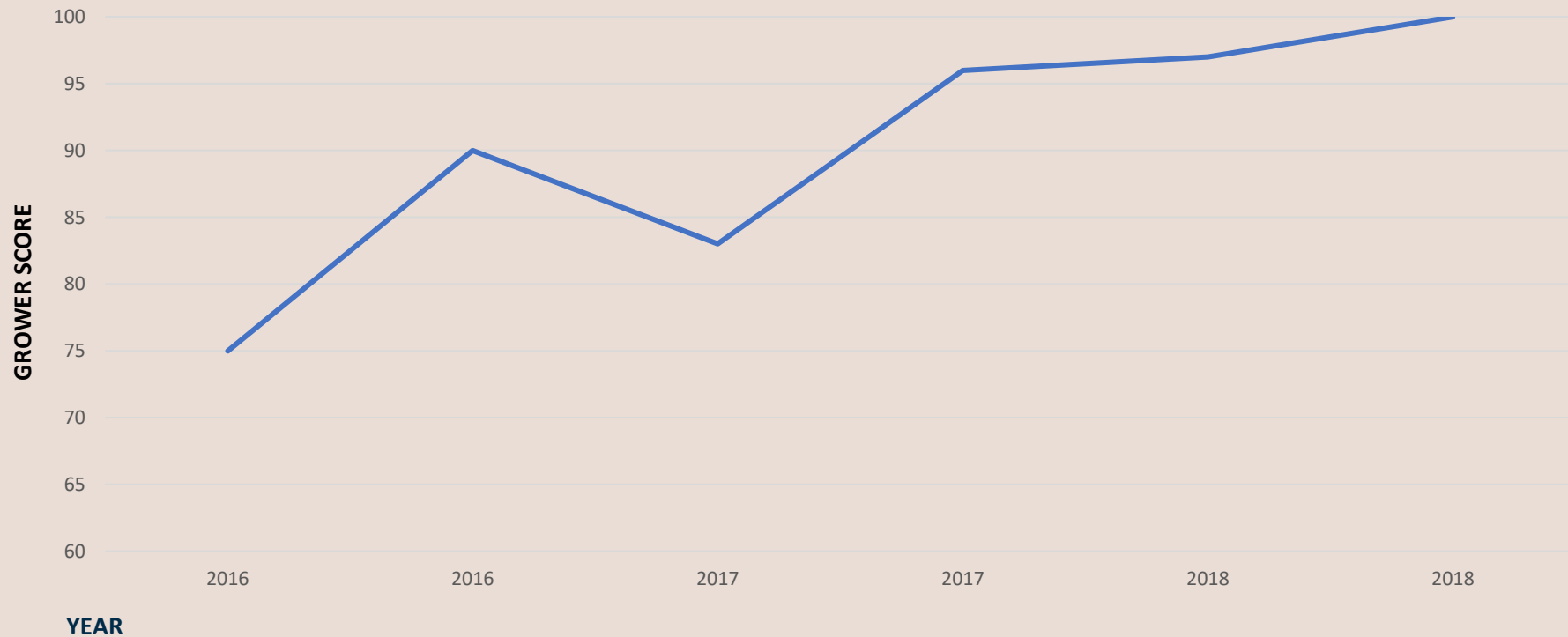
Raising the Bar!!!
With Continuous Improvement

ALIGNMENT WITH CUSTOMER REQUIREMENTS

- Magnet Strength Verification
- Actively constructing our standards, based upon measurements we are receiving over time.



A RANCH OVER TIME

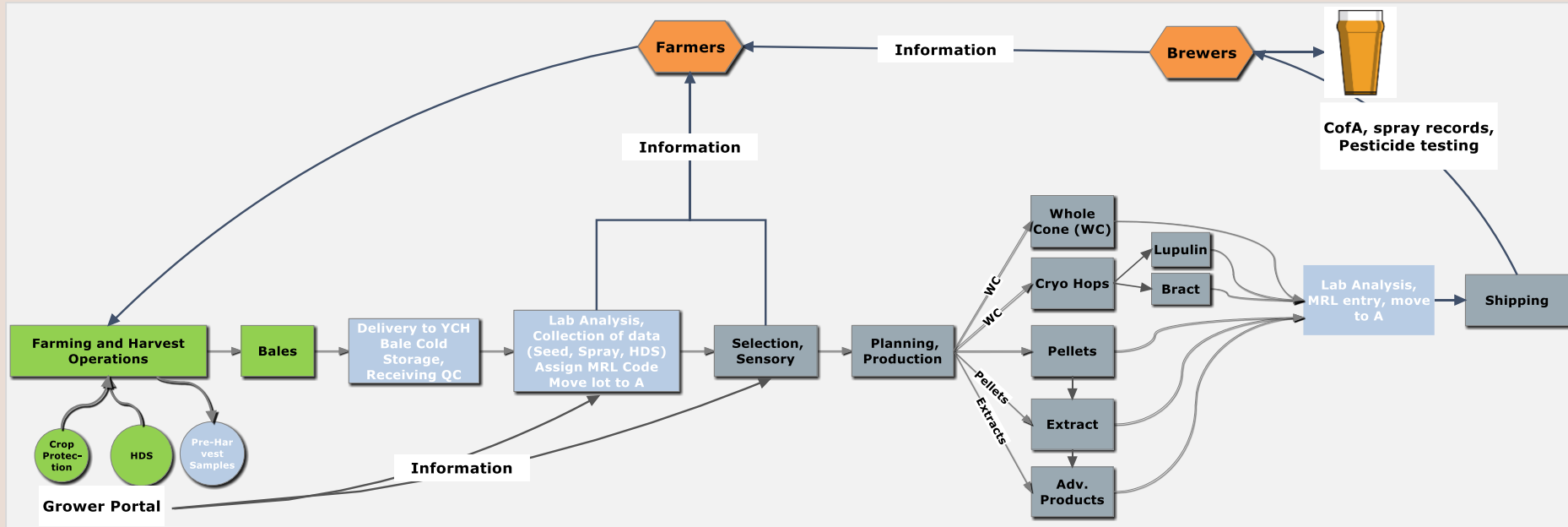




MISSY RAVEN

QUALITY CONTROL

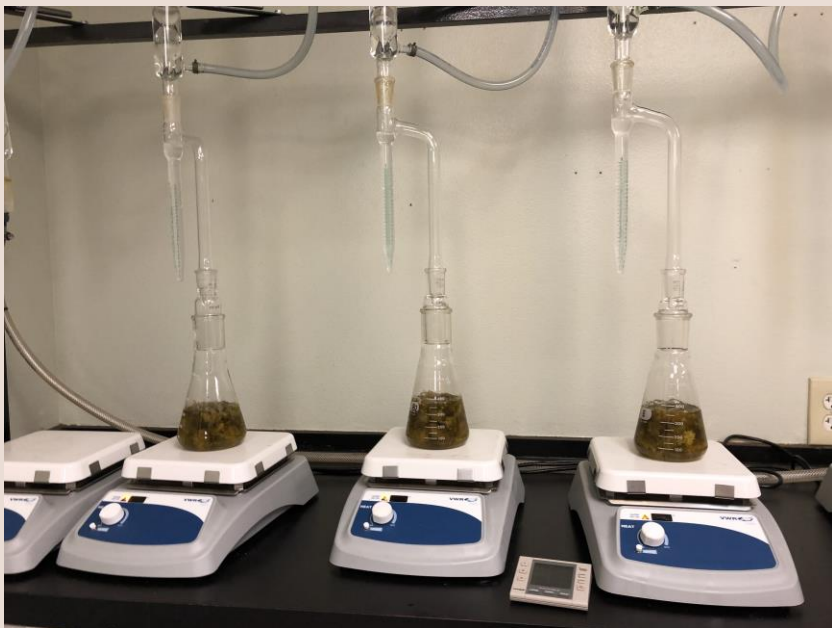
QC AT EVERY STEP



LABORATORY INFO

- YCH's QC laboratory is at our Sunnyside west location
- Laboratory follows ASBC and EBC methods, standard operating procedures.
 - UV Spectro: % Alpha, % Beta, HSI (hop storage index)
 - HPLC: % Alpha, % Beta, % Cohumulone, % Colupulone
 - Mebak LCV 7.5 (pellets); LCV 7.6 (extract): % Alpha
 - LCV 7.4: % Alpha
 - Total Oil and Oil components; moisture

PRE-HARVEST TESTING



Growers bring in wet hops

Dry matter analysis

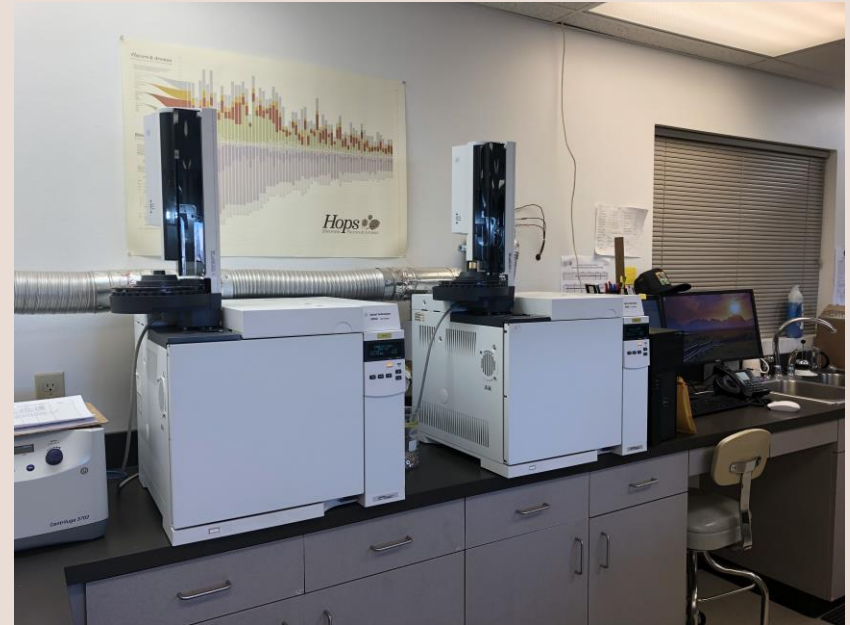
Alpha, beta and HSI

Oil Analysis

HARVEST QC



HARVEST QC



PRODUCTION QC





PEDRO VENEGAS

GROWER REPORTS

GROWER REPORTS

Reports can be accessed on your grower portal under the files section

Admin

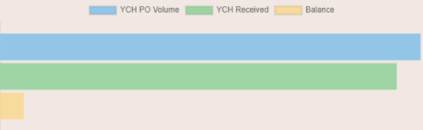
2018 Dashboard

2018

Deliveries

Yakima Chief PO Volume & Closed Delivery Totals

391,239 lb contracted for purchase, 369,017 lb delivered, and 22,219 lb balance remaining.



391,239 lb

Non-Yakima Chief PO Closed Delivery Totals

1,479,852 lb delivered

Analytics

Distribution Overview

Grower News

Financial & Pool Data - Nov 9

Sensory & Selection Feedback - Sep 24

Deliveries Updates - Sep 9

Multi-product Sprays - Aug 24

Financials & Pools - Aug 20

Quick Links

Harvest Datasheets

Spray Records

Lots

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Dashboard

Analytics

Deliveries

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Grower News

Harvest Data

Lots

Spray Records

My Account

Logout

Files

GreenChief Score

2018 Crop Grower Report: GreenChief Score

Uploaded on Jan 24, 2019

Pending review

Variety Information

2018 Crop Grower Report: Variety Information

Uploaded on Jan 24, 2019

Pending review

Harvest Information

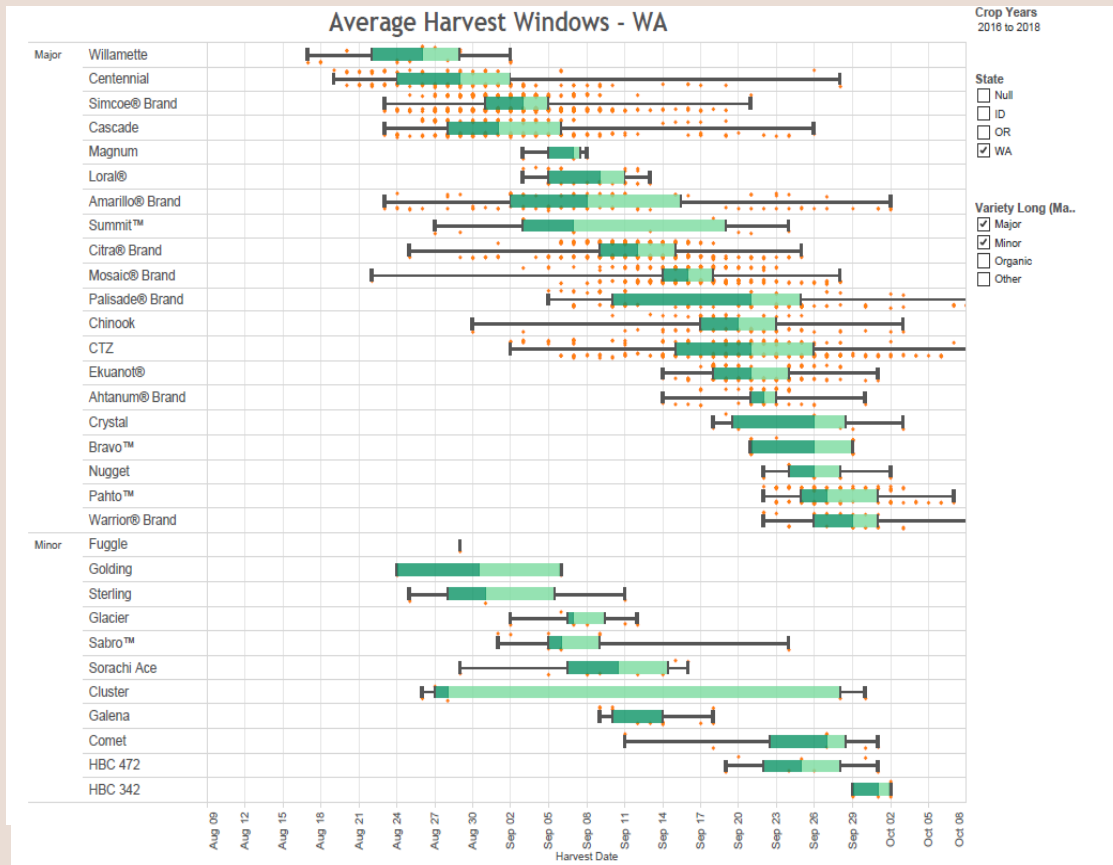
2018 Crop Grower Report: Harvest Information

Uploaded on Jan 24, 2019

Pending review

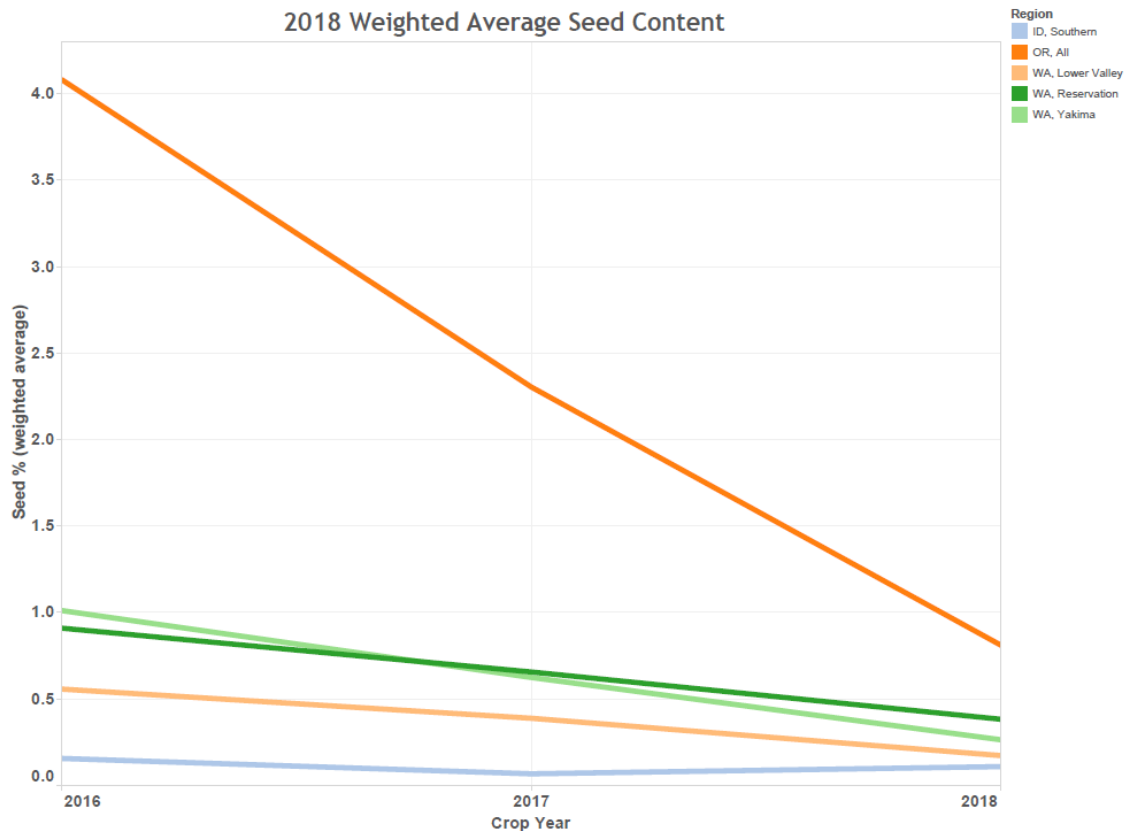
HARVEST SECTION

- Harvest information by State
- Harvest windows for the last 3 yrs



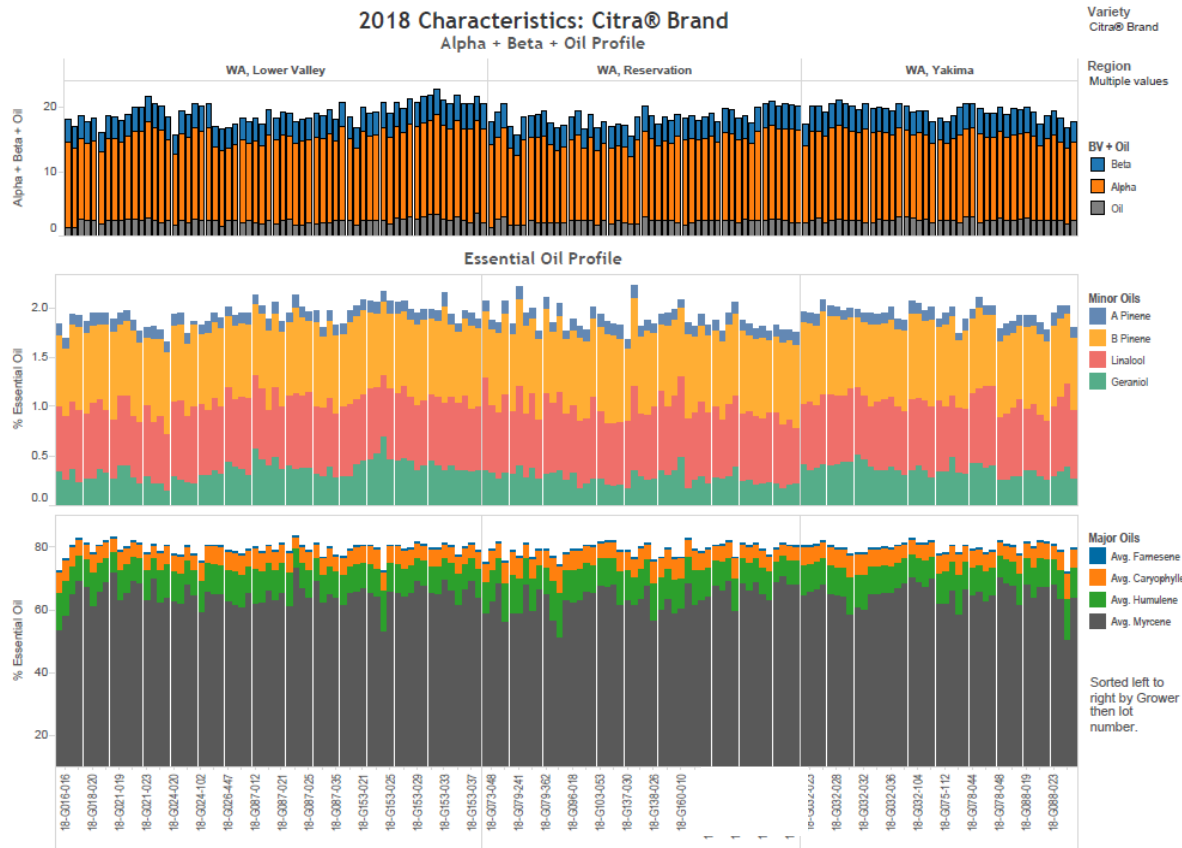
HARVEST SECTION

- Seed Trends



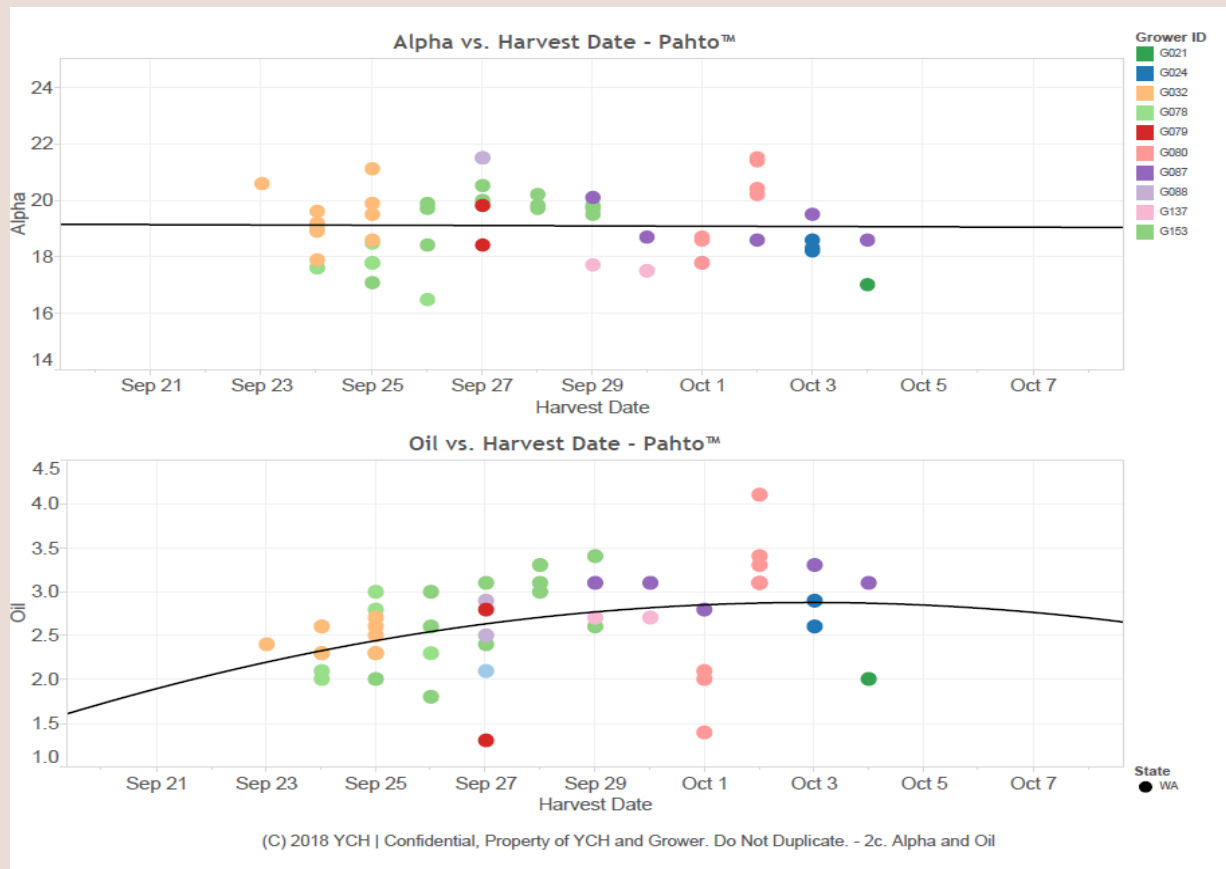
VARIETY SECTION

Alpha, Beta, Oil by lot



VARIETY SECTION

Alpha and Oil trends through harvest



SCORING

Green Chief® Score

- Variety Score – 35 points
 - Rating back to variety specifications for alpha, beta and oil
 - Alpha, Beta, Oil – 45%
 - HSI – compared to average of the variety – 20%
 - Moisture – within receiving specs of 8.5 to 10.5 - 15%
 - Seed; Leaf/Stem - for meeting contract specs – 20%
- Sensory Score – 20pts
 - Color – 25%
 - Shatter – 25%
 - Overall rating – 50%
- Facility Score – 10pts
 - Green or Global Gap – 10pts; Yellow 5pts; Red 0pts

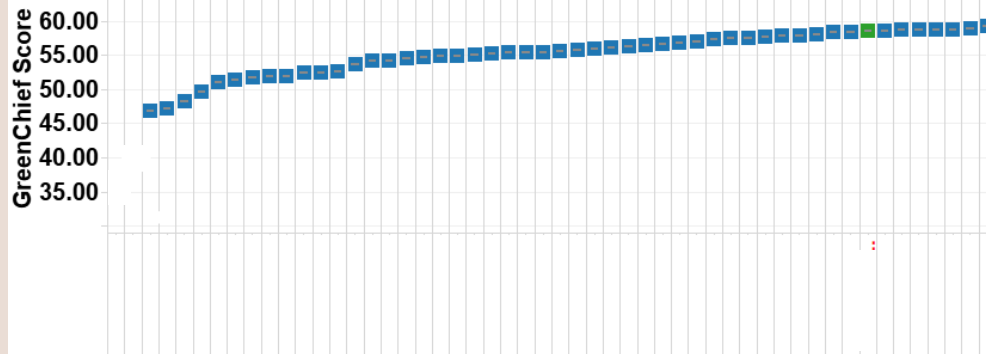
GREEN CHIEF® SCORE

Green Chief® Score cover sheet

- Shows ranking compared to other growers
- Shows score for each variety (weighted avg of lots)

2018 YCH Grower GreenChief Score -

Overall GreenChief Score Compared to All Growers

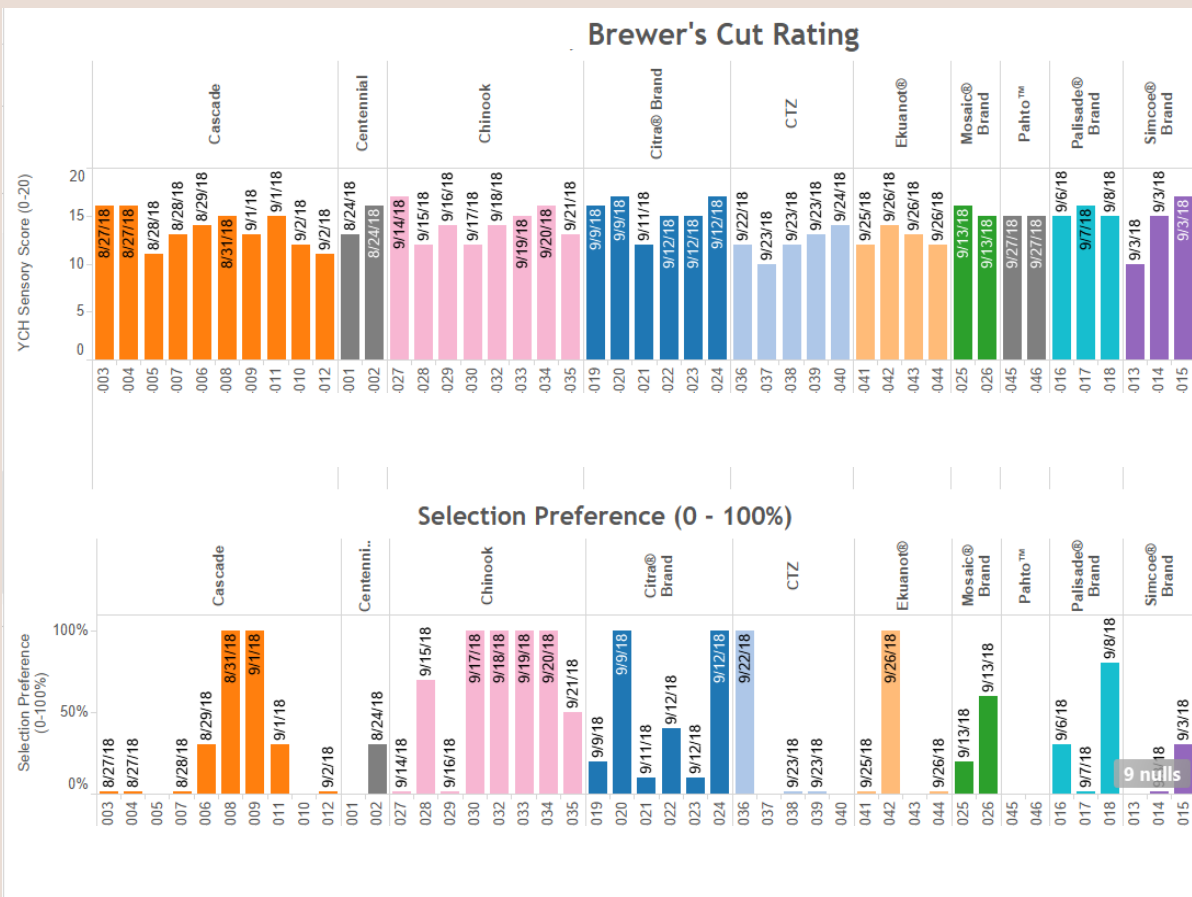


Score Detail

	# Lots	GreenChief Score	Variety Score	Sensory Score	Facility Score	Alpha Score	Beta Score	HSI Score	Oil Score	Moisture Score	Seed Score
Cascade	10	57.8	34.3	13.6	10.0	5.0	2.0	5.0	4.5	4.0	3.0
Centennial	2	59.7	35.0	14.5	10.0	5.0	2.0	5.0	5.0	4.0	3.0
Chinook	8	58.2	34.1	14.1	10.0	5.0	2.0	5.0	4.6	3.8	3.0
Citra® Brand	6	59.9	34.5	15.3	10.0	5.0	2.0	5.0	5.0	3.7	3.0
CTZ	7	56.7	35.0	11.6	10.0	5.0	2.0	5.0	5.0	4.0	3.0
Ekuanot®	4	57.0	34.3	12.8	10.0	5.0	2.0	5.0	5.0	3.5	3.0
Mosaic® Brand	2	60.4	35.0	15.5	10.0	5.0	2.0	5.0	5.0	4.0	3.0
Pahto™	2	60.0	35.0	15.0	10.0	5.0	2.0	5.0	5.0	4.0	3.0
Palisade® Brand	3	60.4	35.0	15.3	10.0	5.0	2.0	5.0	5.0	4.0	3.0
Simcoe® Brand	3	59.3	35.0	14.0	10.0	5.0	2.0	5.0	5.0	4.0	3.0

GREEN CHIEF®

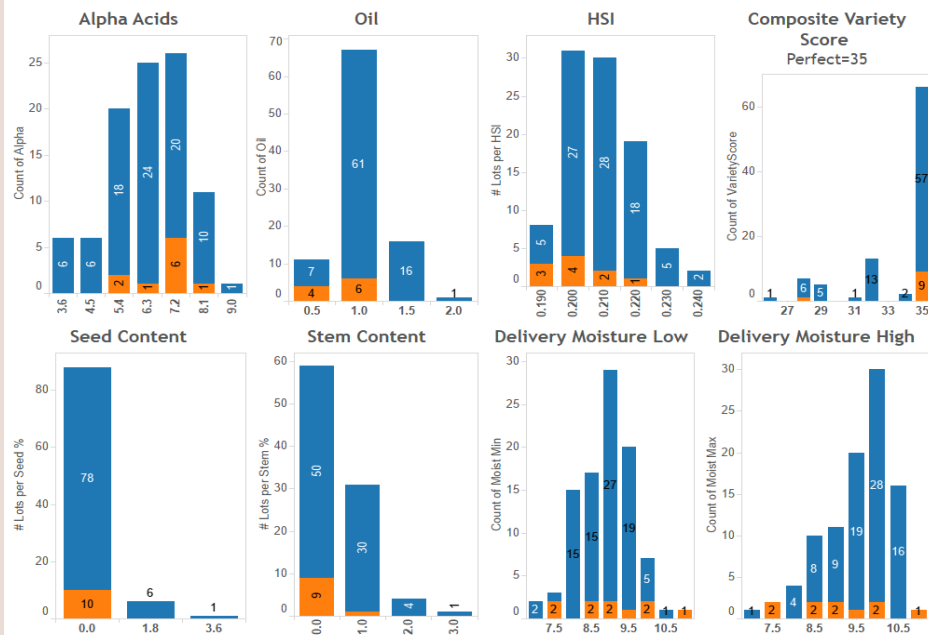
Brewer's Cut Rating



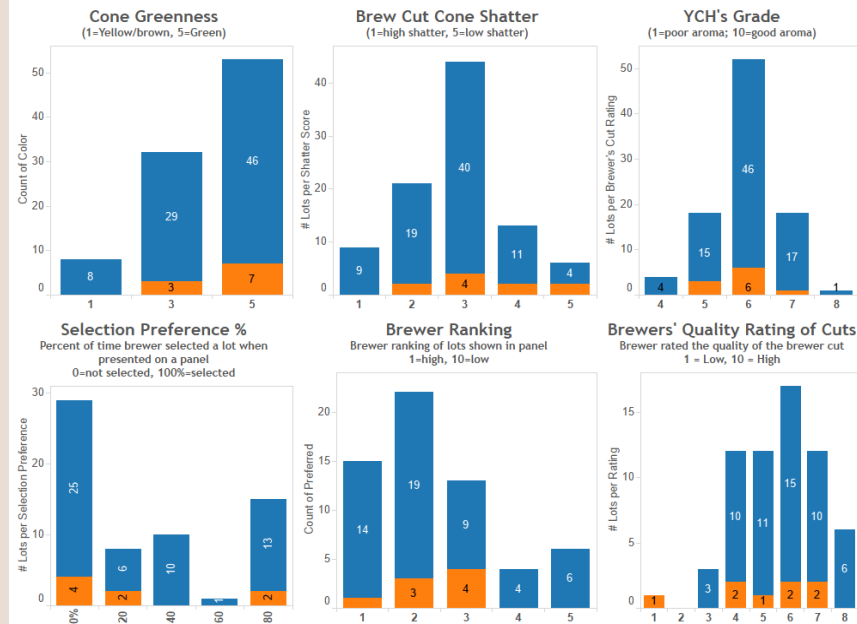
GREEN CHIEF®

Comparisons with other growers

vs All Other Growers: Cascade



vs All Other Growers: Cascade



• AMERICAN HOPS. •
FROM THE
PACIFIC NORTHWEST™
