

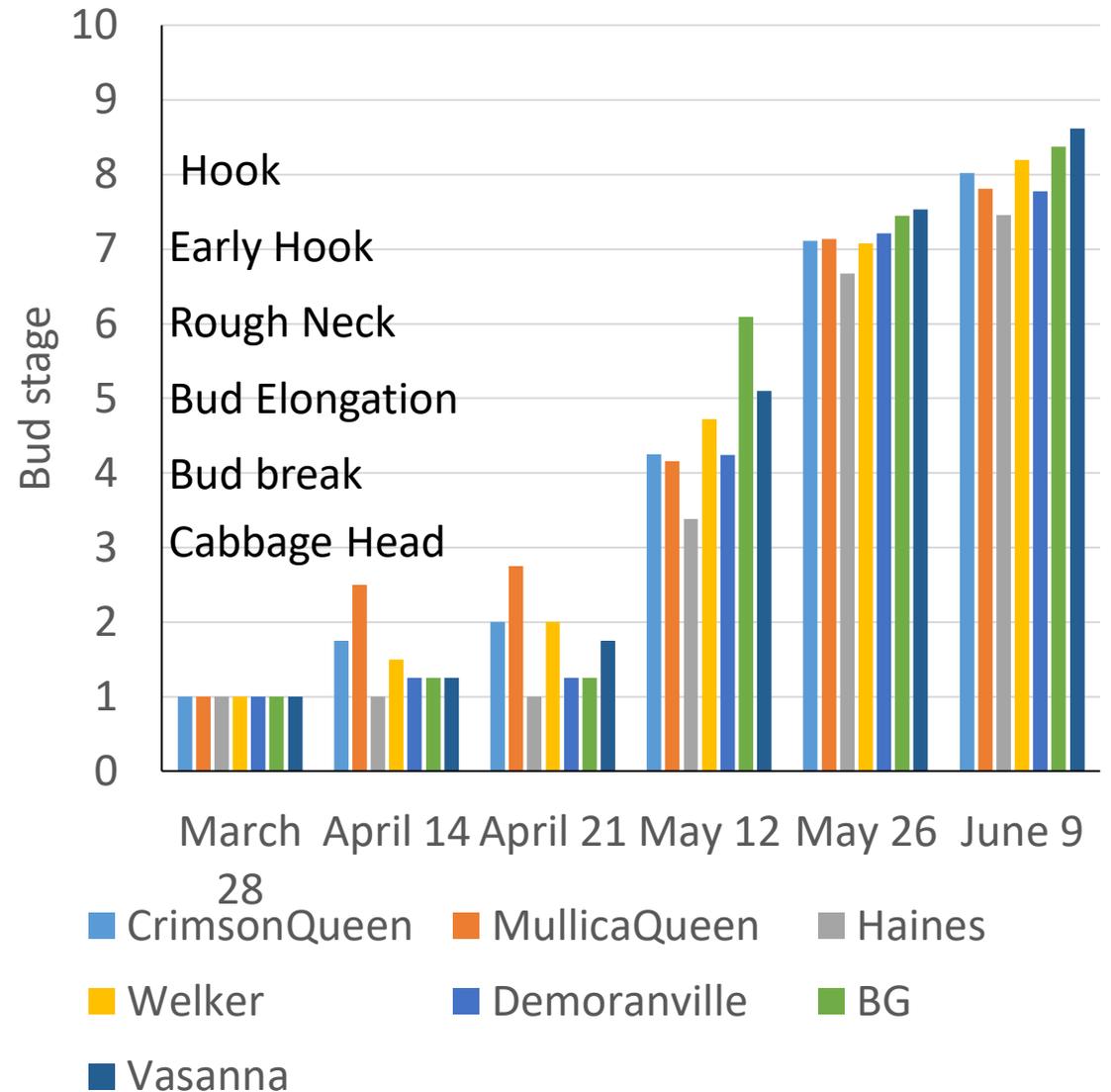
Cranberry Research Farm Update: 2020 Results

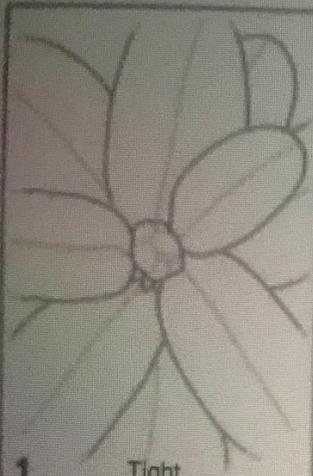
- End of our second 3-year funding cycle with support from IAF
- Yield (2015 to 2020)
- Fruit Quality (2018 to 2020)
- Phenology (2020)
- Rutgers
 - Released Varieties
 - Numbered (only looking at certain numbered varieties)
- Valley Corp
 - Released Varieties

Upright Phenology

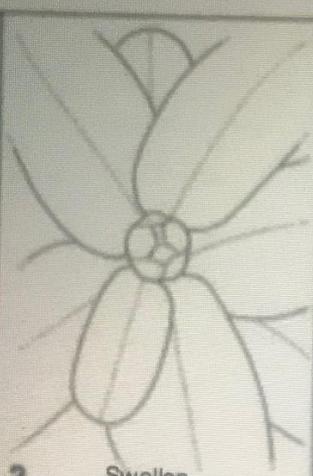
- Every week to 2-weeks to see development of uprights
- 30 uprights in the centre of each plot in Field 1 (Average)
- Varieties combinations – e.g. Mullica/Crimson compared to Haines
- Upright/Bud phenology impacts
 - When to start frost protection
 - When to stop application of pre-emergent herbicides (Casaron, Lontrel, Authority)

Bud Phenology

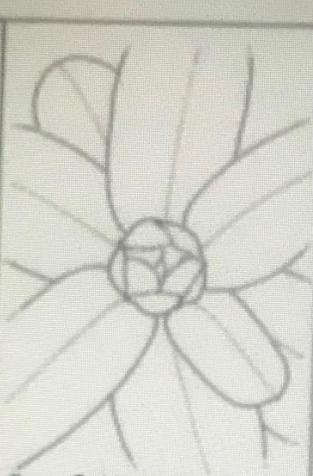




1 Tight



2 Swollen



3 Cabbage head



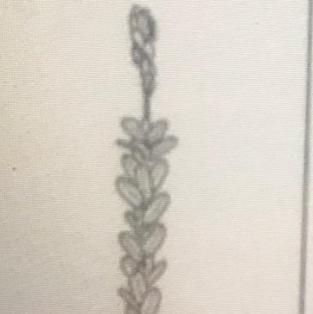
4 Bud break



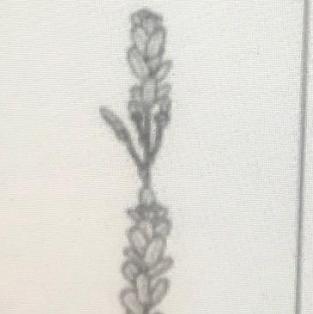
5 Bud elongation



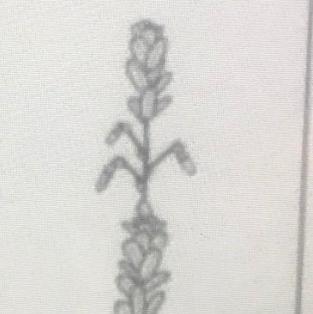
6 Roughneck



7 Early hook



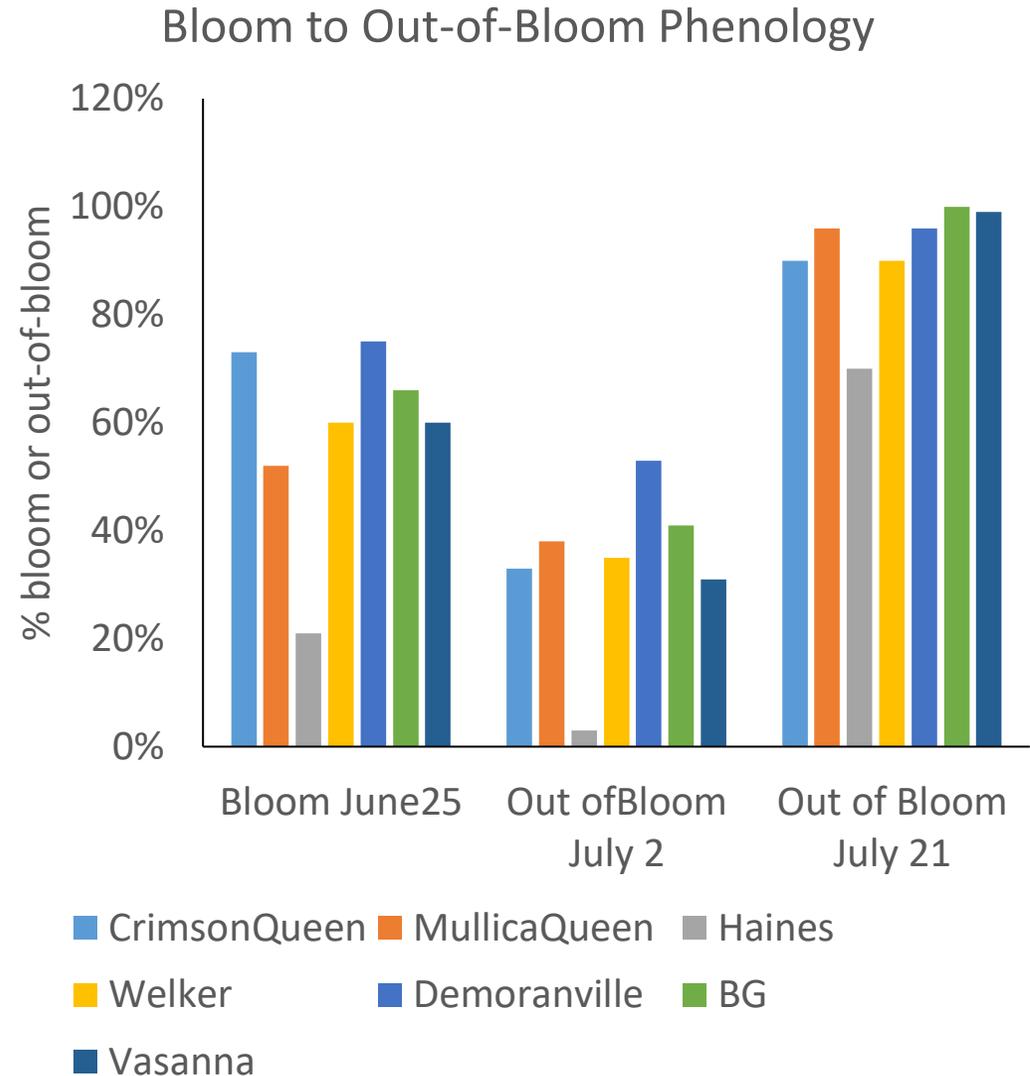
8 Hook



9 Bloom

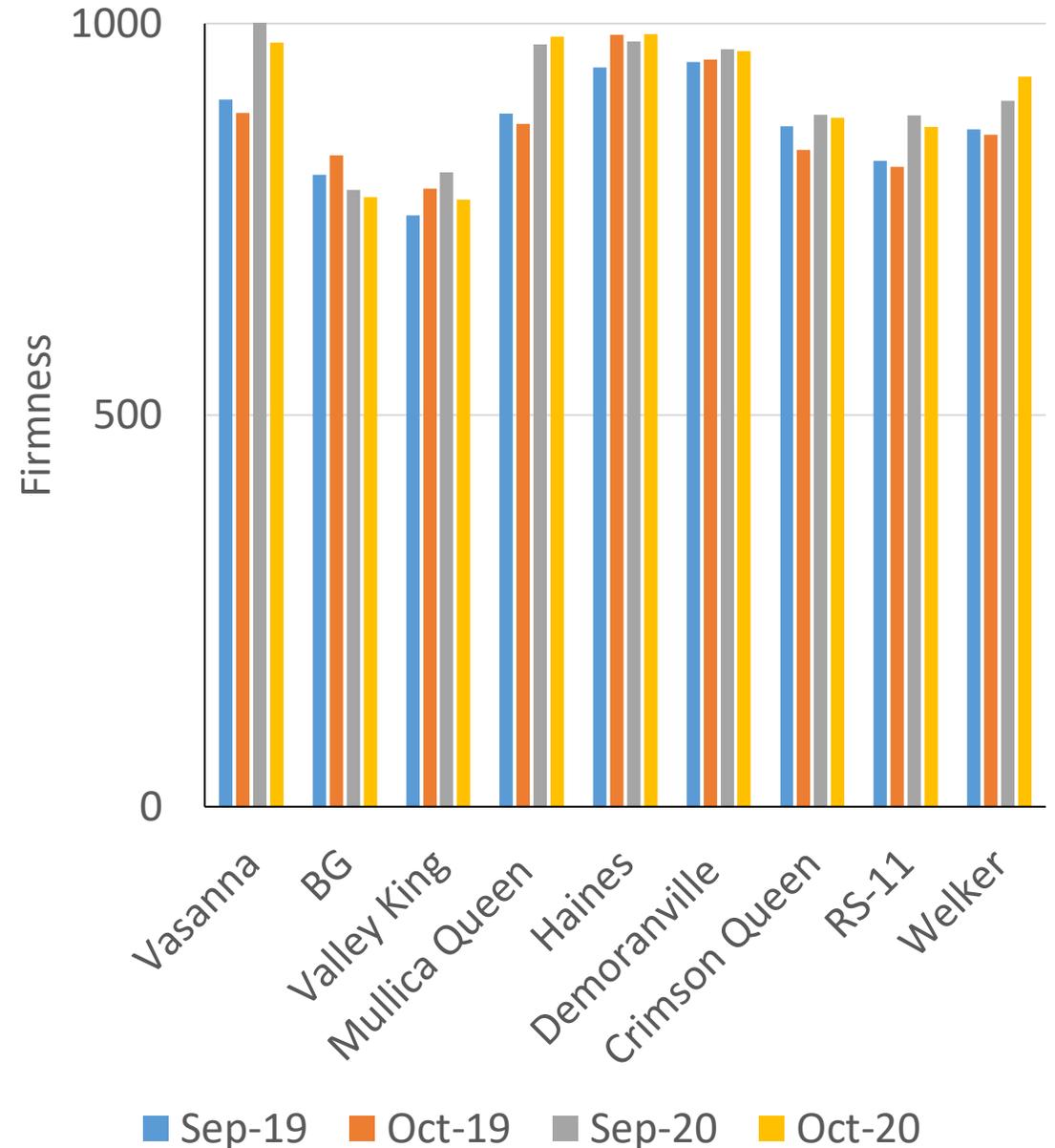
Bloom Phenology

- Continue with weekly check of progress of bloom/out-of-bloom
- 30 uprights in the centre of each plot in Field 1
- Differences in bud phenology match differences in bloom – Queens compared to Haines
- Bloom/Out-of-Bloom impacts
 - Introduction/removal of hives
 - Fungicide timings for fruit rot
 - Insecticide timing for tipworm (post bloom)
 - Insecticide timing for cranberry fruitworm (if you have)



Fruit Quality: Firmness

- Remember that our assessments are done on HAND-HARVESTED berries
- Use these values as baselines – additional damage due to all the steps required for harvest would bring the value down
- The values we've been getting off the vine would get a firmness incentive
- NB: some varieties firmness fairly consistent across 2-years but others seeing yearly differences
- Thank you Miranda Elsby and Ocean Spray lab crew



Fruit Quality: Colour

- New method in 2020
- Main thing to share for this year is that all varieties were under the % allowed for Class 1 berries by *our harvest dates* (Sept 22 and Oct 6)
- NB: Canopy growth impacts colour; BCCRF canopy is only 8 years old

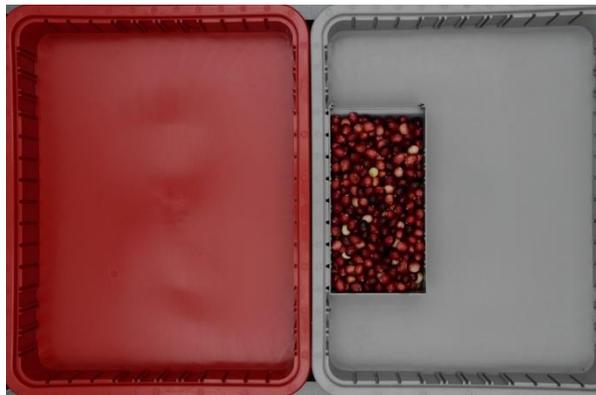
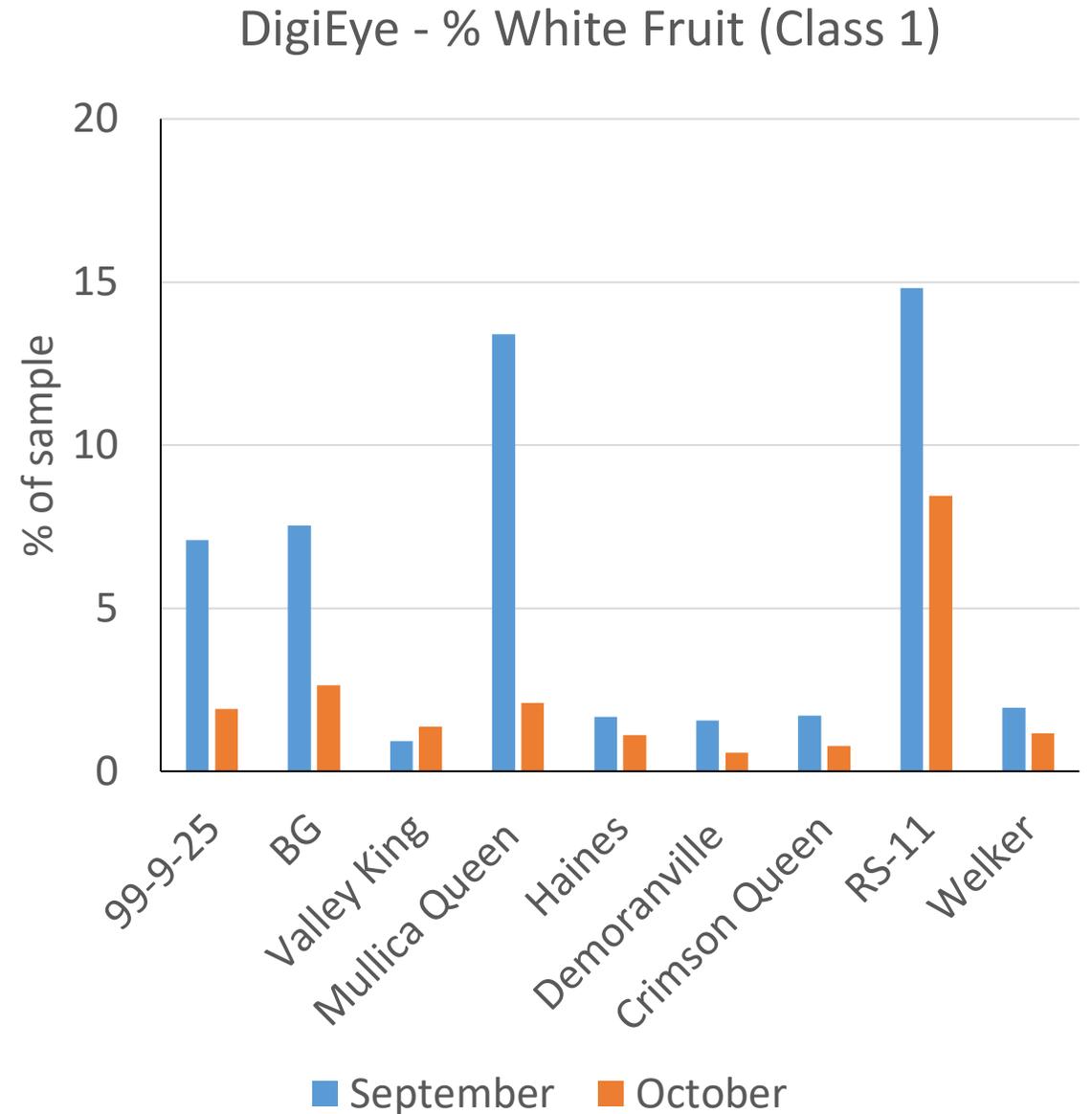
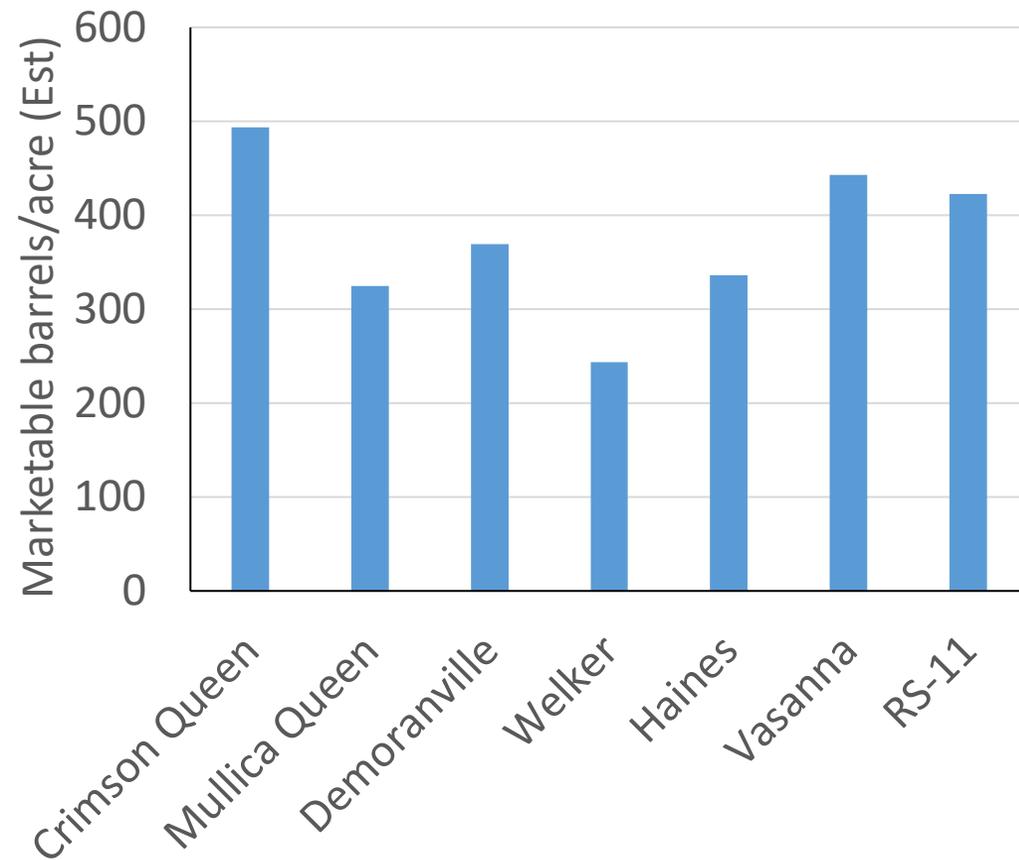


Photo: M. Elsby

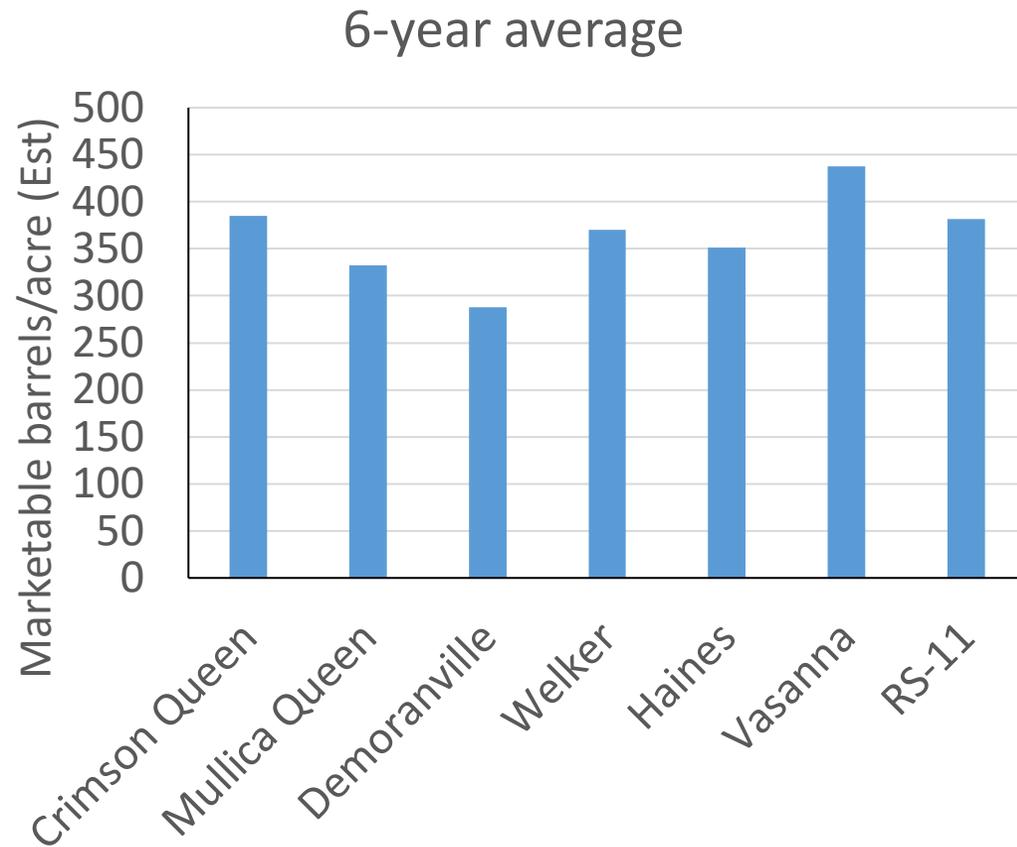


2020 data Rutgers released + RS 11 (2013 planting)



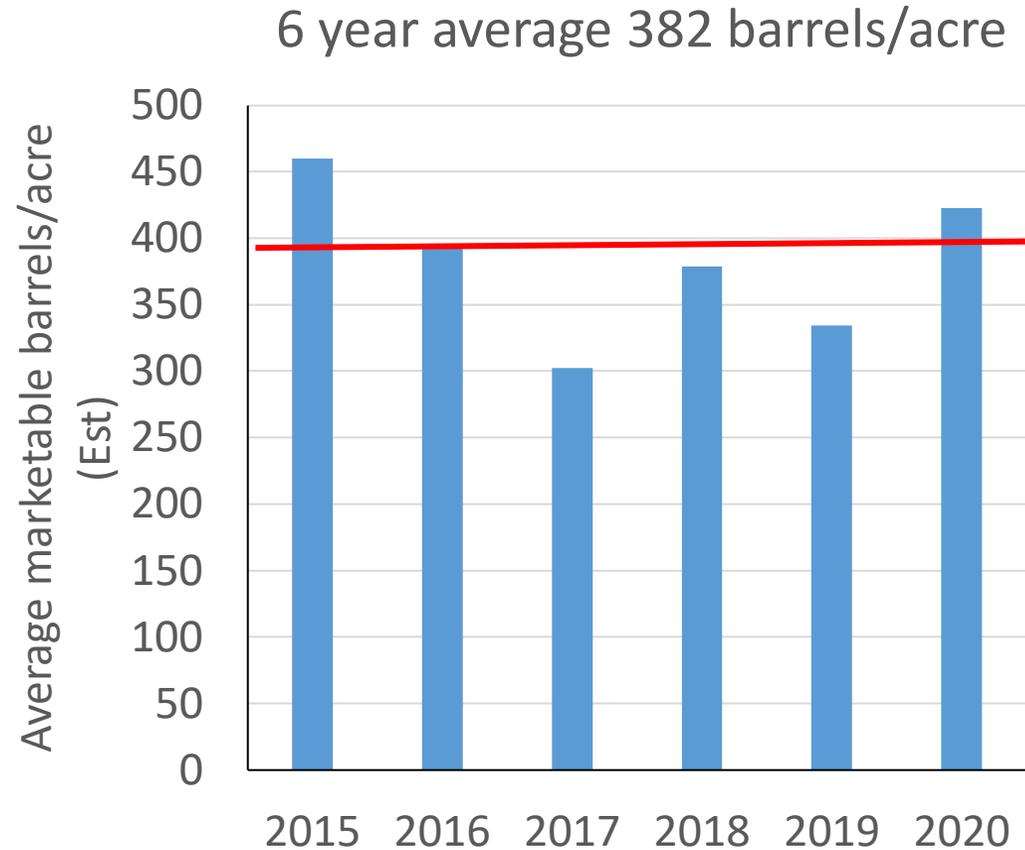
- Average was 376 barrels/acre
- Crimson Queen had the highest estimated marketable yield: 494 barrels/acre
- Welker had the lowest estimated marketable yield: 243 barrels/acre (Welker had the highest yield in 2019)

6 year average Rutgers released + RS 11 (2013 planting)



- Vasanna has the highest 6 year average marketable yield (438 barrels/acre)
- Demoranville lowest marketable yield (287.57 barrels/acre)
- 6 year average was over 300 barrels/acre for remaining varieties

RS-11



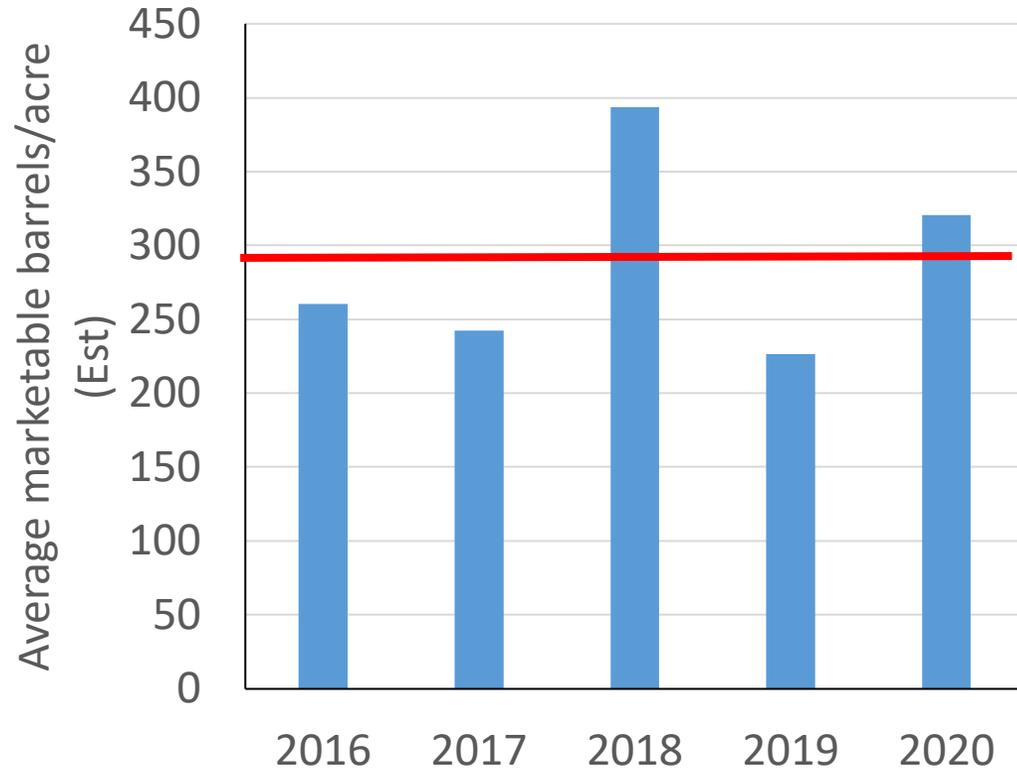
- Data are from Field 2
- 2020 Yield was 26% higher than 2019
- Colour data supporting late harvest is consistent (TAcy versus DigiEye)

Valley Corp. Released Varieties

- BG
- Valley King
- Pilgrim King
- Crimson King
- Midnight 7
- Midnight 8
- Midnight 11
- Valley King has been the highest yielding – 5 year avg: 288 barrels/acre
- BG – 6 – year avg: 263 barrels/acre
- Fruit rot is low in these varieties (same as Rutgers)
- New plantings of GH1 and Midnight 9
- Other Midnights are colour up way too early

Valley King

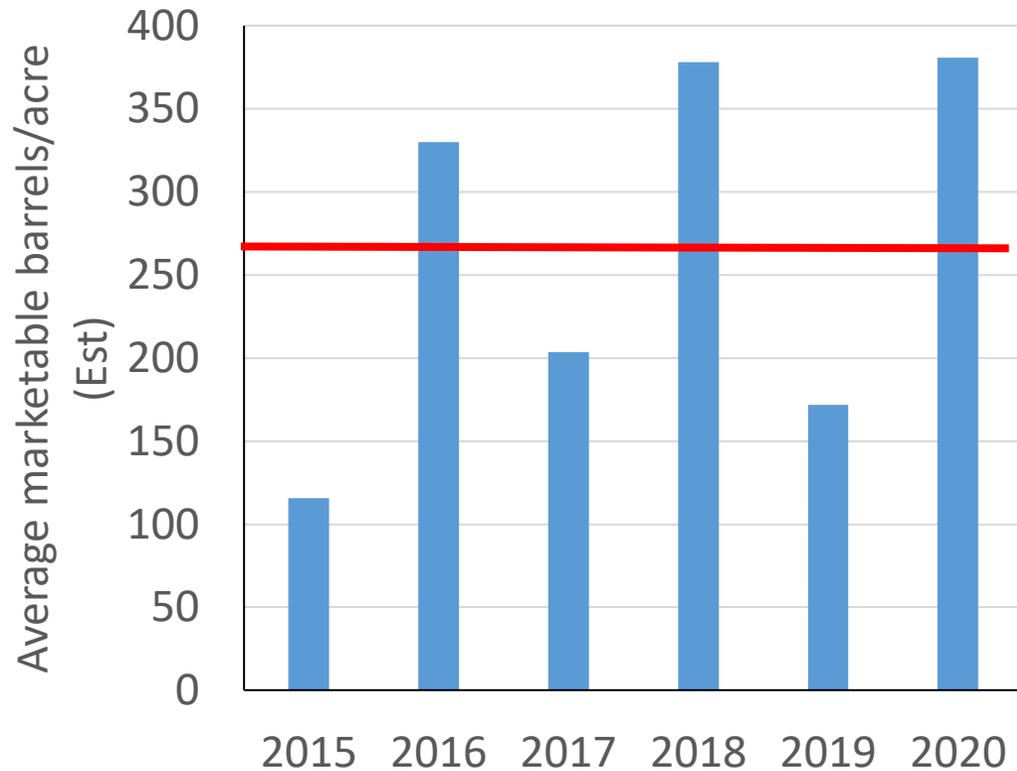
5-year average: 288 barrels/acre



- Data are from Field 2
- 2020 yield was 41% higher than 2019

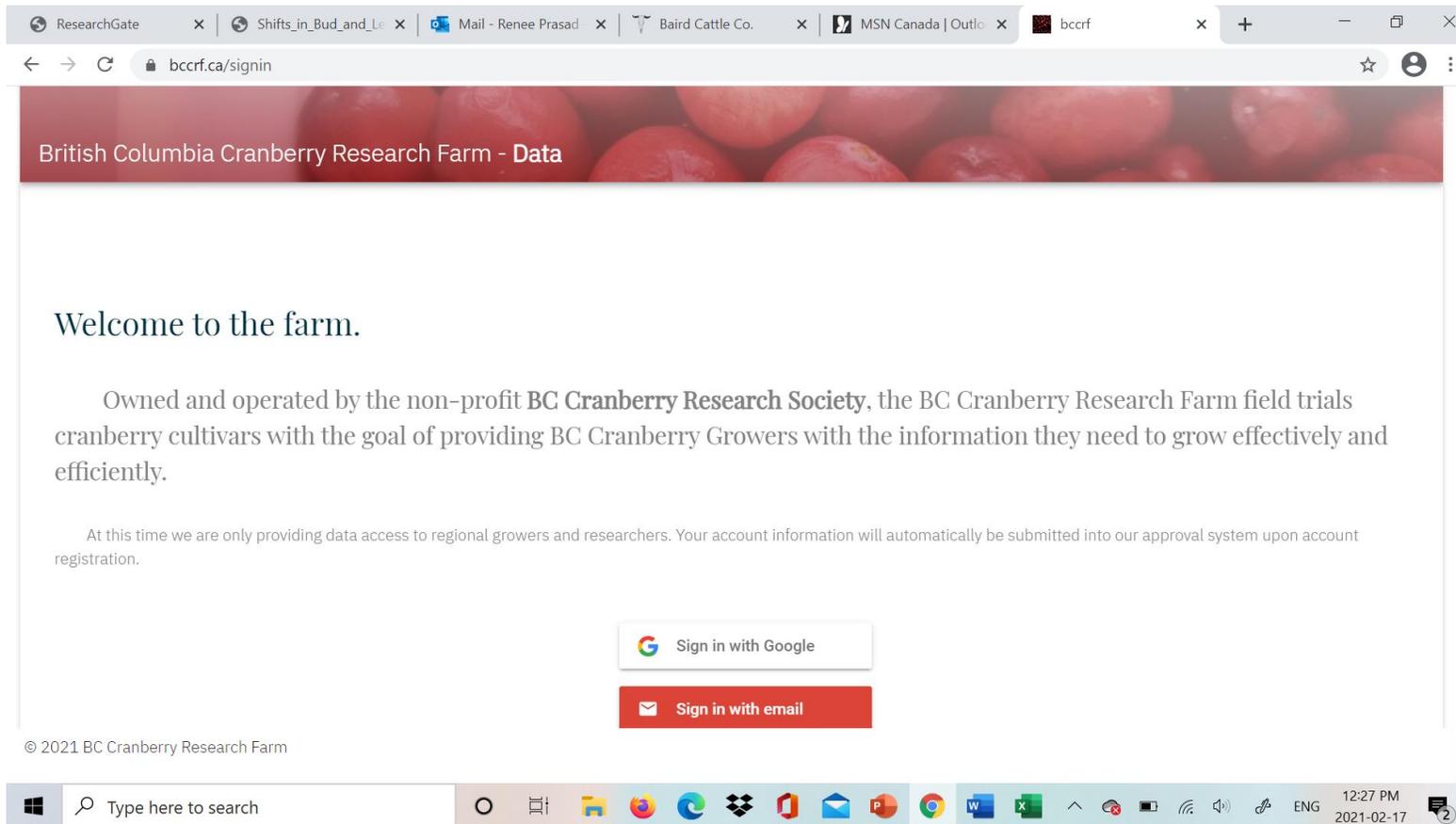
BG

6-year average = 263 barrels/acre



- Data are from Field 1
- 2020 estimated yield more than double 2019

Growers can now download the data, for released varieties, themselves ...



The screenshot shows a web browser window with the URL `bccrf.ca/signin`. The page title is "British Columbia Cranberry Research Farm - Data". The main content area contains the following text:

Welcome to the farm.

Owned and operated by the non-profit **BC Cranberry Research Society**, the BC Cranberry Research Farm field trials cranberry cultivars with the goal of providing BC Cranberry Growers with the information they need to grow effectively and efficiently.

At this time we are only providing data access to regional growers and researchers. Your account information will automatically be submitted into our approval system upon account registration.

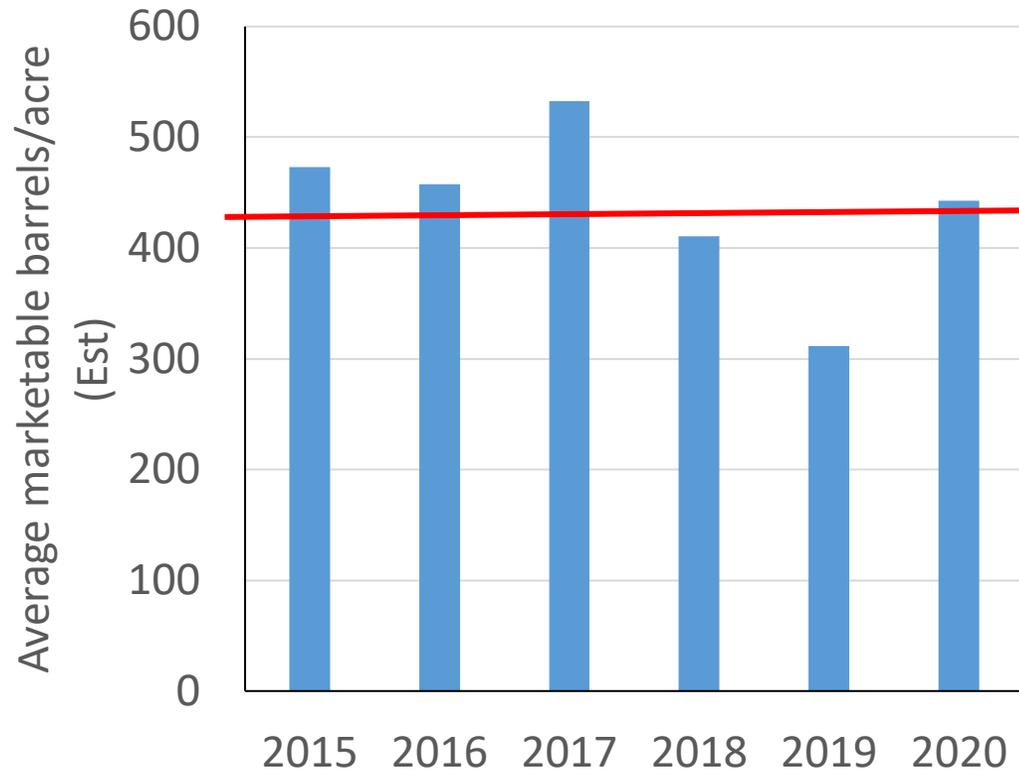
Below the text are two buttons: "Sign in with Google" and "Sign in with email". The footer of the page reads "© 2021 BC Cranberry Research Farm". The browser's taskbar at the bottom shows the time as 12:27 PM on 2021-02-17.



Daniel Dufau
Programmer/Developer

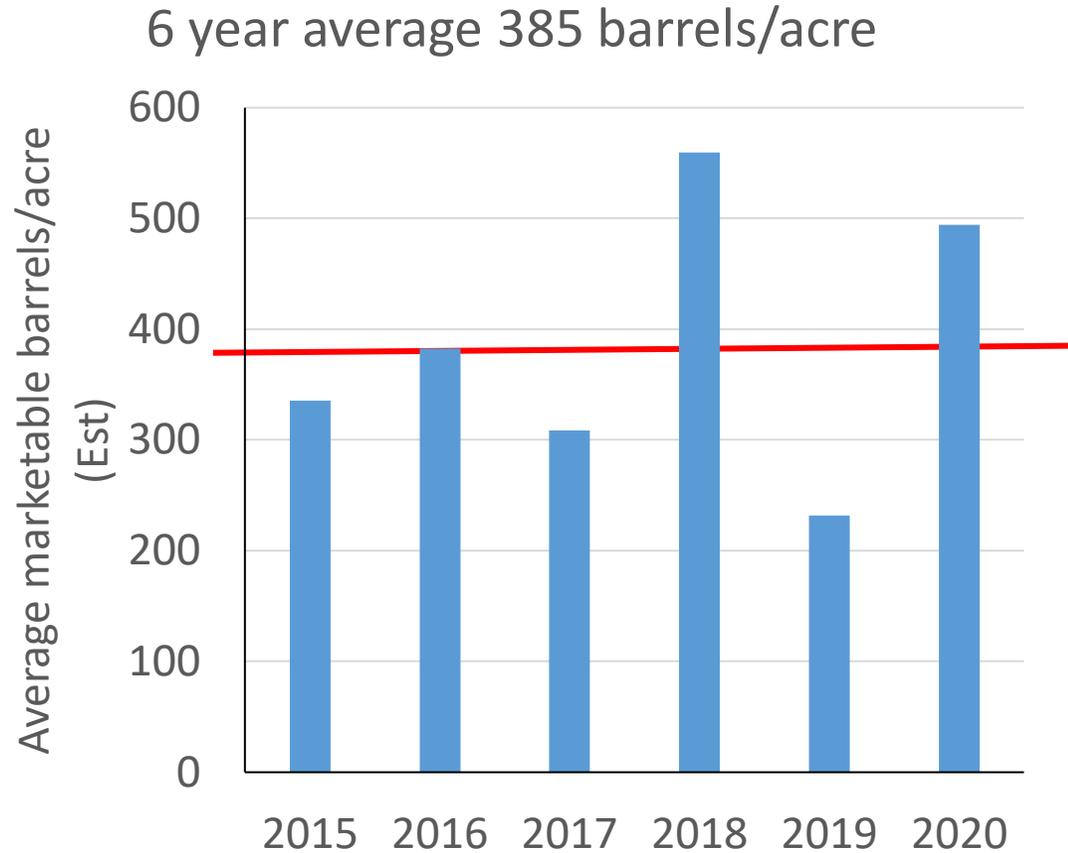
Vasanna (RS99-25)

6 year average 438 barrels/acre



- Data are only from Field 1
- 2020 yield was 42% higher than 2019

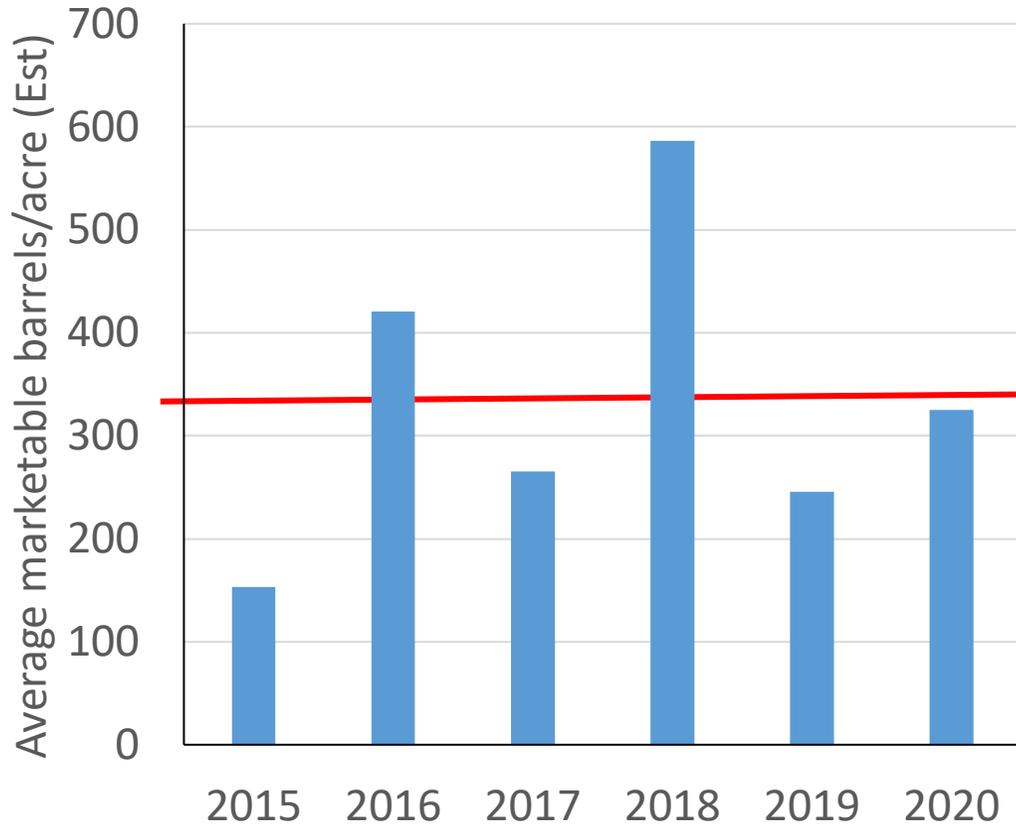
Crimson Queen



- Data are only from Field 1
- 2020 yield was 113% higher than 2019

Mullica Queen

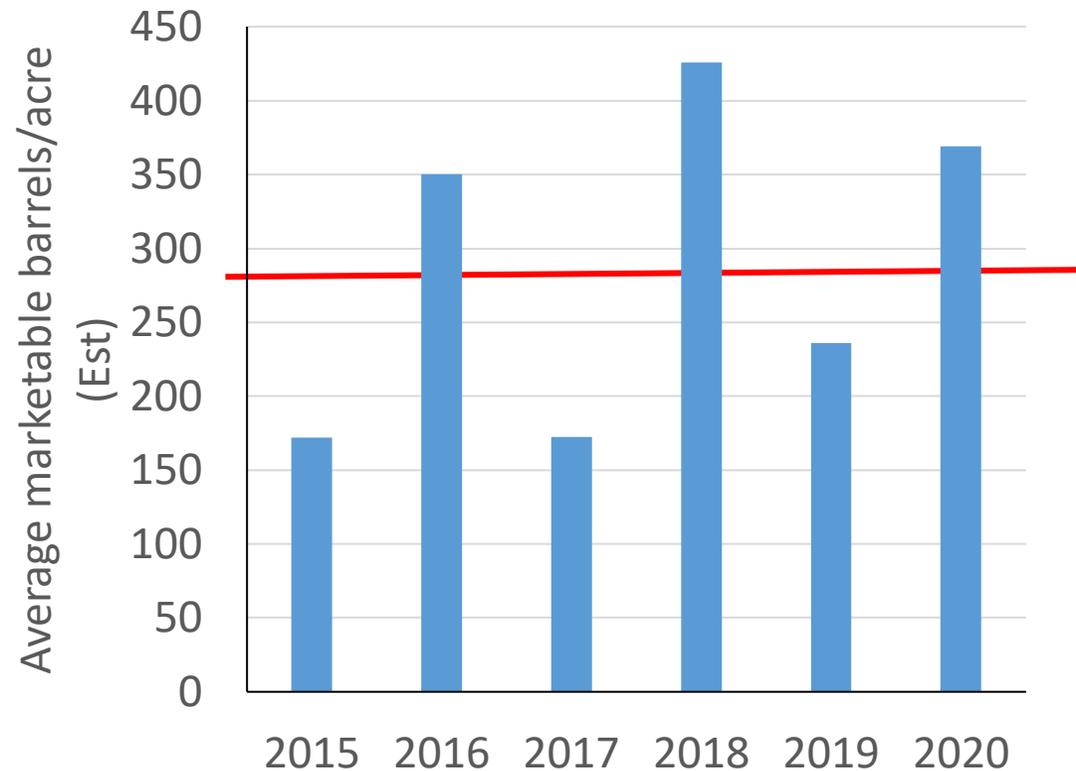
6 year average 333 barrels/acre



- Data are only from Field 1
- 2020 Yield was 32% higher than 2019

Demoranville

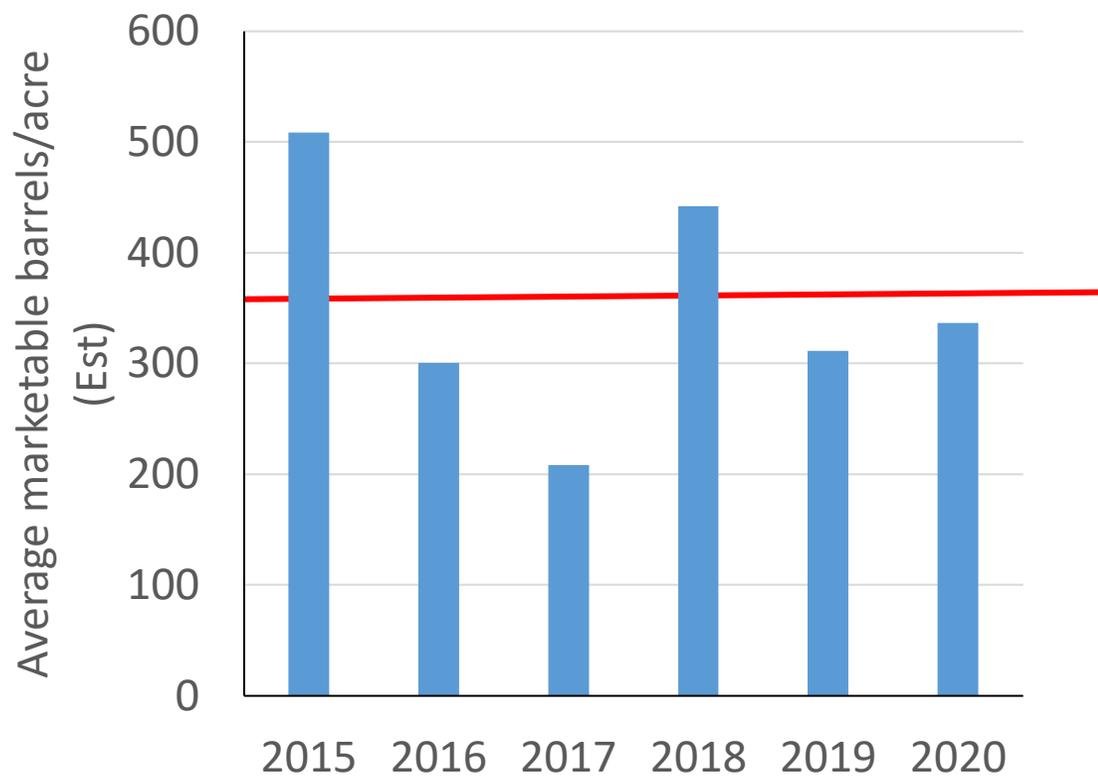
6 year average 287.57 barrels/acre



- Data are only from Field 1
- 2020 Yield was 55% higher than 2019

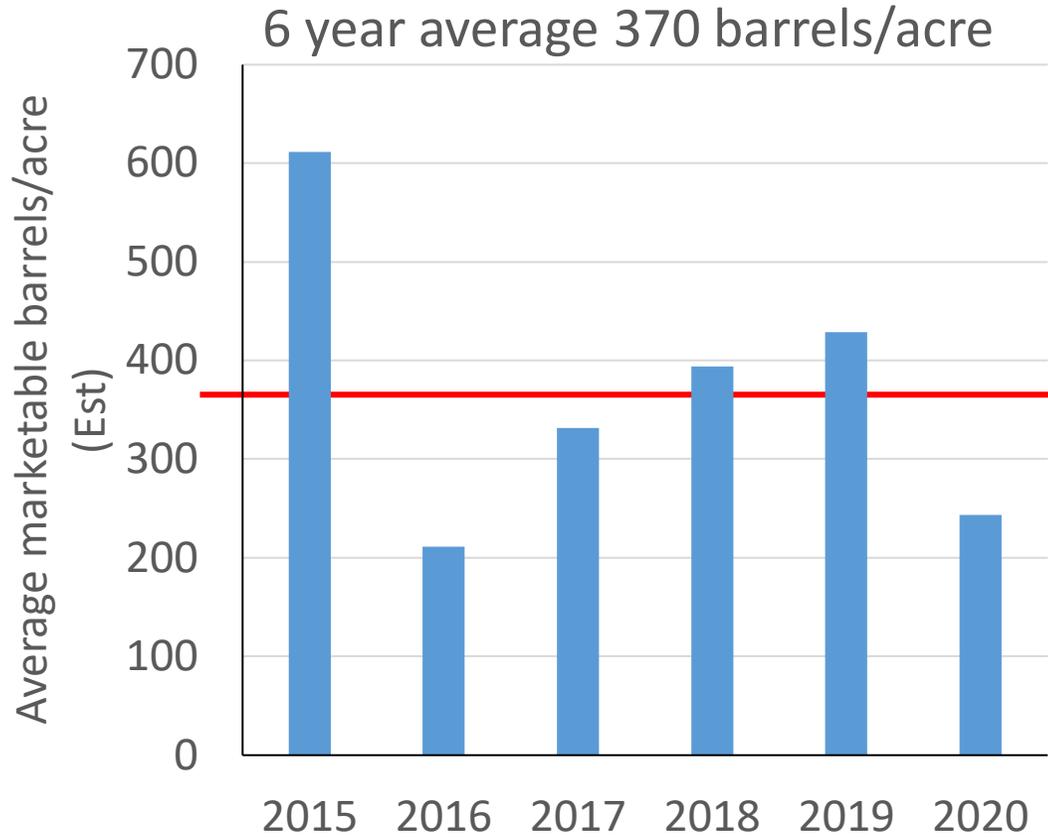
Haines

6 year average 351.18 barrels/acre



- Data are only from Field 1
- 2020 Marketable Yield was 8% higher than 2019

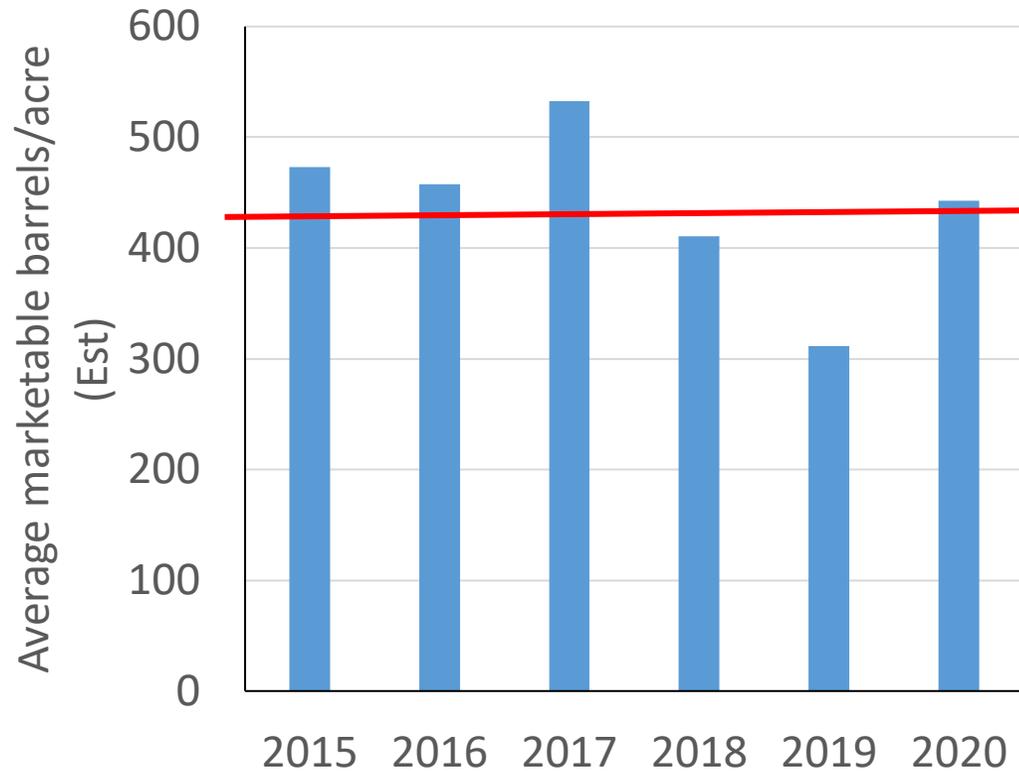
Welker



- Data are only from Field 1
- 2019 Welker was only variety with higher yield
- 2020 yield was 43% lower than 2019

Vasanna (RS99-25)

6 year average 438 barrels/acre



- Data are only from Field 1
- 2020 yield was 42% higher than 2019

Acknowledgements

DELIVERED BY

FUNDING PROVIDED BY



- “This project was funded in part by Agriculture and Agri-Food Canada and the Government of British Columbia through programs delivered by the Investment Agriculture Foundation of B.C.”
- Field and lab crews: ES Cropconsult Ltd. (Heidi, Megan, Kelsey, and Cassie) UFV (Gabrielle, Lindsey, Karli, Desirae, Tim, Miriam, Douglas)
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