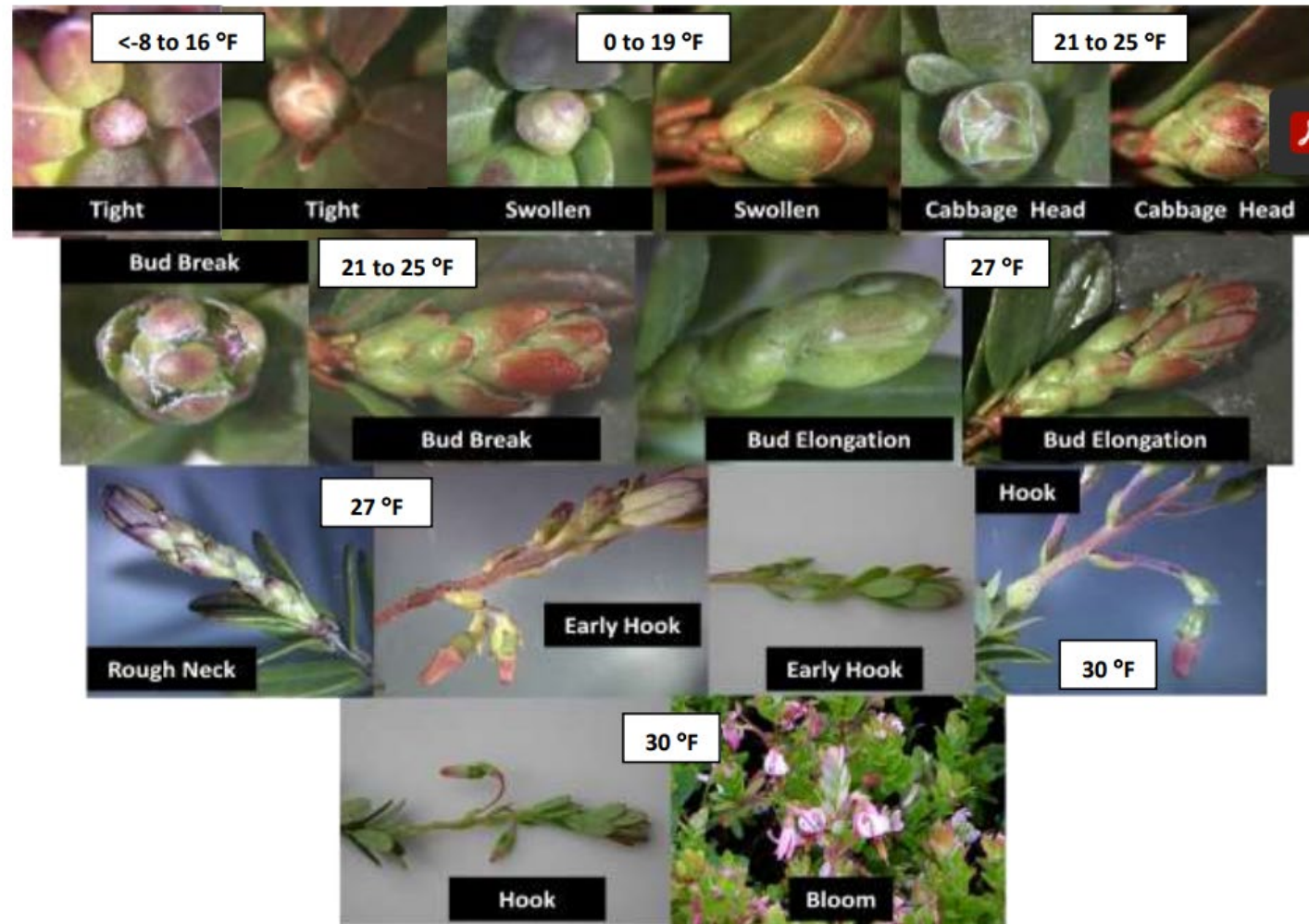


# Cranberry Research Farm Update: A small fertilizer trial

- Do phenology differences between varieties really matter so much?
- Can look at this in a number of areas but decided to start with fertilizer
- Timing critical
  - Support fruit development
  - Don't contribute to overgrowth (lots of runners)
    - Timing and rates

# Google: Workmaster and Palta



# Google: % out-of-bloom cranberries

The screenshot shows a web browser window with the URL [extension.umaine.edu/cranberries/grower-services/calculating-out-of-bloom/](https://extension.umaine.edu/cranberries/grower-services/calculating-out-of-bloom/). The page is titled "Calculating Out-of-Bloom Percentage" and includes a sidebar with navigation links: Grower Services Home, Insects, Weeds, Diseases, Cranberry IPM Guide, Pest Reports, Workshops and Meetings, Management Calendar, Growing Degree Days (GDD), Local Weather, and Tissue Testing. The main content area provides instructions on how to calculate the percentage of out-of-bloom cranberries, including a formula and a section on timing the first spray.

**Calculating Out-of-Bloom Percentage**

**Calculating Percent Out-of-Bloom in Cranberry** (scroll down for a practice exercise):

Percent out-of-bloom is monitored in cranberries to assist in the management of the cranberry fruitworm (*i.e.*, spray timing). It is good to visit 5 to 10 different random spots throughout a bed, counting the blossoms and/or pinheads and berries on 5 or more consecutive uprights at each location. The location and starting upright should be random (don't pick the best spot, in other words). A good technique is to stop after every 20 steps, or any number you predetermine, and then begin counting with the upright closest to your last step. *The more uprights and locations in the bed you check, the more confident you can be with the result.*

**Formula:**

$$\% \text{ Out Of Bloom} = \frac{\text{Total number of pinheads and berries}}{\text{Total number of pinheads + berries + flowers + unopened flowers}} \times 100\%$$

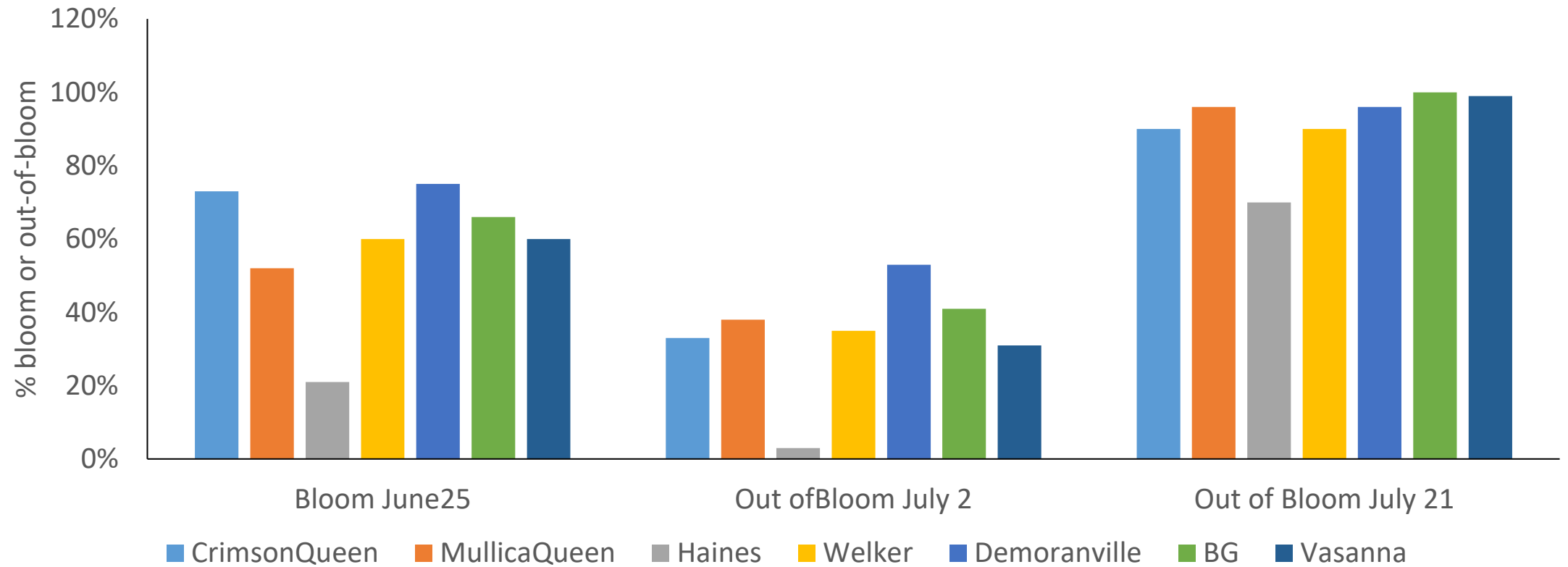
**Timing first spray using % out-of-bloom:**



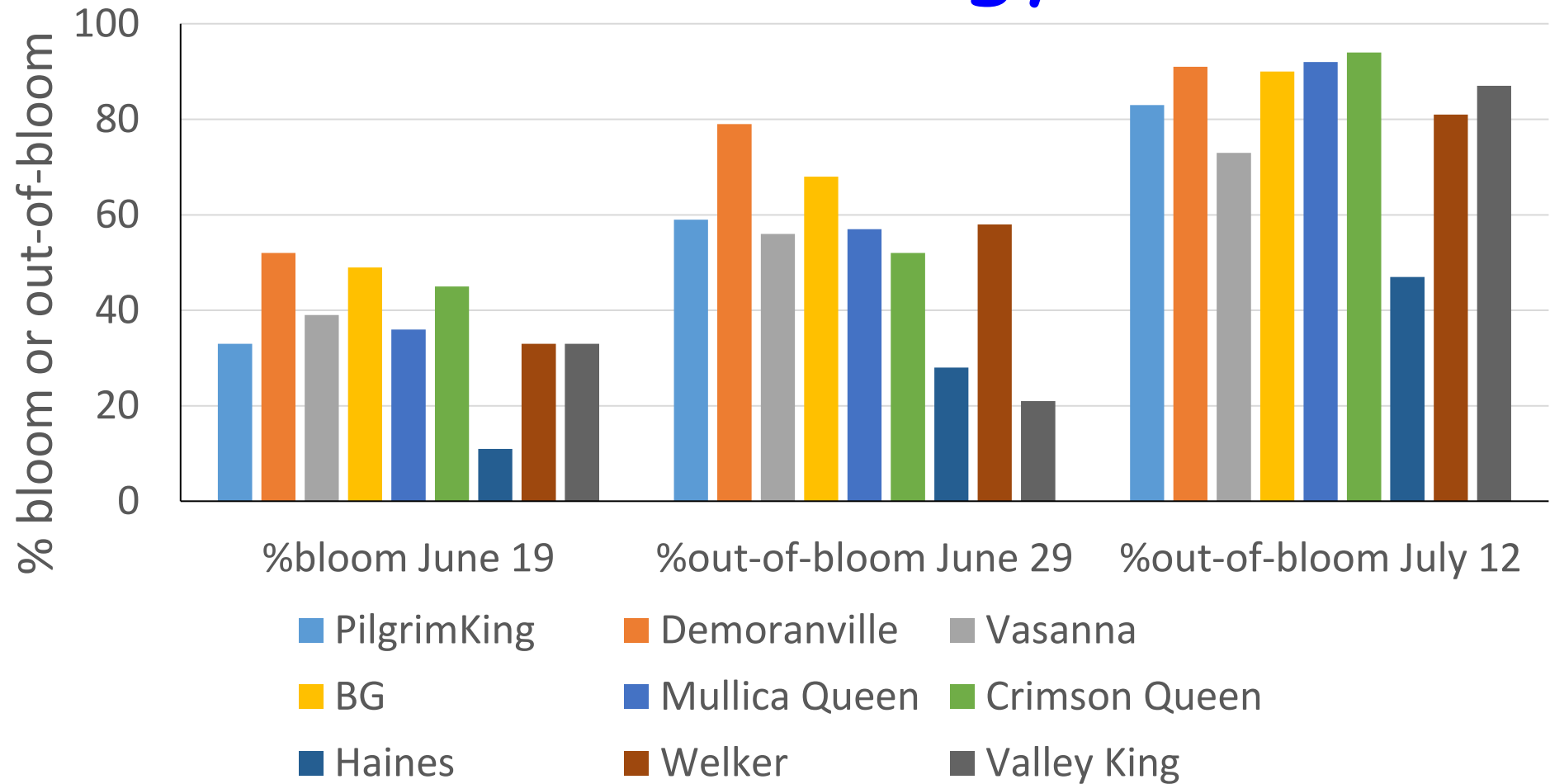
<https://extension.umaine.edu/cranberries/wp-content/uploads/sites/40/2010/02/Out-of-bloom.jpg>

# 2020 Out-of-Bloom Phenology

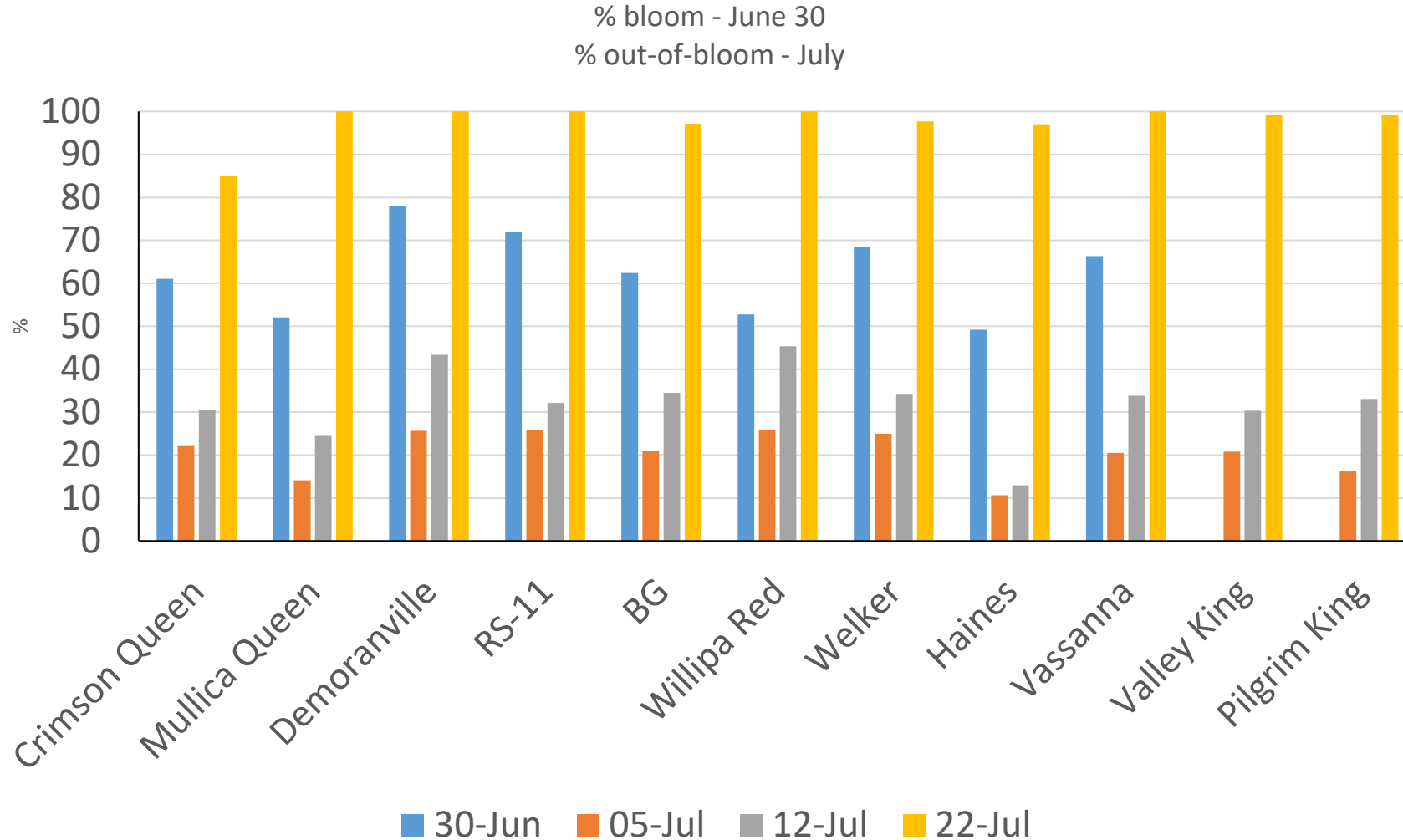
Bloom to Out-of-Bloom Phenology



# 2021 Out-of-Bloom Phenology



# 2022: Mullica & BG about a week ahead of Haines



# Methods

	1 <sup>st</sup> Application	2 <sup>nd</sup> Application	3 <sup>rd</sup> Application
Mullica Queen	July 5	July 12	July 22
BG	July 5	July 12	July 22
Haines	July 12	July 22	July 29
Grower	July 5	August 4	



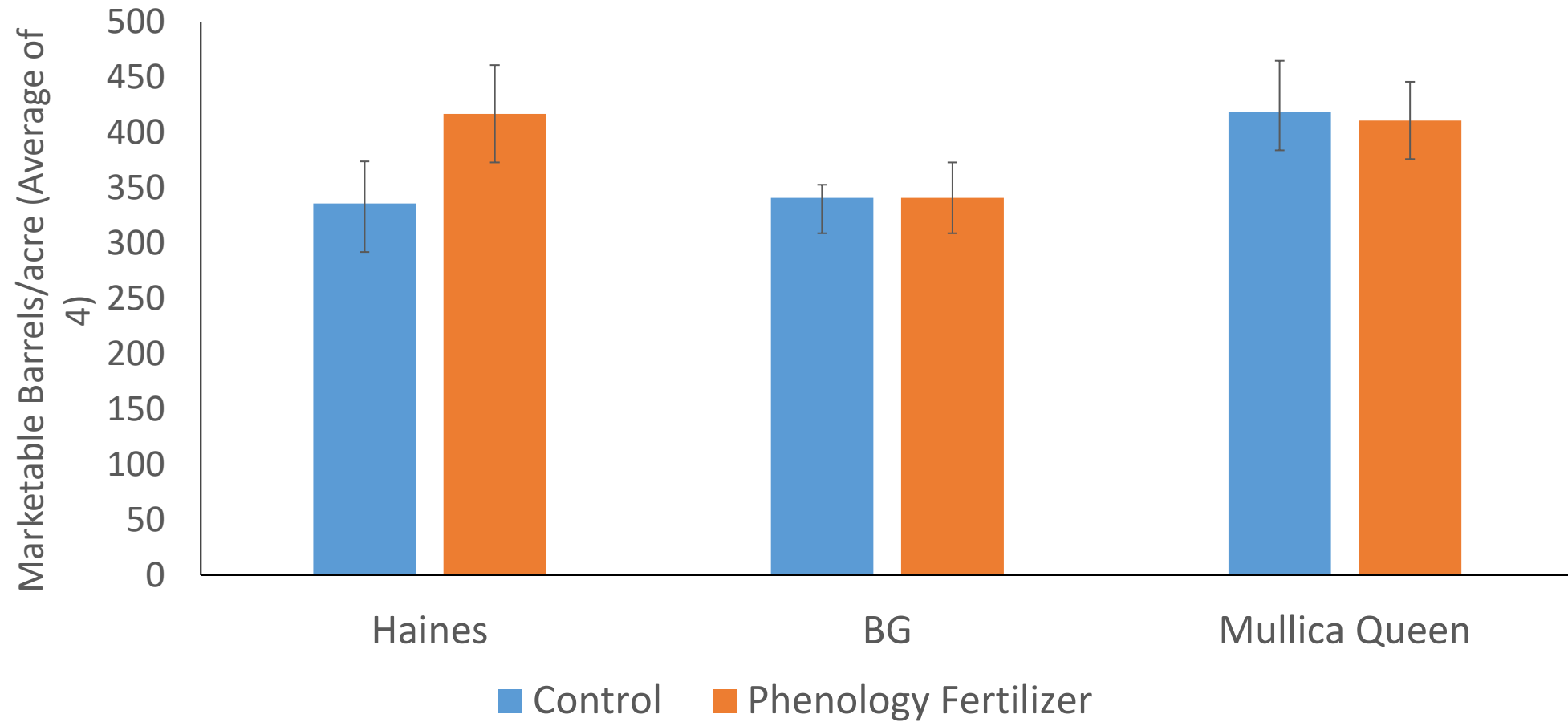
# Methods



- 20 ft plots X 4 per variety
- Treatments
  - 9-17-26 (Rates as per Miranda's trial – lower N rates)
  - 3 applications
- Grower
  - 8-24-24
  - 2 applications
- Flags = grower did not apply fertilizer
- Control in North-South Transect
- We know there is a East-West nutrient gradient in some areas of Field 1



# Results - Yield



# Results - Runners

	Haines	Mullica Queen	BG
Control	0.25	1.25	0.25
Penology	0.5	1.25	1.25



[http://cdn.shopify.com/s/files/1/0011/7401/1967/products/cranberry.sm.44a\\_1024x1024.jpg?v=1522014161](http://cdn.shopify.com/s/files/1/0011/7401/1967/products/cranberry.sm.44a_1024x1024.jpg?v=1522014161)

# Next Steps

- Continue in 2023 – look for differences in canopy development
- Foliar nutrient status (pooled sample for 4 plots)
- Repeat in same plots
- Add new plots (maybe)



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DELIVERED BY

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