

Color improvement of 'Honeycrisp' with the use of sprayable products and reflective fabric

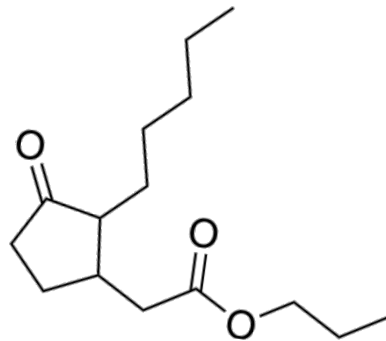
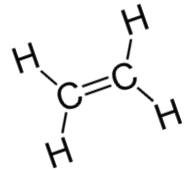
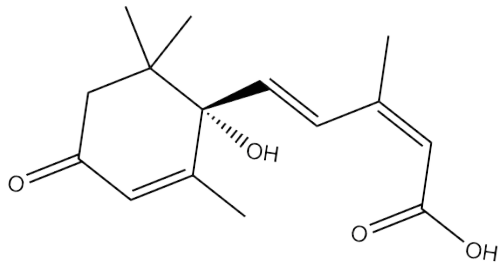


Brian Lawrence, Luis Gonzalez Nieto, Poliana Francescato and Terence Robinson
Western New York Fruit Conference - February 5th, 2025

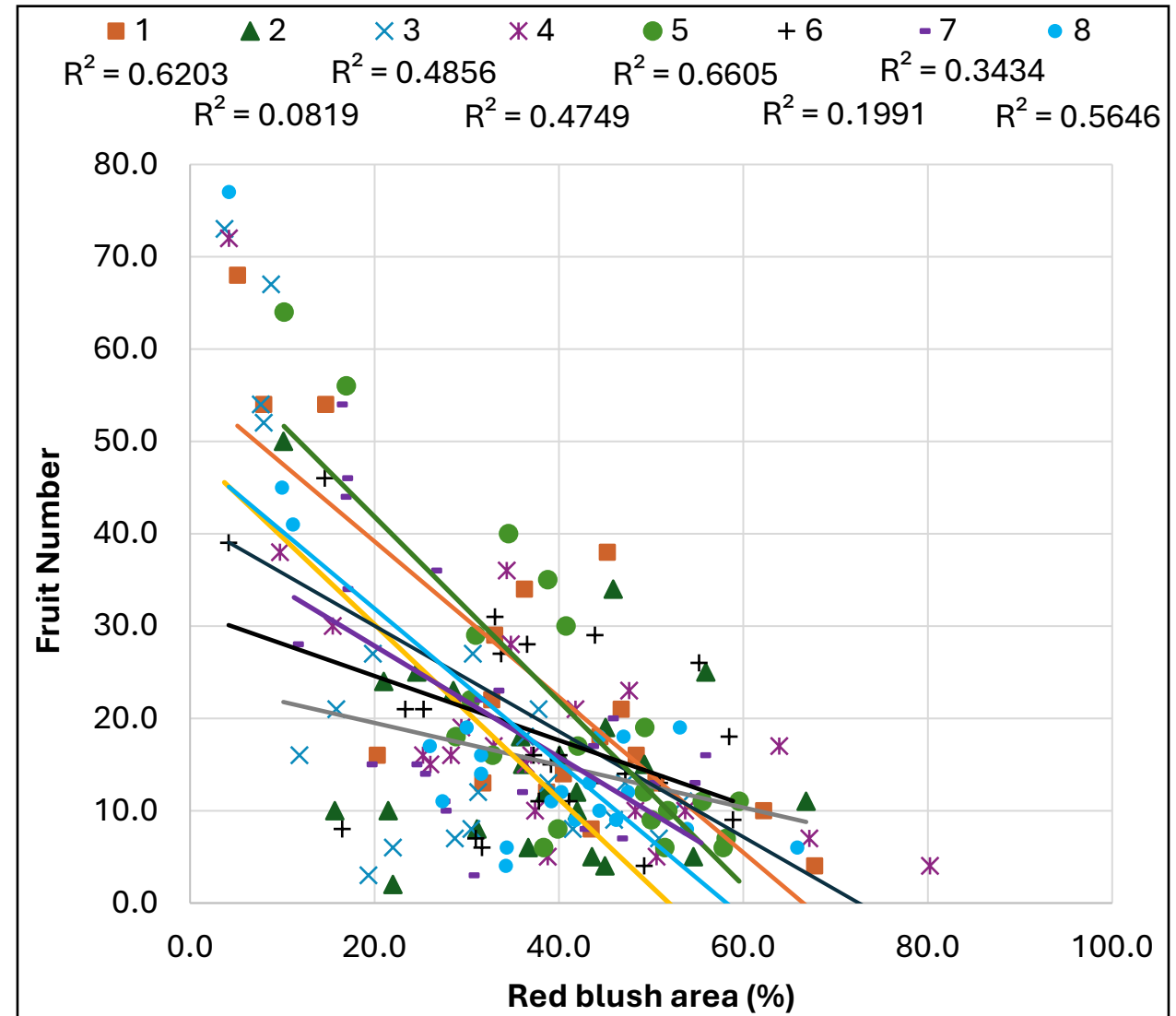
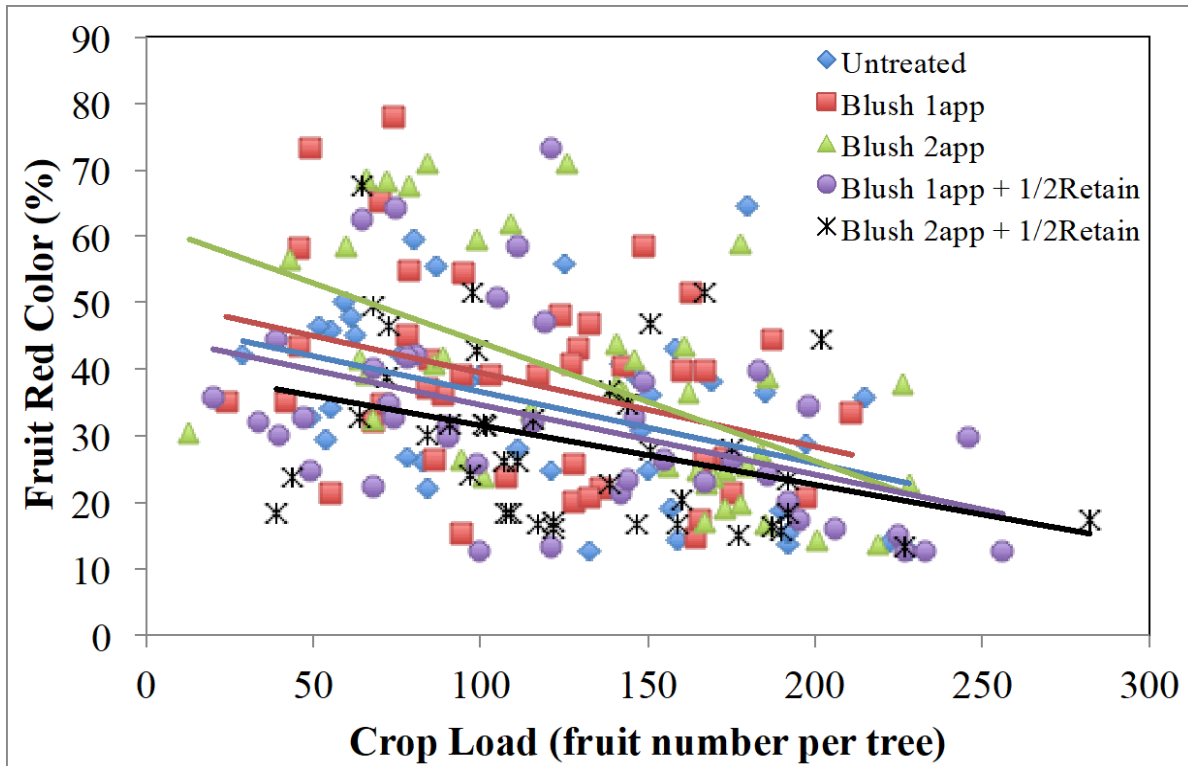
Color development in apples:

Promotion of anthocyanins:

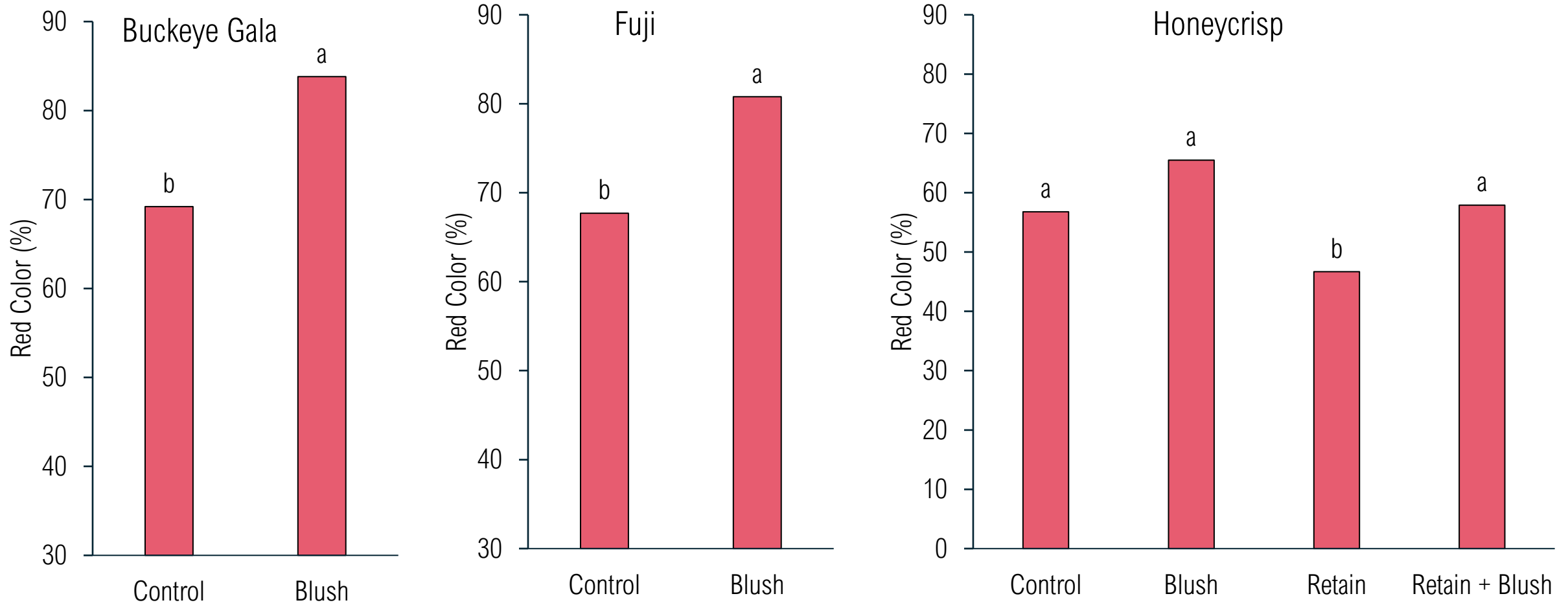
- Genetics
- Low temperatures
- UV-B Radiation
- Water deficit
- Hormones: ABA, Ethylene, Jasmonic Acid
- Auxins inhibit anthocyanins



Regardless of products, crop load matters

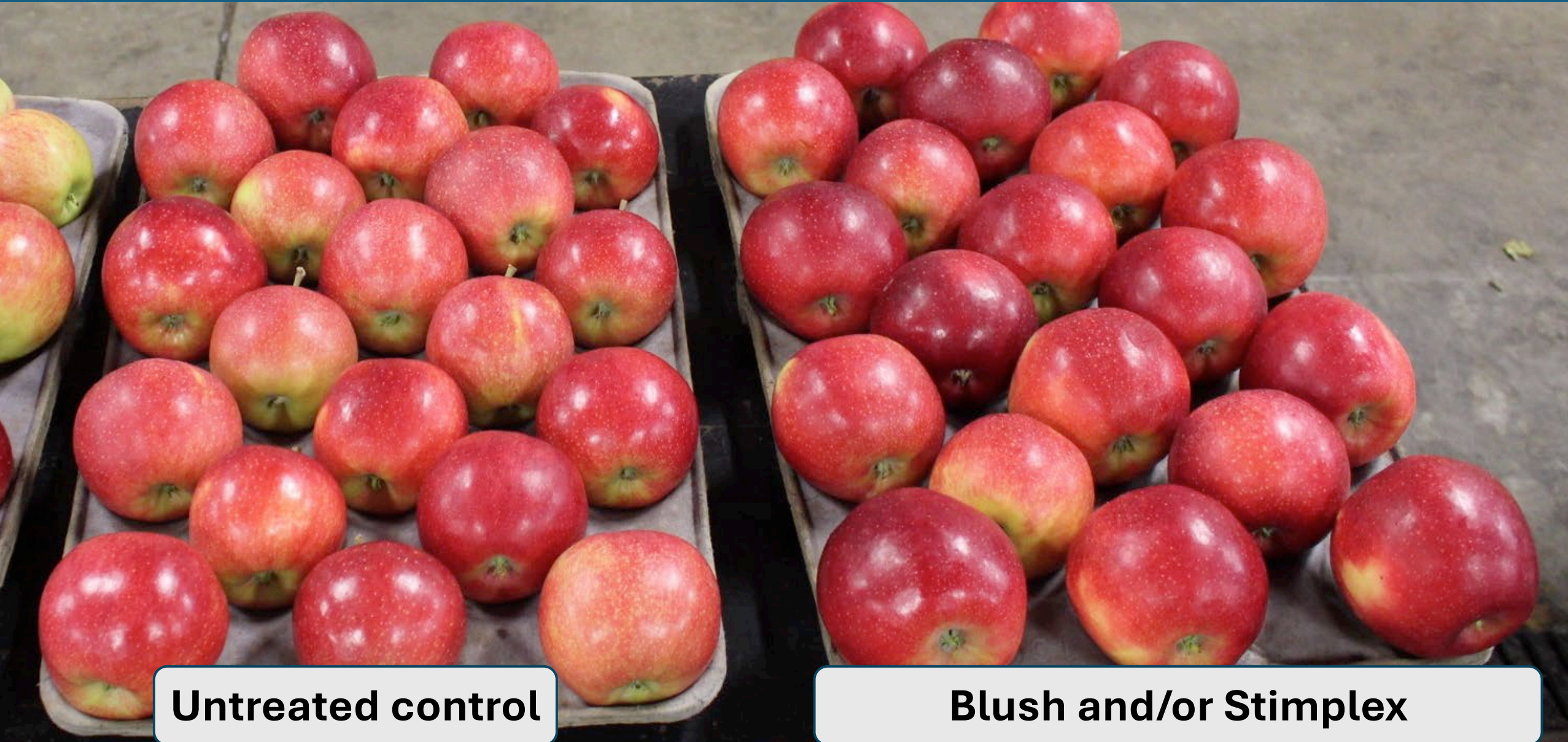


Initial Results: 2013 Blush + Retain



- No differences in fruit quality with Blush. Retain  ethylene and  firmness

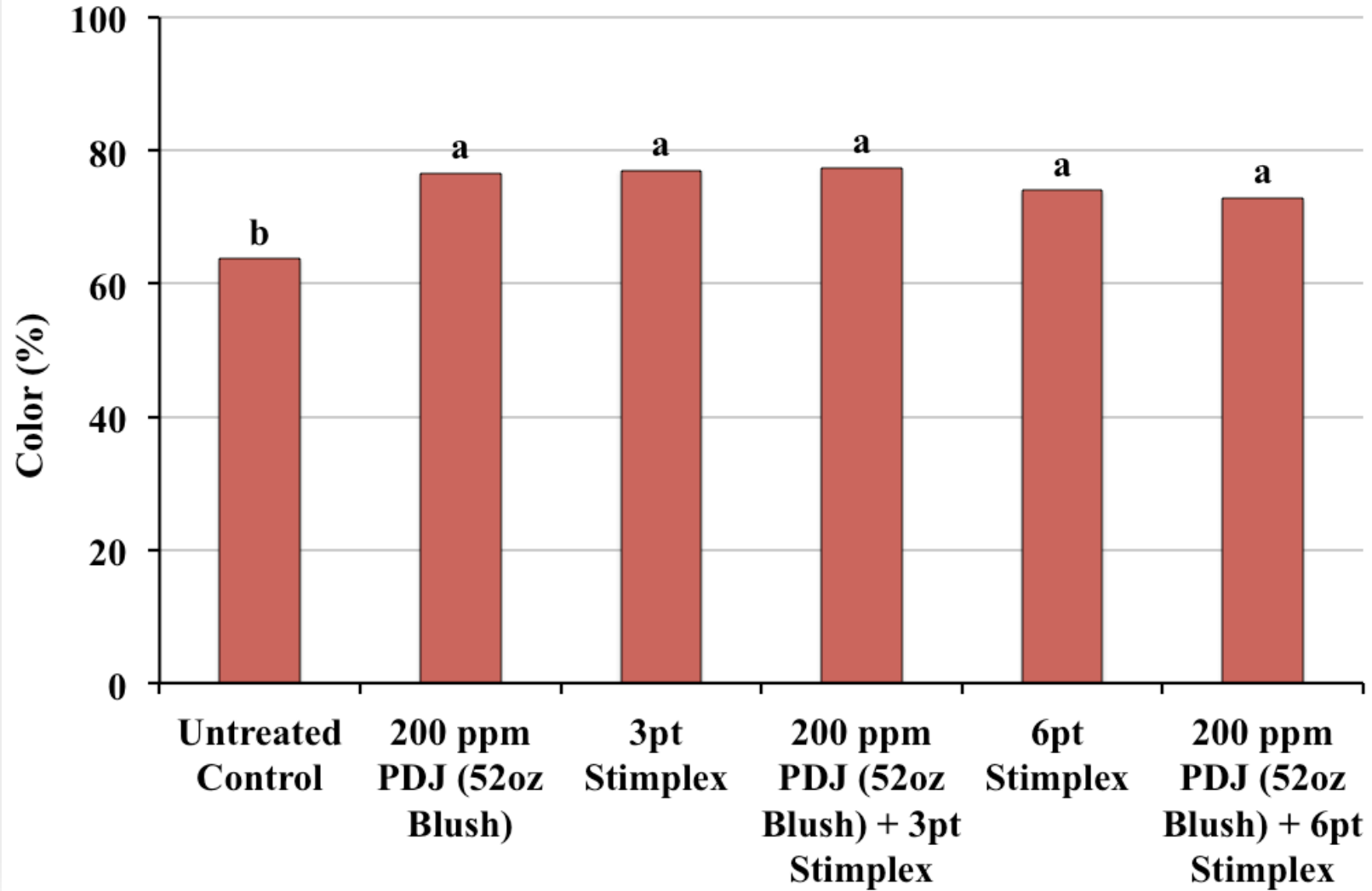
Initial Results: 2015 Jonagold apples in NY



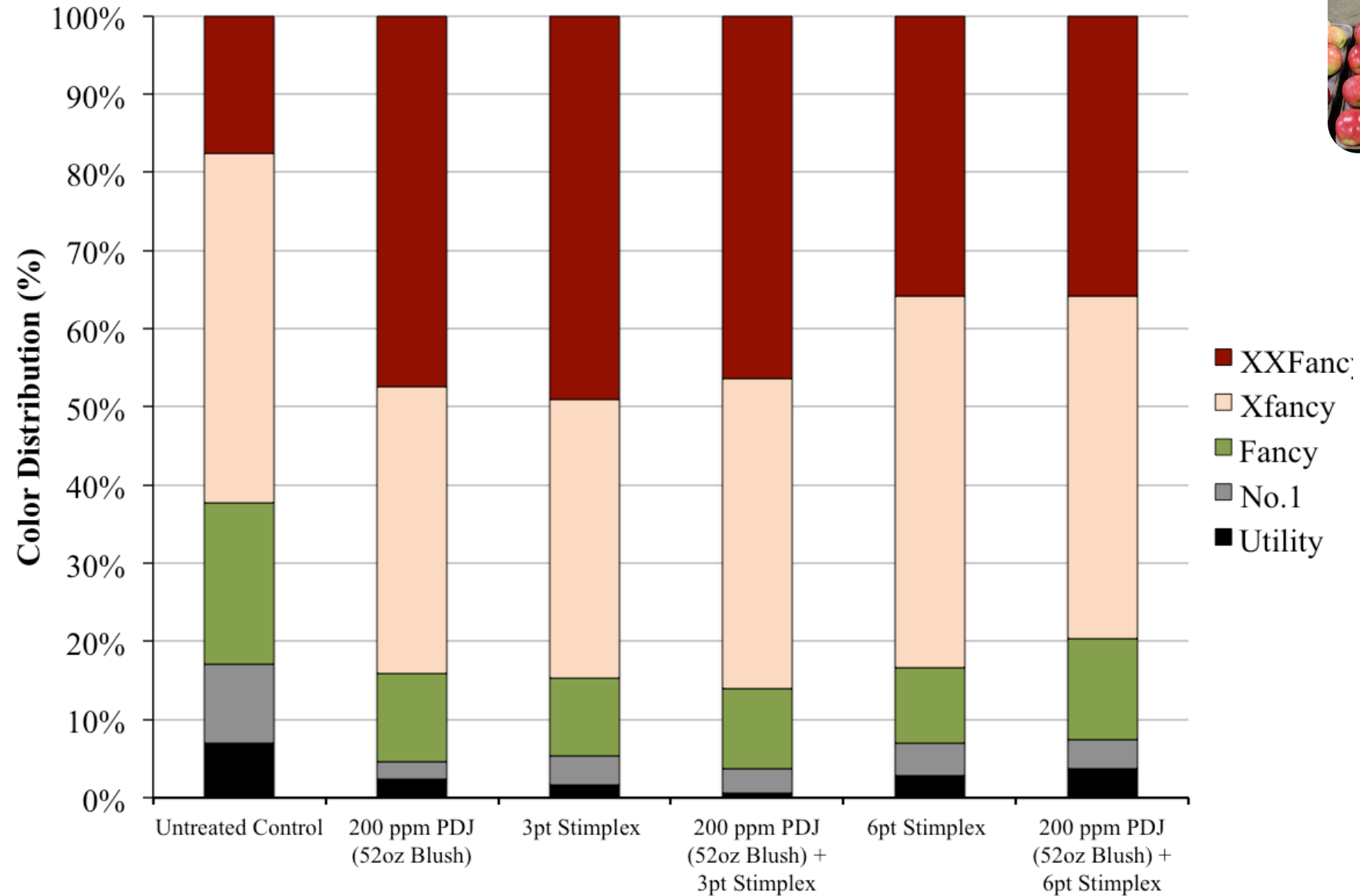
Untreated control

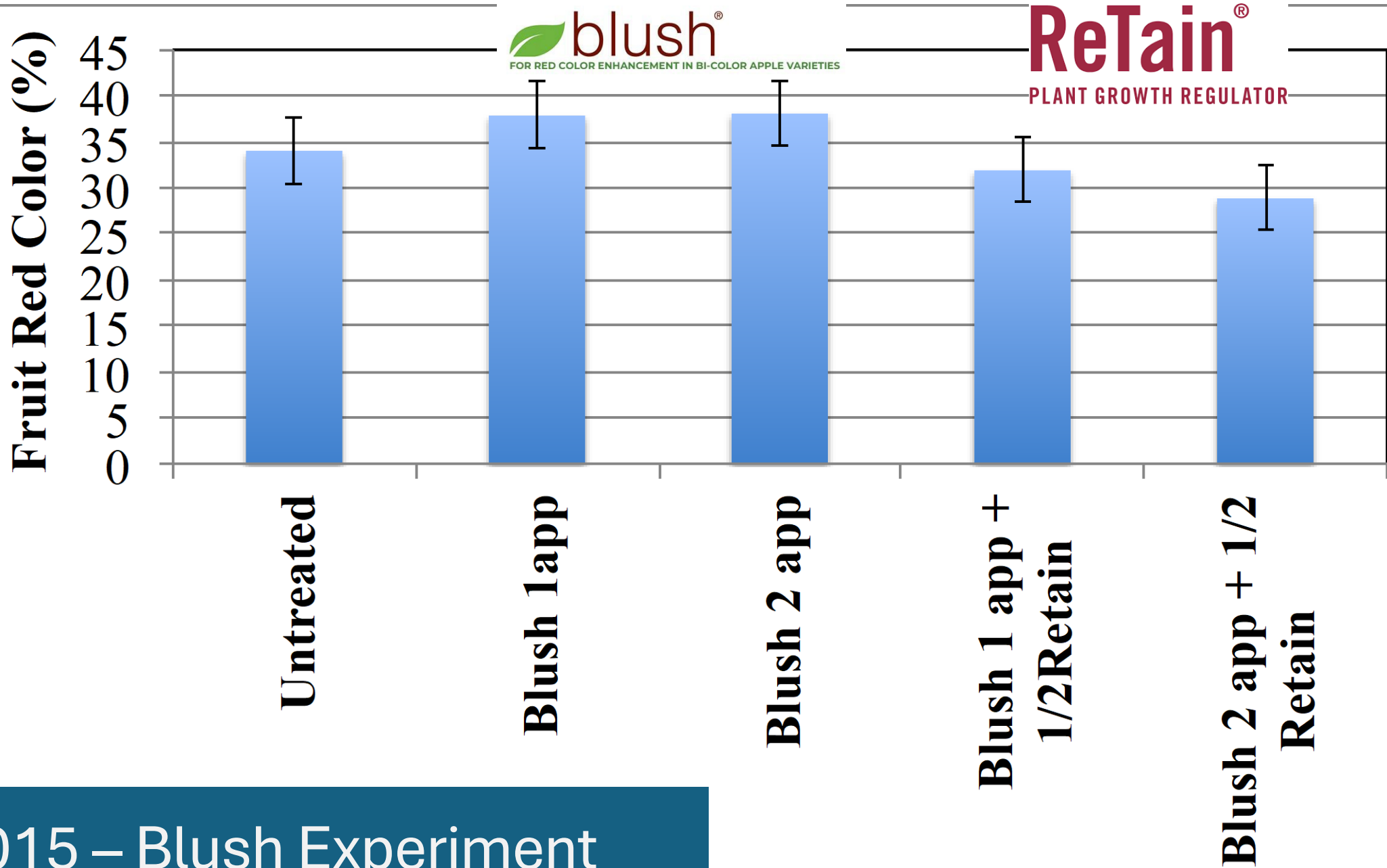
Blush and/or Stimplex

Initial Results: 2015 Jonagold apples in NY

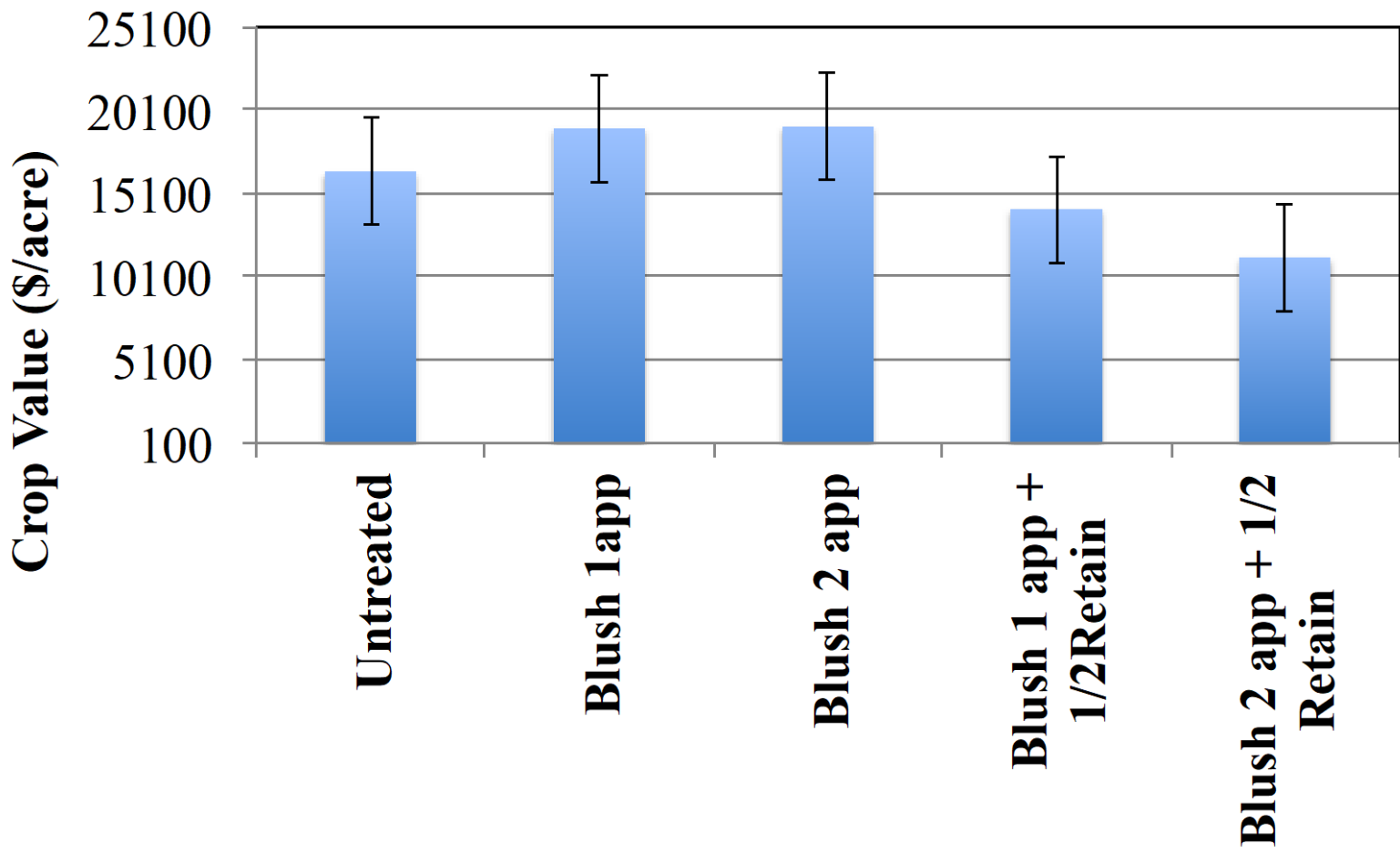
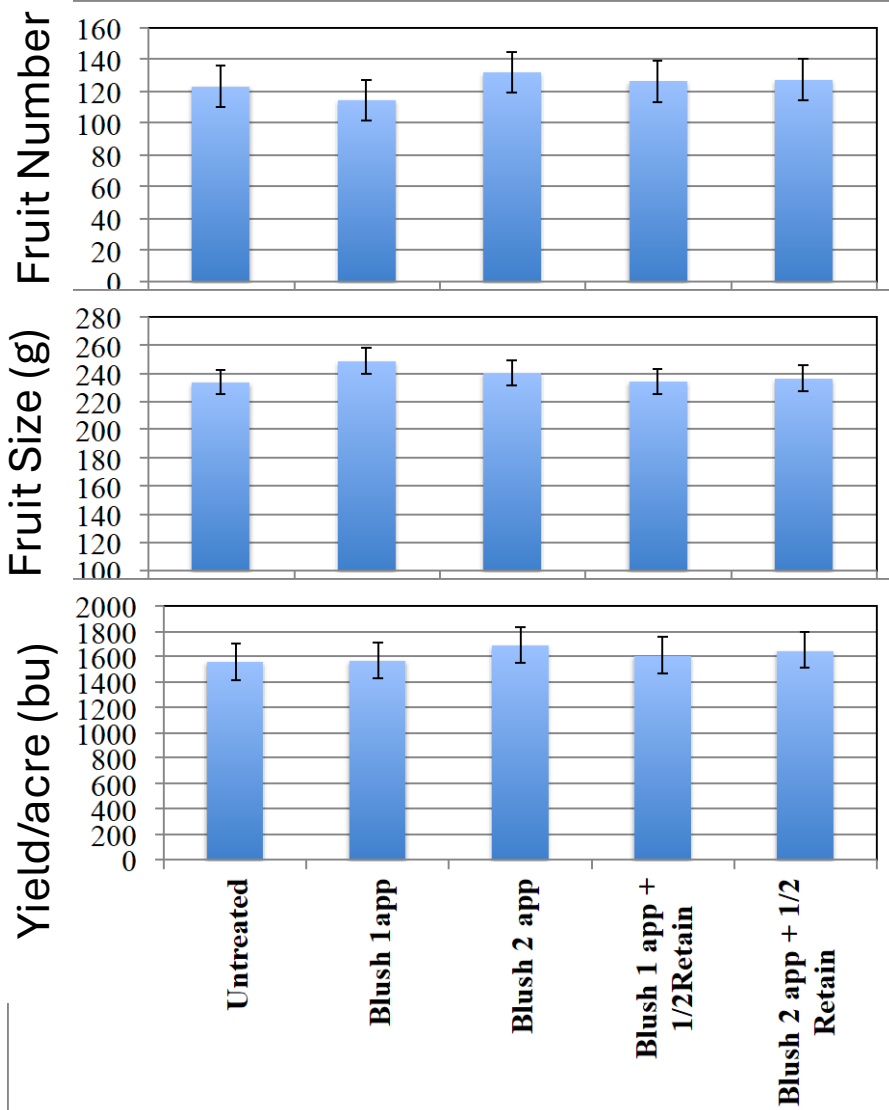


Initial Results: 2015 Jonagold apples in NY





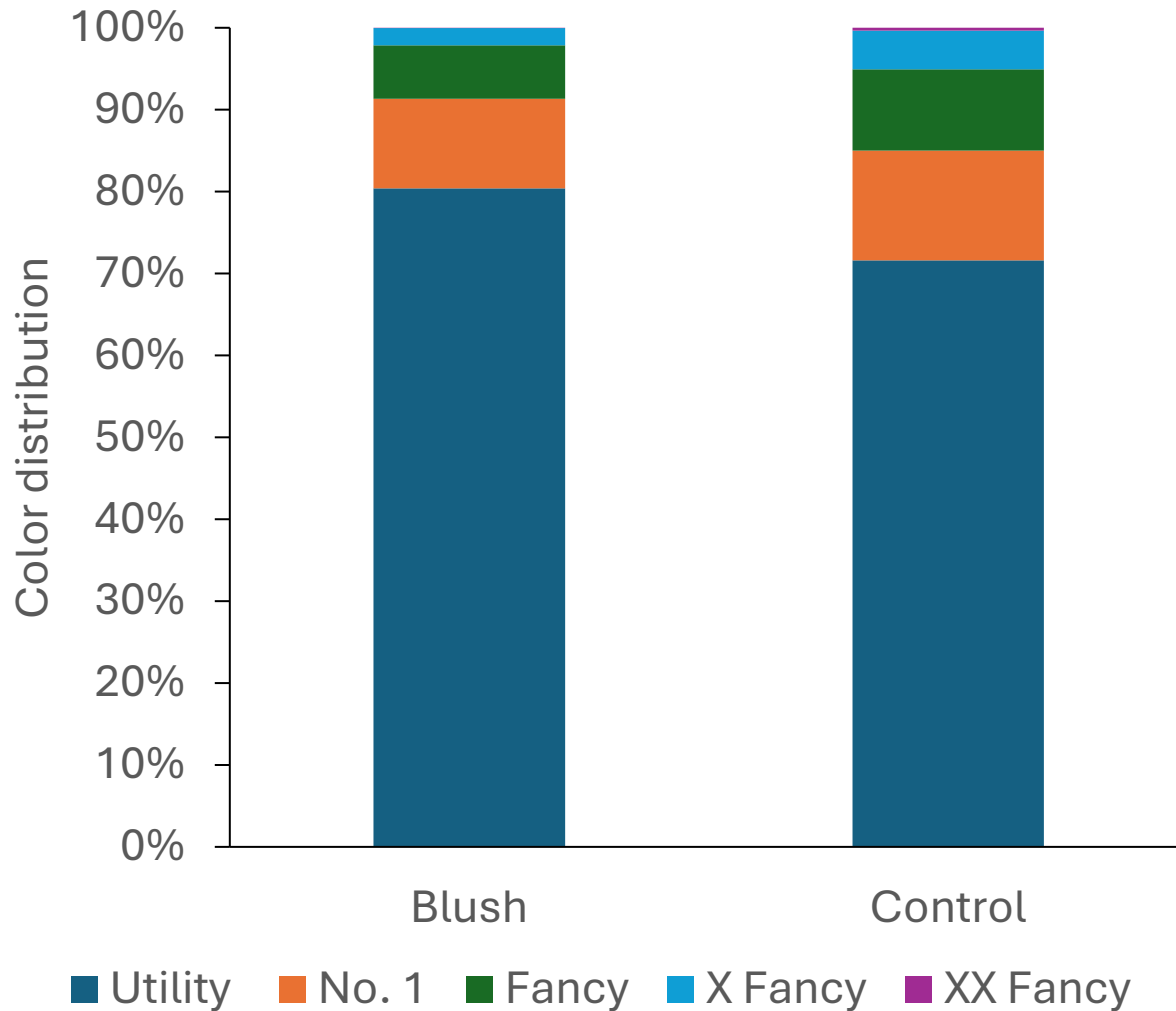
2015 – Blush Experiment



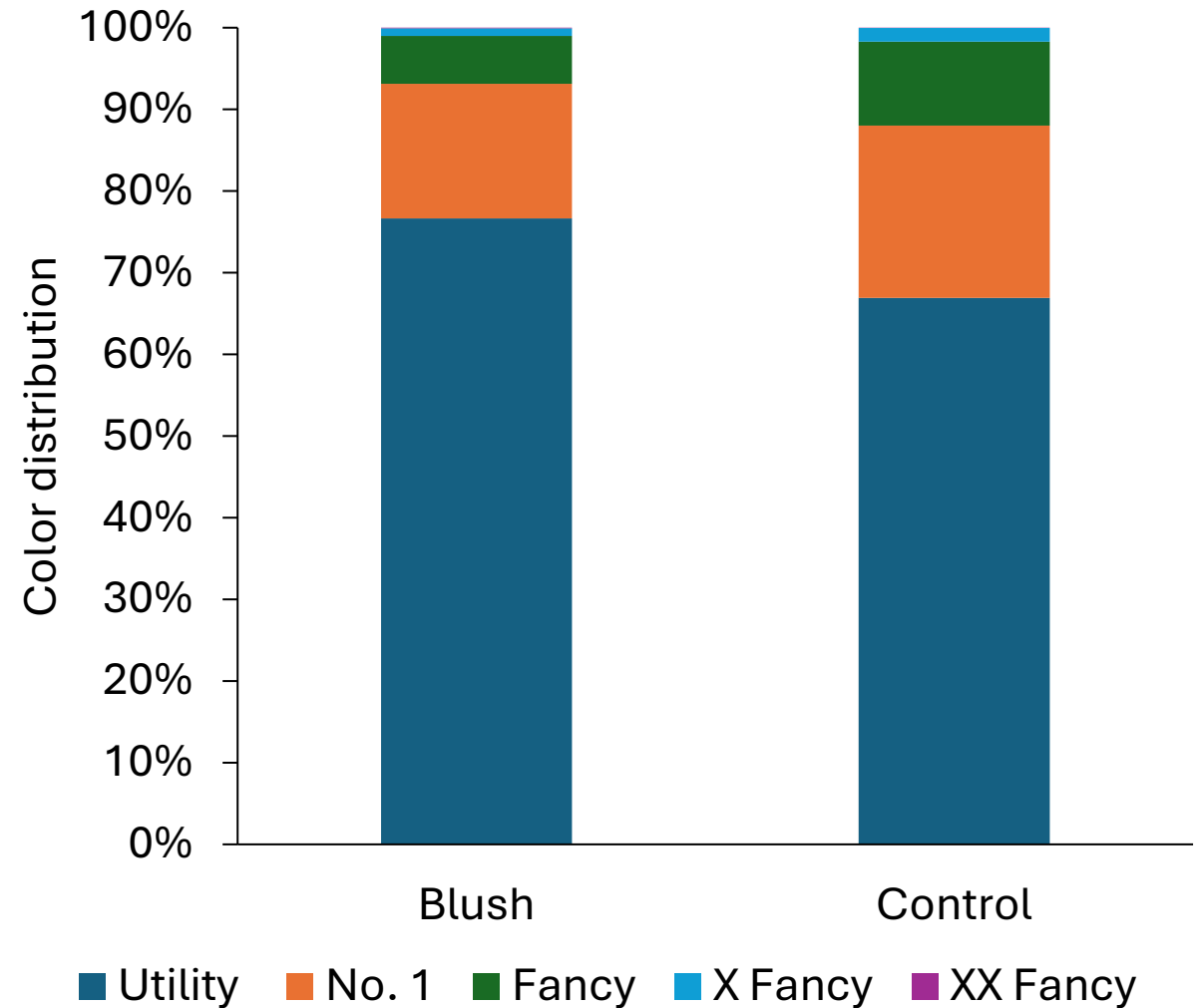
2015 – Blush Experiment

2016 Fuji and Gala

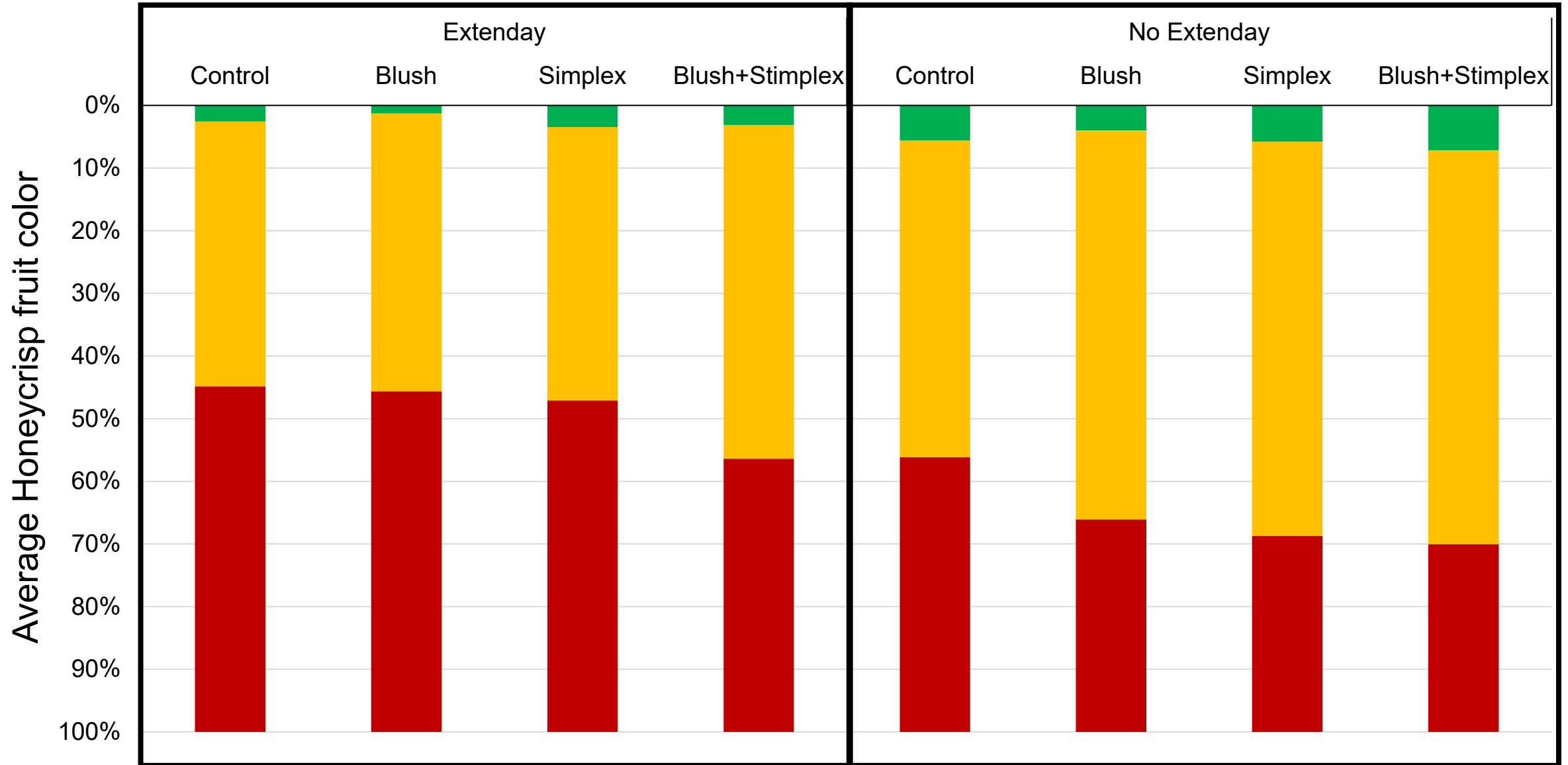
Fuji



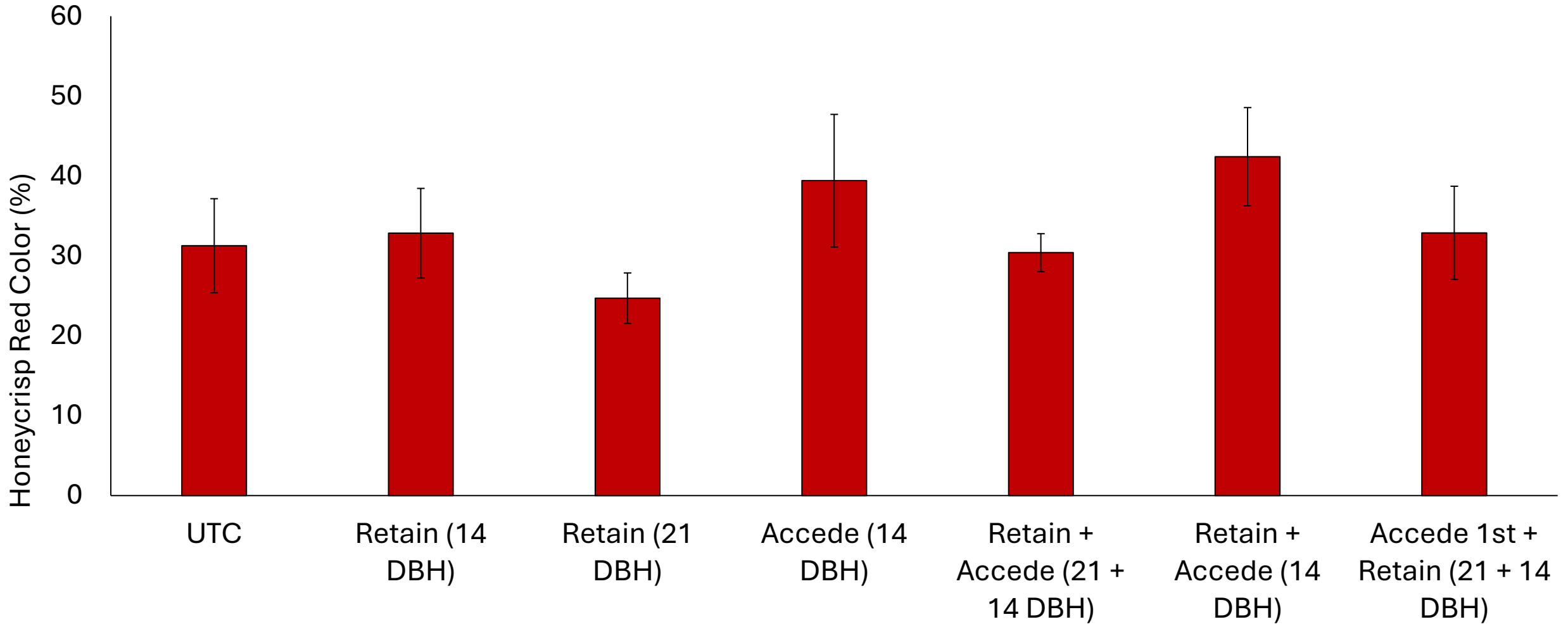
Gala



Blush and Stimplex - 2023

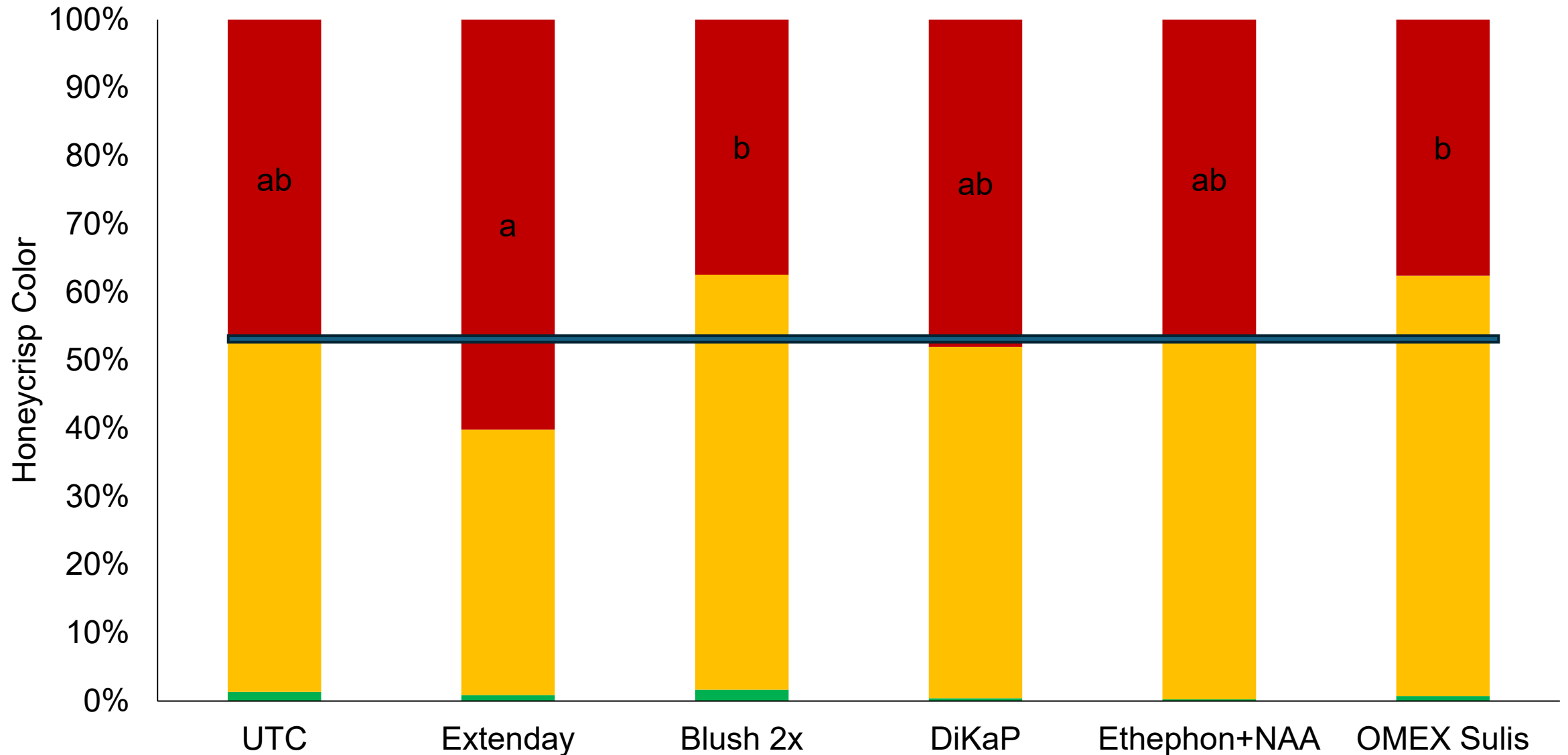


Accede and Retain - 2024

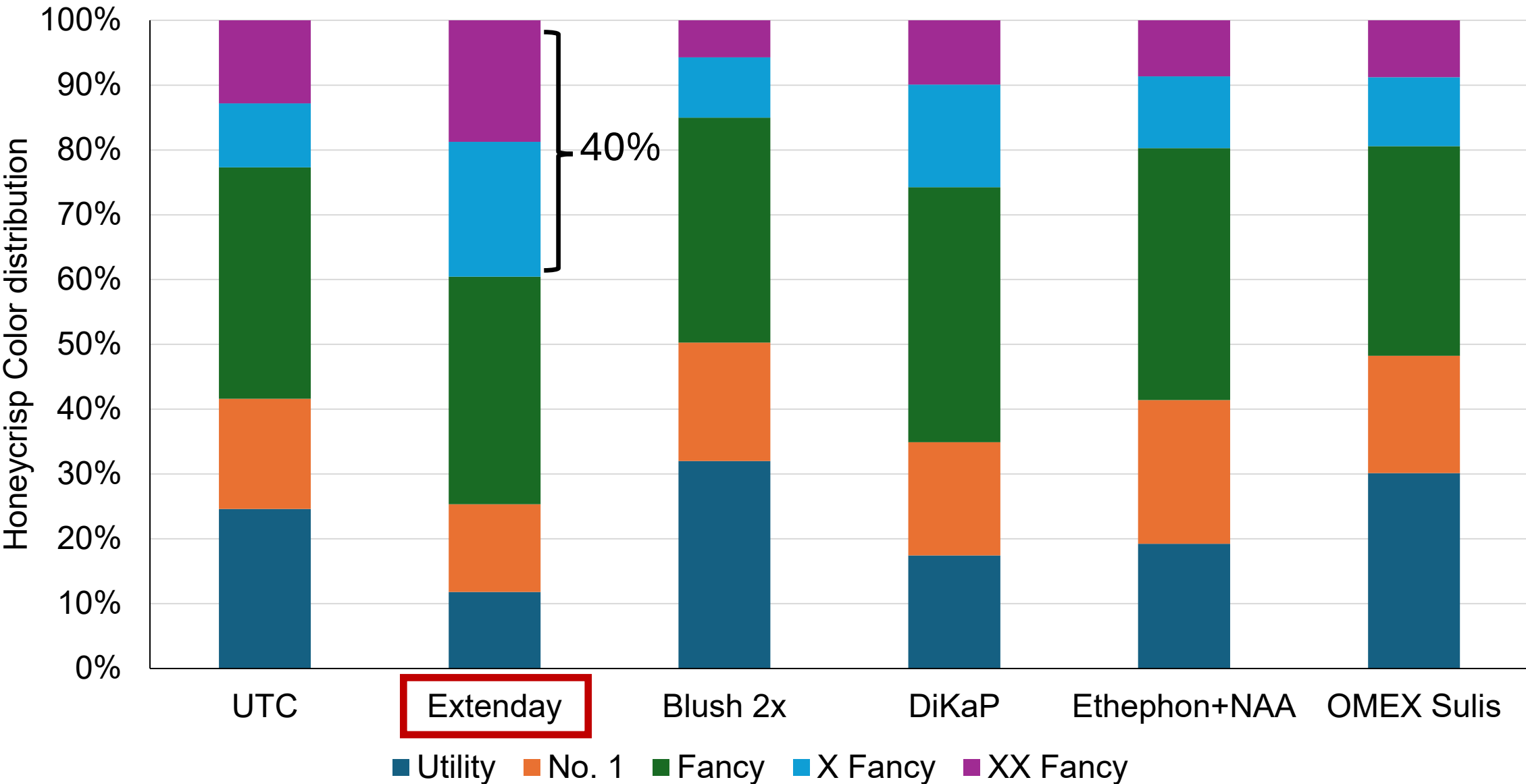


- Accede and Retain+Accede at 14 DBH trended higher red color

Color Improvement Products - 2024



Various color promoting products - 2024



What about reflective fabrics?

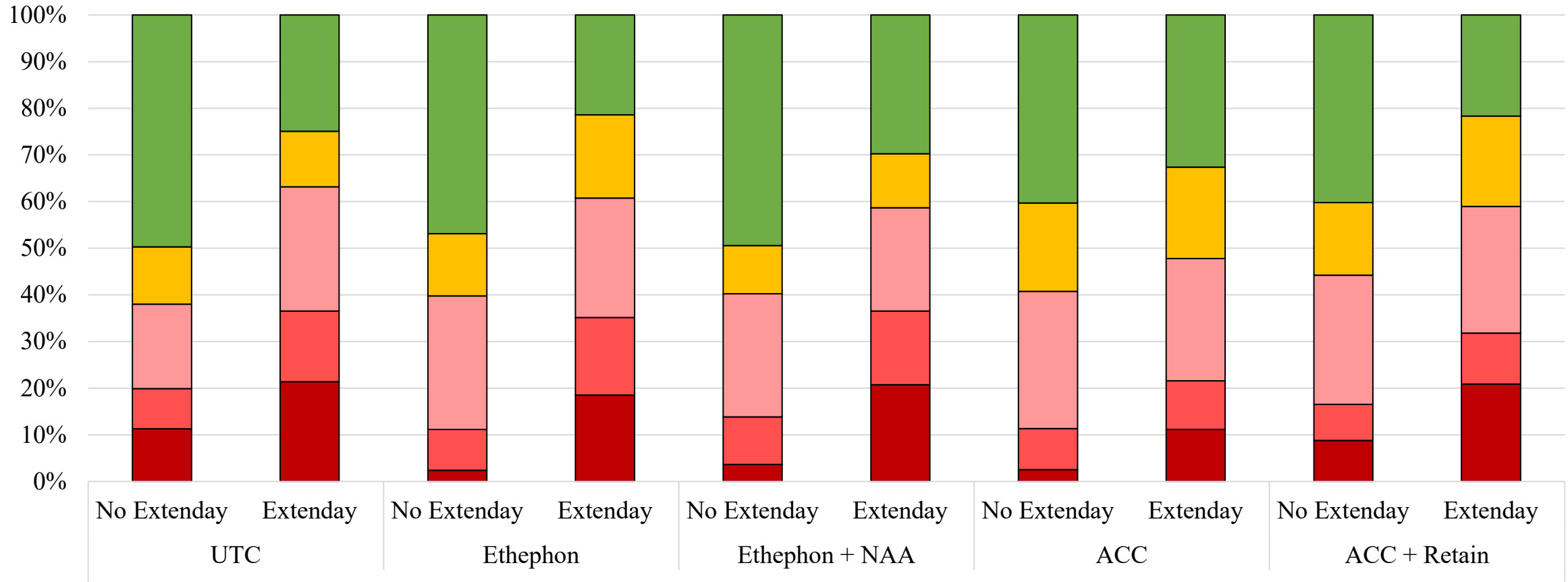


Extendday and other products: 2022



Fruit color distribution – First harvest – Newark, NY

■ XX Fancy ■ X Fancy ■ Fancy ■ No1 ■ Utility

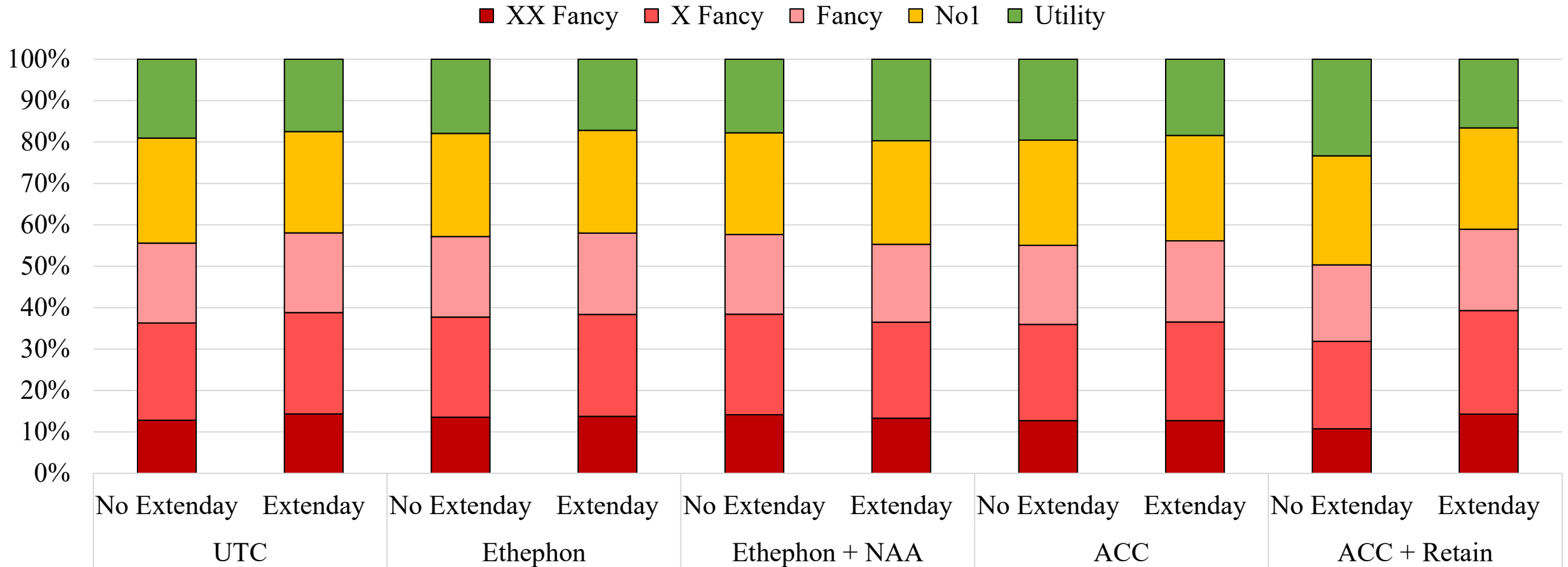


- No chemical treatment increased red blush area statistically

Extendday and other products: 2022

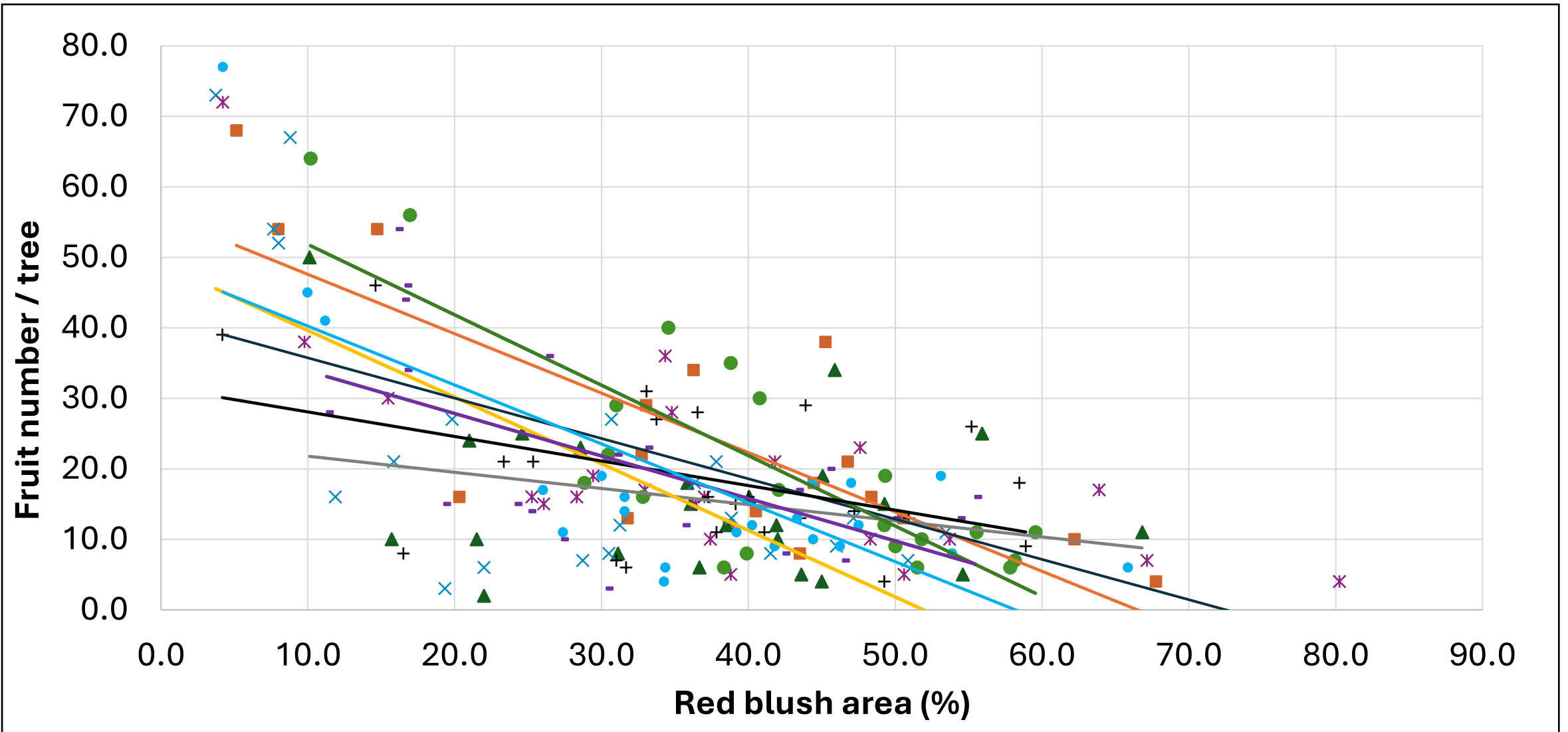


Fruit color distribution – First Harvest – Carlton, NY

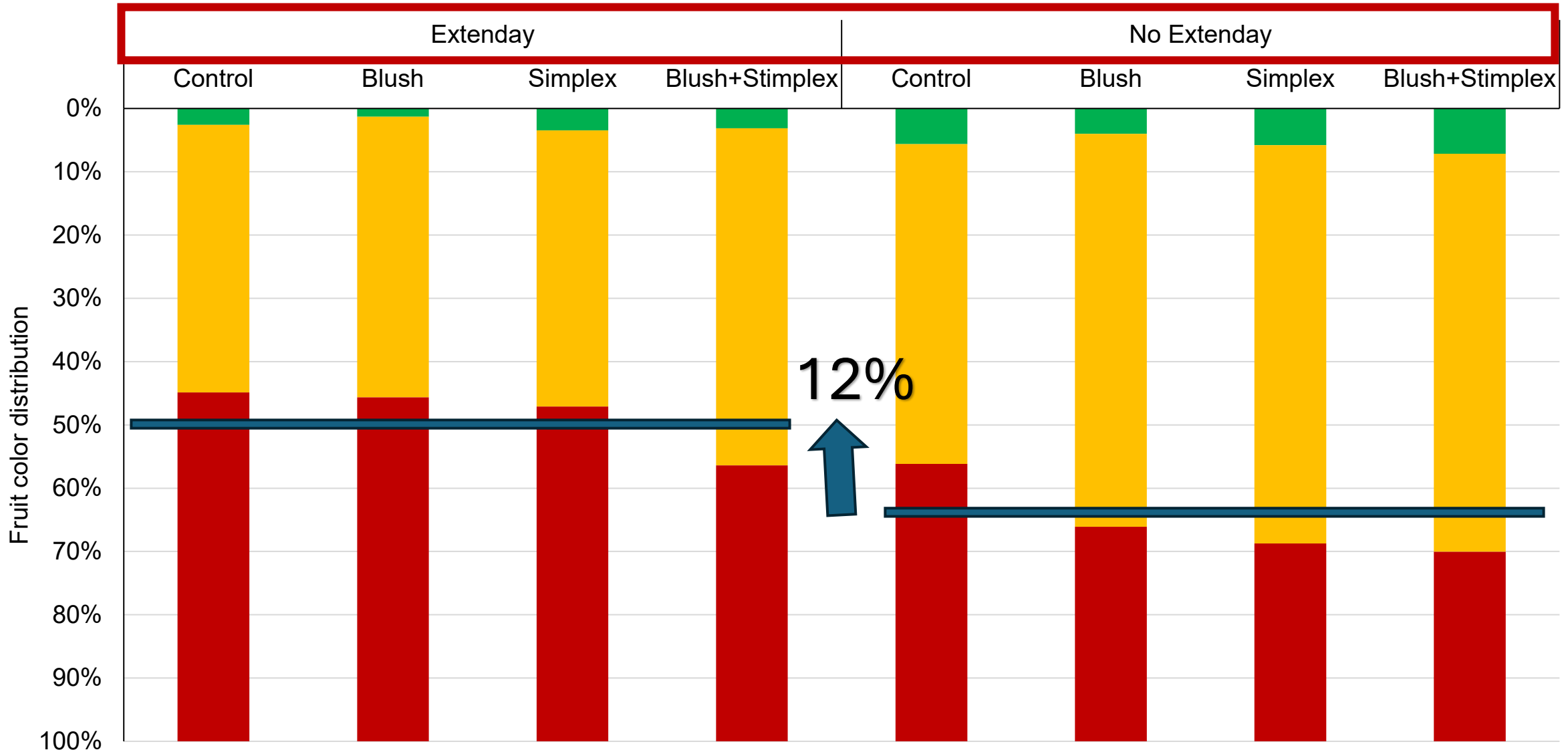


- No Extendday difference - ACC reduced red blush area statistically

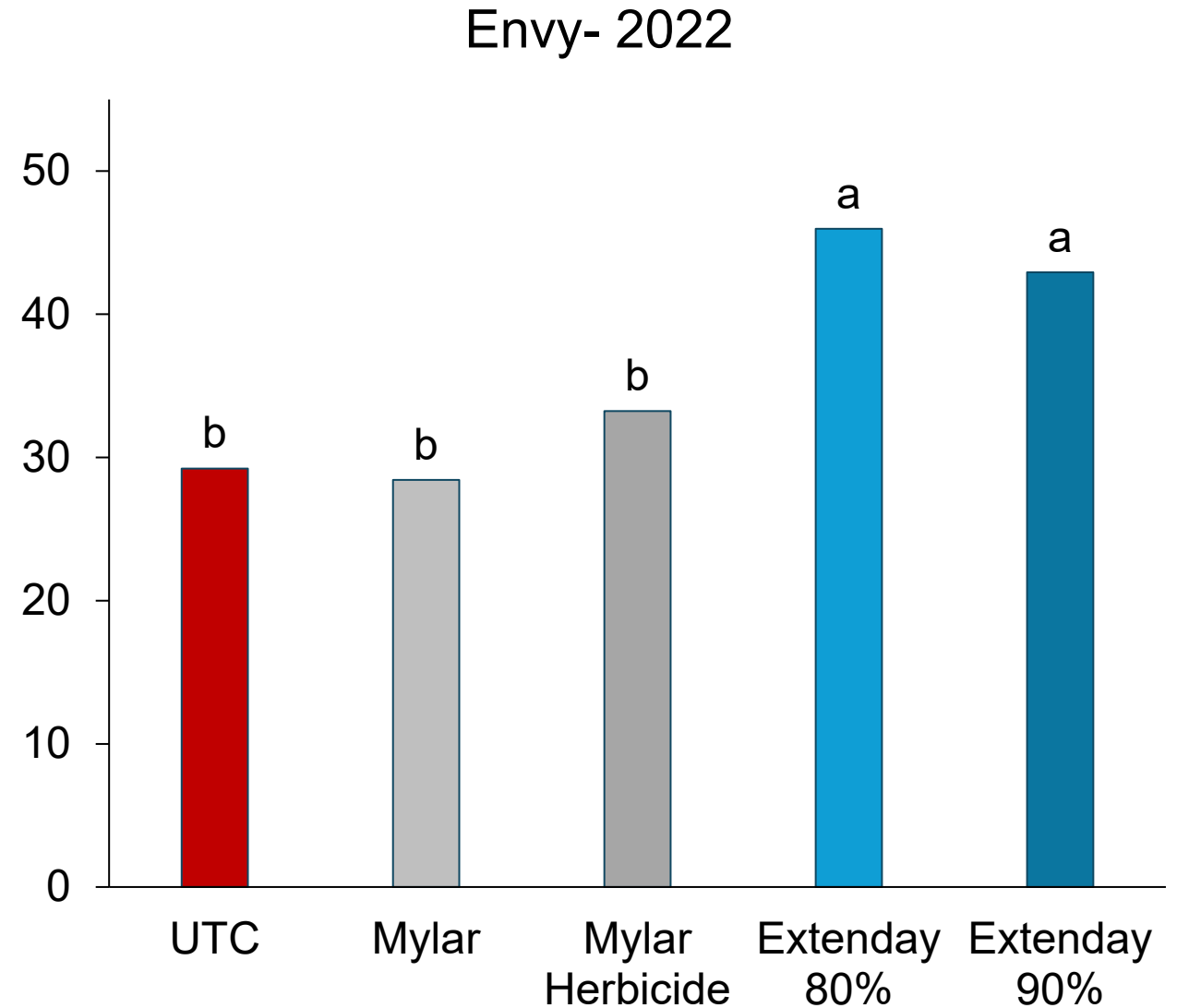
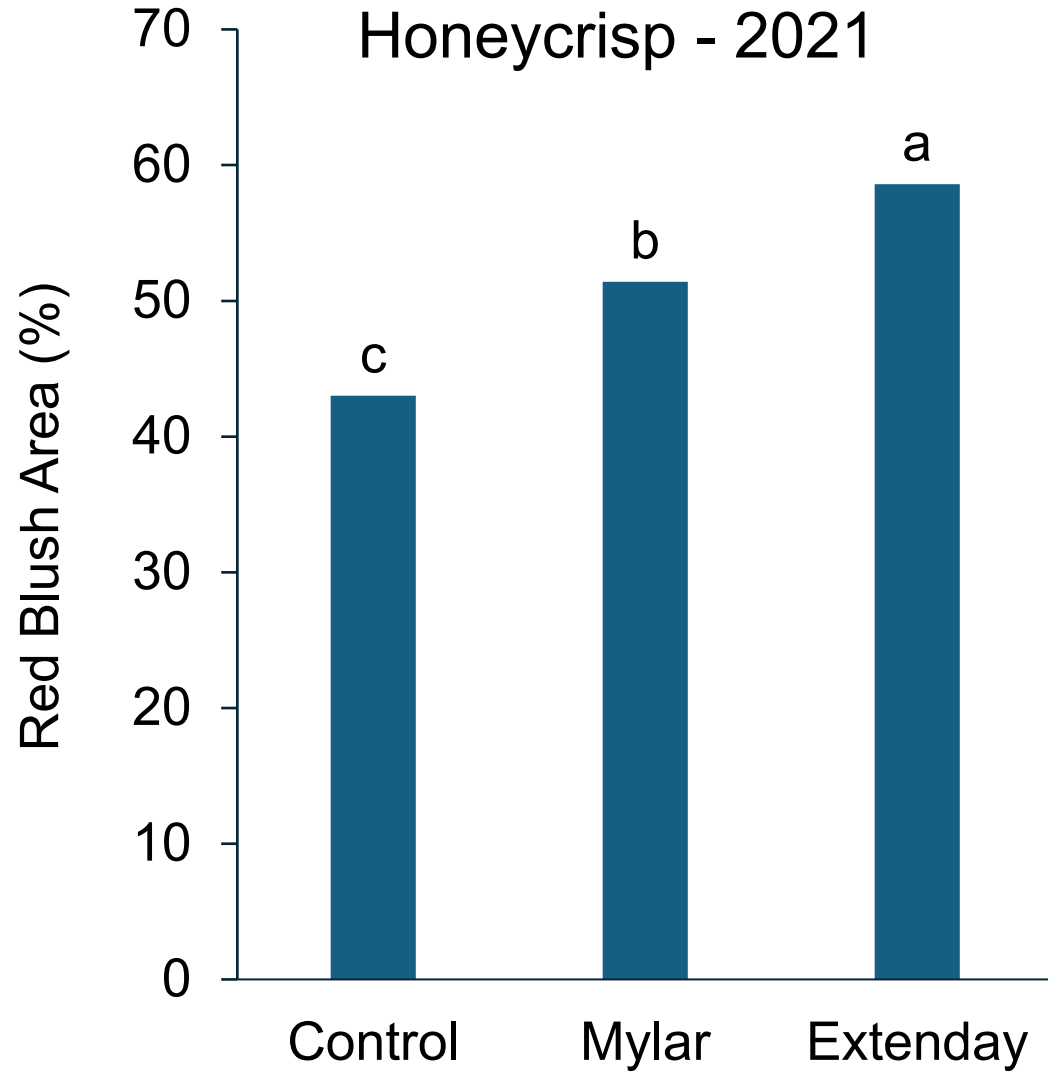
Remember crop load?



Extenday, Blush and Stimplex - 2023



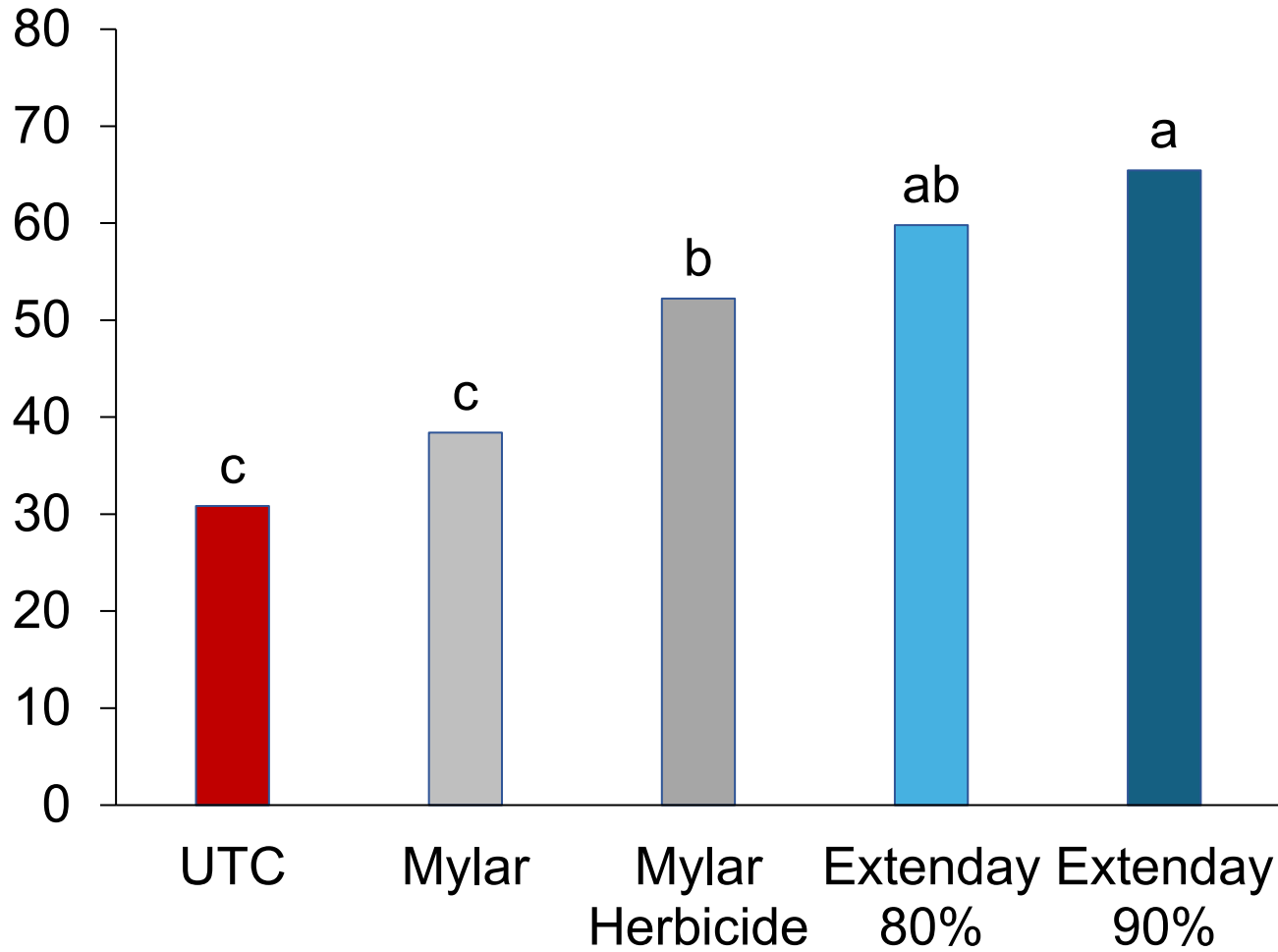
Mylar and Extenday



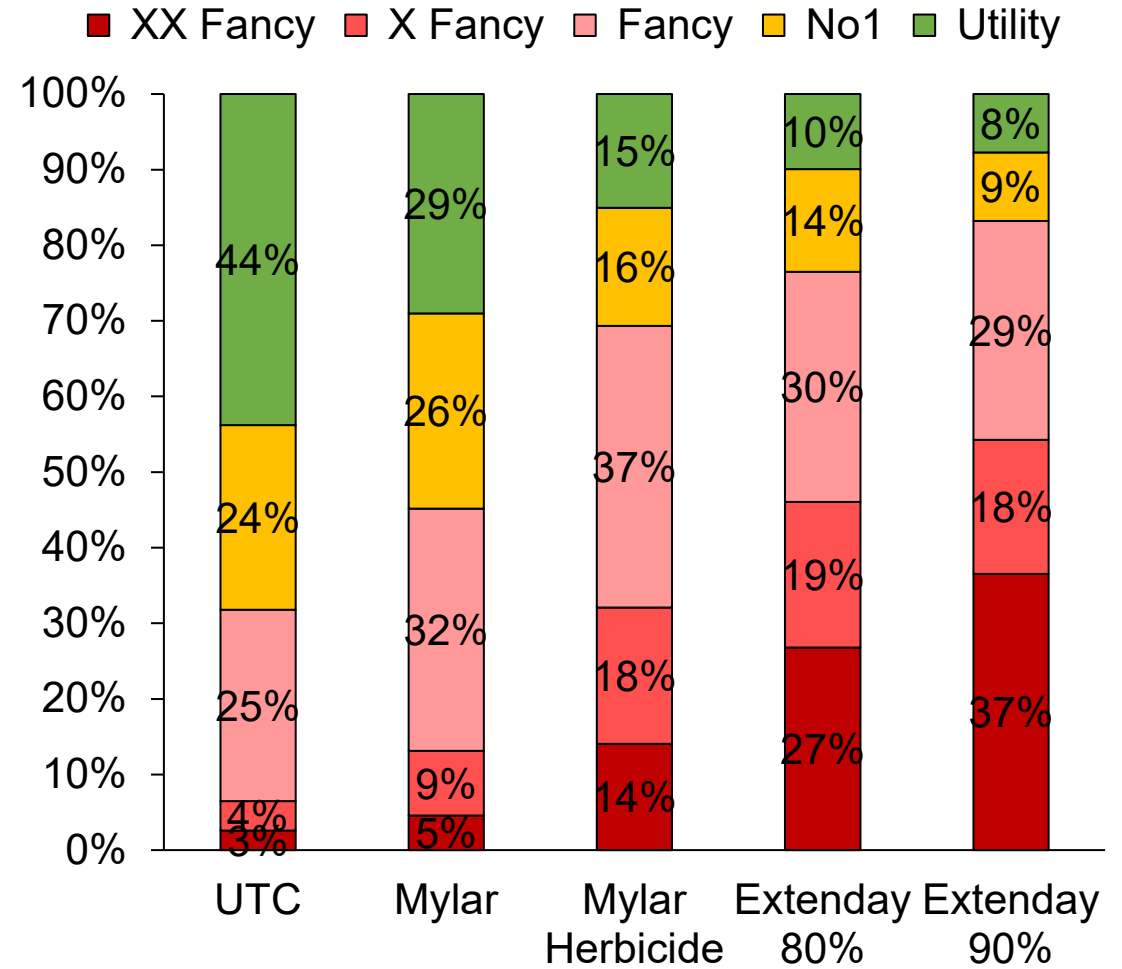
Mylar and Extenday



NY1 – Snapdragon - 2022



2022 NY1 - Fruit color distribution



Do we have trends across time?

TREATMENT	2013	2015	2016	2021	2022	2023	2024
Blush	Yes*	Yes	No*			No	No
Stimplex		Yes				No	
Blush + Stimplex		Yes				No	
Retain	No*						No
Blush + Retain	Yes*	No					
Accede					No		Yes?
Accede + Retain					No		Yes?
Mylar					No*	Yes	
Extenday				Yes	Yes	No	Yes

Thanks for your attention – questions?



\$5.99/lb Honeycrisp