



**New Hampshire
Agricultural Experiment Station**

Science for the Public Good: Locally Inspired, Globally Important



Embracing Bitter Beauty

Radicchio varieties and their performance in the northeast

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CHICORIES



TREVISO
TARDIVO



VERONA



CURLY
ENDIVE



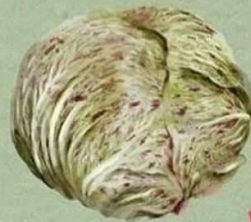
TREVISO
PRECOCE



PUNTARELLE



BELGIAN
ENDIVE



LUSCIA



ROSA



CASTELFRANCO



ESCAROLE



CHIOGGIA

Image credit:
'Collaborative
Market
Development for
Climate Resilient
Vegetables in
Oregon'

Radicchio of Northern Italy

Various regions across Northern Italy have their own traditional style of radicchio. Seeds were selected and preserved among families and farmers within their region. This map shows the five most common types of radicchio that hail from the Veneto region and the towns after which they are named. The types from the Veneto include *Treviso*, *Verona*, *Chioggia*, *Castelfranco* and *Lusia*. *Gorizia* is a less bitter selection with thicker, crunchier, textured leaves from the most northern coastal region surrounding Trieste.

Key Italian Translations	
	radicchio = chicory
	variegata = variegated / speckled
	di = of
	e = and
	sele = selection / variety
maturity	tardivo = late
	medio = medium
	precoce = early
	precocissimo = very early
	giorni = days
colors	rosso = red
	rosa = pink
	bianco = white
	nero = black
	scuro = dark
	verde = green
	d'oro = of gold
	invernale = wintry
	palla = ball
	cuor = heart
	foglia / foglie = leaf / leaves

Other Types of Chicory:
The Chicory family is extremely diverse and includes much more than just Radicchio. It is comprised of two major domesticated species, *Cichorium* and *Cichorium intybus*. Below are some examples of what this family has to offer!

Image credit:
Johnny's Selected
Seeds, Culinary
Breeding Network,
and Local Roots
Farm

This poster was created by Local Roots Farm, Johnny's Selected Seeds, and Culinary Breeding Network for the Sagra di Radicchio, a delicious educational celebration of the *Cichorium* genus.

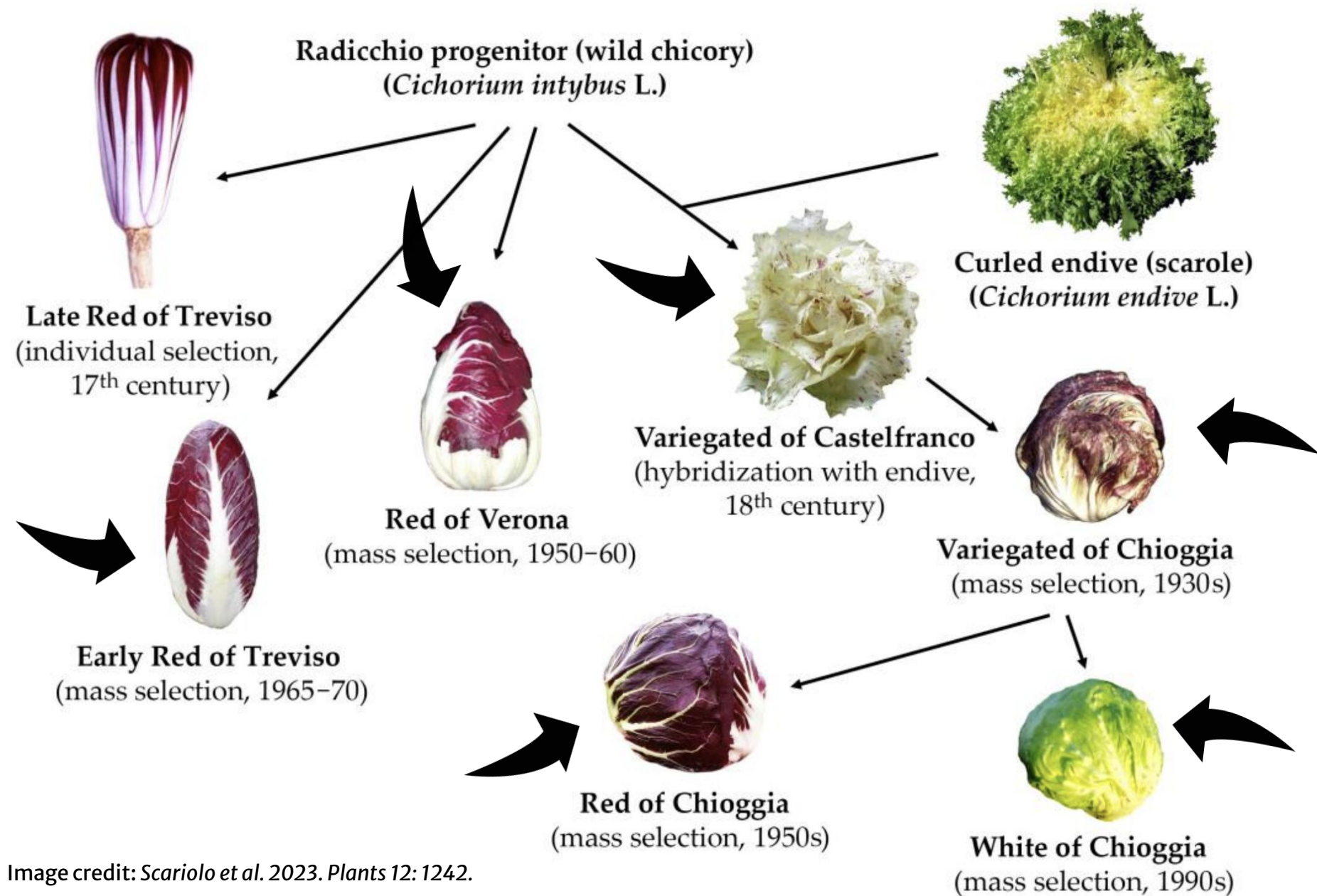
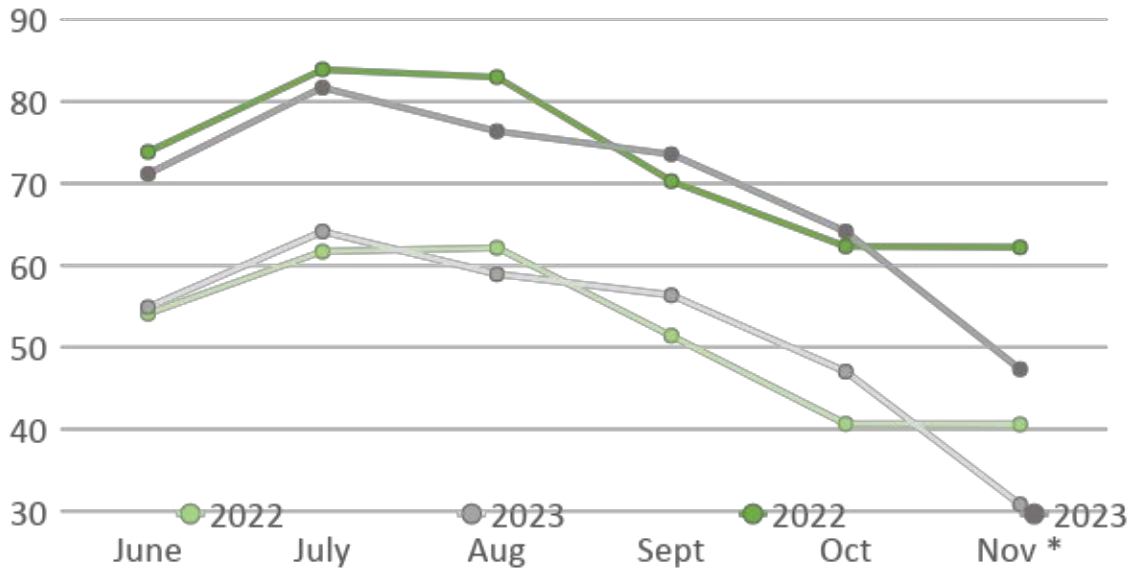


Image credit: Scariolo et al. 2023. *Plants* 12: 1242.

<https://www.mdpi.com/2223-7747/12/6/1242>

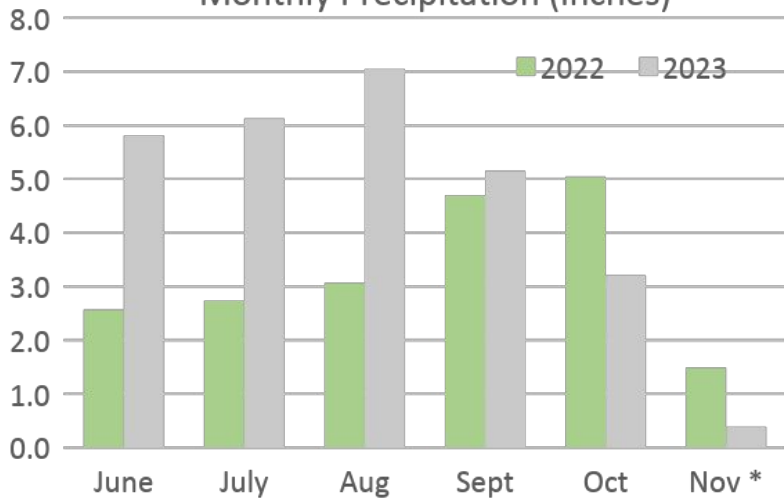


Min and Max Mean Monthly Temperatures (°F)

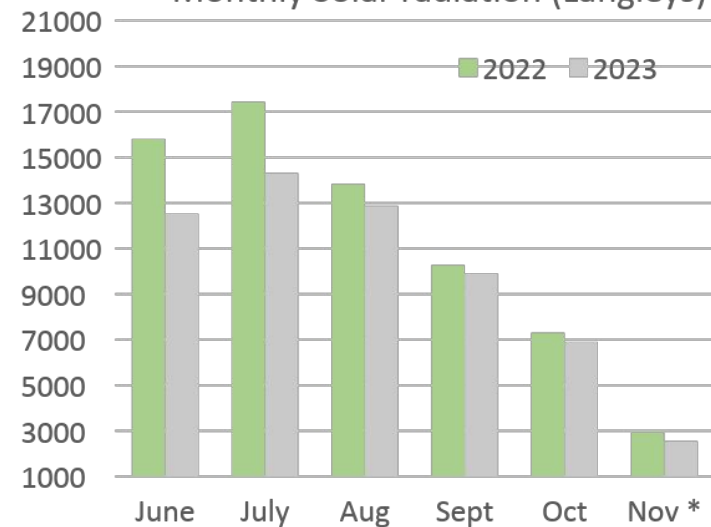


2022: warm, sunny, dry
 2023: cool, cloudy, wet

Monthly Precipitation (inches)

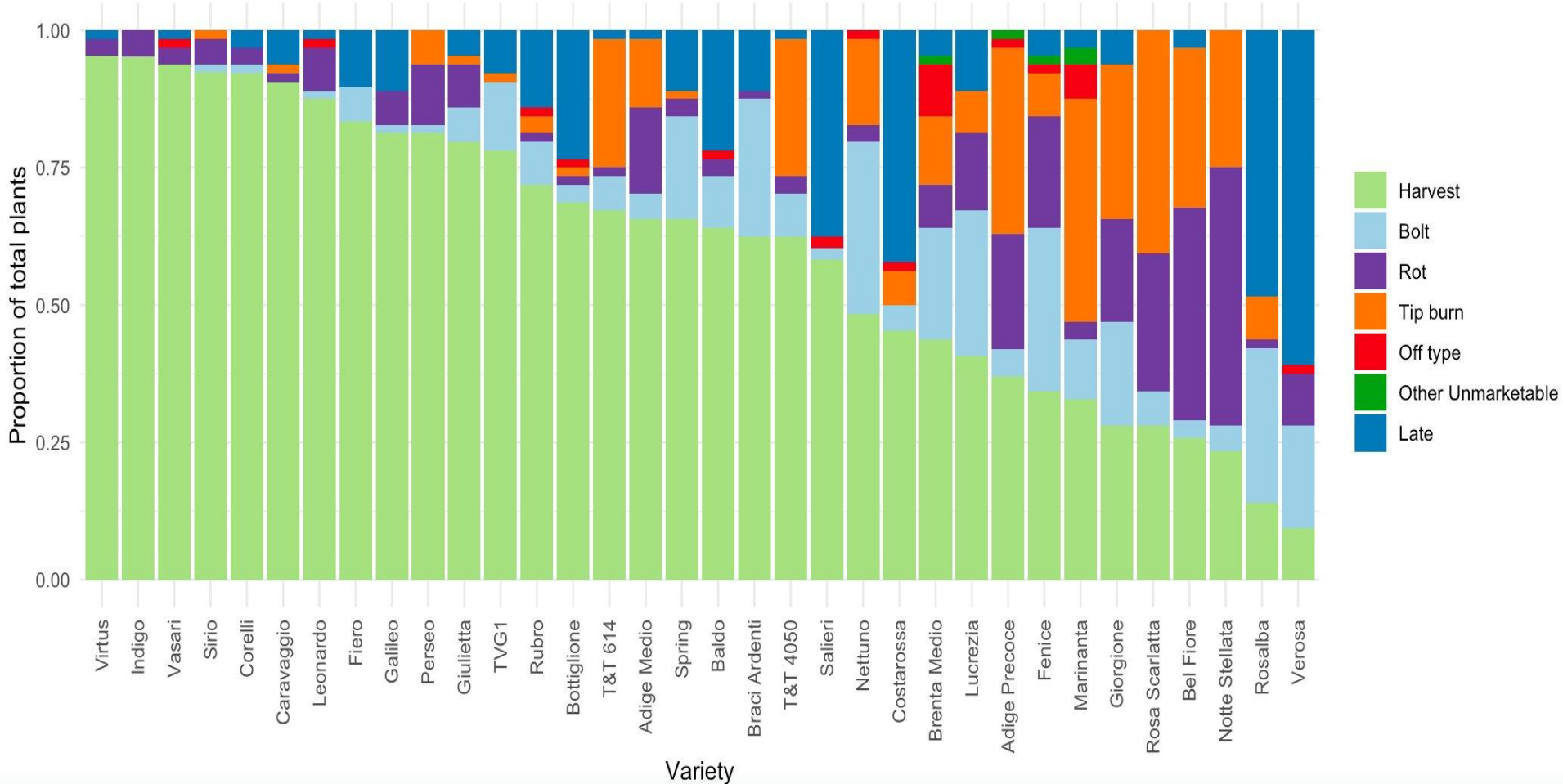


Monthly Solar radiation (Langley's)



Varieties differed greatly in % harvestable, bolting, rot, etc.

2023 proportional plant outcome by variety





Virtus

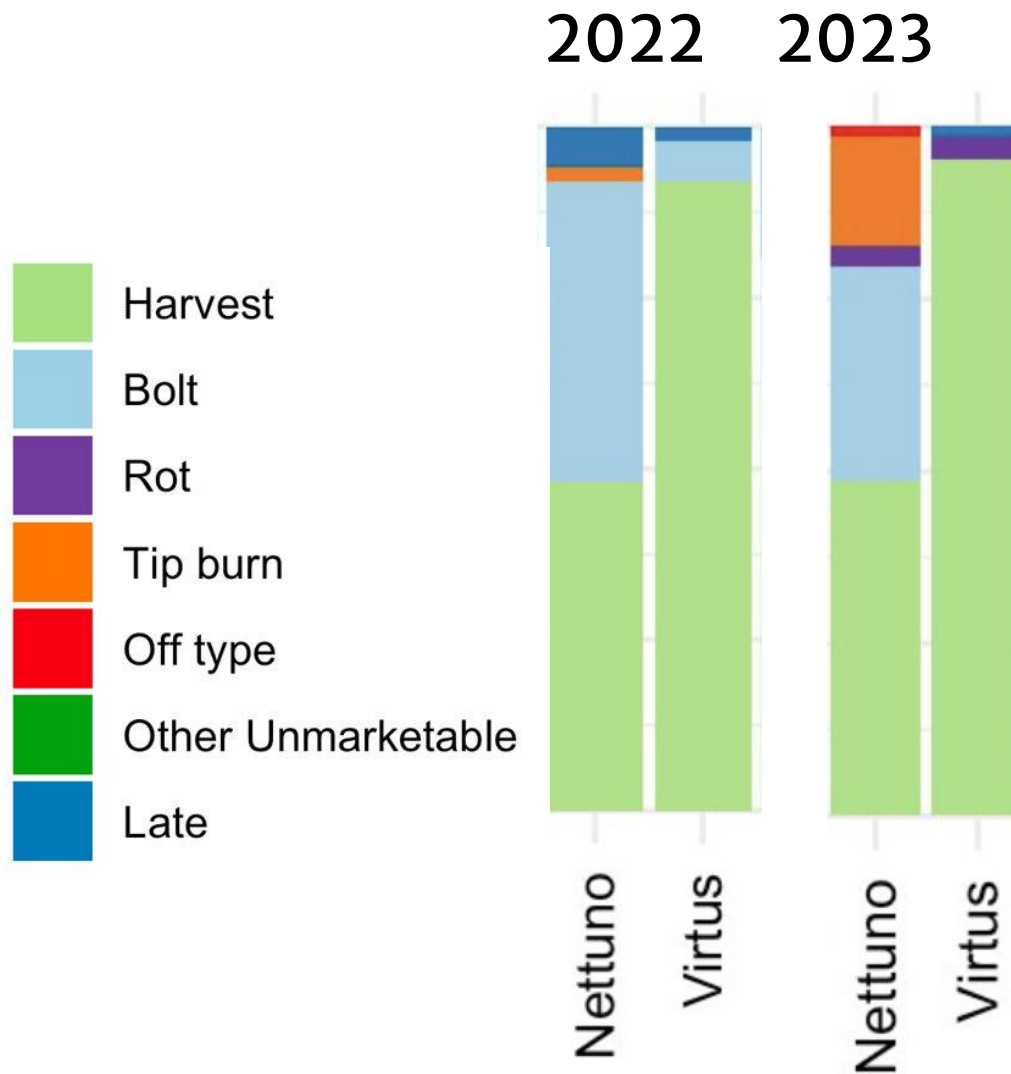


Nettun

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Sugarloaf types

- relatively mild
- heavy, large heads
- uniform, tight maturity window



Virtus had higher % marketable, more uniform



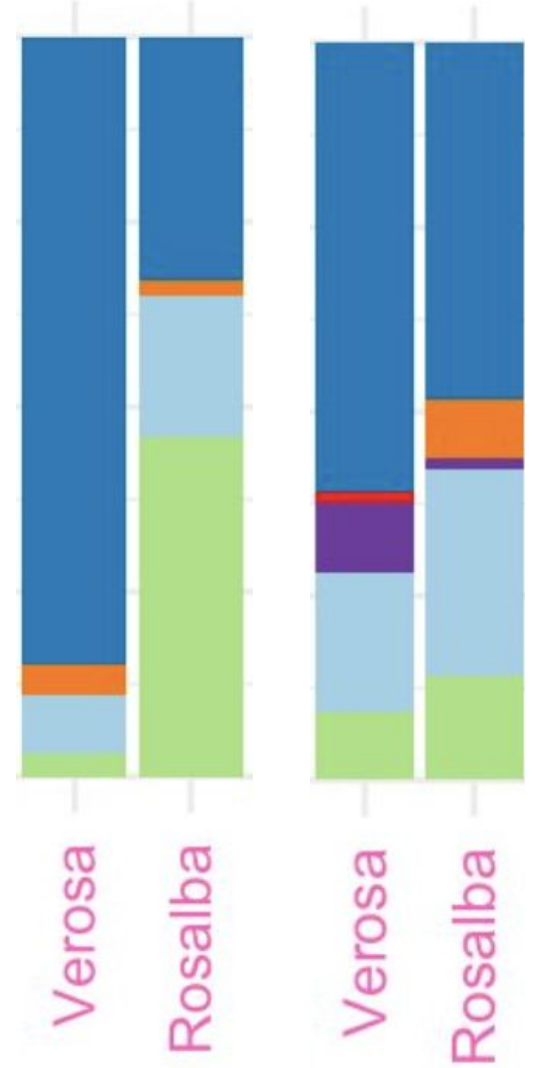
Rosa del Veneto types

- Rosalba • relatively mild
- Verosa • late, require cold for color



2022

2023



Rosalba had higher % marketable, but both were too late



Adige Precoce



Bel Fiore



Adige Medio

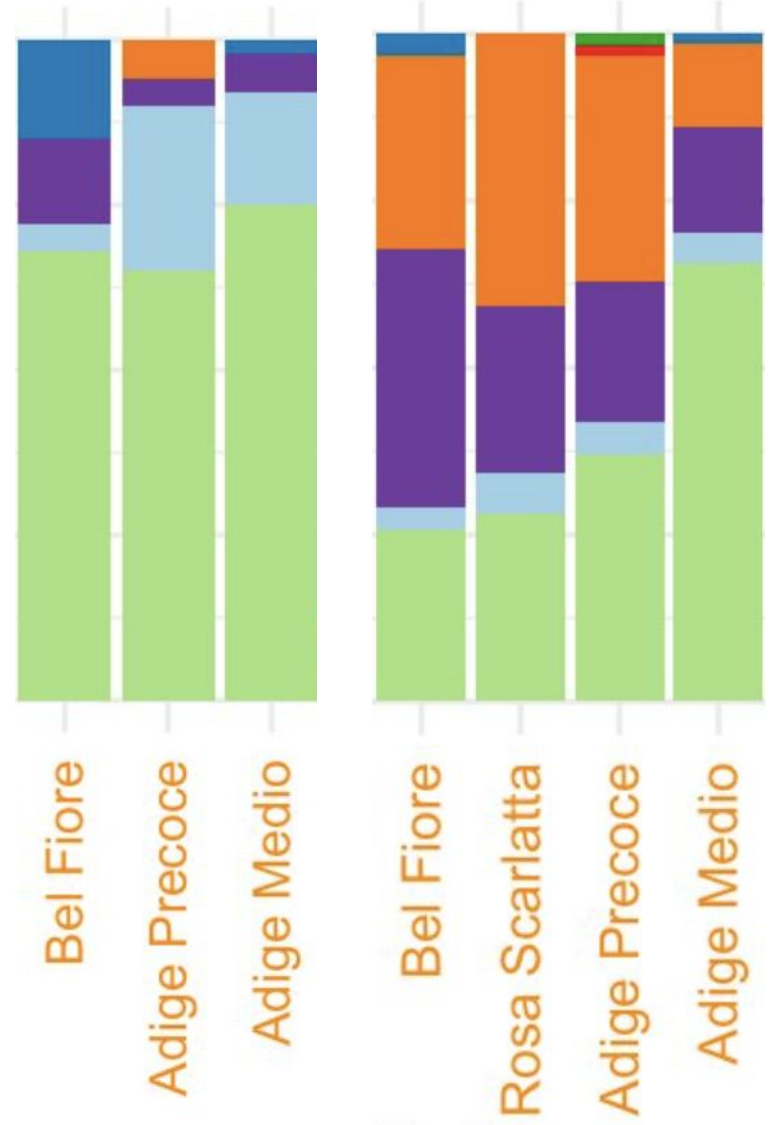
Lusia types

- quite mild, delicious, beautiful
- susceptible to rot, tipburn



2022

2023



% marketable was highest for Adige Medio



Fenice

Giorgione

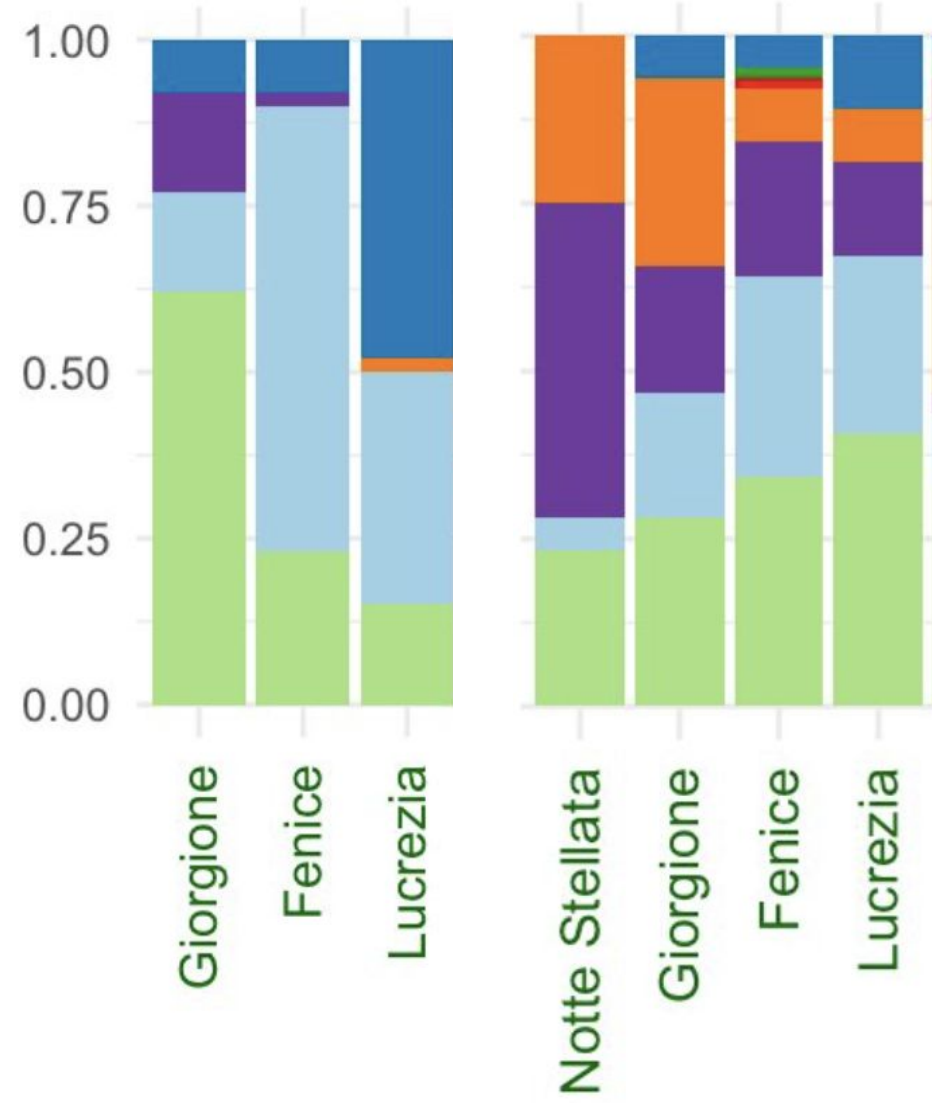
Castelfranco types

- susceptible to rot, tipburn
- generally low % marketable (due to bolting, non-heading, rot & tipburn)

Lucrezia
Notte
Stellata

2022

2023





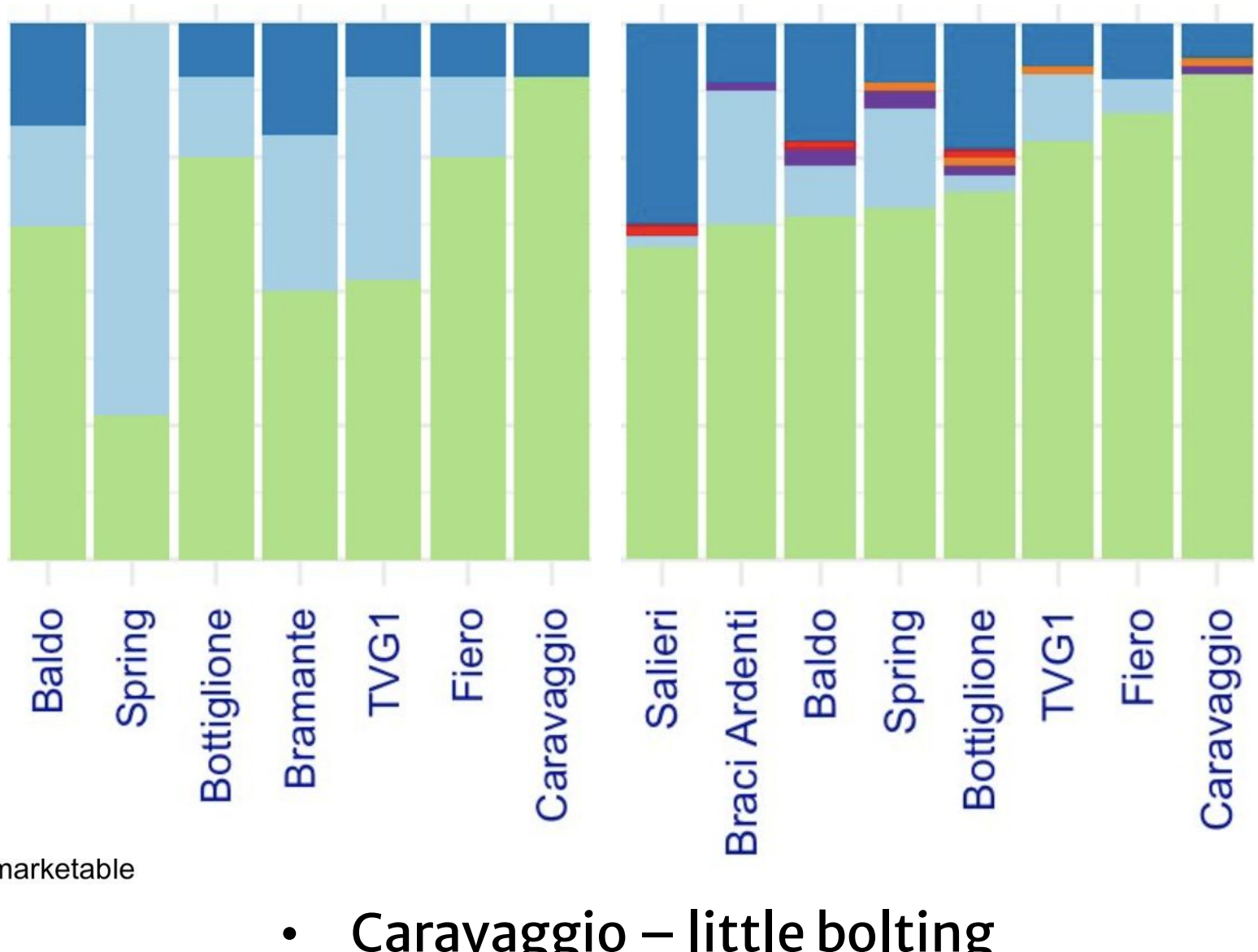
TVG1
Spring
Salieri
Fiero
Caravaggio
Bramante
Braci Ardenti
Bottiglione
Baldo

Treviso types

- more bitter; easy to slice and use in salads
- Many varieties, very different maturity times
- Stem elongation/bolting an issue

2022

2023



- Caravaggio – little bolting
- Spring – early, more bolting?

Bottiglione



Fiero





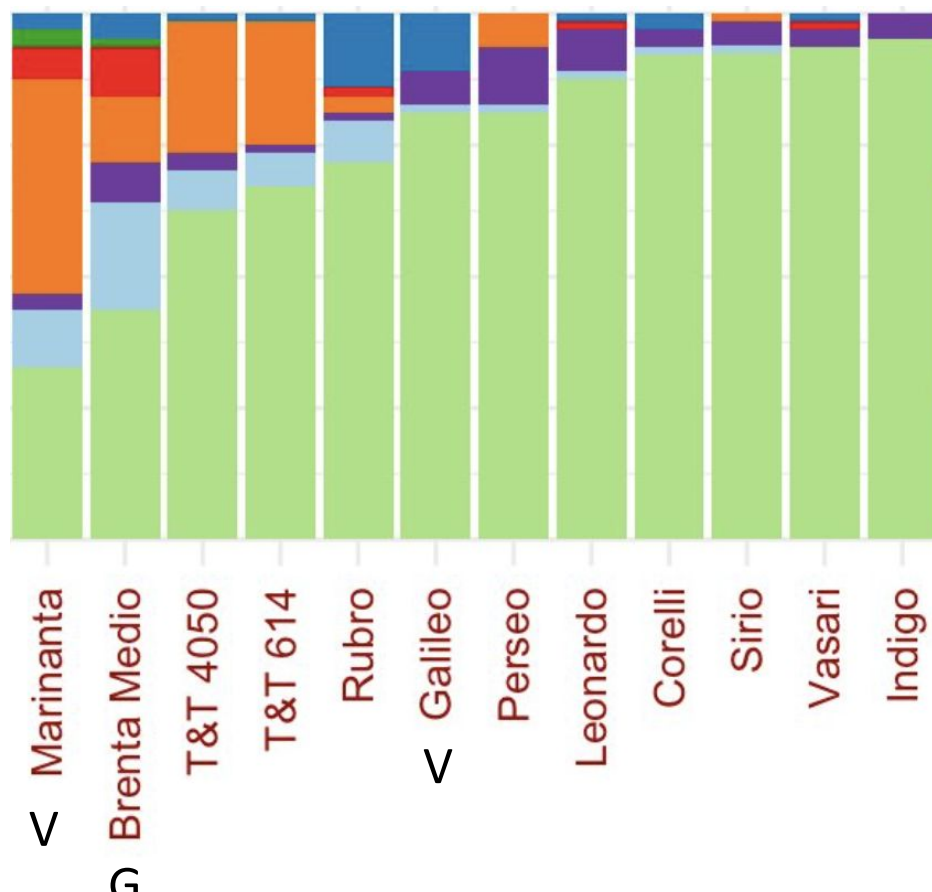
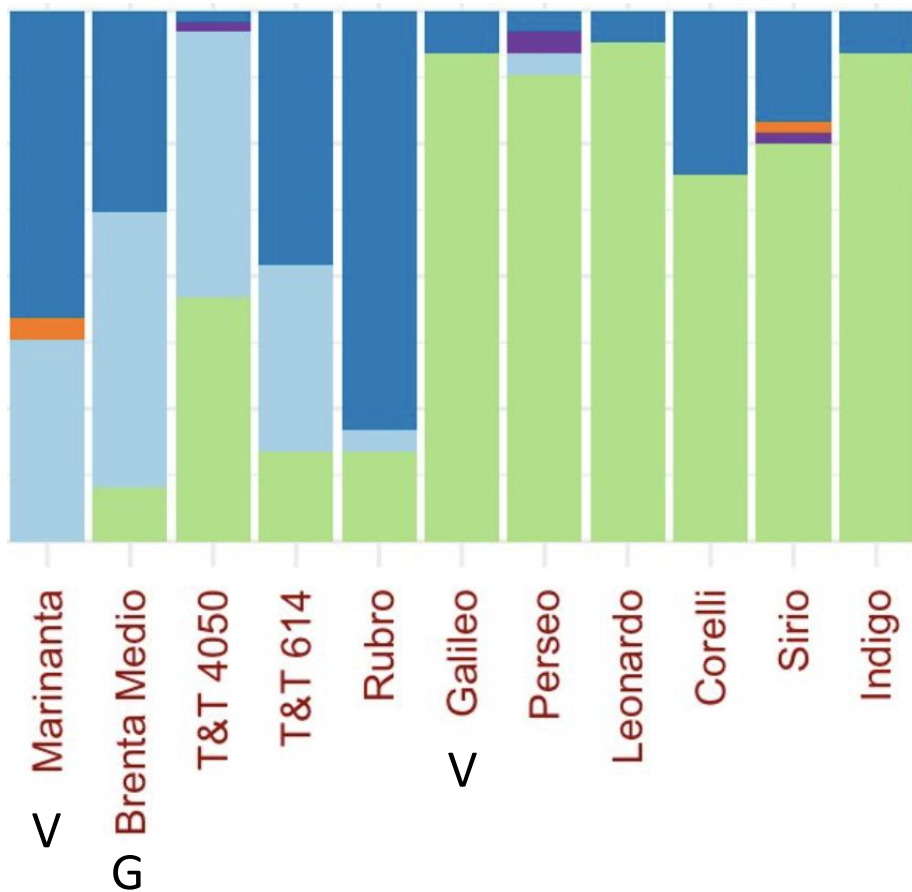
Vasari
T&T 4050
T&T 614
Sirio
Rubro
Perseo
Leonardo
Indigo
Corelli
Brenta Medio
Marinanta
Galileo

Chioggia types

- more bitter; for salads, braising, grilling
- many varieties, very different maturity times
- Red, green, variegated

2022

2023

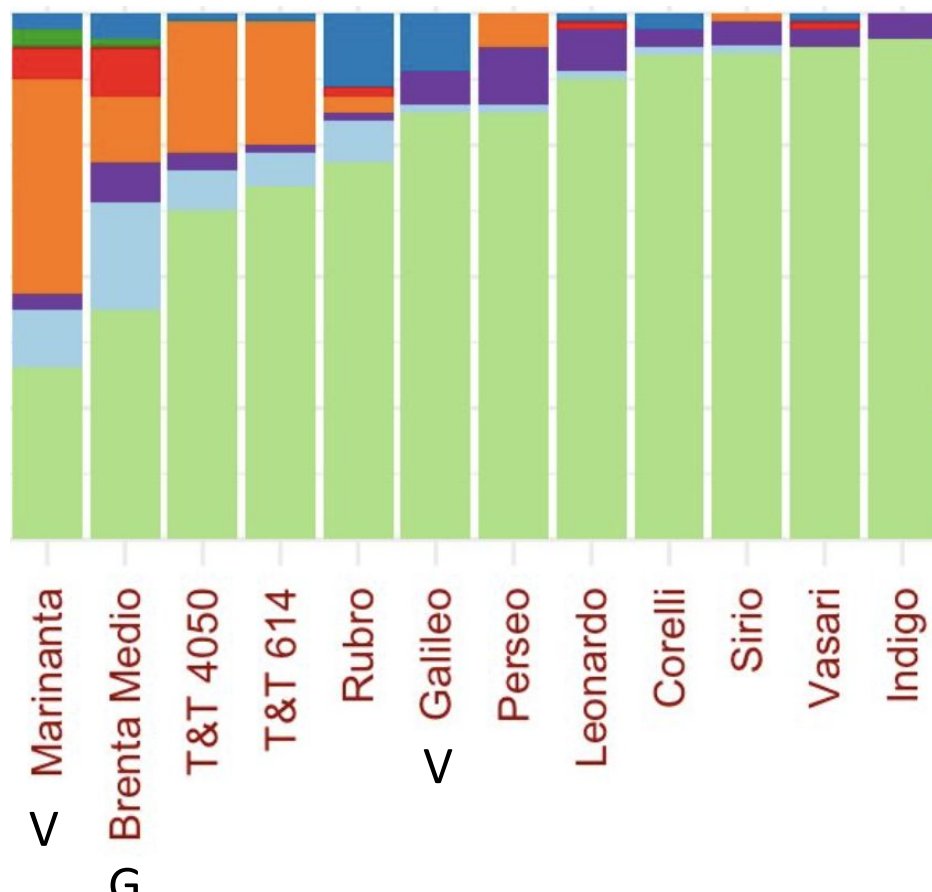
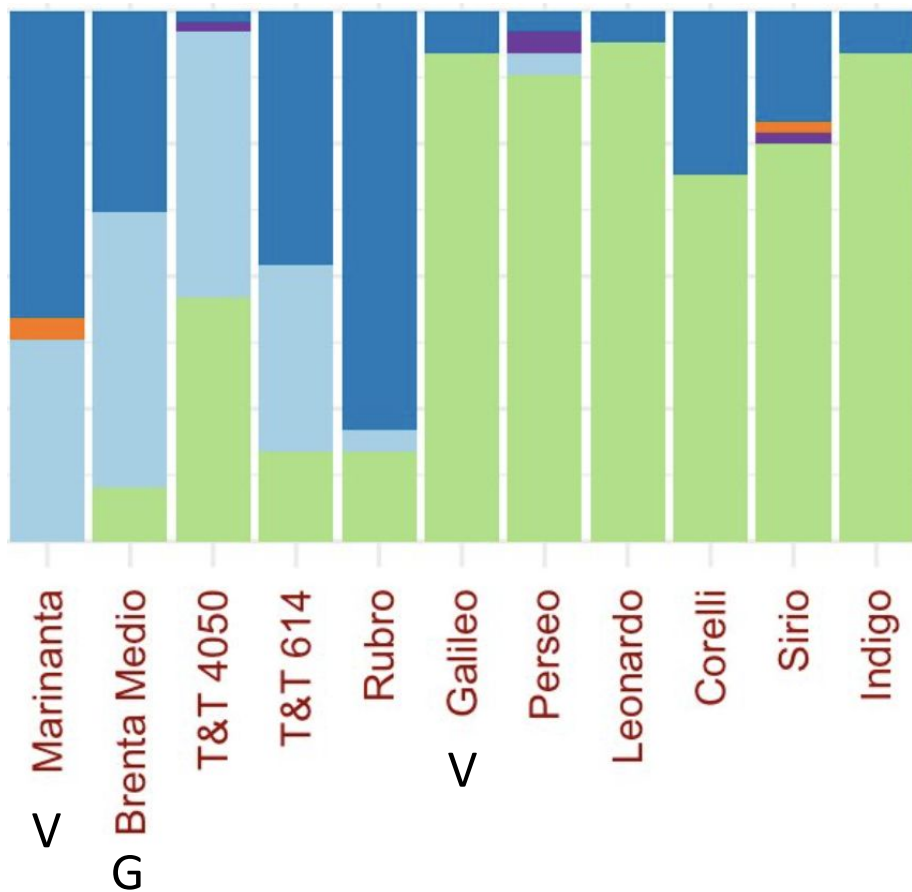


Green

Variegated

2022

2023



- Variegated: Galileo > Marinanta
- Red: Indigo, Leonardo, Perseo consistently good



Cologna Tardiva
(2022 only)

Costarossa



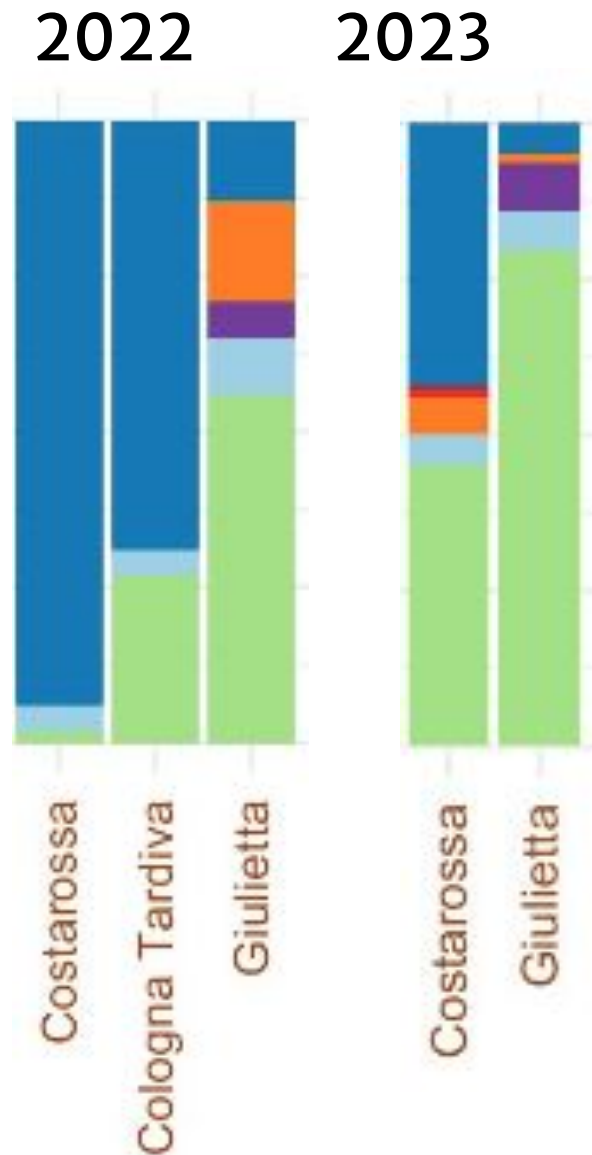
Giulietta
(photo: Osborne Seeds)

Rossa di Verona types

- more bitter; for salads, braising, grilling
- elongated football shape
- Costarossa and Cologna Tardiva *quite* variable

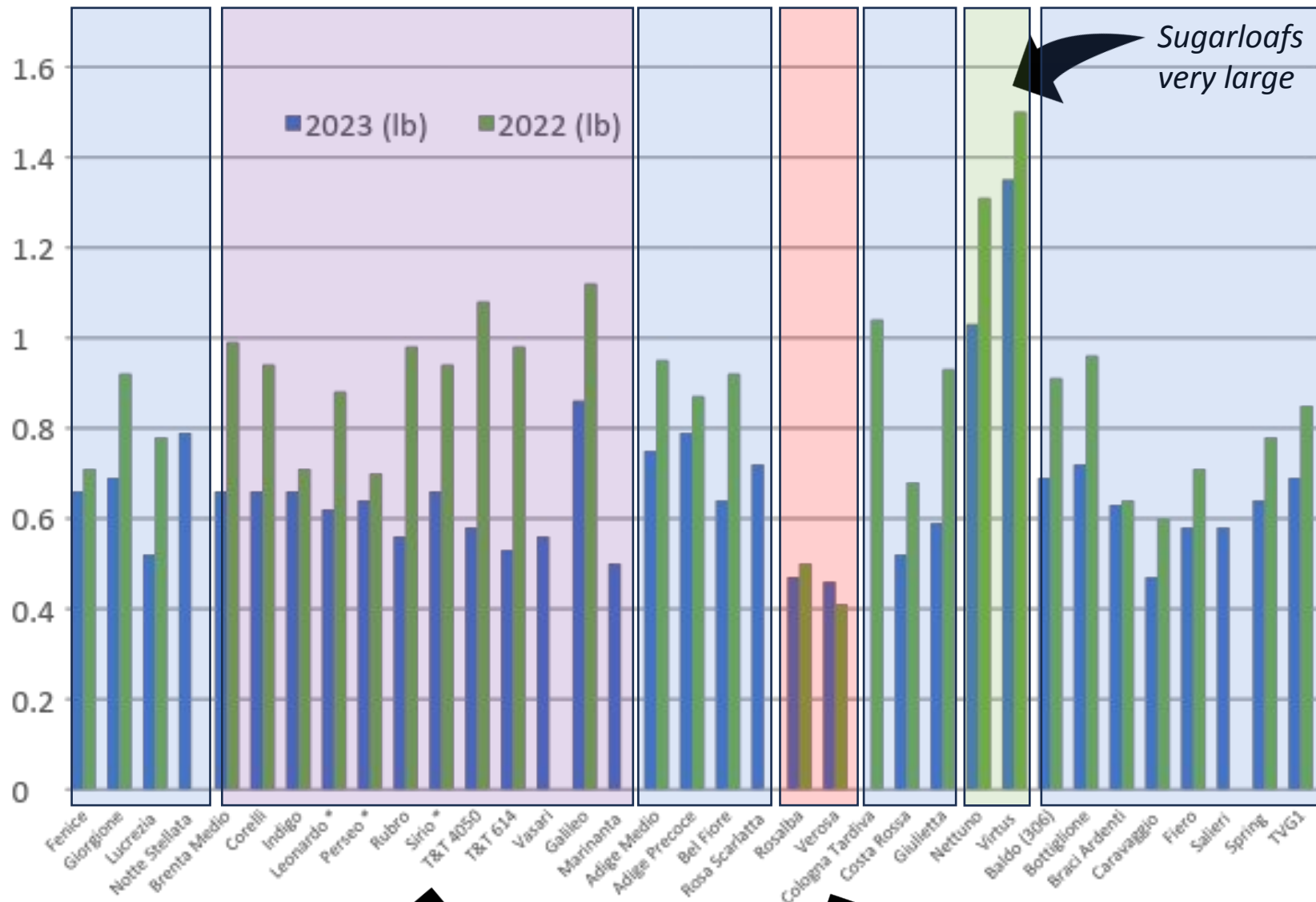
Rossa di Verona types

- Relatively poor head formation; hard to determine maturity (possibly very late)





Head size/weight



Sugarloafs very large

Chioggia – Indigo, Perseo small

Rosa del Veneto small

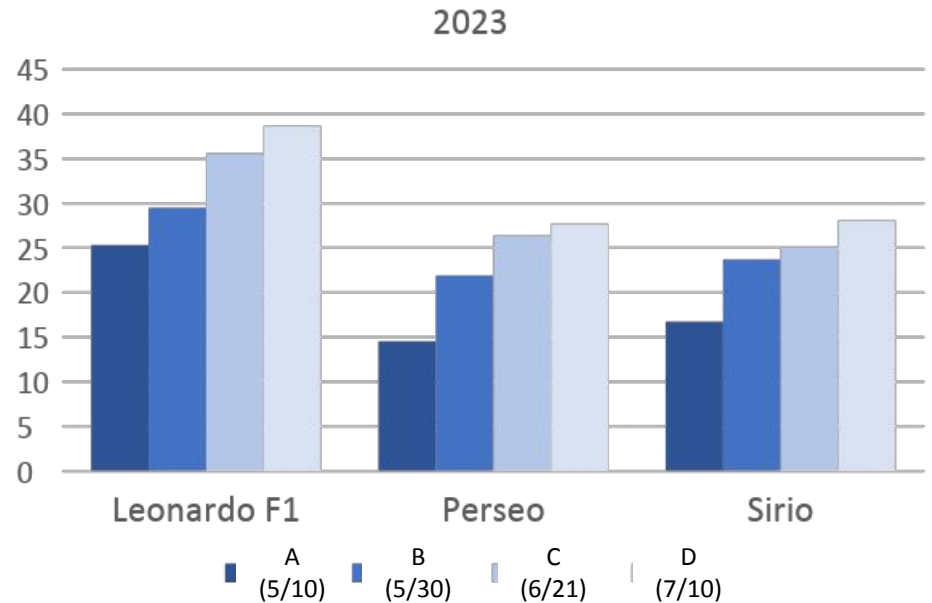
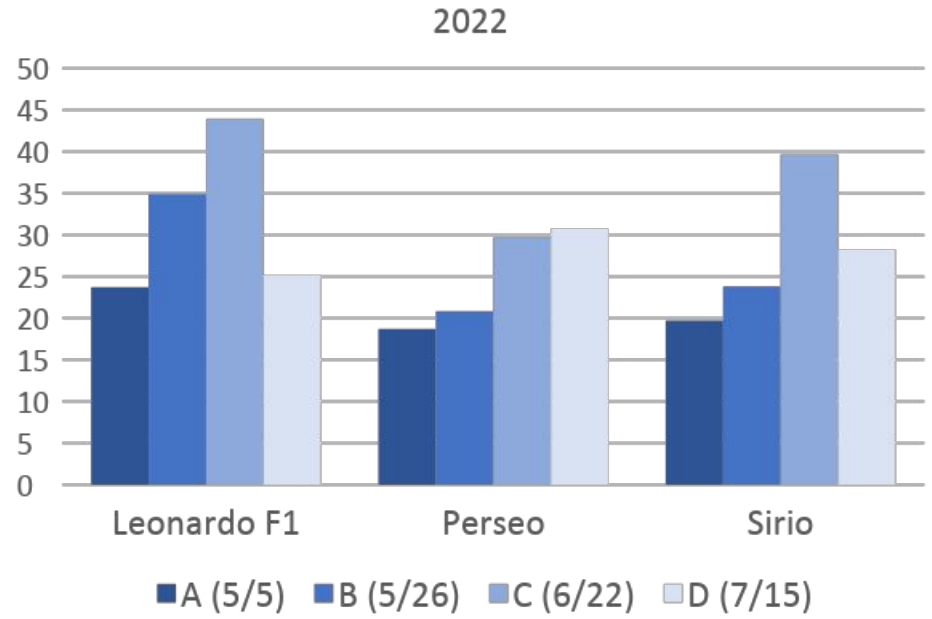


Powdery mildew – *Erysiphe cichoracearum*
Cultivar responses differ widely

Slotting experiments:

- Seeding 3rd week of June or mid July resulted in longest harvest window
- All three cultivars produced very high % marketable heads

No. of days marketable



Conclusions

- Many types of radicchio are well suited to production in New England
- Cultivar matters! % bolting, % rot, powdery mildew susceptibility, time to maturity all vary greatly
- Seeding around 3rd week of June is ideal for some cultivars; may not be universally true
- Earlier seeding for very late varieties (e.g. pinks) doesn't seem to help



Thanks to:

Osborne Seeds, Johnny's Selected Seeds & the NH Agricultural Experiment Station
Evan Ford, Mark Trabold, Luke Hydock, Matt Biondi, Sharon MacDougall & Braden Foulks

Future areas & Questions

- Relationship between N and bolting?
- Consumer preference/marketing?
- Other challenges?



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