

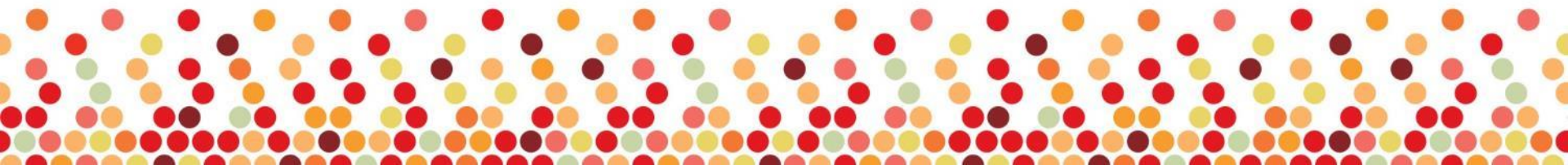


vineland  
RESEARCH & INNOVATION CENTRE

# Out of this World New Fresh Grape Varieties

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# Project overview

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- Evaluation of new fresh grape varieties under Ontario growing conditions for commercial potential
- To identify consumer characteristics of the local fresh grapes that will increase its likelihood of success in the market by capturing consumer feedback, identifying market segments and potential for market expansion



# Fresh grape test block at Vineland

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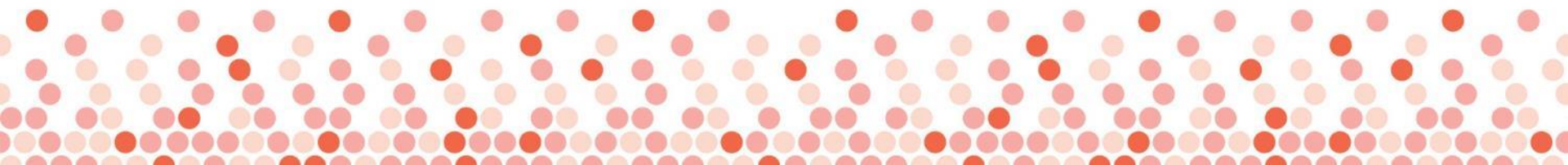
- 6 varieties planted
- 3309/SO4/Riparia/own root
- 70 vines per row
- 9' x 4' spacing
- 4 to 6 cane kniffen system
- Sovereign Coronation and Himrod references



# Scouted 2412F

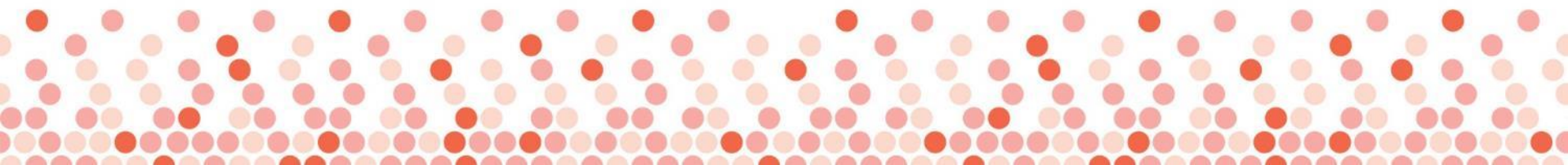
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Planted in 2014



# Scouted 2494J

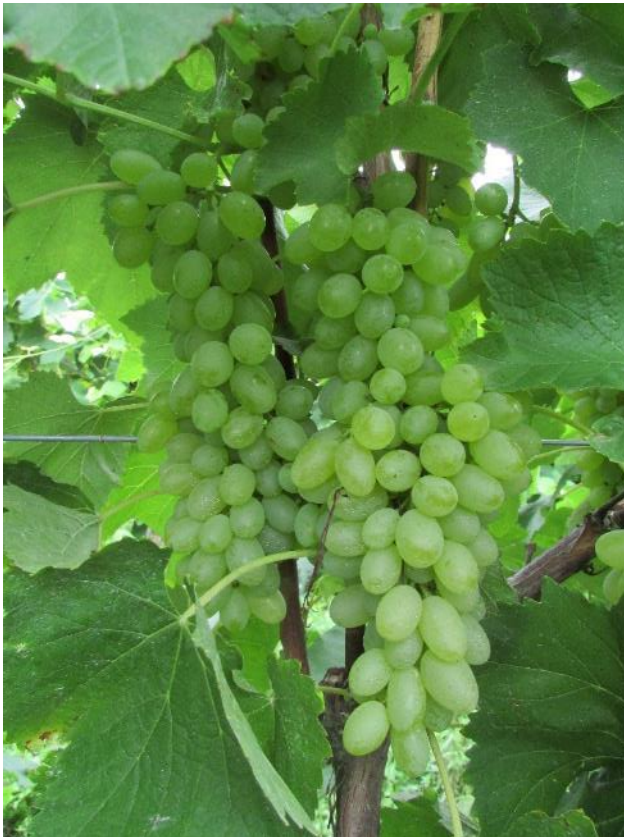
Planted in 2014



# Scouted 2503H

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Planted in 2014



# Scouted 2505G

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Planted in 2014



# Neptune

Planted in 2014



# Jupiter

Planted in 2014



# Cold hardiness assessment

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- Determined through standard cold hardiness testing established through CCOVI (Willwerth laboratory)
- Cane samples collected at Vineland
- Buds excised and hardiness assessments performed using differential thermal analysis (DTA)



# Cold tolerance of table grape varieties

- All table grape varieties demonstrated very good cold tolerance
- In the range of hybrid wine varieties of Vidal to Baco noir
- Sovereign Coronation, 2412F, Himrod and Jupiter seem most cold tolerant
- More testing to continue to determine cold deacclimation and late winter/spring frost risk

## Summary

Variety	Maximum hardiness (°C)	Date achieved
2412F (b)	-27.8	08-Feb-18
2505G (g)*	-22.0	18-Dec-17
Himrod	-27.5	18-Dec-17
2503H (g)	-25.3	08-Feb-18
2494J (b)	-24.3	18-Dec-17
Jupiter	-27.0	08-Feb-18
Neptune	-24.9	08-Feb-18
Sovereign Coronation	-28.6	08-Feb-18

\* No February samples

# Sheegene varieties

To be planted 2019



# Scouted 2392

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## Breeder notes

- Seedless
- Crisp texture
- Mild muscat flavour
- Harvest 10-15 days after Jupiter
- Potential spring 2019 planting at Vineland



# USA Program A

Potential 2021 CFIA release

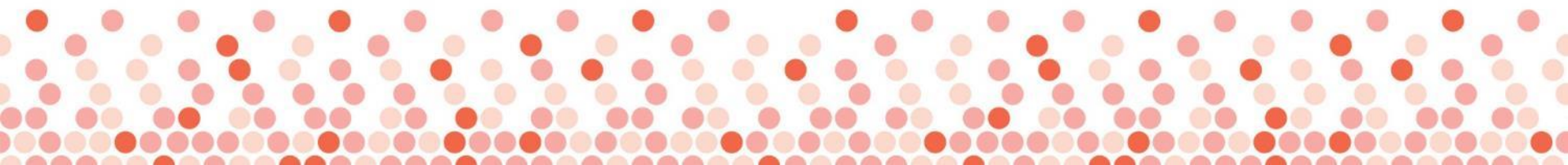
## Comments from breeder

- Red, yellow skins
- Semi-seedless to seedless
- Flavours such as:  
strawberry/guava/  
pineapple/cotton candy



# USA Program B

Potential 2022 CFIA release



# Consumer research

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## Online survey

- Participants
  - 518 people in Ontario (51%) and Quebec (49%)
  - Survey was offered in English and French
  - Qualified participants were pre-screened
    - primary grocery shoppers or shared equally
    - 18-70 years old (25% each)
    - Purchased fresh grapes in the past 6 months
- Information collected
  - Visual appeal, purchase habits and consumption

## Focus groups

- To gain an impression of new varieties and fresh grape opportunity
- Sept. 21, 2017: Blue/red grapes
  - 3 groups: millennials, parents, mixed demographic
  - Sovereign Coronation, Jupiter, 2494J, 2412F and Canadice
- Oct. 4, 2017: Green grapes
  - 2 groups: millennials and parents
  - 2503H, 2505G and Neptune
- Participants were pre-recruited
  - Primary grocery shoppers or shared equally
  - Had consumed fresh grapes in past 3 months



# Grape varieties evaluated



Canadice



Jupiter



2412F

Variety name	Harvest date	Brix at harvest	Harvest location
<b>Canadice (r)</b>	21.09.17		Grower
<b>Jupiter (b)</b>	13.09.17	19.4	Vineland
<b>2412F (b)</b>	18.09.17	18.2	Vineland
<b>Sovereign Coronation (b)</b>	18.09.17	18.3	Vineland
<b>2494J (b)</b>	20.09.17	16.8	Vineland
<b>Neptune (g)</b>	28.09.17	19.0	Vineland
<b>2505G (g)</b>	03.10.17	11.5	Vineland
<b>2503H (g)</b>	28.09.17	14.8	Vineland



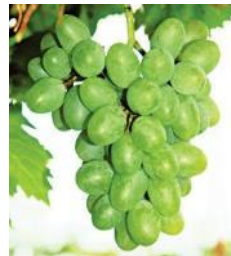
Sovereign Coronation



2494J



Neptune



2505G



2503H

# Provincial difference

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## Online survey

- Found no difference for any demographic, purchase or consumption habits between consumers in Ontario or Quebec
  - Age
  - Marital status
  - Income
  - Ethnic heritage
  - Employment status
  - Grape consumption frequency
  - Number of adults over 18 years old in household
  - Grape shatter influencing the purchase decision
  - Grape spending habits/ shopping trip
  - Gender
  - Education
  - Whether they identify as “Canadian”
  - Whether they were born in Canada
  - Ontario or Quebec resident
  - Primary grocery shopper
  - Willingness to pay for grapes with blemishes
  - The reasons they chose a variety as “most likely to purchase and consume”
  - Seasonality



# Purchase

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- 65% of consumers purchase grapes at least once per week
  - 83% purchase most of their fresh grapes from chain and discount chain grocery stores
  - Purchase as healthy snack option
- 61% of consumers usually make a grocery list of those
  - 81% include grapes on pre-planned grocery list
- Average price they pay for grapes is \$1.99 per pound
  - Tend to buy grapes on sale and are price sensitive
  - Will not pay more than \$4.99/lb



# Top fresh grape characteristics

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- When asked to describe an ideal grape variety needs to be
  - Seedless
  - Juicy
  - Sweet
  - Fresh
- Characteristics rated as very to extremely important for fresh grapes
  - Taste (87%)
  - Seedless (76%)
  - Sweetness (75%)
  - Texture (72%)
  - Appearance (71%)
  - Skin colour (62%)
  - Price (70%)

# Top fresh grape characteristics

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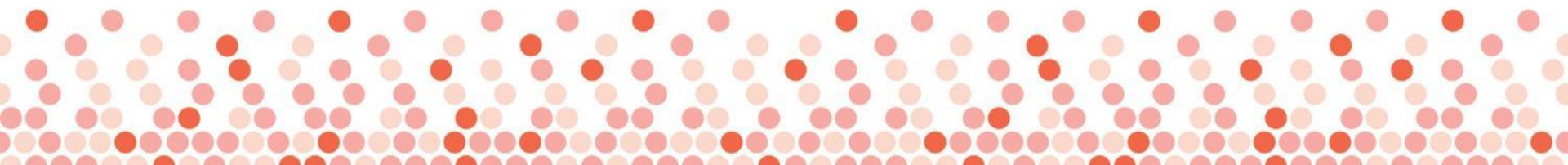
- 74% of consumers have very low tolerance for blemishes or imperfections, will not buy if do not look perfect
  - Overall, acceptance for blemishes was quite low at maximum 25% of the cluster
- Only 50% of consumers pay attention to packaging, and of those 45% prefer their grapes pre-packaged in a bag
- 50% of consumer said region of origin matters, order of preference 1) Ontario, 2) USA and 3) Canada
- 80% of consumers said fresh grapes produced in Ontario are regarded as of high quality



# Impact of information

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- Low awareness of Ontario fresh grape industry
  - They would seek out Ontario grapes, if they were available
  - They were not very familiar with Ontario specific fresh grape varieties
  - Millennials: Ontario grapes are highly sought out and preferred
- Production practices are of great importance
  - Millennials prefer: local, organic grapes, sustainability practices e.g. fair trade, healthy attributes
  - Parents: local and organic
- If Ontario fresh grapes met the quality requirements for consumers, they would seek out and purchase Ontario grapes
  - Price would still be important, but seasonality and local were more important factors



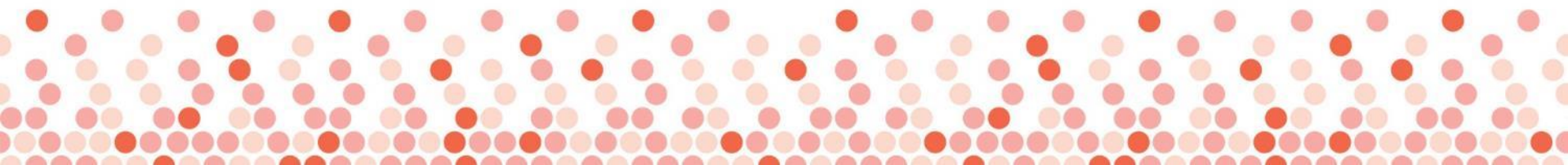
# Impact of appearance

Important driver of choice

- Consumers buy grapes based on colour and visual appeal



- 77% of consumers purchase green, red or a combination of the two
- Only 14% say they purchase blue grape alone or in combination with green or red



# Visual appeal

## Online survey

- Consumers asked to pick
  - one variety they were most likely to purchase and consume, and
  - one variety they were least likely to purchase and consume based on the overall appearance



2412F



Sovereign Coronation



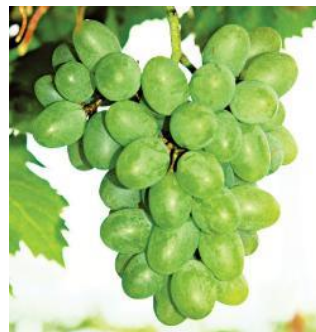
2494J



Jupiter



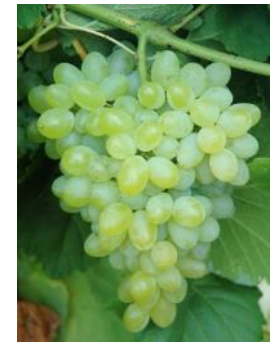
Canadice



2505G



Neptune



2503H

# Consumer segments

## Visual appeal online survey

- Green grapes
  - Most likely to purchase and consume overall and within each segment
  - Segments differed based on which variety they found most appealing
  - Overall and Group 2 very similar



Neptune



2503H

Product	Global (100%)	Group 1 (36%)	Group 2 (44%)	Group 3 (20%)
Canadice (r)	16.8	11.8	13.0	34.7
Coronation (b)	5.4	0.0	12.2	0.0
2412F (b)	2.7	0.0	6.1	0.0
2505G (g)	13.5	1.6	<b>29.1</b>	0.0
2503H (g)	<b>32.6</b>	13.4	<b>33.9</b>	0.0
2494J (b)	3.9	10.7	0.0	0.0
Jupiter(b)	7.9	20.9	0.9	0.0
Neptune (g)	17.2	<b>41.7</b>	4.8	<b>65.3</b>

# Group 1

## Visual appeal online survey

- Consumers most likely to purchase and consume
  - 1<sup>st</sup> choice is Neptune variety
  - If Neptune not available, they don't select another green grape
  - 2<sup>nd</sup> choice is Jupiter



Neptune



Jupiter

Product	Global (100%)	Group 1 (36%)	Group 2 (44%)	Group 3 (20%)
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Jupiter(b)	7.9	20.9	0.9	0.0
Neptune (g)	17.2	<b>41.7</b>	4.8	<b>65.3</b>



# Group 3

## Visual appeal online survey

- Consumers most likely to purchase and consume
  - Smallest segment
  - 1<sup>st</sup> choice is Neptune
  - 2<sup>nd</sup> choice is Canadice



Neptune



Canadice

Product	Global (100%)	Group 1 (36%)	Group 2 (44%)	Group 3 (20%)
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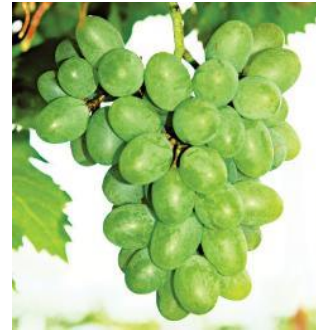
# Green grapes

## Appeal from focus groups

- Top visual variety for visual appeal = 2503H (Parents) and 2505G (Millennials)



2503H



2505G

Aligns with  
online results

- Top taste variety when tasted = Neptune



Neptune

Taste trumps  
appearance

# Neptune

**Selected as the top variety by the majority of consumers**

- Characteristics that differentiate Neptune, include
  - Taste, flavour, very well balanced among sweet & sour
  - More complexity in flavours, less one-dimensional, more exciting
  - Juiciness, tasted like grape juice
  - Nice skin texture, chewy and crunchy
  - Fullness of the cluster
- Overall, respondents admitted that appearance did not match the flavour expectations
  - They wouldn't buy this variety at the grocery store, because of the appearance, although it tasted the best
  - Try before you buy will be important for marketing



Neptune

# Blue grapes

## Focus groups



2412F



Sovereign Coronation



2494J



Jupiter



Canadice

- Top variety for visual appeal = Canadice

Aligns with  
online results

- Top variety when tasted = Jupiter

# Jupiter

**Selected as the top non-green variety by the majority of consumers**

- Overall, the characteristics that differentiated Jupiter from the other varieties included
  - Distinct, unique and complex flavour
  - Juiciness, tasted like grape juice
  - Delicious - Surprising – Delightful
  - Consistency
- Overall, respondents admitted that appearance did not match flavour expectations
  - Jupiter was considered a “special occasion” grape (e.g. jam, fancy dessert, wine)



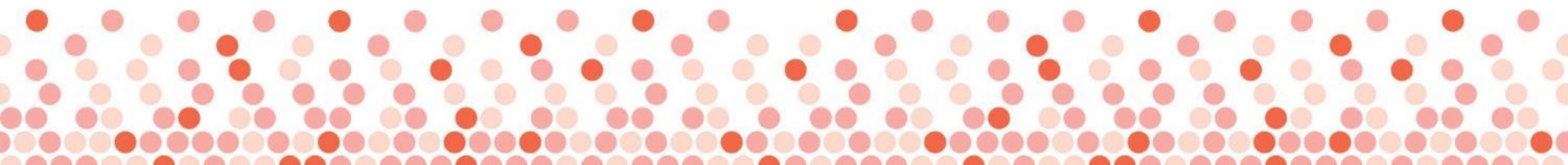
Jupiter

# Retailer feedback

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Open House September 21, 2017

- Ontario Fresh Grape Growers and Vineland hosted a retailer open house to showcase the new varieties
- Focus was on blue grape varieties
- Based on feedback survey
  - 100% listed Jupiter among the varieties with the most commercial potential
  - 77% of respondents found Jupiter the most appealing variety
  - Feedback on Jupiter: nice flavour, sweet taste, berry size and shape, colour



# Final thoughts

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- Consumers stated that taste was overall more important than visual appeal but they buy on visuals
- Need to create consumer pull for blue grape varieties
  - In-store sampling and marketing would help increase the chances of the new variety to appeal to more consumers
- Create more awareness of the Ontario fresh grape industry
  - Local sells but need to get it to the consumers (e.g. chain retailers)
- These varieties represent a great opportunity to grow the local fresh grape market

# Thank you

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