

## Stonefruit consumer evaluation: *nonmelting versus melting flesh in peaches and nectarines*

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## Stonefruit consumer evaluation

Consumer evaluation:

- Do consumers like it?
- Which do consumers prefer?
- Would consumers buy it?
- What is it that consumers like?
- What is it that consumers dislike?
- Are there groups of consumers who have specific preferences?



## Melting versus nonmelting flesh in stonefruit

Nonmelting flesh in stonefruit offers:

- Potential benefit to stonefruit growers
- Potential benefit to stonefruit consumers

However.....

- Do consumers like the firmer texture of nonmelting stonefruit?
- Would they buy nonmelting stonefruit?

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## Stonefruit consumer study

Objective of this preliminary study:

- To determine consumer acceptability for different stonefruit flesh types
  - nonmelting and melting flesh in nectarines
  - nonmelting and melting flesh in peaches

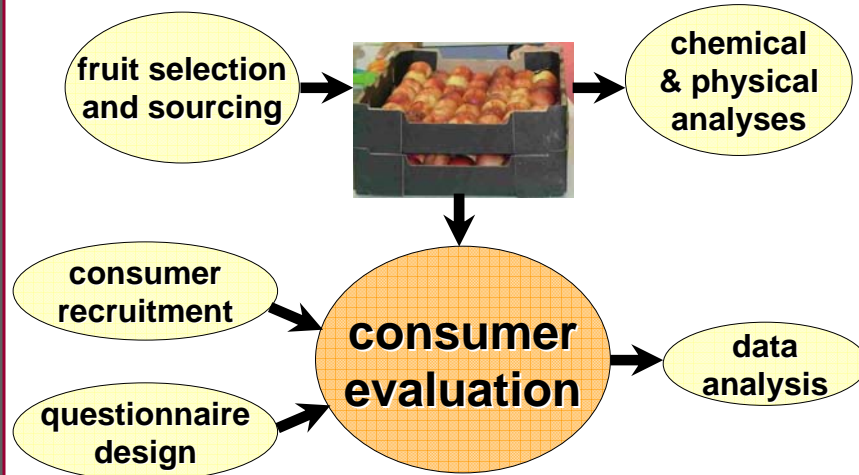


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## Methodology



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## Fruit selected for study

nectarines

nectarine	melting	Commercial
nectarine	nonmelting	selection 22-50

peaches

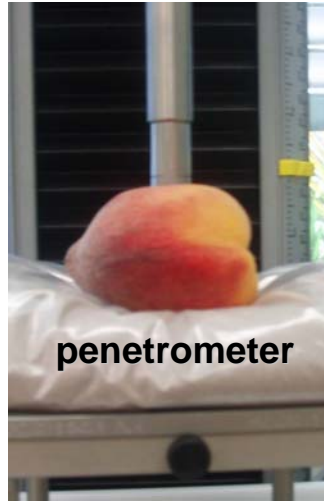
peach	melting	Commercial
peach	nonmelting	selection 54-38

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## Physical and chemical analysis



- Mass and diameter
- Colour (L\*, a\* & b\*)
- Instron penetrometer measurements
- Titratable acidity as malic acid (%TA)
- % soluble solids (°Brix)

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## Physical and chemical analysis

nectarines      mass (g)    diameter (mm)    %TA    °Brix    compressive load (N)

melting	100 <sub>c</sub>	58 <sub>c</sub>	1.02 <sub>a</sub>	13 <sub>a</sub>	15 <sub>c</sub>
nonmelting	125 <sub>b</sub>	63 <sub>b</sub>	0.93 <sub>a</sub>	12 <sub>a</sub>	45 <sub>a</sub>

peaches

melting	193 <sub>a</sub>	73 <sub>a</sub>	0.83 <sub>b</sub>	11 <sub>b</sub>	10 <sub>c</sub>
nonmelting	94 <sub>c</sub>	58 <sub>c</sub>	0.56 <sub>c</sub>	10 <sub>c</sub>	35 <sub>b</sub>

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# Consumer tasting



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# Consumer tasting



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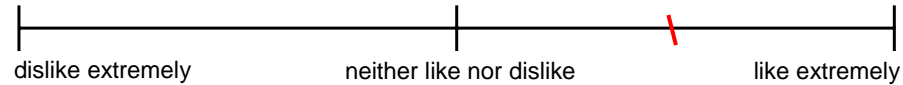
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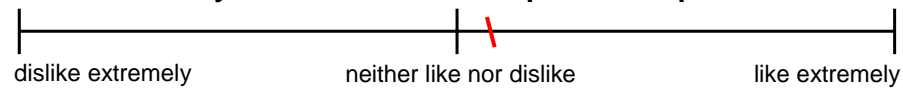
## Questionnaire design

- Basic demographic questions
- For each sample, hedonic scales rated for:

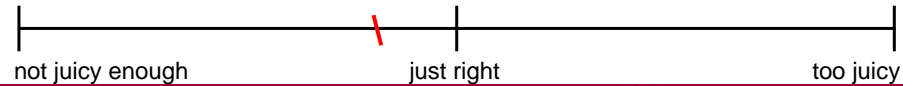
How much do you like the *flavour/taste* of peach sample 462?



How much do you like the *texture* of peach sample 462?



What do you think about the *juiciness* of peach sample 462?



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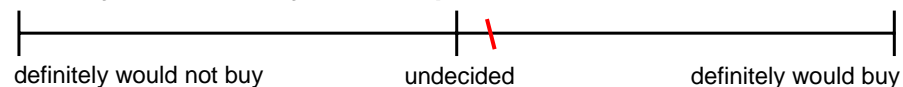
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## Questionnaire design

- For each sample, comments
  - what did you like and dislike
- For each sample, likelihood of future purchase scale rated:

If in October, peach sample 462 was \$8 - \$10 /kg, how likely is it that you would buy this sample?



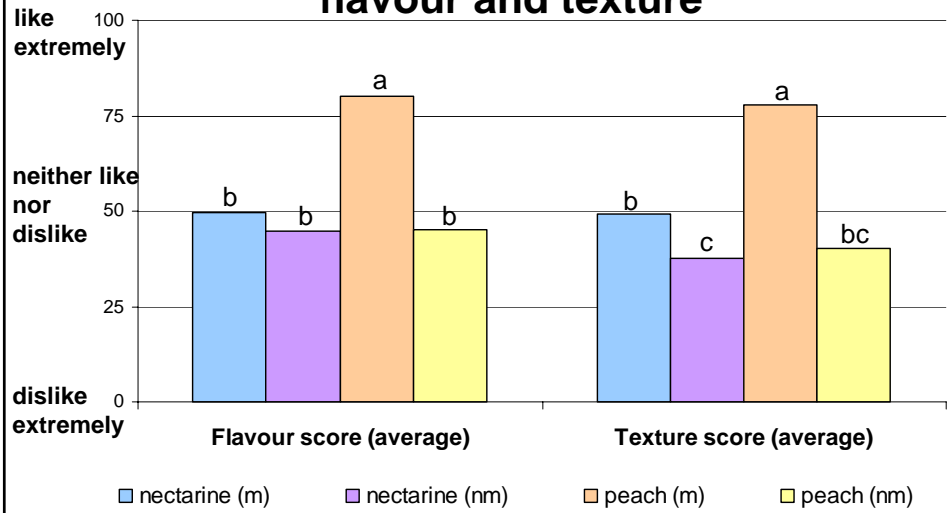
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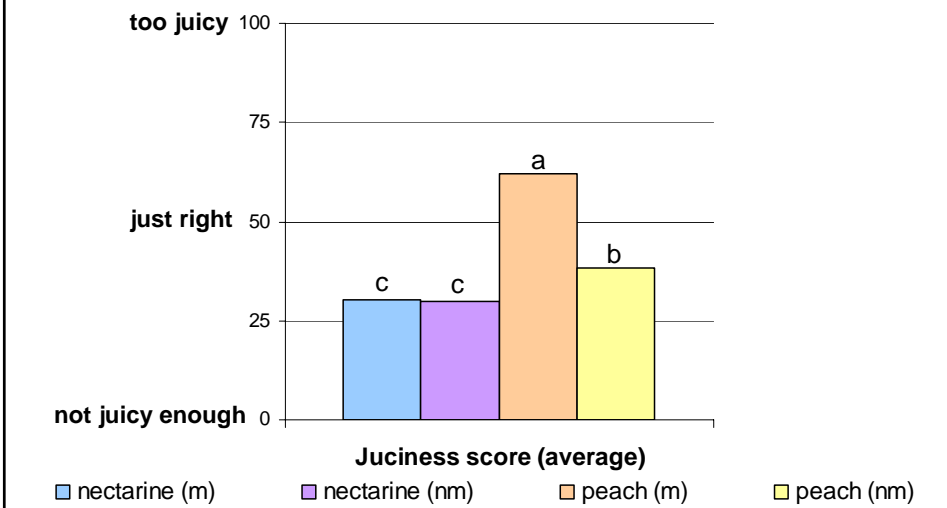
## Results

### Consumer acceptability scores for flavour and texture



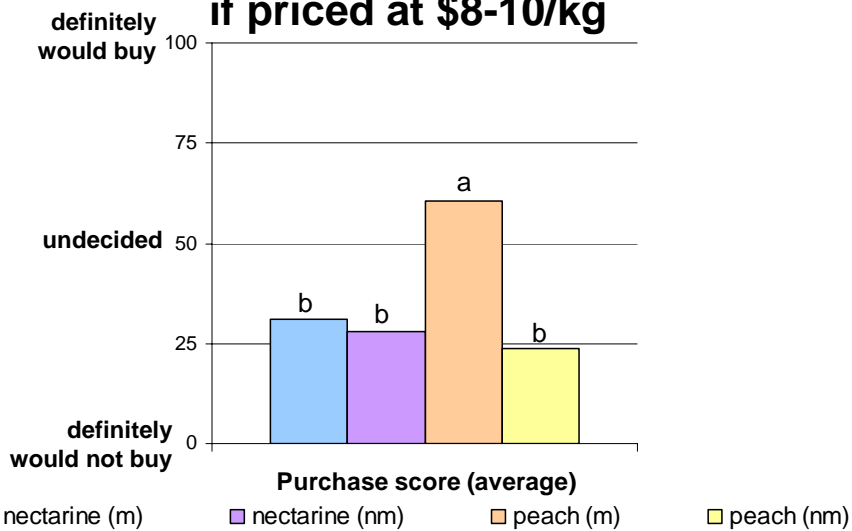
## Results

### Consumer acceptability scores for juiciness



## Results

### Consumer scores for purchase intent if priced at \$8-10/kg



## Results summary

### Do consumers prefer melting or nonmelting flesh in peaches?

- Difficult to say because the melting peach in this study was too different!
- Consumers preferred the texture and flavour of the melting peach
- Consumers were happier to pay \$8-10/kg for the melting peach than the nonmelting peach



## Results summary

### Do consumers prefer melting or nonmelting flesh in nectarines?

- Consumers preferred the texture of the melting nectarine slightly more than the nonmelting nectarine texture
- There was no difference in consumer scores between melting and nonmelting nectarines for flavour, juiciness and purchase intent

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## Future directions



Further study involving:

- more controlled peach selections to better compare consumer acceptability of different peach flesh types
- a number of different stonefruit with a range of different characteristics
- a broader range of consumers to explore demographics and flesh type preference

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