

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

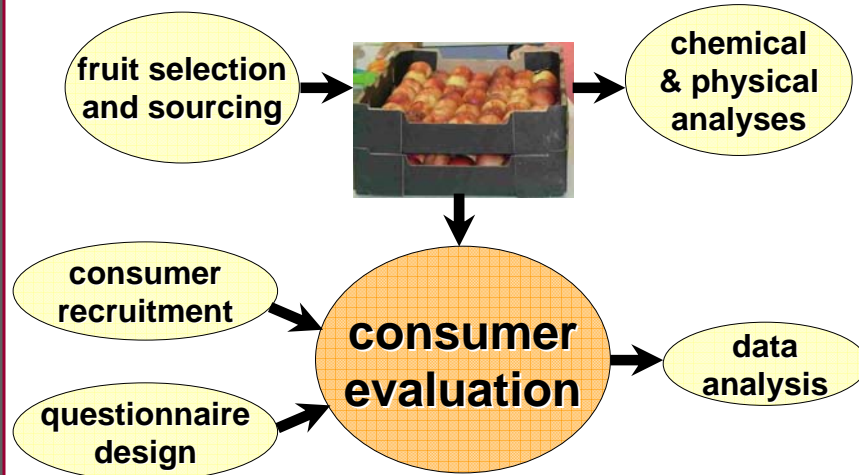


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Methodology



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Fruit selected for study

nectarines

| | | |
|-----------|------------|-----------------|
| nectarine | melting | Commercial |
| nectarine | nonmelting | selection 22-50 |

peaches

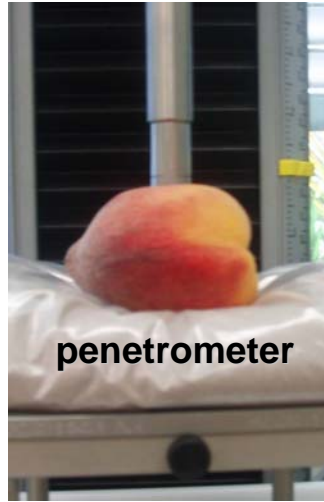
| | | |
|-------|------------|-----------------|
| peach | melting | Commercial |
| peach | nonmelting | selection 54-38 |

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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 diameter %TA °Brix compressive
(g) (mm)

| | mass (g) | diameter (mm) | %TA | °Brix | compressive load (N) |
|------------|------------------|-----------------|-------------------|-----------------|----------------------|
| melting | 100 _c | 58 _c | 1.02 _a | 13 _a | 15 _c |
| nonmelting | 125 _b | 63 _b | 0.93 _a | 12 _a | 45 _a |

peaches

| | | | | | |
|------------|------------------|-----------------|-------------------|-----------------|-----------------|
| melting | 193 _a | 73 _a | 0.83 _b | 11 _b | 10 _c |
| nonmelting | 94 _c | 58 _c | 0.56 _c | 10 _c | 35 _b |

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Consumer tasting



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Consumer tasting



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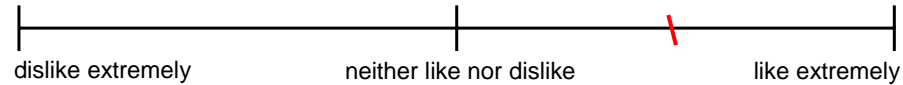
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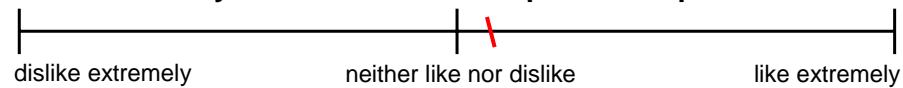
Questionnaire design

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

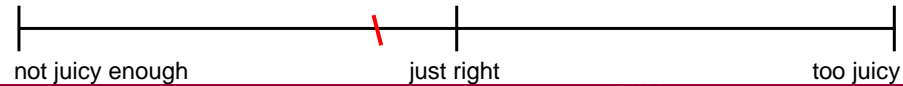
How much do you like the *flavour/taste* of peach sample 462?



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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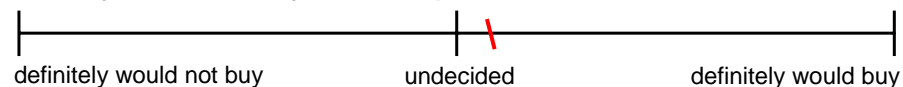
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Questionnaire design

- 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?



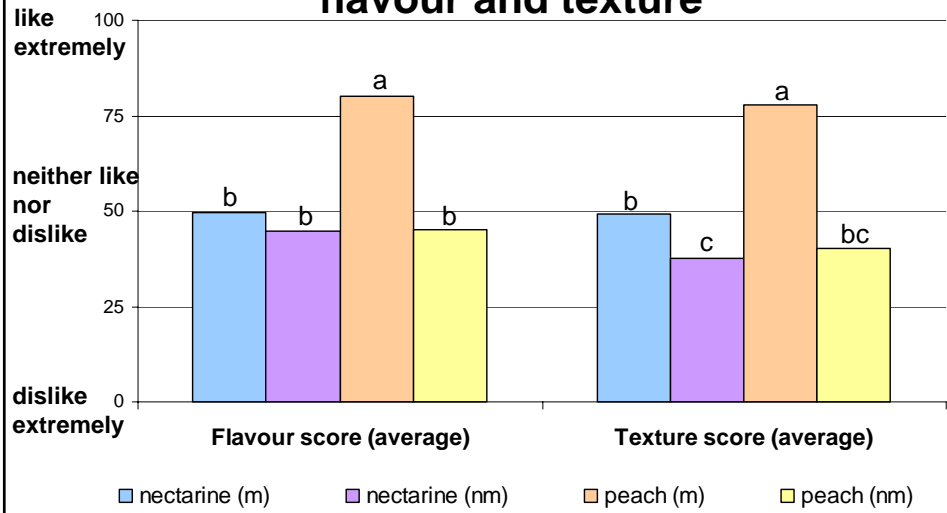
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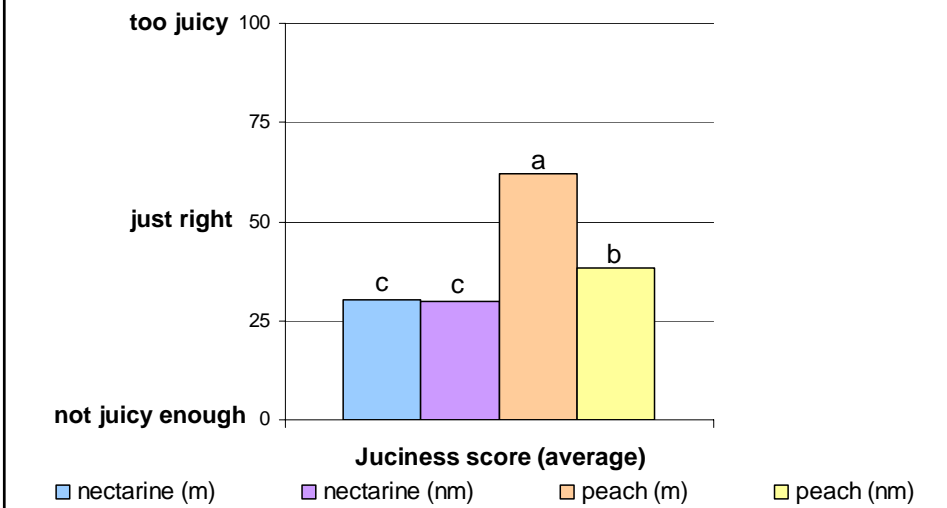
Results

Consumer acceptability scores for flavour and texture



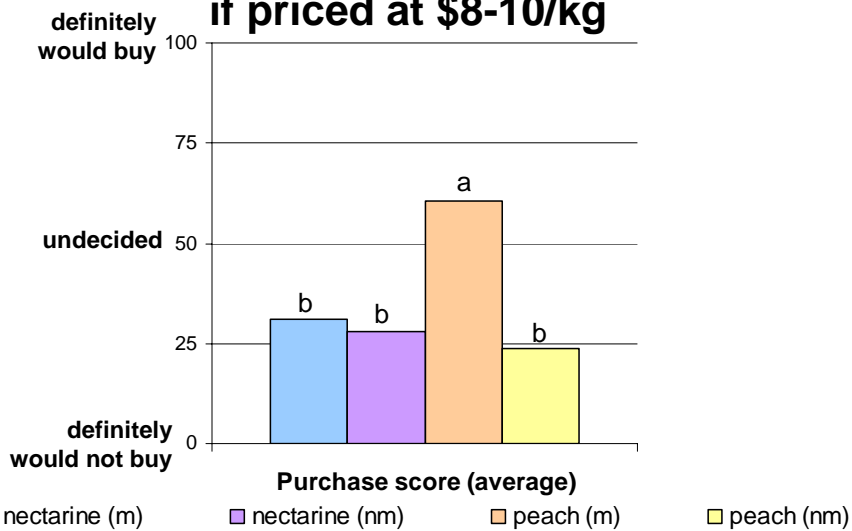
Results

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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