

LABELS ON APPLES: WINNERS AND LOSERS.

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Abstract

Retailers, in particular the large supermarket chains, are the driving force behind the need for fruit growers in Australia to individually label apples. By labelling apples with either the variety name or a price look-up (PLU) number, check-out staff can identify the variety quickly, price it accordingly and minimise the amount of error made. Such allows retailers to offer consumers a wider choice of varieties. While fruit must be labelled in order to supply the large retail chains, the majority of growers, wholesale market agents, retailers and consumers do not believe that labels are any indication of better quality fruit. Nor is there any indication of labelled apples achieving a price premium, despite the additional costs. The failure of fruit growers to adhere to quality standards, poor post-harvest management, immature fruit and the lack of quality control throughout the distribution channel is responsible for the poor quality of labelled fruit offered for sale in Perth retail stores.

Introduction.

For the majority of horticultural products, branding seems to mean identifying a product with various types of labels (Pay, White and Zwart 1995). Bowbrick (1992) suggests that a label attached to products from a specific producer, distributor, country of origin or retailer, aims to convey information to or to persuade a potential customer about the quality, reliability, social status, value for money or safety of the product. Perceived quality, associations and a well known name may not only provide reasons to purchase and affect use satisfaction, but may also have the potential to provide significant price premiums (Aaker 1991).

Perceived quality is defined as the customers perception of the overall quality or superiority of the product with respect to its intended purpose, relative to the alternatives (Aaker 1991). Perceived quality is an intangible, overall feeling about the brand, which is usually based on some underlying dimensions including such variables as product reliability and performance. However, unless the customer's use experience is consistent with the quality position, the brand image cannot be maintained and sales will decline.

Prior to the advent of supermarkets, consumers purchased the majority of their fresh fruit from greengrocers (Bell 1996). Fruit was generic in that limited attempts were made to advertise or to promote brands and varieties. The consumer relied on the expertise of the proprietor to select and offer fruit that the consumer wanted to buy and the consumer knew who to approach for product information or redress if there was a problem with the product. However, with increasing costs and the subsequent move towards self-service fruit and vegetable retailing, the onus of product selection has shifted to the consumer (Flanagan 1991).

Regrettably, the majority of consumers are unable to accurately judge the eating quality of the fruit that they select. In the absence of reliable brands, the only means available to the

consumer with limited product knowledge is to rely on the physical attributes of the product such as freshness, size, colour and firmness, variety and price (HRDC 1990). However, the physical attributes most often used by consumers to select fresh fruit from a retail store are poor indicators of the eating quality. Quality varies between growers, individual pieces of fruit and between retail stores, thereby increasing the probability that the consumer will make a choice that may not ultimately satisfy their requirements (Radice 1987). Selecting fruit is therefore a high risk decision and these self doubts can have a detrimental effect on the quantity of fresh fruit consumers are prepared to buy. Flanagan (1991) suggests that most consumers regard fresh fruit as a discretionary item rather than an essential item in the food budget. While vegetables tend to be regarded as staple foods, fresh fruit is seen as a luxury item. When consumers are disappointed with the eating quality of the fruit they have selected, they either withdraw from the market or purchase smaller quantities.

The research problem.

As discussed by Yabsley and Wright (1994), there has been a significant increase in Australia in the number of growers and grower cooperatives attaching adhesive labels to individual items of fruit. Such labels identify the brand name and in many cases, the variety of fruit. Research results suggest that 30% of consumers believe that labels on the fruit are an indication of quality, while a further 10% thought they were sometimes. Pearce (1995) argues that the Australian horticulture industry does not manage brands in a professional manner. There is more to branding than simply developing a brand name, placing labels on fruit and expecting miracles. Successful brands need to occupy a clear position in the consumers mind. Producers are required to supply a product that is reliable, consistent and backed by a promotional campaign which convinces the potential customer of its merits.

However, the proliferation of labelling is causing concern for all those involved in the marketing channel for fresh fruit. Growers pay for the cost of labelling yet many think it is unnecessary. On the other hand, retailers are demanding labels on apples as a means of identifying varieties for consumers and their check-out staff. Furthermore, there is increasing consumer resistance towards the application of sticky labels on individual pieces of fruit.

This paper seeks to determine whether; (i) labelled apples have the consistency of quality demanded by the wholesale market agents, retailers and consumers; (ii) whether labelled apples achieve a higher price; and (iii) whether labelled apples are any easier to sell.

Methodology.

Four groups of respondents were selected for this study. From the mailing list provided by the WA Fruit Growers Association, 290 growers were selected for interview. From the population of growers, 36 were excluded from the survey as they were either hobby farmers or growers with apple trees less than three years old. Data was collected by means of a structured questionnaire mailed out to growers.

Of the 24 wholesale market agents in the Perth Metropolitan Markets, 15 agents sell apples for and on behalf of growers. Data was collected by means of a structured questionnaire administered in a personal interview at Market City.

A sample of 40 retailers in the Perth metropolitan area were randomly selected from the 1997 Yellow Pages. Fifteen growers markets were selected, fifteen greengrocers and ten

supermarkets, including two fresh produce buyers from the major supermarket chains. Data was collected by means of a structured questionnaire, administered in a personal interview on the respondent's premises.

Two hundred and sixty (260) consumers were selected from thirteen shopping centres in the Perth metropolitan area. Shopping centres were selected from the 1997 Yellow Pages and had either a green grocers or growers market and a supermarket. Twenty consumers were selected from each shopping centre by random sampling every fifth person. Data was collected by means of a structured questionnaire administered during a personal interview conducted in the shopping centre. The shopping centres selected for the study were drawn from three socio-economic areas.

Data was analysed using the SPSS package. One way analysis of variance and Scheffe's Test were performed to identify any significant difference between the means.

Results.

A total of 71 growers responded to the survey instrument (24%). Despite the low response, the sample accounted for approximately 59% of total apple production in Western Australia.

Of the 15 market agents in the Perth Metropolitan Market, two agents refused to answer the questionnaire, giving a response rate of 87%. While 40 retailers were interviewed, during subsequent data analysis, 8 respondents were excluded on the basis that they were only in-store managers. As such, they ordered their produce from their company warehouse and were not directly involved in making the decision to purchase fruit either from the grower or the market agent.

With regard to the sample of consumers selected, respondents were drawn from a broad range of socio-economic groups. The shopping profile of the consumers interviewed indicated a similar consumer profile to previous studies undertaken by the HRDC (1990), Yuen *et al* (1994) and Stewart-Dawkins (1995).

Of the 71 growers who responded to the survey, 54 growers (76%) applied labels to the fruit they produced. However, while 30 growers (55%) labelled only their first grade fruit, 24 growers (45%) labelled both their first grade and second grade fruit. Of those growers who labelled both first grade and second grade apples, 18 (75%) did not use different labels to differentiate between the grades. Consequently, most growers believe that labelled apples do not taste any better, look any better or store any better than non-labelled fruit (Table 1).

Despite the additional cost of labelling, which most growers estimated to be between 41-60 cents per carton, the majority of growers (67%) do not believe that they received a higher price for labelled apples. However, many growers believed that the application of adhesive labels to the fruit made selling easier and made selection easier.

Similarly, the majority of wholesale market agents (53%) agreed that the application of labels to individual pieces of fruit made selling fruit easier. Although market agents were seldom able to achieve any price premium for labelled fruit, labels on the fruit increased the number of market segments to which they could sell the growers fruit.

Table 1. Mean Perceptions of Quality Attributes of Labelled Apples.

	Grower	Agent	Retailer	Consumer
Make selection easier	3.45	2.77	1.97 ^a	2.06 ^a
Sell at higher price	2.55	2.77	2.63	2.10 ^a
Taste better	1.50	2.07	1.47	1.84 ^a
Store better	1.39	1.84	1.65	1.77 ^a
Look better	2.03	2.84	3.28 ^a	2.23 ^b
Sell better	2.84	3.38	3.00	

where 1 is strongly disagree and 5 is strongly agree

a is a significant difference between growers at $p = 0.05$

b is a significant difference between retailers at $p = 0.05$

For the majority of retailers surveyed in the Perth metropolitan area (78%), labelled apples comprised more than 50% of sales. Most retailers, especially the supermarket chains, believed that the application of adhesive labels made selling fruit easier. While most retailers did not believe that labelled apples tasted any better or stored any better, the majority of retailers (60%) believed that labelled apples did look better.

The majority of consumers (78%) indicated that labels on apples did not influence their decision to purchase. Most consumers (53%) realise that labels on apples do not indicate quality, thus the majority of consumers believe that labelled apples do not taste any better, look any better or store any better than unlabelled fruit. Consequently, the presence of an adhesive label on a piece of fruit does not make the task of selection any easier for the consumer, nor did it add any value.

Furthermore, some 57% of consumers cited one or more problems with labels on apples; 30% found the labels annoying; 10% believed that the labels presented a health risk; 8% found the labels hard to peel off; 7% believed labels were damaging to the environment; and 6% were concerned by the adhesive residues which remained on the fruit after removing the label (Table 2).

Table 2. Consumer Attitudes Towards Labels on Apples.

	Frequency	Percent of responses	Percent of cases
No problems	111	36.8	42.7
Annoying	79	26.3	30.4
Health risk	26	8.6	10.0
Hard to peel off	20	6.6	7.7
Environmentally damaging	19	6.3	7.3
Residue on the fruit	17	5.6	6.5
No better quality	15	5.0	5.8
Unnecessary	8	2.6	3.1
Extra cost	7	2.3	2.7
TOTAL	302	100	

Discussion and conclusions.

The results of this study differ substantially from the results of previous studies undertaken by Yabsley and Wright (1994) and Stewart-Dawkins (1995). This is believed to be due to the time period that has elapsed between the studies. In 1994, fruit growers were just beginning to label apples and only fruit of the highest quality was labelled. Now, most growers are labelling apples, irrespective of the quality, resulting in mixed grades and no guarantee of delivering premium quality. The failure of growers to differentiate between first grade and second grade fruit is perhaps the major reason for the poor quality of labelled fruit.

However, it appears that other variables are also involved, for the value of the label as a means of selecting fruit decreases progressively down the marketing chain. This would suggest that some product deterioration was occurring throughout the marketing chain, either as the result of inappropriate post-harvest storage conditions or poor product handling. Poor quality is indicated by soft and floury apples, indicating that the fruit has either been stored too long or stored under inappropriate conditions. Bruising is a further indication of poor handling throughout the marketing chain. When mishandling occurs, labelled apples will appear visually unappealing to the consumer, further eroding their confidence in the product. Furthermore, in the retail store, consumers are often presented with a range of mixed labelled apples from which to choose. With few growers being large enough to exclusively supply a large retail chain, agents collate apples from a multiple number of growers who they believe can meet the retailer's selection criteria. However, with each grower having their own individual perception of quality, fruit of vastly different quality standards will emerge on the retail shelves. Most growers differentiate between grades by the type of packaging employed, but, inadvertently, these quality differences can be lost at the retail level.

The relatively low importance that consumers place on the label as a means of selecting fruit indicates that other selection criteria are of much greater importance. Yuen *et al* (1994) found that the most favoured attributes for apples were medium size, red colour, blemish free, crisp yet juicy and sweet tasting. Stewart-Dawkins (1995) indicated that crispness and firmness were the two most important attributes used by consumers. Price was found to be the next important, followed by colour, size and flavour. In an earlier paper, Batt and Sadler (1998) identify firmness as being the single most important selection criterion used by consumers in their decision to purchase apples from a retail store. The visual appearance of the fruit in terms of its freedom from blemishes and bruises, its colour and the variety were considered the next most important. Even so, consumers may still respond to various in-store variables such as the display, signage, or other in-store promotions including free tastings.

Given that there is no tangible difference between the majority of labelled and non-labelled fruit, there is little brand awareness, no brand loyalty, no proprietary brand assets and no price premium. If growers are to use labels on apples effectively, then only quality apples that reach the consumer in premium condition should be labelled.

References.

Aaker, David (1991), *Managing Brand Equity*, Maxwell Macmillan Canada Inc.

Batt, Peter J. and Cara Sadler (1998), "The Importance of Labels on Apples; Who Really Benefits", *Australian Agribusiness Review*. www.agribusiness.asn.au

Bell, M (1996), "Evaluation of the Effectiveness of Point-of-Purchase Material Provided to Consumers by the Summerfruit Council", unpublished research project, Department of Consumer Science, Edith Cowan University.

Bowbrick, P. (1992), *The Economics of Quality, Grades and Brands*, Routledge Publishers.

Flanagan, Frank (1991), "Let's Get It Right in the 90's", *Proceedings of An Apple Industry Seminar. Mandurah*. Western Australian Department of Agriculture.

Horticultural Research and Development Corporation (1990), *Consumer Study of the Fruit and Vegetable Market*. Horticultural Research and Development Corporation.

Pay, C., M. R. White and A. C. Zwart (1995), "The Role and Importance of Branding in Agricultural Marketing". Paper presented at the New Zealand Marketing Educators Conference, November.

Pearce, Glen (1995), "Managing Brands in Horticulture", *Good Fruit and Vegetables*, 6(6), 21.

Radice, Christine (1987), "Assessment of the Effectiveness of Consumer Educational Aids in Relation to Fruit Standards by Female Consumers in Kalamunda and Balcatta", unpublished research project, Department of Consumer Science, Edith Cowan University.

Stewart-Dawkins, Simon (1995), "Marketing of Produce by Brand Names", unpublished Horticulture Research Project. Curtin University of Technology.

Yabsley, D. and V. Wright (1994), *Sticky Labels on Fresh Fruit: Marketing Sense or Nonsense*. Department of Marketing and Management. University of New England. Armidale, NSW.

Yuen, C. M. C., N. Caffin, K. Hunter, W. Newton and Y. Hayes (1994), "Consumer and Consumption Patterns, Purchasing Habits and Attitudes to Fruit and Vegetables", *Food Australia*. 46(10), 455-458.