WASHINGTON STATE UNIVERSITY

WALLA WALLA

SWEET ONIONS

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EB 1708
INTRODUCTION

Sweet onions have been produced as a specialty vegetable crop in the Walla Walla valley of southeast Washington and northeast Oregon for over a century. The sweet onion industry of the valley originated in the late nineteenth century with Italian settlers (Locati: 1978). The soil and climate at the foot of the Blue Mountains proved suitable for producing the sweet onions introduced by these early growers.

Walla Walla onions are planted in early fall and overwinter before restarting growth in early spring when temperatures are adequate. These onions are harvested before storage cultivar types produced in Washington. Sweet onion harvest typically begins in the latter half of June and lasts about 6 weeks. Sweet onions are also known as non-storage onions, which further distinguishes them from the storage cultivars grown on most of the onion acreage in Washington. Sweet onions, unlike storage cultivars, are unsuitable for long-term storage in bulk, commercial storage structures. They are marketed primarily as fresh produce to be used within a few days after purchase.

Sweet onions are known for their large size and mild, sweet taste in comparison to other more pungent storage onions. Consumers in traditional markets readily associate these characteristics with onions identified as Walla Walla sweets. These attributes helped increase market distribution of sweet onions as the population increased and the transportation system developed in the western U.S.

In recent years, the Walla Walla sweet onion industry has encountered competition for markets from similarly tasting specialty onions produced in other U.S. regions. Vidalia onions from Georgia, hybrid 1015Y’s from Texas, Imperials from California, and Maui Sweets from Hawaii have been successfully developed and marketed in recent years. Acreage of some of these competing onions has increased rapidly in recent years, while Walla Walla sweet onion acreage has declined. This competitive environment has prompted the Washington sweet onion industry to seek ways to regain and expand marketings of their product.
OBJECTIVES

The overall purpose of this report is to assess the marketing of Walla Walla Sweet Onions during recent marketing periods. This assessment will provide a current industry status report that can be used as a basis to compare future marketing season results. Specific objectives are:

1. Discuss acreage, yield, production, price, and crop-value data.
3. Summarize the perceptions of wholesale produce buyers concerning four major competing sweet onions.
4. Synthesize results of 2 years of export promotion in Japan.

PRODUCTION DATA

Acreage and Yield

Harvested acreage of Walla Walla Sweet Onions steadily increased from 780 acres in 1980 to a record high 1600 acres in 1988 [Table 1]. Harvested acreage subsequently declined in each of the next 3 years, with 900 acres harvested in the 1991 season. Recent declines in harvested acreage are primarily due to winter kill of the onions resulting from extremely cold and windy winter conditions.

A variety of production and marketing problems are responsible for the declining acreage trend. Other growing regions are increasing sweet onion production that competes with Walla Walla onions in the marketplace. Land suitable for onion production in the Walla Walla valley is increasingly scarce due to disease infestations and urban growth.

Yields ranged from 300-410 hundredweight per acre over the 1980 to 1991 period [Table 1]. The yield variability demonstrates the importance of seasonal weather patterns on onion yields. Onions are susceptible to freeze and wind damage in winter when insufficient snow cover does not protect the plants.

Production and Value

Walla Walla Sweet Onion production reached a peak of 640,000 hundredweight in 1988 due to a combination of the all-time high of 1600 acres harvested and a near-record average yield of 400 hundredweight per acre. Production has declined in the 3 years since 1988 due to simultaneous declines in acreage and reduced average yields each year. Yields of 330 hundredweight per acre in 1991 are next to the lowest yield reported in the 1980 to 1991 period. The low yield was 300 hundredweight per acre in 1985. Weather during the 1990-91 winter was extremely severe, causing some onion fields to be completely frozen out and drastically decreasing yields on the 900 acres harvested.
A new record season average price of $23.90 per hundredweight was set for Walla Walla Sweet Onions during the 1991 season [Table 1]. This resulted in a total value of almost $7.1 million at the producer level. The 1991 value of the crop did not break the record total crop value set in 1989 of over $9.3 million. This record value was the result of a relatively large production (525,000 hundredweight) and the second highest average price ($17.80 per hundredweight) received by growers.

Table 1. Acreage, Production, and Season Average Price of Walla Walla Sweet Onions, 1980-1991.

<table>
<thead>
<tr>
<th>Year</th>
<th>Acreage Harvested</th>
<th>Yield Per Acre</th>
<th>Production</th>
<th>Average Price Per Cwt</th>
<th>Total Crop Value</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Cwt.</td>
<td>Cwt.</td>
<td>$</td>
<td>$000</td>
</tr>
<tr>
<td>1980</td>
<td>780</td>
<td>330</td>
<td>257,000</td>
<td>8.86</td>
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<tr>
<td>1981</td>
<td>800</td>
<td>400</td>
<td>320,000</td>
<td>16.50</td>
<td>5,280.00</td>
</tr>
<tr>
<td>1982</td>
<td>850</td>
<td>370</td>
<td>315,000</td>
<td>8.28</td>
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</tr>
<tr>
<td>1983</td>
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<td>410</td>
<td>492,000</td>
<td>8.28</td>
<td>4,073.76</td>
</tr>
<tr>
<td>1984</td>
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<td>360</td>
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</tr>
<tr>
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<td>300</td>
<td>390,000</td>
<td>17.40</td>
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<tr>
<td>1986</td>
<td>1,300</td>
<td>330</td>
<td>429,000</td>
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<tr>
<td>1987</td>
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<td>532,000</td>
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<td>1,500</td>
<td>350</td>
<td>525,000</td>
<td>17.80</td>
<td>9,345.00</td>
</tr>
<tr>
<td>1990</td>
<td>1,200</td>
<td>340</td>
<td>408,000</td>
<td>12.60</td>
<td>5,140.80</td>
</tr>
<tr>
<td>1991</td>
<td>900</td>
<td>330</td>
<td>297,000</td>
<td>23.90</td>
<td>7,098.30</td>
</tr>
</tbody>
</table>

Source: Washington Agricultural Statistics
**DISTRIBUTION DATA**

The available secondary source of data relating to distribution of Walla Walla Sweet Onion is the weekly "Rail and Truck Arrival" information collected by the Federal-State Market News Service. This arrival information is collected for 22 major U.S. cities for several fresh fruits and vegetables including onions.

Arrival data for onions is not reported separately for non-storage sweet onions and regular storage onions. Onion arrival data for shipments originating from Washington state during July is, however, a suitable gauge for the distribution of Walla Walla Sweet Onions. Storage-onion marketings have generally been completed before the end of June, and new crop harvest does not begin until August. Therefore, arrivals from Washington during July provide a reasonably valid indication of the distribution patterns for Walla Walla Sweet Onions. These data are useful only as a general indicator of the distribution patterns of the onions between years since the 22 cities do not account for the total production and shipments in any of the 3 years.

Walla Walla Sweet Onion arrivals in the 22 reporting cities for each July of 1989, 1990, and 1991 are shown in Table 2. Seattle was the largest single unloading point all 3 years: 49% in 1989, 56% in 1990, and 55% in 1991. San Francisco is the second most-important western destination, although the share of total receipts declined from 14% in 1989 to 5% in 1991. These traditional markets are within one-day truck shipment of the Walla Walla packers and have traditionally been important markets for the onions along with Portland and other western population centers.

The share of the total received by western cities has declined over the 3-year period [Table 2]. In 1989, 80% of all onion arrivals were in the western cities. The share fell to 71% in 1990 and again declined in 1991 to 67%. Chicago and Los Angeles accounted for 6% or less of overall arrivals in western cities during the past 3 years.

The share of total arrivals in eastern U.S. cities has steadily increased over the past 3 years [Table 2]. Total receipts increased from 20% in 1989 to 33% in 1991. In 1989, Cincinnati received half of all shipments to the eastern cities and 10% of overall arrivals for the year. Atlanta was the second most-important destination with 4% of all arrivals. These two cities plus Baltimore received 21% of all 1990 arrivals: Atlanta 11%, Baltimore 6% and Cincinnati 4%.

In 1991, New York surpassed both Atlanta and Cincinnati to become the number one destination city in the eastern U.S. with 14% of all arrivals. Atlanta and Cincinnati maintained significant shares of arrivals with 7% and 5% shares of total 1991 arrivals, respectively. Most other eastern cities accounted for 2% or less of total arrivals in any one of the previous 3 years.

The decline in western unloadings and the increased share of unloadings in the eastern U.S. is attributed to aggressive marketing of sweet onions by some packers. Shelf-life problems have frequently prevented sweet onions from being transported for long periods necessary to reach distant markets. Packers have worked to overcome transit and shelf-life limitations by striving for higher quality packs of onions. More care and selectivity in grading onions as they pass over packing lines has resulted in packed onions that withstand longer transit times. The ability to ship to distant east-coast markets and yet maintain the integrity of the onions while moving through wholesale and retail marketing channels has expanded the distribution of the onions.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Atlanta</td>
<td>10,000 lb</td>
<td>4</td>
<td>10,000 lb</td>
<td>11</td>
<td>10,000 lb</td>
<td>7</td>
</tr>
<tr>
<td>Baltimore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Boston</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffalo</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>--</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>50</td>
<td>10</td>
<td>26</td>
<td>5</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Columbia, SC</td>
<td>10</td>
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<td></td>
<td></td>
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<tr>
<td>Detroit</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miami</td>
<td>2</td>
<td>--</td>
<td>8</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>11</td>
<td>2</td>
<td>81</td>
<td>14</td>
<td></td>
<td></td>
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<tr>
<td>Philadelphia</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>--</td>
<td></td>
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<tr>
<td>Pittsburgh</td>
<td>10</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>5</td>
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<td>160</td>
<td>29</td>
<td>189</td>
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<td>6</td>
<td>28</td>
<td>5</td>
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<td>--</td>
<td>2</td>
<td>--</td>
<td></td>
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</tr>
<tr>
<td>Denver</td>
<td>10</td>
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<tr>
<td>Los Angeles</td>
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<td>6</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>2</td>
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<tr>
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<td>10</td>
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<td>--</td>
<td></td>
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<tr>
<td>San Francisco</td>
<td>70</td>
<td>14</td>
<td>37</td>
<td>7</td>
<td>28</td>
<td>5</td>
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<tr>
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<td>308</td>
<td>56</td>
<td>318</td>
<td>55</td>
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<tr>
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<td>2</td>
<td>8</td>
<td>2</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Total:West</td>
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<td>80</td>
<td>391</td>
<td>71</td>
<td>383</td>
<td>67</td>
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<tr>
<td>Total:U.S.</td>
<td>510</td>
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<td>551</td>
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<td>572</td>
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</table>

Source:
"Fresh Fruit and Vegetable Rail and Truck Arrivals," Federal-State Market News Service.
BUYER PERCEPTIONS OF SWEET ONIONS

Sweet onions are grown in various regions of the U.S. and marketed as fresh, specialty-produce items during relatively short harvest seasons. Georgia, Texas, California, and Washington are the more recognized producing states for sweet onions, although varieties of sweet onions are also produced in Hawaii and New Mexico. These onions are all noted for their distinctively mild, sweet flavor and are generally available from each production area only during harvest seasons. To the extent that these harvest seasons overlap as the harvest progresses across regions, the onions from each producing area might be marketed at the same time. These overlaps result in direct competition for market acceptance and sales to consumers in addition to the indirect competition from storage onions.

To determine wholesale buyer perceptions of the four primary varieties of sweet onions, a telephone survey of wholesale onion buyers was conducted at the end of the 1991 sweet onion marketing season. Twenty-two wholesale buyers located in various U.S. cities representing both chain store and terminal wholesale operations were contacted. The sample of buyers contacted was not scientifically determined, and the data generated is therefore unsuitable for drawing statistically significant conclusions. The objective of the survey was to obtain buyers’ general observations and concerns regarding selected marketing characteristics of the four onions.

The buyers were asked to respond to questions concerning availability and purchase of onions, consumer acceptance, packer support, and promotional effort. (See Appendix 1 for the survey form used to record buyer responses.) Buyers were asked to provide information concerning notable differences among the four onions regarding the specified marketing attributes.

Availability and Purchases

Each of the 22 firms contacted reported purchasing at least two varieties of sweet onions, and most of the firms reported purchasing some of all four varieties. Nineteen of the buyers contacted reported purchasing Vidalia, 1015Y, and Walla Walla Sweet Onions, while 16 said they had purchased Imperials. The most often cited reason for not purchasing an individual onion variety was an overlap of seasons which made two varieties of sweet onions available at the same time.

The onions were reportedly available to the buyers in sufficient quantities since none reported difficulty in locating supplies. Several buyers confirmed the pattern of seasonal availability as Vidalias first each season followed in order by 1015Y’s, Imperials, and Walla Wallas.

Consumer Recognition

Buyers reported that consumers are aware of the sweet onion’s distinct differences from other onions and that retailers receive consumer requests for sweet onions which are transferred to the wholesale buyers. Several buyers reported that consumers recognize the names of the Vidalia, 1015Y, and Walla Walla more readily as sweet onions than the Imperial sweet from California.
The Walla Walla name seems to be readily recognized as an identifier of Washington sweet onions across the nation, not just in western cities. Buyers in Georgia, Kentucky, Illinois, Michigan, and New York reported that consumers were familiar with the Walla Walla onion, although these same buyers said Vidalia is most recognized by consumers in these states.

Advertising and Promotion

The Vidalia onion was most frequently named as having the best advertising and promotional support of the four onions. Nine of the 16 firms which noted differences in promotional support said that efforts supporting Vidalias were superior to promotional efforts of the other onions. Two buyers said the 1015Y provided the best promotional support, while several of the nine buyers rating Vidalia promotion superior, rated the promotion of 1015s second.

Remarks from buyers concerning the lack of promotional efforts for Walla Walla onions indicate an area of concern for the Washington sweet onion industry. Almost every buyer contacted noted a lack of promotional support for Walla Walla Sweet Onions. This was especially evident in the more distant markets of Georgia, Kentucky, Illinois, Michigan, and New York where buyers could not recall receiving any kind of promotional support. Western buyers were more impressed by the promotional support accompanying Vidalia and 1015Y onions than they were with support received for Walla Walla onions.

Additional promotional effort for Walla Walla onions shipped to both nearby and distant markets was encouraged by most of the buyers contacted. They expressed the need to help consumers recognize the distinctiveness of the onion and perhaps increase sales at favorable prices.

Packaging

Ten of the 20 firms commenting on cartons versus bags clearly preferred cartons. It was mentioned that the cartons helped in retail display creation. Buyers want cartons that are sturdy and carry good-quality graphics to achieve attractive, durable displays. None of the buyers who preferred boxes mentioned spoilage or similar problems with cartoned onions. Those who preferred bags said it was to promote air circulation and thus preserve quality. One large chain reported using cartons to build displays which were then replenished with bagged onions. Alternative-size packages to the standard 50-pound cartons or bags were rarely mentioned as being necessary. One buyer did indicate that a 10-pound or 25-pound pack might be desirable for distribution to consumer wholesale outlets such as Costco and to food service establishments.

Quality Upon Arrival

Comments were inconsistent, but weather during the growing and harvest season was mentioned as the primary determinant of quality for all four onions. Most respondents reported little difference in the 3 more recognized sweet onions in a favorable growing season. The quality of Vidalia onions was mentioned as suffering from poor weather conditions during the 1991 season. The quality of Walla Walla onions marketed during 1991 was improved compared to the 1990 season.
Shipments of Walla Walla onions to eastern and midwestern U.S. cities are not severely limited by arrival quality according to comments made by buyers in these regions. As stated above, the onions reaching eastern buyers were said to have maintained quality as long as the weather favored good-quality onions at harvest. Trimming roots and stems from Walla Walla sweets was reported as being important by several buyers so that the onions looked more appealing to consumers in retail displays.

Imperials were mentioned as having best shelf life, yet the buyers making this observation felt that the Imperial was not necessarily a sweet onion of the same type as the other 3 onions.

Buyers’ comments which may have direct benefit to the Walla Walla onion industry can be generalized and summarized as follows:

1. Packers should communicate with buyers before harvest concerning the quantity and quality of the forthcoming crop and plan marketing strategies in advance.

2. Treat the onion as a special product during harvest and packing.
   a. Pack in boxes with attractive graphics.
   b. Trim roots and stems.
   c. Adjust marketings to compensate if it is a bad season and quality has suffered.

3. Advertising and promotion works.
   a. Where Vidalia and 1015Y’s are promoted, consumers recognize, request and are willing to buy at prices which provide attractive returns to producers.
   b. Expanded promotional efforts should improve the recognition and acceptance of Walla Walla onions in established as well as new markets in eastern U.S. cities.

MARKETING TRIALS IN JAPAN

Walla Walla Sweet Onions were introduced to representatives of the Japanese food industry in July, 1990 and to the first Japanese consumers in July, 1991. The goal of these trial marketings was to determine if the onions would be accepted by Japanese consumers as a specialty food item. The Washington sweet onion industry may benefit from expanded marketing opportunities if the sweet onion appeals to Japanese consumers.

These promotional efforts in Japan were jointly sponsored by the United States Department of Agriculture's Agricultural Marketing Service, Washington State Department of Agriculture's Market Development Division, Walla Walla Onion Growers Association, and Washington State University's International Marketing Program for Agricultural Commodity Trade (IMPACT).

The focus of the promotion was to educate Japanese food marketers and consumers concerning the unique characteristics of the onion. If the onion is to succeed in the Japanese market, buyers must recognize the onion as a specialty item that is distinctly different from other imported and domestically produced onions. Many Japanese consumers are anxious to experience
new food items imported from Western nations. Consumers in Japan are more accustomed to using onions as an ingredient in cooked dishes than eating sliced or diced raw onions on hamburgers or in salads as American consumers tend to use the Walla Walla Sweet Onions.

Seminar and Tasting: 1990

A diverse group of Japanese food industry personnel was introduced to sweet onions from Walla Walla during a 1990 educational seminar and tasting. This event was held on July 12, 1990, in U.S. embassy facilities in Tokyo. The seminar and tasting was attended by 30 food industry representatives from supermarkets, restaurants, hotels, trade journals, women's magazines, cooking schools, and fresh produce importers.

An educational seminar including a slide show of the Walla Walla Sweet Onion industry was the initial activity of the meeting. Information was presented concerning the State of Washington, the Walla Walla growing region, onion production practices, statistical agricultural reports, and the differentiating characteristics of Walla Walla Sweet Onions. Each participant received an information packet that provided specific details concerning sizing, packaging, nutrition, recipes, and the history of the onion.

The food industry representatives then tasted sweet onions prepared in various manners. The onions were served raw and as ingredients incorporated into 6 prepared dishes. A final activity of the seminar was for each participant to complete an informational questionnaire along with rating their preferences from the taste tests. (See Appendix 2.)

The fact that 60% of the respondents had not heard of a sweet onion is a strong indication of the lack of knowledge concerning sweet onions by the general Japanese populace. Since the group was composed of Japanese food industry participants, it is safe to assume that an even smaller percentage of Japanese consumers is familiar with sweet onions. This points out the need to continue educating and demonstrating the use of sweet onions to create consumer awareness of the onion's unique attributes.

Results of the taste test indicate group members preferred eating onions as part of a salad. The highest ranking (8.08 of 10) was for a combination salad followed by a 7.11 rating for another Japanese style salad called "Banbanji." Taste-test panelists did not like onions as part of mixed pickles or as condiment on a hot dog. That panelists preferred onions in salads may complement their general comments that Japanese are increasing their demand for salads. This preference also reinforces the respondents' recommendation to consider restaurants and hotels as primary retail outlets for the onions.

Most respondents believed prices should be in the vicinity of $0.45 per pound, landed in Tokyo and customs not figured (CNF), and from $0.91 to $1.22 per pound at the retail level. The spread between the CNF and retail prices serves as a guide to the margins expected for such a specialty item when passed through the Japanese food distribution system.

The 1990 educational seminar and tasting generated significant interest in sweet onions by the Japanese food industry. Four Japanese food trade journals carried articles about the tasting and seminar. Survey responses provided some basic taste preference information and suggestions about how and where to market the onions. Uncertainty remained about actual consumer response to the sweet onions. Pricing and shelf-life questions also remained largely unanswered after the 1990 introduction.
Market Trial: 1991

The Japanese marketing program for the 1991 season was designed to gauge actual consumer interest in Walla Walla Sweet Onions. About 6,000 pounds of onions were air freighted to Tokyo for the July 1991 market promotion. The promotion was timed to coincide with the Japanese celebration of Tanabata, an annual cultural event during the first week of July.

Tanabata is a festival based on the reunion of a mythical prince and princess who were cast into the heavens and have only one opportunity a year to be reunited. The date for this mythical meeting is July 7 and can only take place then if the skies are cloudless. If the day is cloudy, the reunion is postponed and the next opportunity for reunion is the next July.

The parallel promotional idea for Walla Walla Sweet Onions is that the onions are available only during the festival period. If sweet onions are not purchased and enjoyed at festival time, then a full year must pass before they become available again.

An advertising campaign was implemented 3 weeks before the onions’ arrival. Four up-scale stores of the Japanese supermarket chain, Meidya, agreed to conduct the in-store trial marketings. Point-of-purchase material containing recipes printed in Japanese were available to consumers in these stores. Demonstrator personnel were hired to offer samples of onion slices to consumers and answer questions about the onion and its use. The Japanese wholesale importing company also distributed sample quantities to 12 other department and international specialty stores. Point-of-purchase and demonstrator support were not provided in these outlets.

Consumers who tasted the raw onion samples provided by the demonstrators were impressed by the mild taste. Japanese consumers rarely eat raw vegetables even though they eat more total vegetables per capita than Western consumers.

Results of the 1991 promotional effort point out the need to have demonstrators available to introduce the onions to consumers in retail stores. Onion sales were reportedly more than 10 times as large in stores with demonstrators than in stores without demonstrators. This reinforces the need to educate the Japanese about the differences in the onion until consumer awareness is raised. Consumers generally must taste the onions before they are willing to purchase them.

The quality of the onions on arrival and as displayed at the retail outlets was exceptionally good in 1991. There were no reports of spoilage, bruising, or other damage during air shipment or transit to the retail outlets. Smaller sized Walla Walla onions are sometimes perceived to be more pungent than larger bulbs. For this reason, it is recommended that jumbo sized bulbs always be sent to Japanese markets. This will avoid problems with strong tasting onions even though some Japanese retailers expressed interest in smaller sized onions.

About 80% of the produce managers interviewed indicated that a retail price range of 100 to 200 yen ($0.75 to $1.50 at prevailing exchange rates) per onion is acceptable. Air transportation is not economically feasible for onions sold at a retail price of 200 yen each. Unless costs can be reduced, air freighted onions will be suited only for very limited niche markets.

Containerized ocean shipment with controlled atmosphere or regular cold storage is a promising method to make future shipments economical. Container shipments will substantially reduce freight costs, compared to air shipments, and permit onions to be priced in the target retail price range of 150 to 200 yen per onion.
SUMMARY AND CONCLUSION

Acreage of Walla Walla onions has declined in each of the 3 years since the peak acreage was reached in 1988. The decline in acreage is primarily the result of poor growing seasons; however, other long-term factors are partly responsible. Season average prices received by growers set new records in 1989 and again in 1991 at $17.80 and $23.90 per hundred-weight, respectively.

The attractive prices of the past 3 years could cause growers to become overly optimistic, resulting in expanded acreage and production. If production were to increase significantly in response to higher prices, it is uncertain that such high-price levels could be maintained. If larger crops become a reality, some pressure on prices could be averted if the Walla Walla onion industry increases its promotional efforts.

Both traditional western markets and more distant markets in the eastern U.S. could benefit from more industry support for promotion. Attractive and informative point-of-purchase materials available to consumers could assist the industry to sell greater quantities of onions while maintaining profitable grower returns. Representation at national produce trade shows could demonstrate industry commitment to wholesale buyers in assisting them to market more onions in more outlets across the United States.

Distribution data indicate an increasing share of onions arriving in the more distant eastern U.S. markets over the past 3 years. Buyers' comments from these markets suggest that the onions are well-received by consumers and are of sufficient quality in an average season to arrive in these markets with sufficient shelf life remaining. They stressed the need for increased market promotion aimed at raising consumer name recognition of Walla Walla onions. Increasing consumer awareness of differentiating attributes associated with the Walla Walla sweet onion was also mentioned as a worthwhile promotional pursuit.

Introductory work in Japan appears to hold promise for the industry but must be viewed as a slowly developing, long-run venture. Walla Walla sweets are the first of the US-produced sweet onion varieties to be introduced into the Japanese food market. The cooperation of the major Japanese food chain, Meidya, is a positive indicator of the potential foreseen for the product by the Japanese food industry.

Assuming Japanese consumers acquire a preference for sweet onions, success may depend heavily on making shipments by containerized ocean freight. Sea shipments appear to allow the onions to be priced in an acceptable range in retail Japanese food outlets. It will require persistence and long-term commitment on the part of innovators in the sweet onion industry to forge and maintain successful marketing arrangements with Japanese food distributors.
Appendix 1. Sample of form used to interview wholesale buyers of sweet onions.

**Onion Survey**

Date __________________________________________________________
Firm Name/Type ________________________________________________
City __________________________________________________________
Contact Name _________________________________________________
Phone _________________________________________________________

<table>
<thead>
<tr>
<th></th>
<th>Vidalia</th>
<th>1015Y</th>
<th>Imperial</th>
<th>Walla</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>season</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant Differences Among the Four Onions:

Consumer
- Recognition
- Differentiation
- Requests

Quality
- arrival
- shelf life

Packer Service
- adv promo

Packaging
- cartons/bags
- uniformity of size
- alt size packs
Appendix 2. Informational questionnaire completed by participants of an educational seminar and tasting for 30 Japanese food industry representatives, Tokyo, July 12, 1990.

Question #1: Have you heard of a sweet onion before?
Response: Yes (12) No (18) Total (30)
A: If answer to #1 was yes - how did you become aware?
Response: Three had tasted, the other nine had read about them or heard of them from someone else.

Question #2: Have you heard of Washington State?
Response: Yes (20) No (10) Total (30)
A: If yes, how do you perceive the quality of Washington State products?
Response: High (7) Average (10) Low (1) Can't Evaluate (2) Total (20)

Question #3: Taste tests: Rankings based on a 1 to 10 scale with 10 = delicious and 1 = not good.
A: Taste of a domestic Japanese onion as generally purchased, (the panel members did not eat, they ranked based on past experience).
   Average score = 6.43 28 responses
B: Walla Walla Sweet fresh slice
   Average score = 7.1 30 responses
C: Sasami
   Average score = 6.85 30 responses
D: Mixed pickles
   Average score = 6.11 30 responses
E: Combination salad
   Average score = 8.08 30 responses
F: With vegetables and garlic sauce
   Average score = 6.88 30 responses
G: Banbanji salad--Japanese style
   Average score = 7.11 30 responses
H: Hot dog--freshly diced
   Average score = 6.35 29 responses

Question #4: Maximum possible expected CNF price\(^{7}\) (¥/kg.)
Distribution of Responses

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Less than 150</td>
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<tr>
<td>150-200</td>
<td>3</td>
</tr>
<tr>
<td>200-250</td>
<td>2</td>
</tr>
<tr>
<td>250-300</td>
<td>2</td>
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</tr>
<tr>
<td>400-450</td>
<td>1</td>
</tr>
<tr>
<td>Greater than 450</td>
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</tr>
</tbody>
</table>
Question #5: Maximum possible price* expected at retail level: (¥/kg.)

Distribution of Responses

<table>
<thead>
<tr>
<th>Range</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 300</td>
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<tr>
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<tr>
<td>400-500</td>
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<tr>
<td>800-900</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 900</td>
<td>1</td>
</tr>
</tbody>
</table>

Question #6: Where/how would you recommend selling a product such as this?

Number of respondents identifying each retail outlet:
- Restaurants (20)
- Hotels (18)
- Department Stores (24)
- Supermarket (17)
- Retail Stores (5)
- Sushi (3)
- Pubs (9)
- Gift (7)
- Salad Bars (2)
- Hamburger Shop (1)
- Imported Food Store (1)

Question #7: Suggested product improvements.
- Lengthen shelf life
- Ship by boat to lower price

Question #8: Preparation suggestions.
- Salad ingredient
- Accent the "smooth" taste
- As a puree with potatoes
- For children who don't like onions

Question #9: General comments.
- Need to reduce freight costs.
- Demand for salads increasing in Japan.
- Import only jumbo size plus.
- Sweeter, softer foods trend.
- Market as a prestige item.
- Set an opening day.
- New name.
- I'm going to use them.

* Prices in yen may be converted to U.S. dollars at the average July 1990 exchange rate of 149 yen to 1 U.S. dollar [FATUS, Sept-Oct 1991].
REFERENCES


