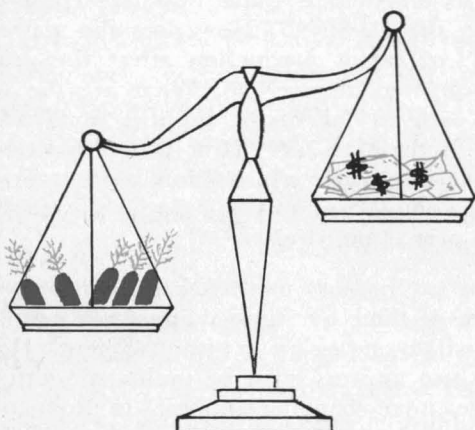


Marketing

South Texas

Winter Carrots



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The price received by Texas growers for winter carrots is influenced by several factors including the quantity of carrots produced in Texas and competing areas, quality, consumers' tastes and buying power, the volume of other vegetables available and marketing costs. Although growers understand that large crops usually bring low prices, the use of a detailed analysis can assist growers in determining the effect of crop size and other factors on price, so that the expected total value for crops of various sizes can be estimated.

This leaflet reports some of the results of a preliminary analysis on South Texas carrot prices issued by the Department of Agricultural Economics and Sociology, Texas A&M University.**

Several important questions for the grower and shipper of South Texas carrots are: (1) What is the present trend in carrot consumption in the U. S.? (2) How does the seasonal volume of carrot production affect the prices which growers receive? (3) What are the seasonal patterns for carrot supplies and carrot prices in the U. S.? (4) How does the production of winter carrots in California affect prices of carrots in Texas and how do California and Texas prices compare?

The preliminary analysis has given answers to some of these questions, but a more detailed study will be necessary to answer others. However, these answers must be evaluated continually because of changing situations in production and marketing.

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Total Carrot Consumption

The consumption of carrots per person in the U.S. declined from 8.7 pounds during 1950-52 to 7.8 pounds during the 1961-63 period, a 10 percent drop. At the same time, however, U.S. population increased by almost 21 percent, and total U.S. carrot consumption increased by 8 percent. If projected growth in population materializes and the average consumption of carrots is maintained at the present level, U.S. carrot consumption in 1968 will be about 11 percent more than in the 1961-63 period.

Demand For Carrots

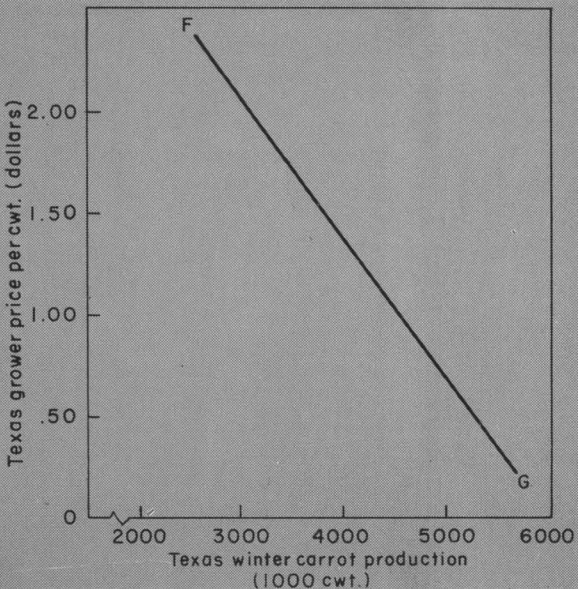
Although the rate of carrot consumption is of interest, it is the demand for carrots which has economic importance. The economic concept of demand refers to the effect that quantity produced and marketed has on the price level while the effect of other price influencing factors is held constant. Demand is estimated by analyzing price and quantity movement during past years. Of further interest is the "elasticity of demand" concept, or how total crop value changes as crop size and price change. The demand for Texas winter carrots has been inelastic in that when production increased, other things being equal, total crop value to growers dropped. The inelastic nature of the demand for Texas carrots is illustrated in the following section.

Texas Winter Carrot Prices

Prices received by growers in Texas for winter carrots are influenced by several factors; the major one being quantity of carrots marketed during the season. Since Texas and California supply practically all of the winter carrots marketed in the U.S., grower prices in Texas are influenced by changes in the production level in both of these areas. Separating the effects of Texas and California production during 1958-1963 period, gave the following estimated relationships: (1) As Texas annual winter production increased 10 percent above the 6-year average, the corresponding price to Texas growers dropped by almost

20 percent, and (2) an increase in California's winter production of 10 percent above the 6-year average was associated with a reduced price to Texas growers of slightly more than 10 percent.

Line FG below, represents the above price relationships and indicates the following production-price-crop value situations for South Texas winter carrots if we assume that California's annual winter production remained constant at the 6-year average of 1,692,000 hundred-weight:



Texas Production (1000 cwt.)	Estimated Texas Price to Growers (dollars/cwt.)	Estimated Texas Crop Value (1000 dollars)
3,000	2.04	6,120
4,000	1.37	5,480
5,000	.69	3,450

Based on the 6-year period, the demand was inelastic because as production in Texas and/or California increased by some percentage the season's average price to Texas growers generally dropped by a larger percentage and reduced the total crop value.

The relationships between Lower Valley F.O.B. shipping point prices and the volume of rail shipments from Texas and from California were similar to those between Texas grower prices and winter production. When rail shipments from Texas and/or California increased significantly above their respective 6-year averages, the total value of the season's shipments generally decreased.

The demand for carrots actually originates at the consumer level where retailers presumably attempt to price carrots according to the quantity available per time period. The demand is passed back to the grower through the marketing channels. Since growers are the first group to own the crop, they feel most of the impact of the crop's size on price. If supplies are short, the grower's price should be relatively high. In turn, if the rate of shipment is high, grower's price will be relatively low.

Monthly Price Movements For Carrots In The U. S.

Carrot prices at the grower, wholesale and retail levels tend to be lowest during the fall, winter and spring months and highest during the summer. Retail prices and the prices received by growers for carrots tend to move together during the year. Unloads of carrots at 41 U.S. cities are generally greatest during the winter season and retail prices are generally lowest during the winter season. When Texas is the dominant supplier in the winter market, total unloads per month are the highest of the year and carrot prices to growers in the U.S. are generally lowest of the year. California provides most of the U.S. carrot supply during the summer and receives the highest prices of the year because the total carrot supply per month is usually lowest during the summer.

California And Texas Carrot Prices

Prices received for California winter carrots in U.S. wholesale markets, F.O.B. shipping points in California and by California growers are consistently higher than prices for Texas carrots at these levels. This difference in price could be due to some buyers' belief that California carrots are superior to Texas carrots.

Conclusion

The South Texas carrot industry's economic problems can be broadly classed under quantity and quality. (1) How many carrots should be produced and shipped per season and how can growers adjust winter carrot production in Texas to provide the desired rate of shipments? (2) Why do California carrots consistently receive higher prices than Texas carrots and can this price difference be resolved? (3) If Texas carrots are of equal or better quality than California carrots, can this fact be presented to the wholesale buyers and consumers?

The price and market analysis underway at present should provide a better view of the total market situation faced by South Texas growers and shippers. As more experience is gained in use of existing information and as market analyses assist where possible, decisions based on this accumulated information can provide more orderly marketing for South Texas carrots.

***The complete report is contained in: A Preliminary Analysis of Price and Demand Relationships for South Texas Winter Carrots, Departmental Information Report No. 65-1, Department of Agricultural Economics and Sociology, Texas A&M University, 1965.*