FEASIBILITY OF A CENTRAL ONION SALES ORGANIZATION FOR SOUTH TEXAS

Report to the

South Texas Onion Committee
Mercedes, Texas

by

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Texas Agricultural Market Research and Development Center
Texas Agricultural Experiment Station
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[1] Stationed at Weslaco, Texas.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

FEASIBILITY OF A CENTRAL ONION SALES ORGANIZATION FOR SOUTH TEXAS

Chan Connolly[1]

SUMMARY AND CONCLUSIONS

Summary: South Texas planted dry onion acreage represented about 25 percent of the total U. S. acreage for the 16 year period 1955-70. South Texas planted onion acreage declined at the annual average rate of about 1,134 compared to 982 for the U. S. during this period.

Yield of South Texas dry onions averaged 11,575 pounds per acre compared to 25,318 for U. S. Annual average yield increase was 543 pounds for South Texas and 630 for U. S.

Total production averaged 2.9 million pounds for South Texas against 26.0 for U. S. South Texas production averaged about 11.0 percent of the U.S. total. In terms of total value, South Texas dry onion annual average value was $11.61 million dollars compared to $80.11 for U. S. South Texas total value represented about 14.5 percent of the total U. S. value.

Normal harvest period for South Texas onions is March, April and May. During the recent 3 year period 1967-69, South Texas monthly average share of U. S. onion supply was 35.5 percent in March, 91.7 percent in April and 55.1 percent in May. South Texas shipped 65.7 percent of the U. S. total supply during the three month period. This provides the South Texas Onion Industry with potential capabilities for partial management of the supply side of the market to achieve orderly marketing and to stabilize price in the very short run.

Cost of production, harvesting, packing, and selling was estimated at about $2.08 per 50 lb bag compared to about $1.83 for the Imperial Valley of California.

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The greatest absolute annual price variation occurred in South Texas during the 16 year period 1955-70. All of the major selected dry onion supply states had a relatively high variation in annual average price. About 68 percent of the variation in the annual average F.O.B. price for the four major states examined varied more than 30 percent about the 16 year average price. Because of price variation, production of dry onions is considered a high risk enterprise.

Per capita consumption of dry onions in U. S. is very stable at 11.5 pounds. Demand is directly related to the size of population. Previous research indicates that dry onions are purchased frequently in retail food stores in small amounts. According to shipments, demand appears to be fairly stable throughout the year.

During the 1970 South Texas dry onion shipping season, there was a total of 55 shipping firms controlled by 47 decision makers. Seven decision makers shipped 150,000 50 lb bags or more representing 58 percent of the total South Texas shipments. Fourteen decision makers shipped from 50,000 to 150,000 50 lb bags, representing almost 20 percent of the shipments. Degree of price competition among sellers was great.

Data limitations prevented the measurement of the degree of buyer concentration, however, it is well established that there is great concentration in buying by food chains.

The degree of dry onion differentiation among sellers is limited. All shippers typically pack in 50 lb bags on which appears the shipper's brand label. This brand label was lost at the repackers or retail food store level. Consequently most South Texas dry onions lose the F.O.B. shipping firm's identity by the time it reaches the retail level.

The height of the grower entry barrier is lower than that for the shipper. The shippers performance criteria, i.e. continuity of supply, good quality, competitive price, carload lots, minimum of quality variance, mix of other produce commodities, capital and management, all contribute to the height of the entry barrier for shippers.

When supply is limited, F.O.B. price is stable, however, when supply becomes long, F.O.B. prices become very volatile. Unsold carlots rolled to brokers and commission merchants are typically sold at distress prices which directly influences the price downward to the same level of all other carlots then in the market sold on a price protected basis.

Economic analysis of the annual average F.O.B. South Texas price per cwt revealed that 92 percent of the variation in South Texas price is associated with the variability in U. S. per capita January storage stocks and per capita South Texas supply. A one percent change in per capita January stocks is associated with a 2.2 percent change in the annual F.O.B. price of South Texas onions in the opposite direction with South Texas per capita supply remaining constant. Likewise a one percent change in per capita South Texas supply is associated with a 1.5 percent change in South Texas price in the opposite direction with January storage stocks held constant.

For each change of 10,000 cwt January storage stocks, the South Texas real price change is $0.015 per cwt in the opposite direction with South Texas supply remaining constant. A 10,000 cwt change in South Texas supply is associated with a real price change of $0.025 per cwt in the opposite direction. Consequently an absolute quantity change in South Texas supply has more influence on the annual average F.O.B. real price of South Texas onions than a comparable quantity of January storage stocks.

shippers and bargin for a lower price as price will be stabilized. Price competition is eliminated but competition for sales will still exist. Shippers would continue with the same grower relationship and pack under the same labels

The proposed South Texas Onion Exchange and the Federal Marketing Order would both share the same office with the services of fieldmen, and clerical assistance under the same management. Both organizations would have interlocking board of directors.

The proposed South Texas Central Sales organization would provide as much service to ultimate consumers as to the South Texas Dry Onion Industry. Consumers are interested in an orderly flow of onions at reasonable prices. The South Texas Dry Onion Industry is interested in orderly marketing with stable pricing. The proposed central sales organization for South Texas onions will serve both purposes.

Returns on capital invested in the proposed central sales organization for South Texas onions cannot be precisely measured and is a matter of subjective judgement. A 25¢ per bag increase would generate an estimated $8.33 annually for each dollar of capital invested which represents an additional income of $1,250,000.00 to the South Texas Onion Industry. With a cost-return break even of 3¢ per 50 lb bag at the 5 million 50 lb bag equivalent level, the probability of returns exceeding 3¢ per 50 lb bag is extremely favorable.

Conclusions: The South Texas Dry Onion Industry possess the necessary conditions for organizing an effective central sales organization. The path leading to orderly marketing and stable prices has been charted in this report. To accomplish this goal, additional activities need be added under the

current South Texas Federal Marketing Order plus a South Texas Onion Exchange need be organized to establish minimum pricing. The expected returns on capital is extremely high.

Teamwork is the key to market power. Individual firms of the Industry must be willing to work together for the same objective. In addition there must be willingness by firms within the Industry to give up a certain amount of individual freedom by not taking independent action. In any program, some action or decisions are not equitable applied to individual's immediate situation, however, over a period of time, advantageous actions and decisions greatly offset inequities that sometimes occur in the very short run. Individuals must focus on the long run results rather than the very short run aspects.

The final decision must come from the South Texas Onion Industry. The potential for more orderly marketing and more stable pricing exists. To accomplish this goal, some independence must be given up in order to place the South Texas Onion Industry in a more advantageous marketing position.

The proposed central sales organization will eliminate some old problems and new problems will come to the surface. Working together will be a new experience for shippers accustomed to the current wild Cowboy-Indian kind of marketing warfare.

INTRODUCTION

The Situation: The current selling organizational structure for South Texas dry onions at the grower-shipper level does not lend itself to orderly marketing and distribution. Historically, economic returns have been extremely volatile at the grower and shipper levels ranging from relatively high returns to negative returns depending upon the level of U. S. aggregate available supplies of dry onions at the time of the South Texas harvest.

South Texas dry onions have been marketed since 1961 with the aid of Federal Marketing Order No. 959, as amended, TEXAS ONIONS. Under the marketing order, grade and size, containers and control of packing house hours when supplies exceed demand are administered by a committee composed of growers and handlers. The committee is also authorized to conduct market research, develop marketing policies, collect assessments plus many other activities as specified under the current order 959 as amended, Appendix I. South Texas Onion Marketing Order 959 is one of 46 Fruit and Vegetable Federal Marketing Orders and Agreements in effect at the end of the 1969 fiscal year, Appendix II.

The objectives of this inquiry are to examine:

1. The aggregate U. S. supply and demand for dry onions
2. Intraseasonal supply of Texas and South Texas dry onions and share of the U. S. supply
3. Cost of producing, harvesting, packing, and selling South Texas dry onions
4. U. S. dry onion storage stocks
5. F.O.B. market structure for South Texas dry onions

6. Annual Average F.O.B. Price and Price Variation

7. Annual Average F.O.B. Price Analysis

8. Selling Conduct of F.O.B. South Texas dry onion selling firms

Based on the above information, the expected performance of a proposed Central Sales organizational structure for South Texas dry onions will be examined which will include the following:

1. Criteria necessary for orderly marketing
2. Organizational elements required to satisfy the criteria for orderly marketing
3. Market management at the F.O.B. level for orderly marketing
4. Cost and returns for capital invested in a Central Sales organization
5. Pricing under market management

Geography and Climate: Onions are produced throughout the United States, but commercial production is limited to areas where climatic conditions permit onions to be produced at a comparable economic advantage. These areas include portions of the Northern tier of states from Connecticut west to Minnesota, the west coast, high altitudes of the Rocky Mountain area, parts of Texas, Louisiana, Arizona and New Mexico.

The highest yields of onions are obtained when cool temperatures prevail over a considerable time which permits the development of an extensive foliage and root development prior to bulbing. Outside the important onion producing areas, onions have low yields because of the limited duration of a cool growing season.

The length of the daylight period, photoperiod, is also another important factor that limits the number of commercial production areas within the United States. Bulbing is not associated with the age of the plant but rather with the photoperiod. The minimum photoperiod necessary to initiate bulbing ranges from 12 hours for extra early varieties to 15 hours for the late types. Early maturity results when a variety has the ability to start bulb formation during relatively short photoperiods and then develop rapidly.

Late maturity varieties normally have a long photoperiod requirement accompanied with a slow rate of growth development after bulbing. Late varieties typically are not grown in the South as the long photoperiod comes during extremely high temperatures when sun scald, thrips and pink rot combined retard growth development. The Sweet Spanish variety, however, has some tolerance to these constraints and is produced in the commercial areas of the south.

Temperature and photoperiod are interacting variables which determine the adaptation of varieties in the various U. S. commercial production areas. In certain areas of the United States, especially the high altitudes of the west, the photoperiod may be much greater than required, and still bulbing is delayed due to low temperatures. This permits varieties, with short photoperiod requirements to develop considerable foliage before temperatures reach the minimum level for bulbing. This provides a partial explanation for the higher yields of certain early varieties under long photoperiods in high altitudes and lower yields in higher temperatures and low altitudes under similar photoperiods.

Bolting, the premature production of seed stalks, is associated with low temperature levels. Controlled greenhouse temperatures indicate 100 percent bolting in the 50° to 60°F range, not greater than 10 percent bolting in

the 60° to 70°F range and no bolting in the 70° - 80°F range. The high degree of bolting in the early South Texas crop during March 1970 was associated with cool temperatures. As temperatures increased, bolting subsided.

The interaction of temperature and photoperiod restricts the commercial production of onions in the United States to areas that possess the unique combination of temperature and light requirements[1].

The United States commercial onion producing states are presented in Table 1 which covers the three year period 1968-1970 for planted and harvested acreage, and yields per acre. The total production by states and value are presented in Table 2 for the same three year time period.

Fresh Produce Terminology: The terminology used in the fresh produce industry has specific meaning and is well understood by those at the trading levels. Specific meaning of the terms evolved over time in order to foster communications between sellers and buyers. As most selling and buying at the F.O.B. shipping points consist of verbal contracts made by telephone, precise meaning of terms are necessary in order to minimize disputes. Definition of terms used in the fresh produce industry are presented in Appendix III.

U. S. ANNUAL DRY ONION PRODUCTION AND MARKET SUPPLY

Production as an Approximation of Supply: The 3 year U. S. dry onion production estimates, Table 2, do not represent the actual quantity of onions that were marketed annually in the United States. The actual loss of onions between the pro-

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[1] Seelig, R. A., "Fruit and Vegetable Facts and Pointers - Dry Onions", United Fresh Fruit and Vegetable Association, 777 14th Street N.W., Washington, D.C., September 10, 1970.

TABLE 1

Acreage and Yield of U.S. Dry Onions by Season and State

1968-70

Season and State	Planted Acreage			Harvested Acreage			Yield per Acre		
	1968	1969	1970	1968	1969	1970	1968	1969	1970
	Acres			Acres			Hundredweight		
Early Spring:									
Texas	27,000	25,000	21,500	21,500	21,000	20,000	115	145	165
Late Spring:									
Texas	200	0	0	200	0	0	50	0	0
Arizona	3,100	2,200	2,400	3,100	2,000	2,400	320	375	360
California	6,000	6,500	6,400	6,000	5,900	6,400	290	280	295
Total or average	9,300	8,700	8,800	9,300	7,900	8,800	295	304	313
Early Summer:									
New Jersey	2,500	2,300	2,200	2,400	2,100	2,000	180	175	175
Texas	8,300	7,000	6,600	8,000	6,500	5,300	175	220	285
New Mexico	4,500	3,600	3,100	4,100	3,400	2,700	300	275	290
Washington	550	550	900	500	550	750	400	380	340
Total or average	15,850	13,450	12,800	15,000	12,550	10,750	217	234	270
Late Summer: 1/									
New York	13,900	13,500	14,400	13,400	13,200	14,100	280	285	350
Ohio	600	600	630	600	500	600	400	310	405
Indiana	1,000	1,100	1,100	900	1,100	1,000	310	300	265
Michigan	7,500	7,000	7,300	6,900	6,700	7,200	325	300	320
Wisconsin	1,900	1,800	1,800	1,800	1,600	1,700	250	200	250
Minnesota	1,100	950	1,000	1,000	900	850	265	250	220
Colorado	6,500	6,000	6,000	6,100	5,500	5,700	290	320	290
Utah	800	950	1,000	750	900	1,000	290	300	300
Washington	1,300	1,200	1,300	1,200	1,100	1,200	400	425	375
Western Oregon	2,200	2,100	2,100	2,100	2,100	2,100	420	435	410
Idaho & Eastern Oregon Total	9,100	8,300	9,600	8,800	8,100	9,000	493	471	455
Idaho	4,300	3,800	4,500	4,100	3,700	4,300	480	455	460
Eastern Oregon	4,800	4,500	5,100	4,700	4,400	4,700	505	485	450
California	16,300	17,600	17,400	16,300	17,600	17,400	325	335	330
Total or average	62,200	61,100	63,630	59,850	59,300	61,850	338	336	347
United States	114,350	108,250	106,730	105,650	100,750	101,400	272	281	300

Source: U.S. Department of Agriculture, Vegetables-Fresh Market, Statistical Reporting Service, Vg 2-2(70) Crop Reporting Board, Washington D.C. December 17, 1970. p 37.

TABLE 2

Production and Value of U.S. Dry Onions By Seasons and States

1968-70

Season and State	Production			Value					
				Per Cwt.			Total		
	1968	1969	1970	1968	1969	1970	1968	1969	1970
	1,000 cwt.			Dollars			1,000 dollars		
Early Spring:									
Texas	2,472	3,045	3,300	6.85	3.23	5.84	16,937	9,832	19,278
Late Spring:									
Texas	10	0	0	4.10	0	0	41	0	0
Arizona	992	750	864	3.36	3.16	4.30	3,338	2,372	3,712
California	1,740	1,652	1,888	4.60	4.04	4.27	8,004	6,674	8,062
Total or average	2,742	2,402	2,752	4.15	3.77	4.28	11,383	9,046	11,774
Early Summer:									
New Jersey	432	368	350	4.10	5.24	5.30	1,771	1,929	1,854
Texas	1,400	1,430	1,511	4.69	4.60	5.13	6,563	6,580	7,748
New Mexico	1,230	935	783	4.00	3.52	4.53	4,920	3,291	3,547
Washington	200	209	255	3.75	4.37	4.02	750	914	1,025
Total or average	3,262	2,942	2,899	4.29	4.32	4.89	14,004	12,714	14,174
Late Summer: 1/									
New York	3,752	3,762	4,935	3.32	5.07	3.13	10,960	16,845	13,603
Ohio	240	155	243	4.10	5.30	3.72	890	748	815
Indiana	279	330	265	3.17	5.76	3.15	784	1,740	759
Michigan	2,242	2,010	2,304	3.25	5.04	2.80	5,882	8,971	5,418
Wisconsin	450	320	425	2.96	4.53	2.90	1,139	1,256	1,046
Minnesota	265	225	187	2.90	5.09	3.10	476	921	428
Colorado	1,769	1,760	1,653	3.80	4.97	3.80	5,244	6,734	4,898
Utah	218	270	300	2.30	4.63	2.30	414	1,111	600
Washington	480	468	450	3.15	5.36	3.35	1,040	2,063	1,146
Western Oregon	882	914	861	1.70	4.40	2.60	1,037	3,608	1,859
Idaho & Eastern Oregon Total	4,342	3,818	4,093	2.53	5.19	3.09	8,504	16,247	10,246
Idaho	1,968	1,684	1,978	2.52	5.19	3.10	3,850	7,163	4,964
Eastern Oregon	2,374	2,134	2,115	2.53	5.19	3.08	4,654	9,084	5,282
California	5,298	5,896	5,742	2.64	2.78	2.69	13,448	16,005	14,966
Total or average	20,217	19,928	21,458	2.92	4.31	2.98	49,818	76,249	55,784
United States	28,693	28,317	30,409	3.60	4.14	3.65	92,142	107,841	101,010

1/ Includes some quantities of storage crop onions harvested but not sold because of shrinkage and waste.

Source: U.S. Department of Agriculture, Vegetables Fresh Market, Statistical Reporting Service Vg 2-2(70) Crop Reporting Board, Washington, D. C. December 17, 1970 p 40.

duction and retail food store levels is not precisely known. This loss is greater in the northern states where onions are stored than in the southern states where onions are marketed direct from the fields to the wholesale level for immediate distribution to the retail food stores, hotels, restaurants and other institutions. In addition, adjustments need be made for imports and exports.

The utilization of U. S. annual production estimates provides the first approximation for supply. The 41 cities unload data collected daily by the U. S. Department of Agriculture, Crop Reporting Board provides another quantity estimate for supply. The 41 cities unload data currently (1970) represent from 60 to 65 percent of total U. S. unloads[2].

Trends in U. S. Dry Onion Production: An examination of U. S. dry onion production for the 16 year period 1955-70 Table 3, reveals that both planted and harvested acres have declined while yields have increased. However, total production has increased during this period. These relationships are not unique for dry onion production. During this period, agricultural production technology has been developed and adapted at a rate greater than the increase in demand for most U. S. agricultural commodities, resulting in a decline of production acres. This, as generally recognized, is the primary reason for the excess production capacity now existing within U. S. agriculture.

In order to estimate more precisely the rate of U. S. average annual change, simple linear regressions were computed for each variable during the 16 year period, Table 4. These analyses reveal that U. S. total planted dry onion acreage declined at an average annual rate of about 982 acres and harvested acres declined a little more than 1,052 acres. Yields per acre increased at

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[2] Computed from the ratio of total U. S. production and 41 cities unload data.

TABLE 3

Acreage, Yield, Production and Value of U.S. Dry Onions
16 Year Period, 1955-70

Year	Planted Acres	Harvested Acres	Yield Per Acre CWT	Production 1000 CWT	Per CWT Dollars	Total 1000 Dollars
1955	118,070	114,130	187	21,388	2.37	50,626
1956	127,030	123,750	197	24,426	2.75	64,293
1957	118,550	110,410	221	24,364	2.85	68,454
1958	116,510	107,000	222	23,784	3.39	78,759
1959	121,330	113,530	226	25,609	2.52	54,756
1960	111,420	102,580	258	26,457	2.44	56,367
1961	97,110	91,340	258	23,600	4.05	86,365
1962	102,720	96,330	268	25,789	2.85	65,794
1963	99,510	95,650	270	25,781	3.51	82.197
1964	105,820	99,660	260	25,959	2.86	65,540
1965	103,910	97,840	288	28,207	3.14	88,585
1966	103,260	93,980	265	24,942	4.61	114,977
1967	109,160	102,880	278	28,562	3.95	104,017
1968	114,350	105,650	272	28,693	3.60	92,142
1969	108,250	100,750	281	28,319	4.14	107,841
1970	106,730	101,400	300	30,408	3.65	101,010

Source: U.S. Department of Agriculture, Vegetables for Fresh Market, 1954-59, SRS, CRB, Washington, D.C. pp 85-89.
U.S. Department of Agriculture, Vegetables for Fresh Market, 1959-65, SRS, CRB, Washington, D.C. pp 128-134.
U.S. Department of Agriculture, Vegetables Fresh Market, 1966, 1967, 1968, 1969 and 1970, SRS, CRB, Washington, D.C. pp 44-45, 44-45, 42-43, 42-43, 40-41, respectively.

TABLE 4

Computed Linear Regression Trends - U.S. Dry Onions Acreage, Yield, Production and Value
16 Year Period 1955-70

Y 1/	a	b	$\bar{y}$	R^2
Planted Acreage	118579.50	- 981.93	110233.13	0.31
Harvested Acreage	112500.75	-1052.44	103555.00	0.34
Yield per acre - CWT	199.65	6.30	253.18	0.83
Total production 1000 CWT	224.22	423.06	26017.50	0.74
Value per CWT in dollars	2.47	0.10	3.29	0.47
Total value - 1000 dollars	50778.45	3450.50	80107.68	0.66

1/ Model = $Y = a + bx$

Where:

Y = Dependent variable
a = Level of linear regression trend line at Y intercept
b = Slope of linear regression trend line
x = Time by calendar years
$\bar{y}$ = Means of linear regression trend line
R^2 = Coefficient of determination

Source: Computed from data, Table 3

an average annual rate of 630 pounds. Total production average annual increase was 42.3 million pounds. Value per hundredweight (cwt) at F.O.B. shipping level increased at an average annual rate of $0.10 and total value at a rate of about 3.5 million dollars annually. Reflected in this is the increased costs of growing, harvesting, packing and selling.

The shrinkage between planted and harvested acreage averaged about 9 percent for the 16 year period.

Trends in Texas Dry Onion Production: Texas dry onion planted and harvested acreage followed the same trend as did U. S. acreage during the 16 year period 1955-70, Table 5. The linear regression trends, Table 6, reveal that Texas planted dry onion acreage declined at an average annual rate of almost 1,450 acres, and harvested acreage declined 1,575. During this period Texas planted and harvested acres was about one third of the U. S. onion acreage. Texas shrinkage from planted to harvested acres also averaged about 9 percent.

Texas average annual yield was 12,800 pounds compared to the U. S. average of 25,300,Tables 4 and 6. Average annual yield increase for Texas was 657 pounds, a little greater than the U. S. 630 pound increase.

In terms of production, Texas produced an average of 15.3 percent of the total U. S. dry onion supply for the 16 year period 1955-70, Table 7. Value per cwt averaged $4.19 for Texas compared to $3.29 for the United States. Average annual price increase for Texas was $0.13 per cwt against $0.10 for the United States.

In reference to total value, Texas average annual value was 20.5 percent of the total U. S. value which reflected Texas' higher price.

TABLE 5

Acreage, Yield, Production and Value of Texas Dry Onions
16 Year Period 1955-70

Year	Planted Acres	Harvested Acres	Yield Per Acre	Production	Value	
					Per CWT	Total
			CWT	1000 CWT	Dollars	Dollars
1955	47,600	47,200	64	3,009	3.15	9,473
1956	59,900	58,400	83	4,861	3.06	14,863
1957	45,900	41,100	97	3,975	3.81	15,139
1958	41,400	37,800	102	3,843	3.62	13,917
1959	44,900	40,800	75	3,057	4.68	14,296
1960	37,500	32,100	123	3,934	3.08	12,120
1961	27,900	24,500	144	3,532	4.01	14,166
1962	31,300	27,900	132	3,688	4.36	16,095
1963	29,300	27,600	138	3,814	4.40	16,792
1964	32,900	29,500	165	4,882	2.58	12,617
1965	30,200	28,000	142	3,963	4.24	16,804
1966	29,900	22,800	125	2,853	6.72	19,168
1967	31,900	28,500	174	4,980	4.13	20,542
1968	35,500	29,700	131	3,882	6.06	23,541
1969	32,000	27,500	163	4,478	3.67	16,412
1970	28,100	25,300	190	4,811	5.62	27,026

Source: U.S. Department of Agriculture, Vegetables for Fresh Market, 1954-59, SRS, CRB, Washington, D.C. pp 85-89.
U.S. Department of Agriculture, Vegetables for Fresh Market, 1959-65, SRS, CRB, Washington, D.C. pp 128-134.
U.S. Department of Agriculture, Vegetables - Fresh Market, 1966, 1967, 1968, 1969 and 1970, SRS, CRB, Washington, D.C. pp 44-45, 44-45, 42-43, 42-43, 40-41, respectively.

TABLE 6

Computed Linear Regression Trends - Texas Dry Onions Acreage, Yield, Production and Value 1955-70

Y 1/	a	b	$\bar{y}$	R^2
Planted Acreage	48932.50	-1446.47	36637.50	0.58
Harvested Acreage	46432.50	-1575.15	33043.75	0.61
Yield per acre CWT	72.18	6.57	128.00	0.74
Total production - 1000 CWT	3545.70	50.23	3972.62	0.12
Value per CWT	3.07	0.13	4.19	0.31
Total value 1000 dollars	10322.53	719.20	16435.68	0.61

1/ Model: $Y = a + bx$

Where:

Y = Dependent variable
a = Level of linear regression trend line at Y intercept
b = Slope of linear regression trend line
x = Time by calendar years
$\bar{y}$ = Mean of linear regression line
R^2 = Coefficient of variation

Source: Computed from data, Table 5

TABLE 7

TEXAS AVERAGE SHARE OF U.S. DRY ONION ACREAGE,
PRODUCTION AND TOTAL VALUE
16 YEAR PERIOD 1955-70

Variable	U.S.	Texas	Texas Share
Planted acres	110,233.13	36,637.50	33.23
Harvested acres	103,555.00	33,043.75	31.90
Total production - 1000 CWT	26,017.50	3,972.62	15.23
Total value - 100 dollars	80,107.68	16,435.68	20.51

Source: Computed from Tables 4 and 6.

Trends in South Texas Dry Onion Production: An examination of the data in Table 8, reveals a similar downward trend in planted and harvested dry onion acreage in South Texas for the 16 year period 1955-70. The linear regression trend analysis Table 9, reveals that South Texas planted acreage declined at an average annual rate of about 1,134 and 1,296 for planted acres. South Texas shrinkage between planted and harvested acres also averaged about 9 percent.

South Texas planted and harvested dry onion acres represented about 78 percent of the Texas total acreage and about 25 percent of the U. S. planted and harvested acreage.

Yields of dry onions in South Texas averaged less than half (45.7%) of the U. S. average for the 16 year period. Texas yields averaged about half (50.55%) of the U. S. average. South Texas average annual rate of yield increase was 543 pounds, Tables 5, 7 and 9.

South Texas total dry onion production represented about 72 percent of Texas' total and about 11 percent of the U. S. total production, Table 10. Texas average annual price was 4.33 per cwt., which was $0.14 greater than Texas price and $1.04 greater than the U. S. average price.

In terms of total crop value, South Texas dry onion average total value was almost 71 percent of the total Texas value during the 16 year period and almost 15 percent of the total U. S. value.

A recapitulation of the pertinent data relative to dry onion production in U. S., Texas and South Texas for the 16 year period 1955-70 is tabulated in Table 11.

Intra-South Texas Dry Onion Production: Dry onion shipments from South Texas for the 3 year period 1967-69 are tabulated in Tables 12, 13 and 14 by counties

TABLE 8

Acreage, Yield, Production and Value of South Texas Early Spring Dry Onions
1955-70

Year	Planted Acreage Acres	Harvested Acreage Acres	Yield Per Acre Cwt	Production 1,000 Cwt	Value Per Cwt Dollars	Value Total 1,000 Dollars
1955	38,000	37,600	62	2331	3.20	7,459
1956	51,000	50,000	80	4000	2.80	11,200
1957	31,500	30,000	90	2700	4.45	12,015
1958	29,300	27,000	95	2565	4.15	10,645
1959	34,000	33,000	65	2145	5.40	11,583
1960	29,500	25,000	110	2750	2.95	8,112
1961	22,500	19,500	130	2535	3.45	8,746
1962	25,500	22,300	120	2676	4.60	12,310
1963	24,000	22,600	130	2938	4.15	12,193
1964	27,700	24,600	155	3813	2.75	9,265
1965	25,100	23,100	130	3003	3.75	11,862
1966	23,100	16,300	95	1548	7.50	11,610
1967	24,000	23,000	165	3795	4.05	15,370
1968	27,000	21,500	115	2472	6.85	16,937
1969	25,000	21,000	145	3045	3.25	9,891
1970	21,500	20,000	165	3300	5.79	19,117

Source: U.S. Department of Ariculture, Vegetables for Fresh Market, 1954-59, SRS, CRB, Washington D.C. pp 85-88, 139.

U.S. Department of Agriculture, Vegetables for Fresh Market, 1959-65, SRS, CRB, Washington D.C. pp 128-134, 194.

U.S. Department of Agriculture, Vegetables-Fresh Market 1966,1967, 1968 and 1969, SRS, CRB, Washinton D.C. pp 44-45, 41-43, 42-43, 42-43, respectively.

U.S. Department of Agriculture, Vegetables-Fresh Market, September 9, 1970, SRS, CRB, Washington D.C. p 10.

TABLE 9
COMPUTED LINEAR REGRESSION TRENDS - SOUTH TEXAS ONIONS
Acreage, Yield, Produciton and Value
1955-70

Y 1/	a	b	$\bar{y}$	R^2	$S_{y \cdot x}$	CV
Planted acreage	38,347.50	-1133.53	28,712.50	0.53	5284.30	0.18
Harvested acreage	37,047.50	-1296.03	26,081.25	0.55	5785.81	0.22
Yield per acre - cwt	69.61	5.43	115.75	0.62	20.98	0.18
Total production - 1,000 cwt	2,702.83	17.47	2,851.31	0.17	6663.76	0.23
Value per cwt in dollars	3.24	0.13	4.33	0.19	1.32	0.30
Total value - 1,000 dollars	8,327.15	407.59	11,701.68	0.38	2375.21	0.27

1/ Model - $Y = a + bx$

Where: y = Dependent variable
a = Level of linear regression trend line a Y intercept
b = Slope of linear regression trend lines
x = Time by calendar years
$\bar{y}$ = Mean of linear regression trend line
R^2 = Coefficient of determination
$S_{y \cdot x}$ = Standard error of estimate
CV = Coefficient of variation

SOURCE: Computed from data in Table 8.

TABLE 10

SOUTH TEXAS AVERAGE SHARE OF U.S. AND TEXAS
DRY ONION ACREAGE, YIELD, PRODUCTION AND TOTAL VALUE
16 YEAR PERIOD 1955-70

Variable	South Texas Percentage of U.S.	South Texas Percentage of Texas
	Percent	Percent
Planted acres	26.04	78.36
Harvested acres	25.13	78.77
Yield per acre-CWT	45.71	90.42
Total production - 1000 CWT	10.95	71.77
Total value-1000 dollars	14.49	70.65

Source: Computed from data in Tables 4, 6 and 9.

TABLE 11

Recapitulation of Pertinent Dry Onion Production Data for U.S., Texas and South Texas
16 Year Period 1955-70

Variable	U.S.	Texas	South Texas
Average annual planted acreage	110,233	36,638	28,713
Average annual planted acreage rate of decline	982	1,446	1,134
Average annual harvested acreage	103,555	33,044	26,031
Average annual harvested acreage rate of decline	1,052	1,575	1,296
Percent of U.S. harvested acreage	100%	31.9%	25.1%
Average annual yield per acre in pounds	25,318	12,800	11,575
Yield-percent of U.S.	100%	50.6%	45.7%
Average annual rate of yield increase in pounds	630	657	543
Average annual production in million pounds	26.0	4.0	2.9
Percent of U.S. production	100%	15.3%	11.0%
Average annual price per CWT	$3.29	$4.19	$4.33
Average annual price increase per CWT	$0.10	$0.13	$0.13
Average annual total value in million dollars	$80.11	$16.44	$11.61
Percent of U.S. total dry onion crop value	100%	20.5%	14.5%

Source: Tables 4, 6, 9.

TABLE 12

Texas Dry Onion Monthly Shipments By Countries and Stations in Carlot Equivalents 1967

		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL
ONIONS, DRY														
BAILEY														
MULESHOE		-	-	-	-	-	-	1	-	-	-	-	-	1
CAMERON														
LA FERIA		-	-	16	69	-	-	-	-	-	-	-	-	85
SAN BENITO		-	-	16	130	14	-	-	-	-	-	-	-	160
	TOTAL			32	199	14								245
CASTRO														
DIMMITT		-	-	-	-	-	-	14	30	-	-	-	-	44
CROSBY														
CROSBYTON		-	-	-	-	-	1	21	36	-	-	-	-	58
CULBERSON														
VAN HORN		-	-	-	-	-	5	41	-	-	-	-	-	46
DEAF SMITH														
HEREFORD		-	-	-	-	-	3	110	45	4	-	-	-	162
DIMMIT														
BIG WELLS		-	-	-	-	81	10	-	-	-	-	-	-	91
CARRIZO SPRINGS		-	-	-	158	354	4	-	-	-	-	-	-	516
	TOTAL				158	435	14							607
EL PASO														
ANTHONY		-	-	-	-	1	10	-	-	-	-	-	-	11
CANUTILLO		-	-	-	-	9	41	-	54	-	-	-	-	104
	TOTAL					10	51		54					115
FLOYD														
FLOYDADA		-	-	-	-	-	1	36	7	-	-	-	-	44
HALE														
PLAINVIEW		-	-	-	-	-	12	7	-	-	-	-	-	19
HIDALGO														
EDINBURG		-	-	11	102	20	-	-	-	-	-	-	-	133
ELSA		-	-	-	7	3	-	-	-	-	-	-	-	10
HIDALGO		-	-	3	4	-	-	-	-	-	-	-	-	7
MCALLEN		-	2	144	617	123	-	-	-	-	-	-	-	886
MERCEDES		-	-	57	277	42	-	-	-	-	-	-	-	376
MISSION		-	-	16	95	1	-	-	-	-	-	-	-	112
PHARR		-	-	51	189	16	-	-	-	-	-	-	-	256
WESLACO		-	-	64	203	34	-	-	-	-	-	-	-	301
	TOTAL		2	346	1494	239								2081
LUBBOCK														
LUBBOCK		-	-	-	-	-	5	18	-	7	-	3	-	33
PARMER														
BOVINA		-	-	-	-	-	-	-	7	-	-	-	-	7
PECOS														
FT STOCKTON		-	-	-	-	-	14	-	-	-	-	-	-	14
PRESIDIO														
PRESIDIO		-	-	-	-	94	12	-	-	-	-	-	-	106
REEVES														
PECOS		-	-	-	-	-	7	25	23	-	-	-	-	55
SAN PATRICIO														
MATHIS		-	-	7	162	58	11	3	-	-	-	-	-	241
STARR														
RIO GRANDE CITY		-	-	18	81	-	-	-	-	-	-	-	-	99
UVALDE														
UVALDE		-	-	-	-	90	15	6	4	-	-	-	-	115
WEBB														
LAREDO		-	-	12	432	146	-	-	-	-	-	-	-	590
WILLACY														
RAYMONDVILLE		-	1	96	174	1	-	-	-	-	-	-	-	272
ZAVALA														
CRYSTAL CITY		-	-	1	81	298	1	-	-	-	-	-	-	381
UNKNOWN														
BOAT		-	-	-	45	-	-	-	-	-	-	-	-	45
COMMODITY TOTAL			3	512	2826	1385	152	282	206	11		3		5380

Source: U.S. Department of Agriculture C&MS-13(1967), Fruit and Vegetable Division, Market News Branch, Washington, D.C. May 1969. pp 65, 66.

TABLE 13

Texas Dry Onion Monthly Shipments By Countries and Stations in Carlot Equivatens
1968

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL
ONIONS, DRY													
CAMERON													
LA FERIA	-	-	-	18	11	-	-	-	-	-	-	-	29
SAN BENITO	-	-	1	7	25	-	-	-	-	-	-	-	33
TOTAL			1	25	36								62
CASTRO													
DIMMITT	-	-	-	-	-	-	10	18	2	-	-	-	30
CROSBY													
CROSBYTON	-	-	-	-	-	-	-	4	-	-	-	-	4
RALLS	-	-	-	-	-	2	-	-	-	-	-	-	2
TOTAL						2		4					6
CULBERSON													
VAN HORN	-	-	-	-	-	12	23	-	-	1	-	-	36
DEAF SMITH													
HEREFORD	-	-	-	-	-	-	67	62	19	13	1	-	162
DIMMIT													
CARRIZO SPRINGS	-	-	-	29	93	1	-	-	-	-	-	-	123
EL PASO													
ANTHONY	-	-	-	-	2	41	7	9	4	-	-	-	63
CANUTILLO	-	-	-	-	-	54	22	17	1	-	-	-	94
TOTAL					2	95	29	26	5				157
FLOYD													
FLOYDADA	-	-	-	-	-	-	2	-	-	-	-	-	2
HALE													
PLAINVIEW	-	-	-	-	-	5	12	-	-	-	-	-	17
HIDALGO													
ALAMO	-	-	-	-	9	-	-	-	-	-	-	-	9
DONNA	-	-	-	1	-	-	-	-	-	-	-	-	1
EDINBURG	-	-	-	52	48	-	-	-	-	-	-	-	100
HIDALGO	-	-	1	50	66	-	-	-	-	-	-	1	118
MCALLEN	-	-	7	328	195	-	-	-	-	-	-	1	531
MERCEDES	-	-	1	83	64	-	-	-	-	-	-	-	148
MISSION	-	-	-	64	86	-	-	-	-	-	-	-	150
PHARR	-	-	-	135	61	-	-	-	-	-	-	-	196
WESLACO	-	-	2	104	48	-	-	-	-	-	1	-	155
TOTAL			11	817	577						1	2	1408
LUBBOCK													
LUBBOCK	-	-	-	-	-	1	7	9	4	-	2	2	25
MAVERICK													
EAGLE PASS	-	-	-	1	31	3	-	-	-	-	-	-	35
MEDINA													
HONDO	-	-	-	-	-	11	-	-	-	-	-	-	11
PARMER													
BOVINA	-	-	-	-	-	-	-	13	-	-	-	-	13
PECOS													
FT STOCKTON	-	-	-	-	5	71	19	2	-	-	-	-	97
PRESIDIO													
PRESIDIO	-	-	-	2	130	41	-	-	-	-	-	-	173
REEVES													
PECOS	-	-	-	-	-	8	16	4	-	-	-	-	28
SAN PATRICIO													
MATHIS	-	-	-	91	143	-	-	-	-	-	-	-	234
STARR													
RIO GRANDE CITY	-	-	-	150	46	-	-	-	-	-	-	-	196
UVALDE													
UVALDE	-	-	-	-	26	3	-	-	-	-	-	-	29
WEBB													
LAREDO	-	-	-	185	226	-	-	-	-	-	-	-	411
WILLACY													
RAYMONDVILLE	-	-	1	169	56	-	-	-	-	-	1	1	228
ZAVALA													
CRYSTAL CITY	-	-	-	9	114	44	-	-	-	-	-	-	167
COMMODITY TOTAL			13	1478	1485	297	185	138	30	14	5	5	3650

Source: U.S. Department of Agriculture, C&MS-13(1968), Fruit and Vegetable Division, Market News, Branch, Washington, D.C. May 1969. p 66.

TABLE 14

Texas Dry Onion Monthly Shipments By Countries and Stations in Carlots Equivalents
1969

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL
ONIONS, DRY													
BAILEY													
MULESHOE	-	-	-	-	-	-	4	-	-	-	-	-	4
BEXAR													
SAN ANTONIO	-	-	-	-	-	2	1	-	-	-	-	-	3
CAMERON													
HARLINGEN	-	-	3	3	6	-	-	-	-	-	-	-	12
LA FERIA	-	-	4	98	55	-	-	-	-	-	-	-	157
SAN BENITO	-	-	2	26	21	-	-	-	-	-	-	-	49
TOTAL			9	127	82								218
CASTRO													
DIMMITT	-	-	-	-	-	7	41	10	-	-	-	-	58
CROSBY													
CROSBYTON	-	-	-	-	-	-	6	8	-	-	-	-	14
RALLS	-	-	-	-	-	-	-	1	-	-	-	-	1
TOTAL							6	9					15
CULBERSON													
VAN HORN	-	-	-	-	-	1	23	-	-	-	-	-	24
DEAF SMITH													
HEREFORD	-	-	-	-	-	6	191	30	2	1	-	-	230
DIMMIT													
CARRIZO SPRINGS	-	-	-	44	148	48	-	-	-	-	-	-	240
EL PASO													
ANTHONY	-	-	-	-	-	27	13	31	-	-	-	-	71
CANUTILLO	-	-	-	-	-	39	-	-	-	-	-	-	39
TOTAL						66	13	31					110
FLOYD													
FLOYDADA	-	-	-	-	-	3	7	-	-	-	-	-	10
HALE													
PLAINVIEW	-	-	-	-	-	4	38	-	-	-	-	-	42
HIDALGO													
EDINBURG	-	-	12	109	46	-	-	-	-	-	-	-	167
HIDALGO	-	-	6	31	23	-	-	-	-	-	-	-	60
MCALLEN	-	-	91	779	298	-	-	-	-	-	-	-	1168
MERCEDES	-	-	18	179	57	-	-	-	-	-	-	-	254
MISSION	-	-	24	74	17	-	-	-	-	-	-	-	115
PHARR	-	-	9	135	39	-	-	-	-	-	-	-	183
WESLACO	-	-	38	259	100	-	-	-	-	-	-	-	397
TOTAL			198	1566	580								2344
LUBBOCK													
LUBBOCK	-	-	-	-	-	10	69	12	-	-	-	-	91
MEDINA													
HONDO	-	-	-	-	13	2	-	-	-	-	-	-	15
PECOS													
FT STOCKTON	-	-	-	-	-	87	5	-	-	-	-	-	92
PRESIDIO													
PRESIDIO	-	-	-	-	92	14	-	-	-	-	-	-	106
REEVES													
PECOS	-	-	-	-	-	4	11	-	-	-	-	-	15
SAN PATRICIO													
MATHIS	-	-	-	71	74	-	-	-	-	-	-	-	145
STARR													
RIO GRANDE CITY	-	-	2	45	-	-	-	-	-	-	-	-	47
UVALDE													
UVALDE	-	-	-	-	31	17	7	-	-	-	-	-	55
WEBB													
LAREDO	-	-	11	200	253	-	-	-	-	-	-	-	464
WILLACY													
RAYMONDVILLE	-	-	40	100	8	1	-	-	-	-	-	-	149
ZAVALA													
CRYSTAL CITY	-	-	-	38	171	39	5	-	-	-	-	-	253
COMMODITY TOTAL			260	2191	1452	311	421	92	2	1			4730

Source: U.S. Department of Agriculture, C&MS-13(1969), Fruit and Vegetable Division, Market News Branch, Washington D.C. June 1970. p 67.

and stations. The shipping data for February through May is aggregated in Table 15 indicating the 3 year average total percentage produced by each county. Hidalgo county was the major production area representing over 50 percent of South Texas total dry onion supply. Webb county ranked second representing 12.6 percent. The Rio Grande Valley, represented by Cameron, Hidalgo, Starr and Willacy counties, represented 63.4 percent of the total South Texas supply.

South Texas dry onion acreage, yield production areas, daily shipments, daily F.O.B. prices by variety and size, delivered prices in selected wholesale markets, and other pertinent statistics for 1969 and 1970 are presented in Tables IV and V in the appendix.

U. S. Onion Flow Rate to Market: U. S. dry onion shipments by months provide an estimate for the monthly rate of flow to market. Monthly U. S. shipments by states are tabulated in Tables 16, 17 and 18 for each of the 3 years 1967-69. Monthly total U. S. shipments are presented in Table 19 for each of the three years with a 3 year average by months. Inspection of this data reveals that monthly U. S. shipments are relatively stable with exception of the 3 months, April, May and June. During this period monthly shipments are greater than normal.

The primary harvest period for South Texas onions is March, April and May. The carlot equivalent dry onion shipments for South Texas during the 3 year period 1967-69, March through May is presented in Table 20, with the 3 year monthly average. U. S. and South Texas carlot equivalents for this same period are presented in Table 21. During the 3 year period Table 21 shows that South Texas shipped 35.5 percent of the total U. S. March ship-

TABLE 15

SOUTH TEXAS DRY ONION SHIPMENTS BY COUNTIES
3 YEAR PERIOD, 1967-69
FEBRUARY THROUGH MAY

County	1967 Carlots	1968 Carlots	1969 Carlots	3 Year Average Carlots	Percent of Total Percent
Cameron	245	62	218	175	4.5
El Paso	10	2	-	4	0.1
Dimit	593	122	192	302	7.8
Hidalgo	2081	1405	2344	1943	50.3
Maverick	-	32	-	11	0.3
Medina	-	-	13	4	0.1
Pecos	-	5	-	2	Nil
Presidio	94	132	92	106	2.7
San Patricio	227	234	145	202	5.2
Starr	99	196	47	114	3.0
Uvalde	90	26	31	49	1.3
Webb	590	411	464	488	12.6
Willacy	272	226	148	215	5.6
Zavala	380	123	209	237	5.1
Unknown (Boat)	45	-	-	15	0.4
Total	4726	2976	3903	3867	100.0

Source: Tables 12, 13, and 14.

TABLE 16

U.S. Dry Onion Monthly Shipments by States in Carlot Equivalents
1967

ORIGIN	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL	
ONIONS, DRY - RAIL														
ARIZ	-	-	-	-	638	1050	15	-	-	-	-	-	1703	1790
ARIZ R/T	-	-	-	-	6	80	1	-	-	-	-	-	87	
CALIF ND	4	11	-	-	28	360	344	14	6	-	-	-	767	
CALIF ND R/T	-	-	-	-	-	5	2	-	-	-	-	-	7	
CALIF CD	-	3	-	1	61	208	356	328	30	6	24	19	1036	
CALIF CD R/T	-	-	-	-	-	13	48	8	-	-	-	-	69	
CALIF SD	-	-	-	-	86	32	23	11	8	-	-	-	160	2844
CALIF IV	-	-	-	23	460	308	-	-	-	-	-	-	791	
CALIF IV R/T	-	-	-	-	2	10	-	-	-	-	-	-	12	
CALIF BOAT	-	-	-	-	1	1	-	-	-	-	-	-	2	
COLO	18	27	23	-	-	-	-	42	80	154	56	75	475	
FLA R/T	-	-	-	3	1	-	-	-	-	-	-	-	4	
IDAHO	456	310	265	24	-	-	-	79	328	360	412	378	2612	
IOWA	-	-	-	-	-	-	30	1	-	8	13	-	52	
MINN	12	8	6	-	-	-	-	-	1	4	4	1	36	
NEV	-	-	-	-	-	-	-	-	-	-	1	1	2	
N MEX	-	-	-	-	27	547	77	274	10	2	-	-	937	
ORE	619	391	263	3	-	-	-	19	375	391	429	415	2905	
TEXAS	-	3	508	2775	1385	152	282	206	11	-	3	-	5325	
TEXAS R/T	-	-	4	6	-	-	-	-	-	-	-	-	10	5380
TEXAS BOAT	-	-	-	45	-	-	-	-	-	-	-	-	45	
UTAH	19	7	-	-	-	-	-	-	22	60	55	46	209	
WASH	46	34	1	-	-	58	325	36	47	33	72	44	696	
WIS	2	1	5	-	-	-	-	-	13	16	1	12	50	
TOTAL	1176	795	1075	2880	2695	2824	1503	1018	931	1034	1070	991	17992	
ONIONS, DRY - TRUCK														
ARIZ	-	-	-	-	102	277	23	-	-	-	-	-	402	
CALIF	37	37	28	48	603	591	404	461	450	311	149	158	3287	
IDAHO	30	28	49	23	-	-	1	10	40	42	52	35	310	
MICH	661	544	422	43	-	-	23	170	400	549	636	537	3985	
ORE	68	52	50	1	-	-	-	-	54	84	100	84	493	
TEXAS	26	63	925	2086	1261	43	-	-	-	-	-	-	4424	

Source: U.S. Department of Agriculture, C&MS-14(1967) Fruit and Vegetable Division, Market News Branch, Washington, D.C., June 1968. p 15.

TABLE 17

U.S. Dry Onion Monthly Shipments By States in Carlot Equivalents
1968

SHIPMENTS BY COMMODITIES, ORIGINS AND MONTHS.

ORIGIN	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL	
ONIONS, DRY - RAIL														
ARIZ	-	-	-	-	902	507	2	1	-	-	-	-	1412	
CALIF ND	-	4	-	-	35	588	204	19	20	1	2	-	873	
CALIF ND R/T	-	-	-	-	-	-	2	-	-	-	-	-	2	
CALIF CD	21	9	6	3	139	302	500	351	27	21	9	-	1388	3065
CALIF CD R/T	-	-	-	-	8	17	18	-	-	-	-	-	43	
CALIF SD	-	-	-	-	102	20	24	23	4	-	1	-	174	
CALIF IV	-	-	-	155	367	62	-	-	-	-	-	-	584	
CALIF BOAT	-	-	-	-	-	1	-	-	-	-	-	-	1	
COLO	79	50	37	-	-	-	-	89	112	108	55	27	557	
IDAHO	435	308	123	-	-	-	-	69	317	355	410	445	2472	
IOWA	-	-	-	-	-	-	42	-	-	-	1	-	50	
MINN	10	11	6	-	-	-	-	-	-	1	-	-	28	
NEV	-	-	-	-	-	-	-	-	-	1	7	4	12	
N MEX	-	-	-	-	1	597	165	163	32	1	1	1	961	
N DAK	1	-	-	-	-	-	-	-	-	-	-	-	1	
ORE	605	415	105	-	-	-	-	17	501	677	540	596	3456	
TEXAS	-	-	13	1476	1485	297	185	138	30	14	5	5	3648	3650
TEXAS R/T	-	-	-	2	-	-	-	-	-	-	-	-	2	
UTAH	46	3	1	-	-	-	-	-	11	39	30	39	169	
VA	-	-	-	-	-	1	-	-	-	-	-	-	1	
WASH	39	17	3	-	-	67	295	12	31	36	35	29	564	
WIS	16	3	-	-	-	-	-	-	7	9	2	-	37	
TOTAL	1252	820	294	1636	3039	2459	1444	882	1092	1273	1098	1146	16435	
ONIONS, DRY - TRUCK														
ARIZ	-	-	-	-	255	176	2	-	-	-	-	-	433	
CALIF	117	40	23	279	706	452	454	506	441	330	284	186	3818	
IDAHO	57	52	39	-	-	-	-	8	38	50	68	56	368	
MICH	702	659	568	140	-	-	-	295	450	584	570	502	4470	
N MEX	-	-	-	-	19	574	-	-	-	-	-	-	593	
ORE	95	68	12	-	-	-	-	1	66	95	87	84	508	
TEXAS	-	-	63	1735	1418	83	853	552	342	65	9	14	5134	%

% *Includes Lower Valley, Laredo, Winter Garden, Coastal Bend and Hereford districts.*

Source: U.S. Department of Agriculture, C&MS-14(1968), Fruit and Vegetable Division, Market News Branch, Washington, D.C. July 1969. p 16.

TABLE 18

U.S. Dry Onion Monthly Shipments By States in Carlot Equivalents
1969

ORIGIN	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL	
ONIONS, DRY - RAIL														
ARIZ	-	-	-	-	617	375	-	-	-	-	-	-	992	
CALIF ND	-	-	7	-	-	-	-	-	21	3	-	-	31	
CALIF ND R/T	-	-	-	-	-	-	-	-	2	-	-	-	2	
CALIF CD	-	13	33	1	54	700	622	173	2	11	14	10	1633	
CALIF CD R/T	-	-	-	-	-	29	32	9	-	-	-	-	70	
CALIF SD	-	-	-	-	107	29	32	17	-	2	-	-	187	2560
CALIF SD R/T	-	-	-	-	1	-	-	-	-	-	-	-	1	
CALIF IV	-	-	-	19	418	189	-	-	-	-	-	-	626	
CALIF IV R/T	-	-	-	-	6	4	-	-	-	-	-	-	10	
COLO	49	45	30	3	-	-	7	114	112	104	60	50	574	
IDAHO	471	368	319	31	-	-	15	155	382	376	373	417	2907	
IOWA	-	-	-	-	-	-	17	26	-	-	5	-	48	
MINN	2	-	-	-	-	-	-	-	-	1	11	16	30	
NEV	-	-	-	-	-	-	-	-	1	4	4	-	9	
N MEX	1	-	-	-	-	651	200	138	1	-	-	1	992	
ORE	653	539	355	6	9	-	-	198	561	645	445	556	3967	
TEXAS	-	-	259	2188	1450	311	421	92	2	1	-	-	4724	
TEXAS R/T	-	-	1	3	2	-	-	-	-	-	-	-	6	4730
UTAH	32	12	5	-	-	-	-	-	24	81	66	55	275	
WASH	25	50	131	13	-	50	269	27	98	33	54	42	792	
WIS	5	-	2	-	-	-	-	-	4	10	3	3	27	
WYO	-	-	-	-	-	-	-	-	-	-	2	2	4	
TOTAL	1238	1027	1142	2264	2664	2338	1615	949	1210	1271	1037	1152	17907	
ONIONS, DRY - TRUCK														
ARIZ	-	-	-	-	121	149	-	-	-	-	-	-	270	
CALIF	145	111	103	87	641	580	583	442	385	376	258	252	3963	
COLO	297	312	119	-	-	-	8	264	599	557	293	266	2715	
IDAHO	61	54	52	16	2	-	5	16	43	33	30	32	344	
MICH	620	532	576	146	-	-	-	158	700	588	643	555	4518	
N MEX	-	-	-	-	-	447	-	-	-	-	-	-	447	
ORE	113	82	69	1	-	-	-	21	78	62	68	54	548	
TEXAS	6	38	339	1488	993	135	1506	658	25	13	-	-	5201	@

@ Includes Lower Valley, Hereford, Laredo, Winter Garden and Coastal Bend districts.

Source: U.S. Department of Agriculture, C&MS-14(1969), Fruit and Vegetable Division, Market News Branch, Washington, D.C. June 1970. p 16.

TABLE 19

INTRASEASONAL FLOW TO MARKET SHIPMENTS OF U.S. DRY ONIONS
BY MONTHS IN CARLOT EQUIVALENTS
3 YEAR PERIOD 1967-69

	1967	1968	1969	3 Year Average	Percent of 3 Yr. Aver.
	Carlots	Carlots	Carlots	Carlots	
January	1,998	2,223	2,480	2,234	6.8
February	1,539	1,639	2,156	1,778	5.4
March	2,549	999	2,400	1,983	6.0
April	5,081	3,790	4,002	4,291	13.1
May	4,661	5,437	4,421	4,840	14.7
June	3,735	3,744	3,649	3,709	11.3
July	1,954	2,753	3,717	2,808	8.5
August	1,659	2,244	2,508	2,137	6.5
September	1,875	2,429	3,040	2,448	7.5
October	2,020	2,397	2,900	2,439	7.4
November	2,007	2,116	2,329	2,151	6.5
December	1,815	1,988	2,311	2,038	6.2
Total	30,893	31,759	35,913	32,856	99.9[1/]

Source: Computed from data in Tables 16, 17, and 18.

TABLE 20

MONTHLY FLOW TO MARKET SHIPMENTS OF SOUTH TEXAS
DRY ONIONS IN CARLOT EQUIVALENTS FOR MARCH, APRIL AND MAY
3 YEAR PERIOD 1967-69

	1967 Carlots	1968 Carlots	1969 Carlots	3 Year Average Carlots
March	1,437	76	599	704
April	4,912	3,213	3,679	3,935
May	2,646	2,903	2,445	2,665
Total	8,995	6,192	6,723	7,304

Source: Tables 12, 13, and 14.

TABLE 21

U.S. AND SOUTH TEXAS MONTHLY SHIPMENTS OF U.S. DRY ONIONS
AND SOUTH TEXAS SHARE FOR MARCH, APRIL AND MAY
3 YEAR PERIOD 1967-69

	U.S. Shipments	South Texas Shipments	South Texas Percent of U.S. Shipments
	Carlots	Carlots	Percent
March	1,983	704	35.5
April	4,291	3,935	91.7
May	4,840	2,665	55.1
Total	11,114	7,304	65.7

Source: Computed from data in Tables 19 and 20.

months; 91.7 percent in April and then declined to 55.1 percent in May. South Texas shipped 65.7 percent of the total U. S. dry onion shipments during March through May for this 3 year period.

The above data indicates the unique position of the South Texas onion industry regarding its share of the U. S. market for this 3 month interval. The dominate position provides potential capability to the South Texas Onion Industry to manage a partial supply to the market when competition from northern onion stocks are at a minimum in order to achieve more orderly marketing and stable pricing.

U. S. Monthly Net Dry Onion Supply: The previous analyses excluded U. S. import and export shipments of dry onions. Tables 22, 23 and 24 present the intraseasonal South Texas share of total U. S. shipments with import-export adjustments included for the 3 year period 1967-69 March through May. Since the South Texas dry onion industry has exported shipments only during heavy supply periods, these adjustments change its share of net U. S. shipments very slightly, Table 25.

Cost of Production, Harvesting, Packing and Selling: Estimated average cost of growing one acre of South Texas dry onions to point of harvest in 1970 was $192.45, Table 26. With an average yield of 330 50 lb bags, cost of production per 50 lb bag was about $0.58. With an estimated cost of harvesting, packing and selling of $1.50 per 50 lb bag, Table 27, break even F.O.B. cost was about $2.08 per 50 lb bag.

The estimated growing cost for dry onions in the Imperial Valley of

TABLE 22

MONTHLY SOUTH TEXAS SHARE OF U.S. DRY ONION SUPPLY
WITH IMPORTS AND EXPORTS INCLUDED
MARCH THROUGH MAY 1967

U. S. Supply	March	April	May
	carlots	carlots	carlots
U.S. Shipments:			
U.S. Rail Shipments	1075	2881	2695
U.S. Truck Shipments	1474	2201	1966
Total U.S. Shipments	2549	5081	4661
Plus Imports	444	78	9
Total U.S. Supply	2993	5159	4670
Less Exports	314	727	780
U.S. Net Supply	2679	4432	3890
South Texas Supply:			
Rail Shipments	512	2826	1385
Truck Shipments	925	2086	1261
Total South Texas Supply	1437	4912	2646
South Texas Share of U.S. Net Supply	48.01%	96.67%	68.02%

South Texas Share of U.S. Net Supply for March through May = 70.15%

Source: Computed from data published by U.S. Department of Agriculture, Fresh Fruit and Vegetables shipments, C & MS - 14 (1967), July 1968, Washington, D.C. p 15.

TABLE 23

MONTHLY SOUTH TEXAS SHARE OF U.S. DRY ONION SUPPLY
WITH IMPORTS AND EXPORTS INCLUDED
MARCH THROUGH MAY
1968

U.S. Supply	March	April	May
	carlots	carlots	carlots
U.S. Shipments:			
U.S. Rail Shipments	294	1636	3039
U.S. Truck Shipments	63	1735	1418
Total U.S. Shipments	357	3371	4457
Plus Imports	509	713	57
Total U.S. Supply	866	4084	4514
Less Exports	99	317	670
U.S. Net Supply	767	3767	3844
South Texas Supply:			
Rail Shipments	13	1478	1485
Truck Shipments	63	1735	1418
Total South Texas Supply	76	3213	2903
South Texas Share of U.S. Net Supply, March - May	8.77%	78.67%	64.31%

South Texas Share of U.S. Net Supply for March through May = 73.90%

Source: Computed for publication by U.S. Department of Agriculture, Fresh Fruit and Vegetable Shipments, C & MS - 14 (1968), July 1969, Washington, D. C. p 16.

TABLE 24

MONTHLY SOUTH TEXAS SHARE OF U.S. DRY ONION SUPPLY
WITH IMPORTS AND EXPORTS INCLUDED
MARCH THROUGH MAY
1969

U.S. Supply	March	April	May
	carlots	carlots	carlots
U.S. Shipments:			
U.S. Rail Shipments	1142	2264	2664
U.S. Truck Shipments	1258	1738	1757
Total U.S. Shipments	2400	4002	4421
Plus Imports	263	125	69
Total U.S. Supply	2663	4127	4490
Less Exports	242	420	451
U.S. Net Supply	2421	3703	4039
South Texas Supply			
Rail Shipments	260	2191	1452
Truck Shipments	339	1488	993
Total South Texas Supply	599	3679	2445
South Texas Share U.S. Net Supply	22.49%	89.14%	54.45%

South Texas Share of U.S. Net Supply March through May = 59.60%

Source: Computed from data published by U.S. Department of Agriculture, Fresh Fruit and Vegetable Shipments, C&MS-14 (1969), July 1970, Washington, D.C. p 16.

TABLE 25

MONTHLY SOUTH TEXAS PERCENTAGE SHARE OF U.S. DRY ONION SUPPLY
WITH IMPORTS AND EXPORTS INCLUDED
MARCH THROUGH MAY
3 YEAR PERIOD 1967-69

Month	March through May 1967	1968	1969	3 yr. average
	Percent	Percent	Percent	Percent
March	48.01	8.77	22.49	32.38
April	96.67	78.67	89.14	88.28
May	68.02	64.41	54.45	61.47
Texas Share for 3 Month Period	70.15	65.42	59.6	65.27

Source: Tables 22, 23, and 24.

1/ Weighted percentage.

TABLE 26

ESTIMATED COST OF PRODUCING ONE ACRE OF SOUTH TEXAS DRY ONIONS
1970

Costs	Per Acre	
Variable Costs - Production		
Tractor and Equipment	$12.00	
Tractor labor	25.50	
Other labor	21.00	
Seed	16.25	
Fertilizer 100-100-0	20.00	
Insecticide	6.75	
Fungicide	16.00	
Herbicide	18.90	
Irrigation water	15.00	
Interest on operating capital @ 8%	6.05	
Total variable costs		$157.45
Fixed Costs - Production		
Taxes	11.00	
Interest on land @ 6%	24.00	
Total on fixed costs		$ 35.00
Total Production Cost		$192.45

Source: Larson, Longbrake, and Cotner, Keys to Profitable Onion Production in Texas, MP-971, Agricultural Extension Service, College Station, Texas p 7.

TABLE 27

ESTIMATED COST OF HARVESTING, PACKING AND SELLING
50 LB BAG OF SOUTH TEXAS DRY ONIONS
1970

Harvest Functions	50 lb bag
Field Harvesting	$0.45
Packing	0.80
Selling	0.25
Total Cost	$1.50

Source: Larson, Longbrake and Cotner, Keys to Profitable Onion Production in Texas, MP-971, Agricultural Extension Service, College Station, Texas p. 7.

California in 1970 was about $0.50 per 50 lb bag according to growers interviewed. The harvesting, packing and selling cost in the Imperial Valley was about $1.33 per 50 lb bag, Table 28, making a total F.O.B. break even F.O.B. price of $1.83. Growing cost per 50 lb bag in the Imperial Valley was lower due to an average yield of 600 50 lb bags compared to South Texas' 330. The harvesting, packing and selling costs in the Imperial Valley were about $0.17 per 50 lb bag less than South Texas' cost. This indicates that the Imperial Valley had about $0.25 F.O.B. total cost advantage over South Texas in 1970.

Seasonal Average F.O.B. Prices: All seasonal average F.O.B. prices are collected by the local market news offices situated in the various areas of U. S. where fruits and vegetables are commercially produced. All market news offices are supported by State and Federal funds under the local state departments of agriculture and the Consumer and Marketing Service, Crop Reporting Board, Statistical Reporting Service of the U. S. Department of Agriculture.

The Market News Service Office reporting onion F.O.B. prices in the Valley is located in Weslaco, Texas. F.O.B. prices reported are based upon the F.O.B. shipping point basis. In reality many sales are made on a shipping point acceptance upon arrival basis. Consequently these sales are not final until the carolot is received at the wholesale level subject to the approval of the buying firm. Should the quality not be satisfactory at the delivery point, it is customary for price adjustment or allowance to be made which is not reflected in the market news price quotation. These sales are reported to the Market News Service Office based upon delivered sales, shipping point basis (FOBDEL).

When supply is long, some sales are made on a price protected basis. Under this agreement, the shipper agrees to ship to the buying firm on a price

TABLE 28

ESTIMATED COST OF HARVESTING, PACKING AND SELLING
50 LB BAG OF IMPERIAL VALLEY, CALIFORNIA DRY ONIONS
1970

Costs	Per 50 lb bag
Digging	0.020
Used burlap bag	0.040
Labor - direct harvest labor for 53 lbs.	0.300
Supervision, checkers, insurance, compensation, transportation, inc, contractor, etc.	0.070
Labor cost for culls removed at packing shed	0.035
Loading and delivering to shed	0.078
Shed rent, equipment, screens less drying	0.125
Shed labor - loading included	0.200
Insurance - compensation, disability, etc. for shed labor	0.05
Mesh bag	0.26
Shims and tags	0.01
Inspection	0.02
Car pads	0.02
Direct sales expense	0.05
Telephone, advertising and promotion	0.02
Office billing, etc.	0.03
Total cost	$1.328

Source: Interview with dry onion growers in El Centro area May 10, 1970.

protected basis. In the event of a price decline prior to arrival, the shipper will adjust the price accordingly. This is an unilateral agreement, i.e. when the price increases, the shipper will not advance the price. Normally dry onions are not sold on a price protected basis unless supplies are heavy at which time buyers request price protection. When the market price declines prior to the arrival of a carlot sold on a price protected basis, the adjusted downward price is not reflected in the market news quotation. When carlots are rolled unsold and are subsequently sold through a broker or a commission merchant, the final settlement price is typically lower than the quoted F.O.B. price and is not reflected by market news.

Some onions are shipped to onion repackers close to the area of consumption on a joint venture basis. Final settlement typically does not occur until the lot is packed and sold by the repacker. The final settlement is subsequently made by the repacker to the shipper based on the predetermined agreed arrangement.

Under the foregoing basis of sales, the actual price received by the shipper is not known by the Market News Service. When a large percentage of the total shipments are sold on a basis of sale other than F.O.B. shipping point, the F.O.B. price quotations made by the local news service may have an upward bias. The market news actual reflects only the price levels on the F.O.B. sales at shipping point. Consequently, the F.O.B. price quoted by the Market News Service does not reflect all shipments. An added dimension to the market news reporting service would be an estimate of the percentage of total sales made on a F.O.B. shipping point basis.

The seasonal average F.O.B. price quotation by the Market News Ser-

vice for dry onions per cwt. are presented in Table 29 for the 16 year period 1955-70. These data are presented by the major state, in terms of acreage, for each season. The Texas early spring and early summer 16 year price each averaged $4.33 per cwt. compared to $3.94 for California's late spring, and $3.20 for New York's late summer crop.

In terms of annual price variation, the early spring seasonal price, represented by South Texas production, had the greatest absolute variation. The standard deviation, which is a statistical measure for dispersion, for the early spring season was $1.37 per cwt. This means 68 percent of the variation in the early spring F.O.B. price was $\pm$ $1.37 from the 16 year average price of $4.33 representing a range from $2.97 to $5.70. The Texas early summer production had the second largest standard deviation of $\pm$ $1.32 per hundred weight from the $4.33 16 year average price. This represents an annual price range from $3.01 to $5.65. The California late spring production had a standard deviation of $\pm$ $1.29 compared to $\pm$ $1.05 for the New York late summer production.

The relative dispersion about the 16 year average price for each state was computed and is referred to as the coefficient of variation. They are tabulated in Table 29. All of the selected states had a high degree of relative price variation ranging from about 30 to 33 percent. This means that 68 percent of the variation in the F.O.B. price for the four selected states varied $\pm$ 30 to $\pm$ 33 percent from the 16 year average price.

The above statistical analysis indicates that the 16 year seasonal annual average F.O.B. dry onion prices were very volatile for each of the se- states and that the early spring F.O.B. annual average prices, represented primarily by South Texas production, had the greatest absolute annual variation. The inherent seasonal average F.O.B. price variation places dry onion

TABLE 29

Annual Average F.O.B. Value of Dry Onions Per CWT by Seasons for Major Supply States

Year	Early Spring South Texas	Late Spring California	Early Summer Texas	Late Summer New York
	$/cwt	$/cwt	$/cwt	$/cwt
1970	5.84	4.27	5.13	3.13
1969	3.23	4.04	4.60	5.07
1968	6.85	4.60	4.69	3.32
1967	4.05	3.30	4.39	4.36
1966	7.50	5.90	5.80	4.86
1965	3.95	6.00	5.50	2.65
1964	2.75	2.60	3.15	3.25
1963	4.15	4.55	5.30	3.05
1962	4.60	3.40	3.65	2.65
1961	3.45	3.35	5.50	4.50
1960	2.95	2.40	3.35	2.30
1959	5.40	3.05	2.95	1.55
1958	4.15	2.20	2.85	4.00
1957	4.45	4.30	2.60	2.55
1956	2.80	6.50	7.20	1.70
1955	3.20	2.50	2.60	2.30
Average[1]	4.33	3.94	4.33	3.20
Standard Deviation[2]	1.37	1.29	1.32	1.05
Coefficient of Variation[3]	31.71%	32.89%	30.45%	32.74%
Price Range 68% of Variation	2.96-5.70	2.65-5.23	3.01-5.65	2.15-4.25

1/ Unweighted average = $\bar{Y} = \frac{\Sigma Yi}{n}$

2/ $O = \sqrt{\frac{\Sigma (Yi - \bar{y})^2}{n}}$

3/ $O \div \bar{y}$

Source: U. S. Department of Agriculture, Vegetables for Fresh Market, Acreage, Production, and Value, Statistical Bulletin Nos. 3.2, 412, Vg 2-2(67), Vg 2-2(69) and Vg 2-2(70), Crop Reporting Board, Washington, D.C.

production in the high risk category in terms of price.

U. S. Dry Onion Storage Stocks: The first early spring harvest period for U. S. dry onions starts in the Rio Grande Valley of South Texas in late February or early March. The supply of early and late spring and early summer U. S. fresh dry onions continue to satisfy the markets until late October or early November. Most of the late summer supply is placed in storage. Between November and early April, a relatively steady flow of storage onions is distributed among the many U. S. submarkets.

Dry onion storage stocks on January 1 each year are published by the U. S. Department of Agriculture, Statistical Reporting Service, Crop Reporting Board, Washington, D. C. The dry onion storage stocks for the 16 year period 1955-70 are tabulated in Table 30.

Storage is classified as either common or cold storage. Common storage is the major type of storage used for dry onions accounting for almost 93 percent of the total storage for the 16 year period 1955-70, Table 31. Common storage increased at the average annual rate of 3.4 million pounds while the cold storage rate declined about 2.4 million pounds during the 16 year period.

The quantity of dry onion storage stocks as of January 1 each year is of major importance to the South Texas Onion Industry. Relatively high storage stocks for a given year is associated with a slow market at the beginning of the South Texas harvest season whereas, below normal storage stocks are associated with good demand and volume sales at reasonable prices.

Storage stocks of dry onions is South Texas greatest competition.

Table 30
Dry Onion Storage Stocks on January 1
16 Year Period, 1955-70

Year	Common Storage 1,000 cwt	Cold Storage 1,000 cwt	Total 1,000 cwt
1955	4535	516	5051
1956	3898	565	4463
1957	4294	341	4635
1958	4051	406	4457
1959	3852	512	4364
1960	4891	424	5315
1961	4883	409	5292
1962	4125	262	4387
1963	4668	359	5027
1964	4369	274	4643
1965	4553	291	4844
1966	5544	250	5794
1967	4079	206	4285
1968	4591	202	4793
1969	5237	214	5451
1970	4091	163	4254

Source: U. S. Department of Agriculture, Agricultural Statistics 1970, United States Printing Office, Washington, D. C. p. 180.

TABLE 31

COMPUTED LINEAR REGRESSION TRENDS FOR U.S. DRY ONION STORAGE STOCKS BY COMMON AND COLD STORAGE AS OF JANUARY 1, 16 YEAR PERIOD 1955-70

Type of Storage	a	b	$\bar{y}$	R^2
Common	4186.05	34.44	4478.81	.12
Cold	537.05	-23.52	337.13	.81
Total	4723.10	10.92	4815.94	.01

Note: Model = $Y = a + bx$

Where:

Y = Dependent variable
a = Level of trend regression line at Y intercept
b = Slope of trend regression line at Y intercept
x = Time in years
$\bar{y}$ = Mean of linear regression trend line
R^2 = Coefficient of determination

Source: Computed from data in Table 30.

Shafers recent study revealed that the quantity of dry onion storage stocks has a significant influence on the price of South Texas onions[1].

AGGREGATE U. S. DEMAND FOR DRY ONIONS

Per Capita Consumption: Annual per capita consumption of dry onions in the United States may be measured indirectly by the disappearance of dry onions in farm weight. Shallots are included in this measurement but the quantity is not significant.

U. S. per capita consumption has been very stable as indicated in Table 32.

Least squares linear regression was used to fit the long-run trend of U. S. per capita dry onion consumption levels for the 25 year period 1945-1969 and for the 50 year period 1920-1969 by using data tabulated in Table 32. The empirical statistical model was as follows:

Statistical Model: $Y = b_o + b_1X_1 + u$

Where:

Y = Annual U. S. per capita consumption of onions in pounds
b_o = Level of the trend line
b_1 = Slope of the trend line
X_1 = Time in years
u = Stochastic disturbance term

The computed statistics for the 25 and 50 year trends are tabulated in Table 33.

This analysis indicates that during the 50 year period 1920-69, there was a slight decline in U. S. per capita consumption of dry onions. However,

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[1] Shafer, Carl E. "A Statistical Analysis of Season's Average Prices for Texas Winter Carrots and Early Spring Onions, 1954-64", Departmental Technical Research Report No. 66-2, Department of Agricultural Economics, Texas A&M University, College Station, Texas.

TABLE 32

U.S. ANNUAL PER CAPITA CONSUMPTION OF DRY ONIONS, 50 YEAR PERIOD
1920 -- 1969

Year	Lb./Capita	Year	Lb./Capita
1920	14.3	1945	13.9
1921	12.2	1946	13.4
1922	13.0	1947	12.6
1923	13.2	1948	11.8
1924	13.8	1949	11.7
1925	13.7	1950	11.8
1926	13.4	1951	11.6
1927	13.5	1952	11.8
1928	13.4	1953	11.7
1929	12.5	1954	11.1
1930	13.0	1955	10.9
1931	10.1	1956	11.4
1932	11.0	1957	11.8
1933	11.4	1958	11.7
1934	11.4	1959	11.5
1935	11.0	1960	12.3
1936	13.3	1961	11.5
1937	12.0	1962	11.7
1938	10.9	1963	11.9
1939	12.6	1964	11.4
1940	11.7	1965	11.4
1941	11.3	1966	11.5
1942	12.9	1967	12.1
1943	11.3	1968	12.0
1944	13.1	1969	12.1

Note: Includes 0.1 pound of shallots each year...1929 through 1958; since 1958 less than 0.05 pounds

Source: U.S. Department of Agriculture, Food-Consumption, Prices, Expenditures, ERS, Agricultural Economic Report No. 138, July 1968, Washington, D.C. p. 77

U.S. Department of Agriculture, Food-Consumption, Prices, Expenditures, ERS, Supplement to Agricultural Economics Report No. 138, January 1970, Washington, D.C. p. 21.

U.S. Department of Agriculture, Vegetable Situation, ERS, TVS177, August 1970, Washington, D.C. p. 16

TABLE 33

COMPUTED LINEAR REGRESSION TRENDS - U. S. PER CAPITA ANNUAL CONSUMPTION
50 Year Period 1920-69
25 Year Period 1945-69

Y^a	a	b	$\bar{y}$	R^2	$S_{y.x}$	CV
U. S. Per Capita Consumption 50 Year Period 1920-69	12.89	-0.03 1/	12.13	0.21	0.85	0.07
U. S. Per Capita Consumption 25 Year Period 1945-69	12.31	-0.03 2/	11.86	0.15	0.61	0.05

[a] Model: $Y = a + bx$

Where: Y = Dependent variable
a = Level of linear regression trend line at y intercept
b = Slope of linear regression trend line
x = Time by calendar years
$\bar{y}$ = Mean of linear regression trend line
R^2 = Coefficient of determination
$S_{y.x}$ = Standard error of estimate
CV = Coefficient of variation

1/ Statistically significant of the .05 level
2/ Not statistically significant at the .05 level

SOURCE: Computed from data in Table 32

during the more recent 25 year period 1945-69, the average yearly change of -0.03 pounds per capita was not statistically different from zero at the .05 level of significance.

From the above analyses, one may conclude that any increase in the current U. S. demand for dry onions is related directly to population increases.

Consumption by Households: There is limited knowledge concerning the dry onion consumption patterns and utilization by U. S. households. However, the 1965 Food Consumption Survey made by the U. S. Department of Agriculture does provide some knowledge on household purchases at the retail food level[1].

The 1965 Food Consumption Survey indicated that the average U. S. household consumed about 0.63 of a pound of dry onions per week of which 0.60 of a pound was purchased and the remaining 0.03 of a pound was either produced by or given to the household as a gift, Table 34. The survey also indicated that consumption of dry onions by households varies very little for households above an annual income after tax of $3,000.00. This is consistent with Shafer's findings[2]. Shafer's price model revealed that annual disposable income deflated by the consumers price index (CPI) did not provide any statistically significant explanatory power to price at the F.O.B. shipping level for South Texas onions.

The average household represented by the 1965 Food Consumption Survey spent about $0.08 per week for dry onions with 57.9 percent of all households using dry onions during a given week. On the average, about 55.5 percent

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[1] Data was collected April 1965 through March 1966.
[2] Ibid

Table 34. U.S. Consumption of All and Purchased Mature Onions Per Household Per Week in Pounds, Dollars and Percent of Households by Income Levels, Spring 1965.

Annual Money Income After Taxes, 1964	Quantity per household per week in pounds		Money value per household per week in dollars		Percent of households using in a week	
	All	Purchased	All	Purchased	All	Purchased
All households	.63	.60	.08	.08	57.9	55.5
$1000	.39	.33	.05	.04	39.6	34.9
1000-1999	.49	.43	.06	.05	47.5	42.9
2000-2999	.56	.51	.07	.06	53.1	49.0
3000-3999	.66	.62	.08	.07	57.2	54.3
4000-4999	.70	.68	.09	.08	63.6	61.0
5000-5999	.63	.61	.08	.08	57.6	55.5
6000-6999	.71	.68	.10	.09	62.3	59.9
7000-7999	.77	.76	.10	.10	65.2	63.6
8000-8999	.66	.65	.08	.08	63.8	62.9
9000-9999	.61	.60	.08	.07	61.3	59.8
10,000-14,999	.68	.67	.09	.09	62.1	61.5
$15,000	.67	.66	.10	.09	62.0	60.7

Source: U.S. Department of Agriculture, Food Consumption of Households in the United States, Agricultural Research Service, Washington, D.C.

of the households purchase dry onions during a given week.

The 1965 Food Consumption Survey indicates that the average U. S. household makes frequent purchases of dry onions in small lots at the retail store level.

U. S. Average Weekly Demand: Realizing that knowledge concerning the U. S. dry onion consumption patterns is limited, only general broad conclusions may be deducted at this point in time by using the currently available data. The data now available indicates that aggregate annual U. S. per capita dry onion consumption is relatively stable and that U. S. households make small frequent purchases of dry onions at the retail food store level.

The average U. S. weekly consumption of dry onions may be approximated with the utilization of the following equation:

$$Y = (CP/W)/CLE$$

Where:

Y = Carlots per week shipments
C = Average annual U. S. per capita consumption of dry onions = 11.5 pounds
P = U. S. population in 1970 = 204,000,000
W = Weeks per year = 52
CLE = Carlot equivalent in pounds = 40,000 pounds

The solution of this equation provides an estimate of 1128 carlot equivalents representing the average U. S. weekly consumption level for dry onions in 1970. This estimate provides only an approximation on the level where total U. S. weekly shipments may expect to reach a saturation level. This approximation will be utilized later.

F.O.B. MARKET STRUCTURE FOR SOUTH TEXAS DRY ONIONS

Market structure in this report means those characteristics of the South Texas dry onion industry relative to the F.O.B. market level which influences strategically the nature of competition and pricing within this market.

The examination of South Texas market structure includes the following four characteristics:

1. The degree of seller concentration described by the number and the size distribution of sellers in the market.
2. The degree of buyer concentration defined in the same matter.
3. The degree of dry onion differentiation among the various sellers.
4. The condition of entry to the market in reference to the ease or difficulty which new sellers may enter the market as determined generally by the advantages which established sellers have over potential entrants.

The Degree of Seller Concentration: The 2 year period 1969-70 was used to examine the degree of seller concentration in the South Texas dry onion industry. These analyses were made by classifying the data both by shipping firms and by decision makers. Since some shippers own or control two or more individual shipping firms, the classification by decision makers is more meaningful for measuring seller concentration.

In 1969 there were 61 shipping firms on the selling side of the South Texas dry onion F.O.B. market structure, Table 35, which were controlled by 55 decision makers, Table 36. Twenty decision makers representing more than one third of the firms, shipped less than 50,000 50 lb bags each

TABLE 35

Distribution of South Texas Onion Shipping Firms by Quantity
of 50 LB Bag Equivalents Shipped
March 1 - June 15, 1969

Quantity of 50 Lb Bag Equivalents Shipped (1000)	Number of Firms	Percent of Firms	Total Quantity Shipped	Percent of Total Shipments	Cumulative Percentages	
					Firms	Shipments
Under 50	24	39.34	486,302	8.86	39.34	8.86
50 - 100	20	32.79	1,385,129	25.23	72.13	34.09
100 - 250	13	21.31	1,749,005	31.86	93.43	65.95
250 - 350	0	0	0	0	93.43	65.95
350 and over	4	6.56	1,868,925	34.05	99.99 1/	100.00
Total	61	99.99 1/	5,489,361	100.00	XXXX	XXXX

Source: South Texas Onion Committee, Mercedes, Texas

1/ Not 100 percent due to rounding errors.

TABLE 36

Distribution of South Texas Onion Shipping Decision Makers By
Quantity of 50 Lb Bag Equivalents Shipped
March 1 - June 15, 1969

Quantity of 50 Lb Bag Equivalents Shipped (1000)	Number of Firms	Percent of Firms	Total Quantity Shipped	Percent of Total Shipments	Cumulative Percentages	
					Firms	Shipments
Under 50	20	36.36	361,090	6.58	36.36	6.58
50—100	19	34.55	1,331,829	24.26	70.91	30.84
100—250	11	20.00	1,359,481	24.76	90.91	55.60
250—350	0	0	0	0	90.91	55.60
350 and over	5	9.09	2,436,961	44.39	100.00	99.99 1/
Total	55	100.00	5,489,361	99.99 1/	XXXX	XXXX

Source: South Texas Onion Committee, Mercedes, Texas.

1/ Not 100 percent due to rounding.

which totaled less than 7 percent of total shipments. Nineteen decision makers representing a little more than another one third of the firms each shipping more than 50,000 and less than 100,000 50 lb bags, sold almost one fourth of South Texas total output. Eleven decision makers representing 20 percent of the firms in size from 100,000 to 250,000 50 lb bags, sold another one fourth of the output. Five decision making firms representing about 9 percent of the firms in size of 350,000 50 lb bags and over, sold better than 44 percent of the total South Texas output. During the 1970 season, number of shipping firms had declined from 61 to 55, and number of decision making firms from 56 to 47, Tables 37 and 38.

The above analysis reveals a small portion of a long run trend that has been occurring among the South Texas shipping firms. Number of shipping firms are declining with total quantity shipped per firm increasing. This indicates that the selling side of the South Texas market structure is gradually becoming more concentrated.

The degree of price competition among the selling firms is great. When supply is heavy, buyers are able to induce some of the shipping firms to either reduce the price or sell on a price protected basis. When one selling firm is induced by a buying firm to reduce the price, the remaining selling firms are forced to follow the same decline in price level. This is a partial explanation for the lack of price stability among the South Texas selling firms.

Most of the South Texas dry onion shippers represent an integrated growing and shipping operation. Many shippers have a joint arrangement with some individual growers for a partial supply. Most joint arrangements are based on an unwritten agreement between the grower and shipper. The provisions of the agreement vary among and within shipping firms. Some contract

TABLE 37

DISTRIBUTION OF SOUTH TEXAS ONION SHIPPING FIRMS BY QUANTITY OF 50 LB BAG EQUIVALENTS SHIPPED MARCH 15 - MAY 31, 1970

Quantity of 50 lb bag equivalents shipped (1000)	Number of firms	Percent of firms	Total quantity shipped	Percent of total shipments	Cumulative pergentages	
					Firms	Shipments
Under 50	20	35.71	454,541	7.83	35.71	7.83
50 - 100	18	32.14	1,361,653	23.45	67.85	31.28
100 - 150	7	12.50	898,474	15.47	80.35	46.75
150 - 250	8	14.29	1,650,563	28.42	94.64	75.17
250 and over	3	5.36	1,441,631	24.83	100.00	100.00
Total	56	100.00	5,806,862	100.00	XXXX	XXXX

Source: South Texas Onion Committee, Mercedes, Texas

TABLE 38

DISTRIBUTION OF SOUTH TEXAS ONION SHIPPING DECISION MAKERS BY QUANTITY OF 50 LB BAG EQUIVALENTS SHIPPED MARCH 15 - MAY 31, 1970

Quantity of 50 lb bag equivalents shipped (1000)	Number of decision makers	Percent of decision makers	Total quantity shipped	Percent of total shipments	Cumulative percentages	
					Decision makers	Shipments
Under 50	15	31.91	392,506	6.76	31.91	6.76
50-100	14	29.79	1,126,183	19.39	61.70	26.15
100-150	7	14.89	898,474	15.47	76.59	41.62
150-250	6	12.77	1,159,186	19.96	89.36	61.58
250 and over	5	10.64	2,230,513	28.41	100.00	99.99[1/]
Total	47	100.00	5,806,862	99.99[1/]	XXXX	XXXX

Source: South Texas Onion Committee, Mercedes, Texas

1/ Not 100.00 percent due to rounding.

arrangements provide for the shipper to supply the seed and a portion of the operating capital, while other contract arrangements provide only for the seed. While the exact number of individual growers during the 1970 season is not precisely known, it is estimated to range between 125 and 150 with at least 90 percent having some kind of a joint contractual arrangement with a shipper. However the majority of supply of South Texas dry onions are produced direct by the shipping firm. An occasional shipping firm contracted to have all of its supply produced by a grower on a fixed cost basis but this kind of growing arrangement was not typical.

Grower settlements are normally based upon the F.O.B. selling price. Typically, a shipper will deduct a fixed amount per 50 lb bag for harvesting, grading, bagging and selling plus the amount of previous operating capital loaned for growing. The residual represents the revenue for growing.

The Degree of Buyer Concentration: Information on number of buyers and size is closely held information by shipping firms. Due to the highly competitive position of each shipping firm among other shipping firms, it was not possible to obtain the necessary data from all shipping firms to make a distribution analysis. However, it is recognized that there is a great concentration as to number of buyers on the buying side of the South Texas dry onion F.O.B. market structure. The major U. S. food chain stores have all concentrated their buying power by each establishing a central buying organization with local F.O.B. buying offices in the major produce production areas within the U. S. Many regional food chain stores have joined together and established one central buying organization in the U. S. with local F.O.B. buyers stationed in the major U. S. fresh produce production areas.

Aside from the above market outlets, large percentage of the South Texas dry onion shippers reported major sales of dry onions to repackers situated in or close to the major consumption markets in the U. S. Again the number of repackers and volume represented is not precisely known. Some South Texas dry onions are also sold through brokers and commission merchants in the area of consumption but no measurements on the number and volume represented are available at this point in time.

Measurement of the buyer concentration for South Texas dry onions is not feasible until further information is available regarding the number and size of the various types of buyers.

The Degree of Dry Onion Differentiation Among Sellers: The degree of dry onion differentiation among South Texas dry onion shippers, like other raw product agricultural commodities, is minimal. The product differentiation of South Texas dry onions by varieties depends upon the grade packed and the brand label of the shipper. All registered South Texas onion handlers by location in 1970 are listed in appendix, Table VI. Dry onions of equivalent grades have no significant difference among South Texas shippers. Each shipper packs under one or more brands typically in 50 lb bags. Once the 50 lb bag reaches a repacker, they are repacked in consumer size packages normally under the brand lable of the repacker. In other instances the repackers will pack under the private brand label of the retail food store. Dry onions placed in bulk displays by food retail stores are normally sold as either white, yellow, or red dry onions typically on a per pound basis. The South Texas dry onion is a differentiated product when compared to dry onions produced in the northern

sections of the U. S. The South Texas onion is often referred to by many consumers as a sweeter and milder dry onion but under the current marketing arrangements, it has not been feasible for the South Texas Dry Onion Industry to promote this product due to lack of product identification. Under the provision of the current Marketing Order, packing South Texas dry onions in consumer packages is limited to an amount equal to or less than 10 percent of a shippers total shipments. Packing a larger volume of South Texas onions in consumer packages would provide for brand identification at the retail level and place the Industry in a more advantageous position for promotional activities. Due to the variance in perishability of the South Texas dry onion, the South Texas Industry has been reluctant to pack in consumer packages at the F.O.B. level.

The Conditions of Entry: South Texas dry onions are the first fresh dry onions harvested in the U. S. each calendar year. Previous supplies are from storage stocks in the North. Because of this unique situation, the entry barrier for sellers of South Texas dry onions is normally lower than for most other fresh vegetables. As the harvest season progresses to other areas, the height of the entry barrier increases.

Since concentrated produce buyers are interested in selling firms that are in a position to provide a continuity of supply of good quality dry onions at a competitive price in carload lots with a minimum of quality variance, this criteria does establish an entry barrier for new shippers. Previous experience in the Rio grande Valley reveals that it is much easier for a shipper to become a grower than it is for a grower to become a shipper. The entry barrier to growing is minimal.

Established shipping firms normally have a group of buyers that depend upon the shipper for a mix of fresh produce commodities. This situation adds to the entry barrier for new shippers with only one commodity available.

Capital requirements and management are also another constraint that restrict free entry.

Selling Conduct: Selling conduct refers to patterns of behavior which sellers follow in adopting or adjusting to the markets in which they sell.

Selling firms of South Texas onions normally sell under a relatively short run stable pricing condition based on a F.O.B. or delivered firm price when supply is limited. As supply increases during the harvest season, Figures 1, 2 and 3 supply of South Texas onion reach a point where demand at or near the season's opening prices becomes satisfied. At this point buyers begin to request price protection. Shipping firms not giving price protection will subsequently be in a position where their supply exceeds demand. At this point in time, many selling firms roll surplus carlots on an unsold basis. When these unsold carlots arrive at a receiving wholesale market still unsold, typically they are either consigned or placed with a broker to sell. Selling of the unsold rollers must be done in a market where supply is already satisfied at going prices. The typical behavior of brokers and commission merchants is to reduce price in order to sell the carlot. When the first unsold roller is sold in a market at a reduced price, all South Texas dry onions previously sold in this market the same day on a price protection basis will be settled with the shipper at the lower price level. The above sequence of events explains how unsold rollers depress the entire F.O.B. market price within a matter of minutes after a roller is sold at a reduced price. By controlling the rate of flow to market of South Texas dry onions,

this situation may be minimized. The South Texas marketing order may be amended to provide for a positive control on the weekly rate of flow to market shipments. This possibility will be discussed in a later section.

F.O.B. PRICE ANALYSIS FOR SOUTH TEXAS DRY ONIONS

The variables that were associated with the variation in the annual average F.O.B. price of South Texas dry onions during recent years will be examined in this section. Two estimating equations will be examined with regard to: (a) explaining annual variation in South Texas seasonal average F.O.B. price and (b) forecasting seasonal average F.O.B. price for South Texas onions.

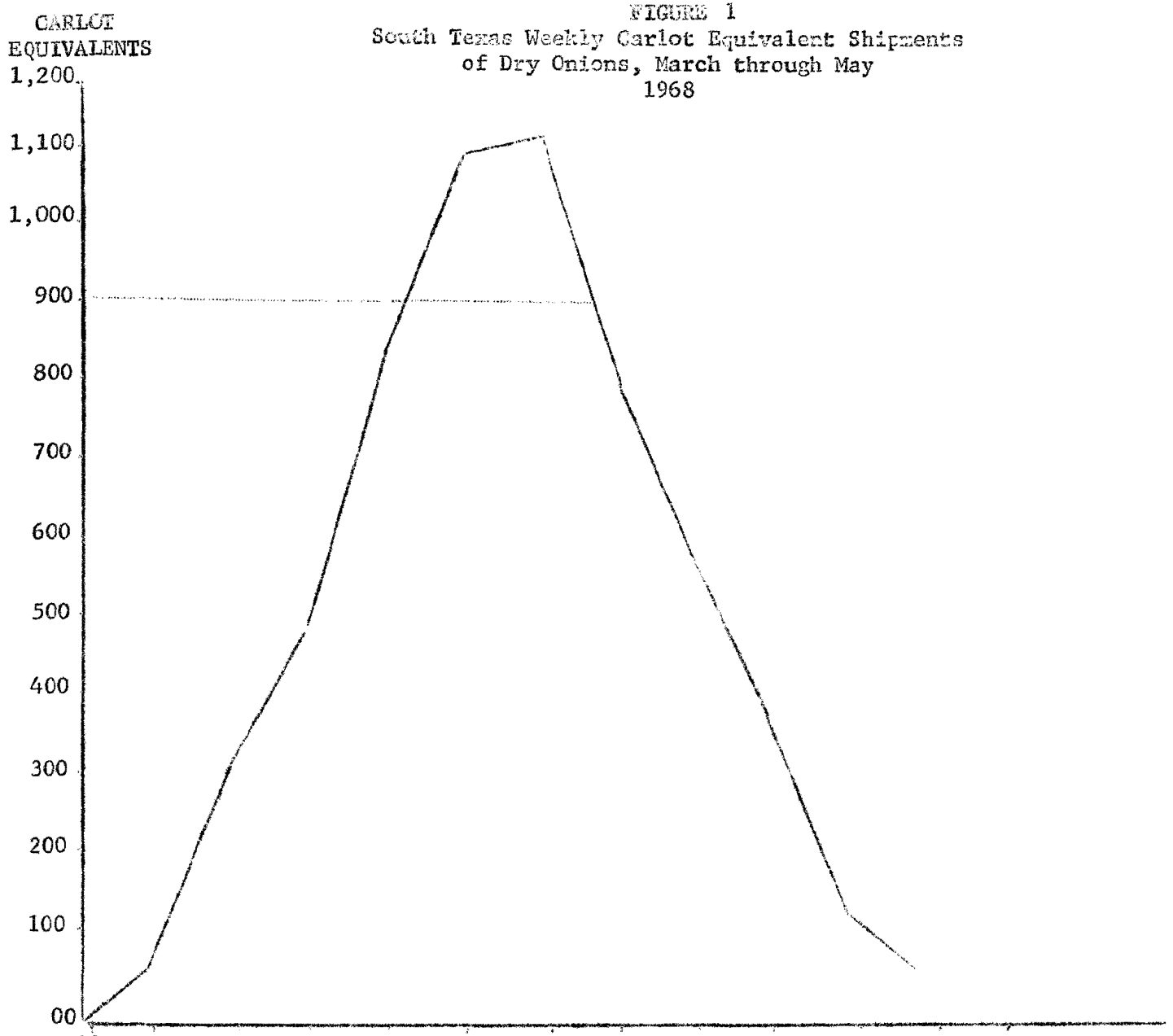
Seasonal total annual data were used in the development of the following two estimating equations. Consequently only the seasonal average F.O.B. price of South Texas onions is relevant. It is beyond the scope of this study to examine the variation in F.O.B. price of South Texas dry onions in respect to varieties, size and grade, from an annual or intraseasonal aspect.

More than fifty empirical statistical models were developed for the purpose of examining the annual average price of South Texas onions. The following two estimating equations presented have the best fit for the data based on statistical criteria.

Prices were analyzed for two time periods; first, the 16 year period 1955-70, and second, the 11 year period 1960-70. Estimating equations with the best fit resulted from the use of the most recent 11 year period data. Since the current Federal Marketing Order NO. 959, as amended, TEXAS ONIONS, was initiated in 1961, it is surmised that the Federal Marketing Order may have been influential in creating a more orderly marketing environment.

Economic theory dictates that the price of commodities are inversely

FIGURE 1
South Texas Weekly Carlot Equivalent Shipments
of Dry Onions, March through May
1968



Source: U.S. Department of Agriculture, Federal-State Market News Service, Weslaco, Texas.

related to the quantity supplyed with all other factors remaining equal. For example, when the quantity of U. S. dry onions increases, price declines. It is also recognized that as U. S. population increases, demand for food increases. From the view point of economic theory, this is referred to as a shift in the demand schedule. However, in the following analysis we are interested in the extent of the effect that northern storage stocks and South Texas supply has on seasonal average F.O.B. price of South Texas onions. In order to account for population changes, the northern stocks and South Texas supply were both measured on a per capita basis.

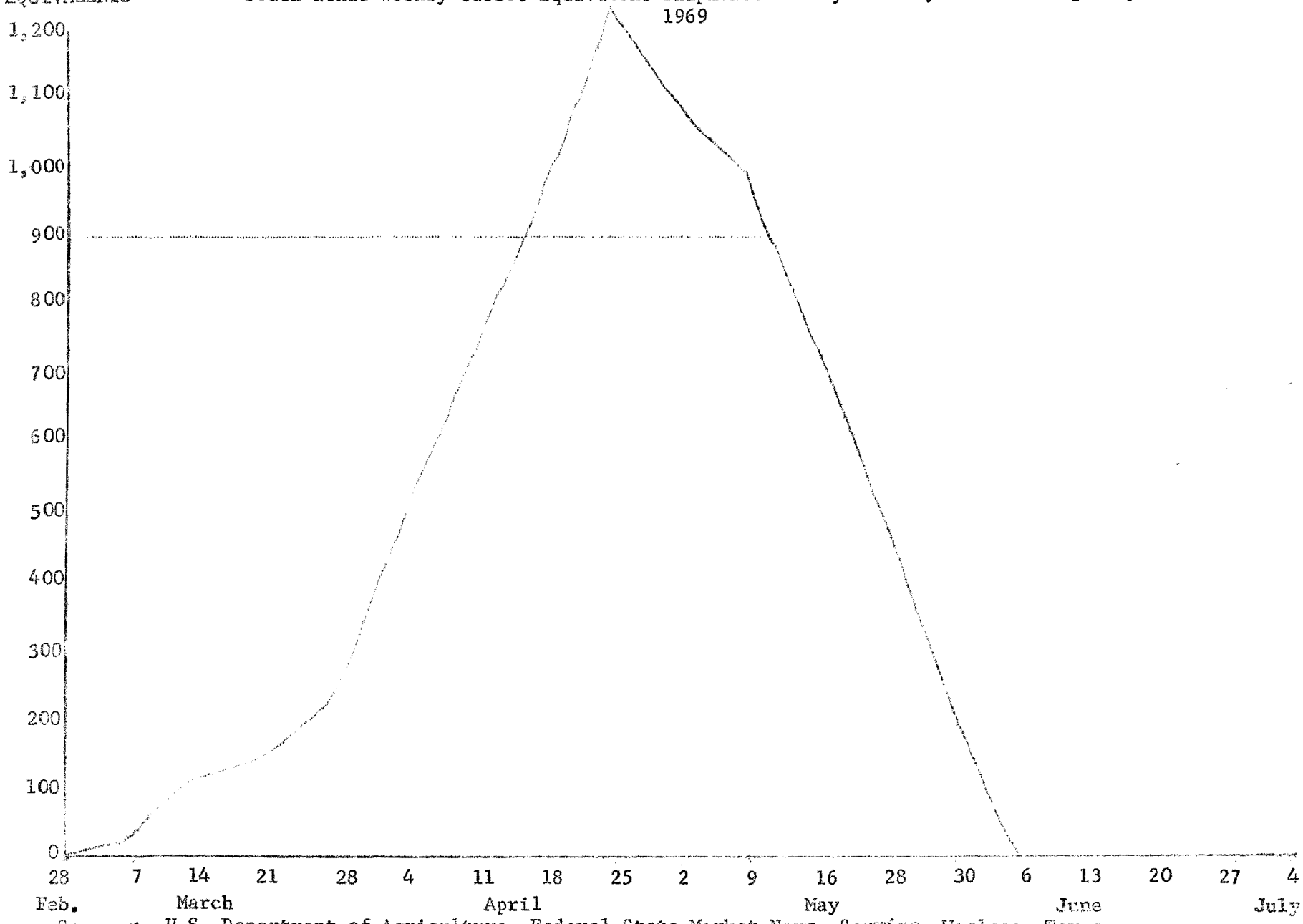
Demand for some foods are responsive to income levels, i.e. as per capita income increases, consumption of the preferred foods increases while consumption of other foods decline. The foods declining in consumption when income levels increases are referred to as inferior foods. Turnips are referred to as an inferior food as per capita consumption of turnips is declining as income levels increase. As was noted in the previous section, U. S. per capita consumption of dry onions has remained stable over the past 25 years, however, per capita income increased during this same time period. This places onions in an unique position as they can be classified neither as a preferred nor an inferior food.

In this study the change in income levels had no significant statistical influence on the annual average F.O.B. price of South Texas dry onions. This means that the continuous increasing income levels in U. S. during the 11 year period 1960-70 had no significant statistical effect on the annual average F.O.B. price of South Texas onions.

The two significant statistical variables found that were associated

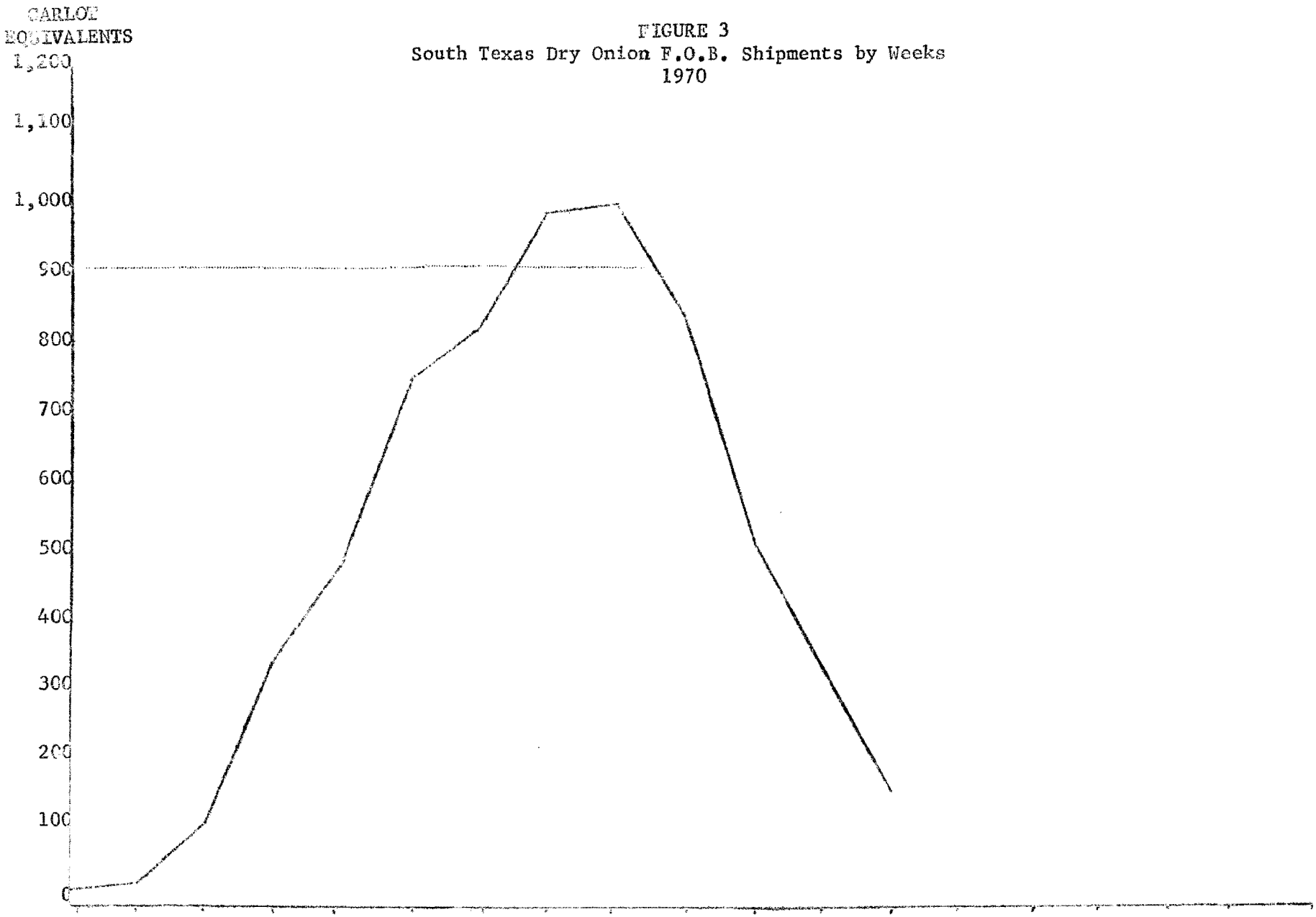
FIGURE 2

South Texas Weekly Carlot Equivalent Shipments of Dry Onions, March through May 1969



Source: U.S. Department of Agriculture, Federal-State Market News, Service, Weslaco, Texas.

FIGURE 3
South Texas Dry Onion F.O.B. Shipments by Weeks
1970



Source: U.S. Department of Agriculture, Federal-State Market News Service, Weslaco, Texas

with the annual F.O.B. price variation for South Texas onions are as follows:

1. Per capita supply of January storage stocks
2. Per capita supply of South Texas onions

The raw data used in the development of the mathematical statistical estimating equations are presented in Appendix VII, Tables A and B.

Multiple Linear Regression Estimating Equations: The explicit functional relationship used in the development of the statistical model was as follows:

$$Y = f\ (X_1, X_2, X_3)$$

Where:

Y = Actual annual average F.O.B. price of South Texas onions

X_1 = January dry onion storage stocks

X_2 = South Texas dry onion supply (production)

X_3 = U. S. population

Interpretation of this functional relationship is that the actual annual average F.O.B. price of South Texas dry onions depends upon the supply of January storage stocks, supply of South Texas dry onions, and the U. S. population.

Logarithmic Equation: The statistical model is as follows:

$$Y = a(x_1{}^{b}1)(x_2{}^{b}2) + u$$

Where:

Y = Actual annual average F.O.B. price per cwt for South Texas onions

a = Level of the regression equation at the Y intercept

b_1 = Represents the influence of January storage stocks on South Texas price

x_1 = Per capita supply of January 1 storage stocks

b_2 = Represents the influence of South Texas dry onion supply on South Texas annual price

x_2 = Per capita supply of South Texas onions

u = Stochastic disturbance term

The best fit multiple regression estimating equation was found by transforming the raw data into Common or Briggs logarithms which provided a linear equation in logarithms for the best fit estimating equation.

The resulting transformed statistical model is as follows:

$$\log Y = \log a + b_1 (\log x_1) + b_2 (\log x_2) + u$$

Estimated Parameters: The estimated logarithmic parameters for the statistical estimating equation are as follows:(t values of the regression coefficients are shown in parenthesis).

$$\log Y = 1.7792152 - \underset{(7.46)}{2.2229678} (\log x_1) - \underset{(10.24)}{1.5126083} (\log x_2)$$

$\bar{R}^2 = .92$

The adjusted coefficient of determination ($\bar{R}^2$) was .92. Interpretation of this statistic is that 92 percent of the variation in the seasonal average F.O.B. price of South Texas onions was associated with the variation in per

capita supply of January storage stocks and the per capita supply of South Texas onions. The amount of unexplained variation in the seasonal annual average F.O.B. price of South Texas onion was 8 percent ($1-\bar{R}^2$).

Partial Price-Flexibilities: Multiple regression estimating equations with raw data transformed into common logarithms are useful for estimating partial price-flexibilities. For example, the b_1 coefficient (2.2229678) interpretation is that for a one percent change in January per capita storage stocks of dry onions, the annual average F.O.B. price for South Texas dry onions will change about 2.22 percent in the opposite direction with South Texas supply remaining constant. Likewise the interpretation of the b_2 coefficient (1.5126083) is that for a one percent change in per capita South Texas supply, the annual average F.O.B. price for South Texas onions will change about 1.51 percent in the opposite direction, with January storage stocks remaining constant.

Partial Price Elasticity of Demand: The reciprocals of b_1, and b_2, coefficients provide the price elasticity of demand estimates (Ep) over the entire range of the data. Price elasticities of demand are as follows:

$$\text{Ep for } b_1 = \frac{1}{b_1} = \frac{1}{-2.2229678} = -0.45$$

$$\text{Ep for } b_2 = \frac{1}{-1.5126083} = -0.66$$

When the price elasticity of demand is less than -1.0 the demand is referred to as being inelastic. Consequently this places both partial price elasticities of demand for storage stocks and for South Texas supply in the inelastic range.

Price elasticity of demand is the percentage change in quantity demanded associated with a one percent change in price, with other things remaining equal.

Demand for most farm products is highly inelastic. This means that a one percent change in price is associated with a much smaller percentage change in quantity in the opposite direction. For example, F.O.B. price elasticity of demand for South Texas dry onions is about -0.66. This means that a one percent increase in price of South Texas dry onions is associated with about -0.66 percent decrease in quantity. Since price elasticity of demand for South Texas dry onions is inelastic, an increase in quantity produced results in a decrease in total revenue or gross income at the F.O.B. level. Therefore increased total revenue at the F.O.B. level would be associated with a decrease in supply.

First Difference Analysis: The second statistical estimating equation with a good fit was a multiple regression linear equation using first differences of the natural data. Although the fit is not as good as the previous logarithmic equation, it does have the advantage of using actual data. In this equation the annual average F.O.B. price of South Texas dry onions is in terms of real price often referred to as the deflated price. The real price is easily adjusted to actual price by using the consumer price index. (Appendix VII, Table A).

The statistical model is as follows:

$$\Delta Y_R = a + b_1 (\Delta x_1) + b_2 (\Delta x_2) + u$$

Where:

ΔY_R = Change in the annual average F.O.B. real price of South Texas

a = Level of the regression equation at the Y intercept

b_1 = Coefficient representing the influence January storage stocks on South Texas onion price.

Δx_1 = Change in January storage stocks measured in units of 1000 cwt.

b_2 = Coefficient representing the influence of South Texas supply on price of South Texas onions.

Δx_2 = Change in South Texas dry onion supply measured in units of 1000 cwt

u = Stochastic disturbance term.

Estimated Parameters: The estimated parameters for this equation using 11 years of data 1960-70 are as follows: (t values of the partial regression coefficient as shown in parenthesis).

$$\Delta Y_R = -0.12128246 - \underset{(4.05)}{0.0015157392\ (\Delta x_1)} - \underset{(8.41)}{0.0024564071\ (\Delta x_2)}$$

$\bar{R}^2 = .89$

This equation estimates the changes in the annual average F.O.B. real price per cwt associated with the changes in January storage stocks and the South Texas supply measured in units of 100 cwt.

This equation has an adjusted coefficient of determination ($\bar{R}^2$) of 89 percent. This means that 89 percent of the annual changes in the F.O.B. real price of South Texas onions is associated with the annual changes in supply of January storage stocks and in South Texas supply measured in units of 1000 cwt. The unexplained variation in the difference of South Texas price is 11 percent.

Two years of data are required to utilize this equation, i.e. last years supply and price, and this years supply. With this data, the change in this years annual average F.O.B. real price may be forecasted.

The b_1 coefficient (0.0015157392) reveals that for each 1000 cwt

change in January storage stocks, the change in F.O.B. real price for South Texas onions is about $0.0015 per cwt in the opposite direction. For example, a 10,000 cwt change in January storage stocks is associated with about a $0.015 change in South Texas real price per cwt in the opposite direction, with South Texas supply remaining constant. The b_2 coefficient (0.0024564071) indicates that a change of 1000 cwt in South Texas supply is associated with a $0.0025 change in South Texas F.O.B. price per cwt in the opposite direction with January storage stocks held constant. This means that for a 10,000 cwt increase in South Texas supply, South Texas F.O.B. real price will change about $0.025 per cwt in the opposite direction, with other things equal.

The first difference estimating equation indicates that a given absolute change in South Texas supply had more influence on South Texas real F.O.B. price per cwt than the same absolute change in January storage stocks.

CRITERIA FOR ORDERLY MARKETING

Necessary Changes: Marketing South Texas dry onions in an orderly manner will necessitate major changes on the selling side of the current F.O.B. market structure. The necessary changes are as follows:

1. Eliminate needless price cutting among sellers of South Texas dry onions at the F.O.B. level.
2. Stabilize daily or very short run, F.O.B. price among sellers of South Texas onions.
3. Control weekly rate of flow to market of South Texas dry onions at the F.O.B. level during the short period when supply exceeds demand at a reasonable price level.

4. Provide an equity adjustment in the weekly rate of flow to market control mechanism by permitting the Laredo, Winter Garden and Coastal Bend sub-production areas to ship a larger percentage of their base allotments during the period when supply of South Texas dry onions exceed demand at a reasonable price level.
5. Make available to all growers and shippers of South Texas dry onions the best and most complete market information available.
6. Provide instantaneous communication among all shippers of South Texas dry onions.
7. Provide for orderly distribution of South Texas dry onions among the various U. S. sub-markets.

Organizational Elements Required: The above objectives may be satisfied by organizing to provide the following five marketing services. These are indicated from the experience of coordinated marketing programs in both Florida and California which were researched for this report.

1. A market information center for the South Texas dry onion industry.
2. An instantaneous communication system among the South Texas dry onion shippers during the growing, harvesting and marketing period.
3. A positive weekly rate of flow to market control mechanism to be utilized only during the short period when supply exceeds demand at a reasonable price level.
4. A surplus utilization or diversion program and policy to be employed in removing excess supplies of Texas dry onions from the U. S. market when supply exceeds demand at a reasonable price

level.

5. A South Texas onion exchange to establish minimum pricing and terms of trade.

Marketing services 1, 2, 3 and 4 are necessary in order to enable the proposed South Texas Dry Onion Exchange to operate effectively.

This program appears applicable in the marketing of South Texas onions. Therefore the aspects are considered in detail from that viewpoint.

Market Information Center: The function of a Market Information Center is to provide all South Texas dry onion growers and shippers the best information possible pertaining to supply and demand of U. S. dry onions. Complete market information is necessary for proper decision making in the orderly marketing of South Texas dry onions. The Market Information Center may be organized within the current South Texas Onion Committee's office to perform the following five activities.

1. Field registration: The procurement of the expected weekly supply estimates of South Texas dry onions starts at the time of planting. This activity may be included under the current South Texas Marketing Order. Statistical information on number of acres planted, time of planting, variety, location of fields and owners may be collected at time of planting. During the period after planting, periodic reports on crop development and growth, estimated yield and expected harvest dates would be published and provided to all growers and shippers in the South Texas Onion Industry. With the above information, both weekly and long run supply quantities may be estimated which provide the necessary basic

information needed for the development of marketing strategy.

2. U. S. Shipping Information: Detailed shipping information for the U. S. is available from the U. S. Department of Agriculture, Market News Service. The cost of the U. S. Department of Agriculture's leased wire service is currently $100.00 per month plus mileage line cost from the nearest market news office at the rate of $1.56 per mile per month. This system provides daily and weekly shipments statistics, daily and weekly 41 citrus unload data, daily and weekly 16 citrus trade data, weather, and a weekly shipment forecast by production areas for all commercial fresh vegetables.

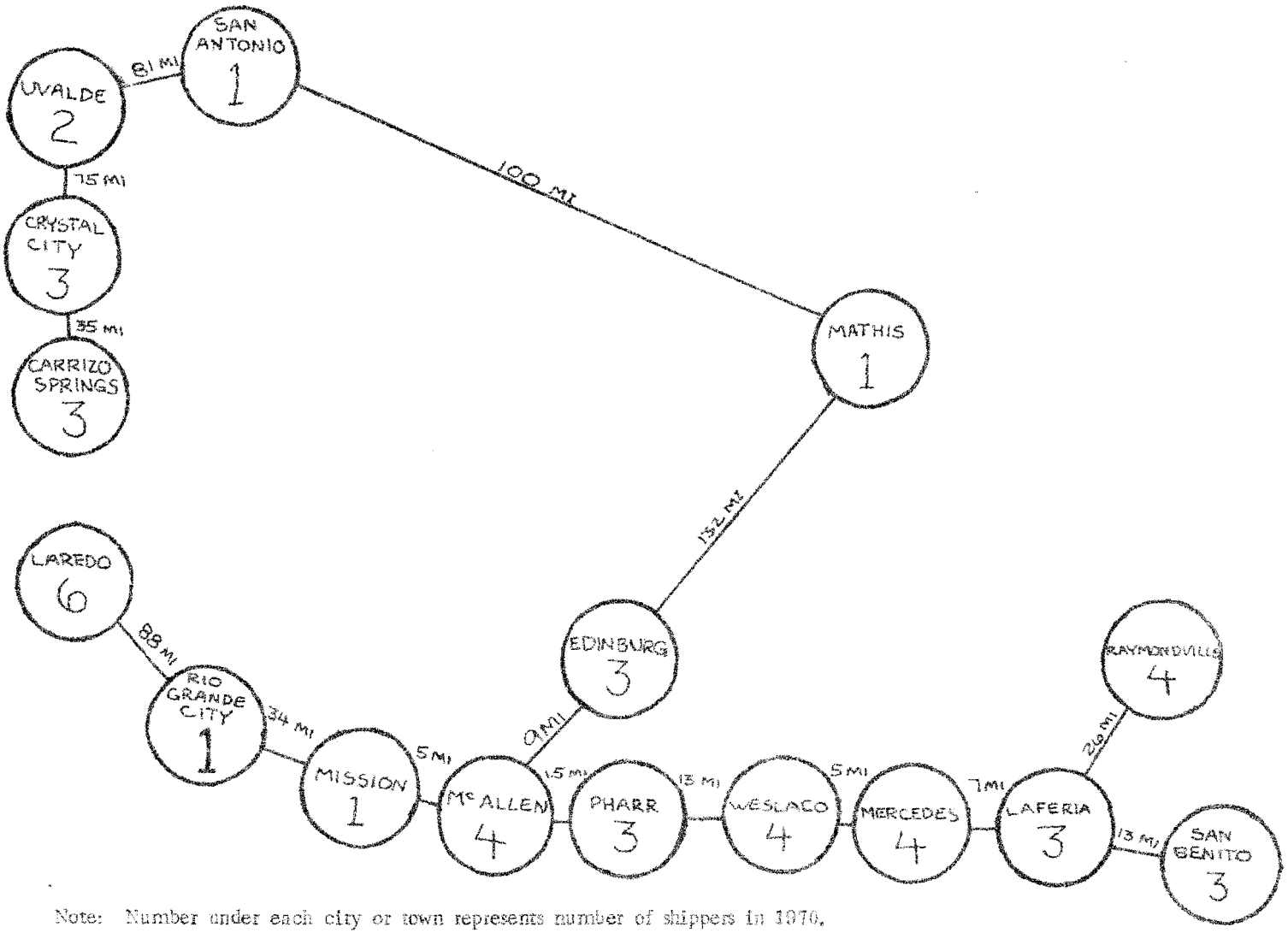
3. Dissemination of Market Information: Summarizing all of the available market information on a weekly basis and promptly sending to all growers and shippers of South Texas dry onions, the South Texas Dry Onion Industry would be provided with the best and most complete market information available.

4. Dissemination of Shipping Information: Keeping all shippers informed with the latest market information during the South Texas dry onion shipping season is not only a formidable but a necessary task. Each shipper must be provided with the same market information at the same point in time that it is provided to all other shippers. This will eliminate any undue advantages of one shipper over any other shipper. During the shipping season, the Market Information Center need be in daily contact with all shippers. A closed circuit telephone communication system may be used to accomplish this activity and will be discussed in a later section in more detail.

5. Collect and Disseminate Expected Shipments: During the shipping period for South Texas dry onions, one of the necessary functions for complete market information is to collect from shippers their estimates on the next days expected shipments and distribution points. After collecting the expected future shipments, the data would be summarized and disseminated to all shippers by utilizing the closed circuit communication system.

Instantaneous Communication System: Instantaneous communication among various geographic points was developed by the Defense Department during the time misel bases were established throughout the U. S. and other countries. This technology was later adapted and utilized by the civilian sector and is often referred to as the SS-1 system of communications. The SS-1 system is a closed circuit telephone circuit connecting a maximum of 81 geographic points.

The closed circuit communication system is now available to all South Texas onion shippers through the Bell Telephone System on a monthly leased basis. A suggested layout for a closed circuit telephone system incompassing all South Texas dry onion shippers for the 1970 marketing season is presented in Figure 4. The employment of a closed circuit telephone system requires the installation of a separate telephone in each shipper's sales office, often referred to as the "hot line". By dialing a two digit number by the South Texas Onion Central Office, all telephones on the closed circuit ring simultaneously without going through the conventional switchboards. After the market information is presented and all questions answered, each shipper signs off in sequence by giving the central office his code number. Shippers not signing off may be contacted later by the central office, or the shipper may



Note: Number under each city or town represents number of shippers in 1970.

Each of the above locations may be used as a central office with exception of Rio Grande City, Weslaco, Laforia and Raymondville. The latter four locations are served by independent telephone systems.

FIGURE 4. SUGGESTED CLOSED CIRCUIT TELEPHONE SYSTEM LAYOUT AMONG SOUTH TEXAS DRY ONION SHIPPERS, 1970

Source: Frank Fuqua, Bell Telephone Co., Harlingen, Texas, [illegible] 1970.

dial into the central office and listen to the recording. The closed circuit telephone system is versatile and may also be designed for inter-shipper communication.

The South Texas onion shippers are situated over a large geographic area. A closed circuit telephone system would enable the entire board of directors to conduct a meeting without anyone of them leaving his own office. Subcommittee members would be able to communicate with each other directly thus eliminating travel time and other related costs.

Instantaneous communications among decision makers situated within a large geographic area is a necessary condition for the successful operation of a central sales office. There is no substitute.

The Florida celery and sweet corn industries experience with the closed circuit communication systems found it advisable to preschedule a given time each day shippers may expect a call on the hot line, i.e. 8:05 A.M. each morning. With this prearranged schedule, shippers are able to schedule their time so that they are close to the hot line each morning at this time. Should a shipper not be available at this prearranged time, he may dial a coded number and reach a recording of the meeting in the central office, as soon as his time permits.

Weekly Rate of Flow to Market: The purpose of a weekly rate of flow to market quantity control for South Texas onions is to provide an orderly flow of onions to the U. S. sub-markets during the period when supply exceeds demand at a satisfactory price level. The need for a weekly rate of flow to market quantity control is required only during a short period at the peak of the South Texas onion harvest to prevent excess supplies from demoralizing the market price.

The first prerequisite for a positive rate of flow to market quantity control is to establish a base index for each shipper typically based on previous experience. Using the market information generated by the Market Information Center, quantity control of the rate of flow to market of South Texas dry onions needs to be implemented just prior to the time of market saturation at a predetermined minimum F.O.B. price in order to prevent the F.O.B. price from declining to a relatively low level. The F.O.B. price level will decline very quickly at this point in time and when it reaches a low price level it becomes very sticky and slow to increase. Some have stated that price follows the law of gravity - it comes down easily but it is difficult to raise. The Florida celery and sweet corn industries have found that a small decision making committee composed of knowledgeable shippers are able to administer this program very satisfactorily. The quanity rate of flow to market program needs be flexible in order to meet the needs of market management and it need be used only when necessary to maintain orderly marketing and to keep the F.O.B. price from declining to a low level.

As the first South Texas dried onions are harvested in the Rio Grande Valley, and as the Valley produces the major share of the South Texas supply, market saturation usually occurs prior to the time the Laredo, Winter Garden and Coastal Bend production areas reach heavy production. An equity adjustment is recommended to be incorporated into the shipping base index allowing for the Laredo, Winter Garden and Coastal Bend areas to ship a larger percentage of their base index during the controlled rate of flow to market period.

The South Texas Onion Committee now has a provision in the current Federal Marketing Order to indirectly control weekly quantity flowing to market by controlling packing hours. Although this indirect control has been help-

ful, a more sensitive method is needed in order to provide a positive control.

The Agricultural Marketing Agreement Act of 1937 and its subsequent amendments provide three (3) means by which the weekly rate of flow to market for onions may be regulated. Briefly they are as follows:

1. Under section 608C subsection 6a supply allocation may be accomplished through handlers.
2. Under section 608C subsection 6b supply allocation may be accomplished through handlers regulated by grower quantity quotas.
3. Under section 608C subsection 6c supply allocation may be allocated through handlers based on handlers' supply history, current supply or both.

A detailed discussion of the various alternatives available under the Agricultural Marketing Agreement Act of 1937 is limited due to the scope of this report. Each industry may select the alternative that best fits its particular commodity.

Surplus Utilization Program: When a quantity rate of flow to market control is utilized, the question of surplus supply becomes pertinent. There are six alternative choices of action that may be taken by the South Texas Onion Industry or surplus utilization. Each will be discussed separately as follows:

Leave Surplus in Field: This course of action has been recommended by a few South Texas growers and shippers, however, this alternative does not meet with the approval of many. The proponents of this alternative argue that by keeping the price from declining to a low level, growers and shippers will be better off by leaving the surplus in the field. Since the growing cost of

South Texas onions represents from 25-30 percent of the F.O.B. breakeven price, losses may best be minimized by not investing in the harvesting, packing and selling costs when market is gluted. Although this argument has economic validity, most growers and shippers want to harvest and ship their crop when it is ready to harvest. Therefore it may be a formidable task to obtain the major concensus of growers and shippers to follow this course of action in accordance with some pre-arranged equitable plan.

Export Surplus: This alternative has the approval of many growers and shippers of South Texas dry onions; however, there are major constraints in this alternative. First, a successful export plan needs to be a continuous year to year activity. Once a distribution channel to a foreign market is developed, annual shipments are necessary in order to maintain the working relationship with the importer. The second constraint is the ability of the South Texas dry onions to maintain condition while being shipped overseas. Due to the time period required for the transfer of the South Texas dry onions to an European or other foreign market, only the best quality dried onions may be successfully exported. Previous experience has revealed that the quality of South Texas onions is not always suitable for exporting due to unfavorable weather conditions prior to and during harvest.

Individual countries importing dry onions from U. S. for the 10 year period 1959-60 to 1968-69 are presented in Table 39 and individual countries exporting dry onions to U. S. are tabulated in Table 40 for the same time period. This 10 year import-export data is summarized in Table 41. The 10 year 1959-60 to 1968-69 computed linear regression trend lines are presented in Table 42 for the same time period. U. S. imports of dry onions av-

Table 39
U. S. Annual Onion Exports by Importing Countries
10 Year Period 1959-60 to 1968-69
(1000 lbs.)

	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Canada	57,543	49,681	59,487	53,459	48,531	58,770	65,750	108,000	99,029	99,549
United Kingdom	-	16,579	6,949	24,072	1,118	19,345	10,731	20,762	1,062	7,059
Jamaica	5,720	4,718	4,193	5,004	4,643	4,886	7,272	4,823	4,810	4,067
Netherlands	-	8,806	491	20,529	888	2,435	47	9,526	-	2,488
Cuba	28,138	15,212	-	-	-	-	-	-	-	-
Panama	6,280	4,143	4,019	4,456	6,225	4,763	6,619	2,951	2,192	1,527
Japan	-	-	10	4,660	15,554	2,901	3,223	2,846	6,879	-
Dominican Republic	2,608	1,687	2,479	3,632	8,240	4,022	5,295	2,610	411	791
Mexico	7,956	762	1,220	1,308	2,545	1,481	924	2,087	2,514	1,741
Norway	-	-	-	18,790	125	433	195	1,226	-	-
Bahamas	955	997	1,099	1,293	992	1,501	2,458	1,300	1,429	1,247
Germany - W	-	1,947	44	6,136	17	1,024	1,496	2,077	-	250
France	-	-	614	-	55	295	76	9,526	-	5
Neth. Antilles	812	845	790	701	1,033	1,123	1,399	1,083	1,014	1,337
B. W. Pacific Islands	1,018	931	485	1,095	240	949	2,120	284	1,312	606
Sweden	-	-	-	2,172	801	977	1,112	1,951	446	-
Fr. Pacific Islands	127	520	490	536	499	798	993	976	941	487
Barbados	969	320	430	1,063	143	735	499	1,300	15	451
British Honduras	149	499	581	603	754	813	743	702	432	522
Israel	-	-	-	5,476	-	-	-	-	-	-
Ireland	-	100	641	729	237	1,057	452	1,818	-	-
Leeward & Windard	58	78	158	376	382	515	811	954	562	555
British Guiana	674	467	166	452	105	528	764	-	-	-
Denmark	-	-	-	2,150	4	-	72	419	-	273
Surinam	82	125	45	220	410	410	621	804	110	40
Guyana	-	-	-	-	-	-	-	1,638	283	222
New Zealand	1,416	87	75	93	30	45	124	26	71	30
Venezuela	130	-	50	-	8	28	152	15	-	1,571
Bermuda	104	185	80	117	341	171	272	234	216	79
Fr. W. Indies	104	-	-	171	260	479	474	74	42	182
Nauseitnampo Islands	-	-	-	25	318	25	469	391	533	-

(Continued)

Table 39 Continued
Page 2

	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Switzerland	-	750	-	919	-	38	-	-	-	50
Trinidad & Tobago	3,277	660	1,275	2,690	1,659	1,624	1,067	2,162	1,405	491
Haiti	352	184	141	83	119	185	194	185	75	62
Australia	107	519	18	10	-	300	334	-	184	-
Rumania	-	-	-	-	-	-	-	-	-	1,462
Finland	-	-	-	208	-	-	-	638	-	-
El Salvador	275	565	-	-	-	-	-	-	-	-
Belgium - Lux	-	-	-	-	-	-	-	297	-	370
Honduras	-	35	156	139	55	34	129	13	15	39
Belgium	-	-	608	-	-	-	-	-	-	-
Costa Rica	45	250	-	202	40	25	-	36	-	-
Belgium	-	-	-	391	-	150	-	-	-	-
Canal Zone	139	180	178	41	-	-	-	-	-	-
Hong Kong	67	-	67	30	15	-	50	195	50	32
Colombia	-	5	10	28	138	154	35	22	10	7
Terr. Pacific Island	23	41	56	47	34	20	32	79	-	-
Iceland	-	-	65	-	-	-	130	-	-	-
Thailand	-	-	-	-	-	-	20	49	-	105
Brazil	-	-	-	-	-	-	-	100	-	69
Trust Pacific Islands	-	-	-	-	-	-	-	-	37	90
Union South Africa	1	-	-	-	-	-	-	-	98	-
Liberia	-	7	43	34	-	8	-	2	2	-
Jordan	-	40	-	-	-	-	-	-	-	-
Somali Republic	-	-	-	-	-	-	-	35	-	-
Saudi Arabia	-	-	5	-	18	-	-	11	-	-
Lebanon	-	-	18	-	-	-	-	-	-	12
Sierra Leone	-	-	-	-	-	-	-	30	-	-
Miguelou	-	-	-	-	-	-	7	7	13	-
Italy	-	-	-	-	-	-	-	26	-	-
Guatemala	-	-	-	-	-	-	10	15	-	-
Nicaragua	-	9	-	5	-	-	7	3	-	-
Kuwait	-	-	-	-	-	-	15	-	-	-
Chile	-	15	-	-	-	14	-	-	-	-

(Continued)

Table 39 Continued
Page 3

	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Austria	-	-	-	-	-	14	-	-	-	-
Lvatemals	-	12	-	-	-	-	-	-	-	-
Libya	-	-	-	-	-	-	-	-	-	8
Iraq	-	-	-	-	-	-	5	-	-	-
U. W. Africa	-	-	-	2	-	-	-	-	-	-
Other	1,252	-	-	-	-	-	-	-	-	-
Europe[1/]	-	28,181	9,409	-	3,245	25,854	14,390	17,379	1,534	11,456
Carlots[2/]	3,009	2,799	2,183	3,681	2,416	2,829	2,930	4,361	3,158	3,197
Total Quantity	120,380	111,960	87,331	147,237	96,625	113,147	117,197	174,435	126,319	127,875
Total Value	3,687,867	4,091,859	4,335,800	6,236,430	4,610,181	5,229,961	5,451,375	7,608,980	6,170,852	5,758,669

Note: Each year starts October 1 and continues through September 30.

1/ Europe = Summation of all export shipments to European countries
2/ Carlot = 40,000 lbs

Source: U. S. Department of Agriculture, Foreign Agricultural Service, Washington, D. C. 20250

TABLE 40

U. S. ANNUAL ONION IMPORTS BY EXPORTING COUNTRIES
10 YEAR PERIOD 1959-60 TO 1968-69
(1,000 LBS)

	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Argentina	———	———	———	5.5	———	———	———	———	———	———
Australia	———	———	30.0	———	———	———	———	———	———	———
Austria	———	———	———	———	———	———	3.3	———	———	———
Belgium-Lux	4.5	14.5	17.9	3.5	29.4	14.2	59.2	20.7	132.4	14.0
Bermuda	———	———	———	———	———	2.5	———	———	———	———
Canada	19.9	101.6	268.6	194.1	34.8	53.9	158.7	106.3	1,270.0	2,734.1
Chili	8,283.0	8,640.6	22,000.4	2,748.4	5,363.9	2,427.9	4,066.6	6,792.6	13,365.6	424.1
Costa Rica	———	———	———	3.0	———	———	———	———	———	———
Czechoslovakia	125.0	———	———	———	———	———	———	———	———	———
Dominican Republic	———	———	———	———	———	———	———	———	62.3	433.0
Ecuador	———	———	———	———	———	———	———	15.0	———	———
France	33.0	3.3	———	6.6	5.5	———	———	138.9	14.5	30.9
Haiti	———	3.2	———	5.5	5.3	4.6	———	3.6	———	———
Israel	———	———	———	22.5	———	———	———	———	———	———
Italy	4,846.9	6,408.9	8,403.5	5,019.7	3,902.8	5,554.4	5,092.1	4,128.4	4,030.4	4,382.5
Japan	———	———	———	———	———	2.9	1.5	———	———	———
Morocco	———	5.3	———	———	———	2.9	———	———	———	———
Mexico	14,403.8	28,815.2	43,201.2	29,452.8	38,566.2	36,524.8	44,142.3	44,545.9	70,527.5	44,548.8
Netherlands	88.2	71.1	65.4	———	304.4	153.4	506.2	682.7	318.5	286.5
New Zealand	———	346.0	1,652.3	257.9	1,076.5	405.2	264.2	470.3	507.4	348.4
O. W. Africa	———	———	6.2	———	———	———	———	———	———	———
Peru	75.0	———	———	———	———	———	———	———	———	———
Spain	41.6	297.7	278.6	173.0	248.0	———	———	———	———	———
United Kingdom	———	———	———	———	———	———	———	———	———	———
Total quantity	28,000.7	44,707.5	75,924.7	37,892.5	49,536.8	45,145.7	54,284.1	56,894.5	90,223.5	53,181.8
Value	$1,496,444	$1,939,817	$4,001,433	$2,027,791	$2,699,381	$2,491,180	$3,289,497	$3,886,552	$5,762,509	$3,750,089

NOTE: Each year starts October 1 and continues through September 30.

SOURCE: U. S. Department of Agriculture, Foreign Agricultural Service, Washington D. C. 20250

TABLE 41

FRESH DRY ONIONS IMPORTED AND EXPORTED BY UNITED STATES,
10 YEAR PERIOD 1959-60 TO 1968-69

Season	Imports 1000 Lbs	Exports 1000 Lbs	Difference 1000 Lbs
1959-60	28,000.7	120,379.8	93,379.1
1960-61	44,707.5	111,959.8	67,252.3
1961-62	75,924.7	87,330.8	11,406.1
1962-63	37,982.5	147,236.5	109,254.0
1963-64	49,536.8	96,624.7	47,087.9
1964-65	45,145.7	113,147.1	68,001.4
1965-66	54,234.1	117,196.9	62,962.8
1966-67	56,894.5	174,435.3	117,540.8
1967-68	90,233.5	126,318.5	36,085.0
1968-69	53,181.8	127,875.4	74,693.6
Total	535,841.8	1,222,504.8	686,663.0

Source: Tables 39 and 40

TABLE 42

COMPUTED LINEAR REGRESSION TRENDS FOR DRY ONIONS IMPORTED AND EXPORTED BY U.S. 10 YEAR PERIOD 1959-60 TO 1968-69

Variable	a	b	$\bar{y}$	R^2
	1000 lbs	1000 lbs	1000 lbs	
U.S. Dry Onion Imports	37,100.0	2,997.1	53,584.2	.253
U.S. Dry Onion Exports	104,587.2	3,211.5	122,250.5	.154
Difference	67,487.2	2.4.4	68,666.3	.000

Note: Model $Y = a + bx$

Where:

Y = Dependent variable
a = Level of linear regression trend line at Y intercept
b = Slope of linear regression trend line
$\bar{y}$ = Mean of linear regression trend line
R^2 = Coefficient of determination

Source: Computed from data in Table 41

eraged about 54.6 million pounds annually. Imports increased at the annual average rate of almost 3.0 million pounds. U. S. dry onion exports in the same period averaged about 122.3 million pounds per year, more than double the imports. Annual average rate of export increase was 3.2 million pounds, a little higher than the import rate.

During the 10 year period 1959-60 to 1968-69, the U. S. net balance of exports over imports averaged about 68.7 million pounds annually. Average annual rate of net gain was 214,000 pounds.

The countries importing U. S. dry onions for the 10 year period 1959-60 to 1968-69 are arrayed in Table 43 in pounds imported and percent of total U. S. exports. Canada imported the largest quantity representing 57.24 percent of the total. United Kingdom was second, with 8.8 percent. Canada and the United Kingdom combined received about two thirds of all U. S. onion exports.

The six European countries consisting of France, Federal Republic of Germany, Belgium-Luxemburg Economic Union (B.L.E.U.), Netherlands, United Kingdom and Sweden have a total population of about 204 million which is about equal to the 1970 U. S. population, Table 44. The average per capita consumption of dry onions within these six countries range from a low of 6.6 pounds in the Netherlands to a high of 11.9 in France with an average of 9.7 pounds. During 1971 it is estimated that 60.5 percent of the 609,600 tons required will be imported.

The potential for exporting additional U. S. dry onions needs to be examined and evaluated in detail. Such a study would encompass an entire market research activity.

TABLE 43

AGGREGATE U. S. DRY ONION EXPORTS BY IMPORTING COUNTRIES
FOR 10 YEAR PERIOD 1959-60 to 1968-69

Country	Total Exports	Percent of Total U. S. Exports
	(1000 lbs)	
Canada	699,799	57.24
United Kingdom	107,677	08.80
Jamaica	50,136	04.10
Netherlands	45,210	03.69
Cuba	43,350	03.54
Panama	43,175	03.53
Japan	36,073	02.95
Dominican Republic	31,766	02.50
Mexico	22,538	01.84
Norway	20,769	01.69
Bahamas	13,271	01.08
Germany - W	12,991	01.06
France	10,571	00.86
Neth. Antilles	10,137	00.82
B. W. Pacific Islands	9,040	00.73
Sweden	7,459	00.61
Fr. Pacific Islands	6,367	00.52
Barbados	5,925	00.48
British Honduras	5,798	00.47
Israel	5,476	00.44
Ireland	5,034	00.41
Leeward & Windard	4,449	00.36
British Guiana	3,156	00.25
Denmark	2,918	00.23
Surinam	2,867	00.23
Guyana	2,143	00.17
New Zealand	1,997	00.16
Venezuela	1,954	00.15
Bermuda	1,799	00.14
Fr. W. Indies	1,786	00.14
Nauseitnampo Islands	1,761	00.14
Switzerland	1,757	00.14
Trinidad & Tobago	1,631	00.13
Haiti	1,580	00.12
Australia	1,472	00.12
Rumania	1,462	00.11
Finland	846	00.06
El Salvador	840	00.06
Belgium - Lux	667	00.05
Honduras	615	00.05
Belgium	608	00.04
Costa Rica	598	00.04
Belgium	541	00.04

(Continued)

TABLE 43
(Continued)

Country	Total Exports	Percent of Total U. S. Exports
	(1000 lbs)	
Canal Zone	538	00.04
Hong Kong	506	00.04
Colombia	409	00.03
Terr. Pacific Islands	332	00.02
Iceland	195	00.01
Thailand	174	00.01
Brazil	169	00.01
Trust Pacific Islands	127	00.01
Union South Africa	99	00.00
Liberia	96	00.00
Jordan	40	00.00
Somali Republic	35	00.00
Saudi Arabia	34	00.00
Lebanon	30	00.00
Sierra Leone	30	00.00
Miguelou	27	00.00
Italy	26	00.00
Guatemala	25	00.00
Nicaragua	24	00.00
Kuwait	15	00.00
Chile	15	00.00
Austria	14	00.00
Lvatemals	12	00.00
Libya	8	00.00
Iraq	5	00.00
U. W. Africa	2	00.00

Source: Table 39

TABLE 44

Population, Consumption and Imports of Dry Onions of Six European Countries
1971 Estimates

Countries	Population	Total Consumption	Per Capita Consumption	Imports 1966-67	Percent Imported	1971 Import Requirement
	Millions	1000 Tons	Lbs.	1000 Tons	Percent	1000 Tons
France	52,630	293.2	11.9	77.2	26	87.1
F.R. Germany 1/	63,510	243.6	8.1	223.8	92	251.3
B.L.E.U. 2/	10,200	35.3	7.5	12.3	35	13.8
Netherlands	13,290	41.9	6.6	13.8	33	6.1
United Kingdom	56,300	306.4	11.0	231.5	75	231.5
Sweden	8,081	30.9	7.7	17.6	57	19.8
Total and Average	204,011	951.3	9.7 3/	575.4	60.5 3/	609.6

Note: Original data in Metric Tons and Kilograms was converted into short tons and pounds.
1 Metric ton = 1.1023113 short tons
1 Kilogram = 2.205 lbs.

1/ Federal Republic of Germany
2/ Belgium - Luxemburg Economic Union
3/ Weighted average

Source: International Trade Center UNCTAD - GATT, Selected Fresh Vegetables, Volume 2 Geneva, 1968 pp 194-195.

Export Pool: Under subsections 6d and 6e of section 608C of the Agricultural Marketing Act, an export pool of dry onions may be established and shipped by the industry with each shipper contributing a quota to the pool. Also under the marketing order, a fixed fee per 50 lb bag of dry onions shipped on domestic markets may be collected and placed in a reserve pool. This pool could be used to equalize the returns of dry onions exported.

Expand Processing Demand: Some fair and ordinary quality South Texas dry onions are now shipped to processors. Although precise data are not available on the quantity of shipments, a few shippers report that their shipments are steadily increasing each year. The primary utilization of the South Texas dry onion for processing is for onion rings. A potential market for diced fresh onions now exists among the hotel and restaurant trade. At the present time, technology is not available to maintain diced fresh South Texas onions in a satisfactory condition for the required time period between dicing and consumption. However, food technologists feel confident that technology could be developed with a minimum of capital outlay for research. For example, fresh U. S. per capita consumption of potatoes declined from almost 200 pounds in 1910 to a little greater than 100 in 1950. Since 1950, potato processing technology has been developed and adapted with the net result of an annual average increase of 0.4 pounds per capita during the past 20 years. It is hypothesized that diced fresh onion technology would have the same net effect on dry onion consumption. Technology for diced fresh South Texas dry onions would enable the industry to offer the consumer sweet and mild onions over a much greater time period compared to the current two to three month period.

Developing processing technology for South Texas onions now offers the

greatest opportunity to the industry, not only for surplus utilization, but primarily as an alternative marketing outlet which would expand total demand, foreign and domestic, for South Texas onions.

Scheduled Planting: During April the peak of the South Texas dry onion harvest is reached and often there is a short period of time when the weekly rate of flow to market exceeds total U. S. weekly demand. For example, the total South Texas dry onion shipments for the week of April 25, 1970, exceeded 1200 carlot equivalents Fig. 3. With a national population of 204 million consuming dry onions at the average annual rate of 11.5 lbs per capita, average weekly U. S. consumption was about 1128 carlot equivalents. Previous experience in the Valley indicates that once the shipments exceed 900 carlot equivalents, the market qucikly becomes demoralized.

According to horticulturists stationed at the Texas Agricultural Experiment Station, Weslaco, Texas, scheduled plantings of dry onions in the South Texas production area would have a considerable influence on leveling out the peak supply period. The South Texas planting period normally starts September 15 and extends to December 15, with most of the plantings being seeded from October 15 to November 15. Information obtained from the proposed Market Information Center through field registration data may be used as a basis for determining when weekly total plantings reached a critical level. By keeping all growers and shippers informed, planting date adjustments could be made on a voluntary basis.

Short Time Storage: The current typical harvest operation consists of hand harvesting dry onions and placing them in burlap bags weighing about 55 lbs each. Fresh harvested dry onions remain in the fields in the burlap

bags for drying a few days after harvest prior to packing. This is the only major storage period for South Texas dry onions. Once the dry onions are hauled from the fields, they are graded, sized, packed and shipped to market in a relatively continuous flow.

Some large batch mechanical driers have recently been installed by shippers. Mechanical batch driers may be utilized to a limited extent to regulate the flow to market. Once the onions are placed in bulk storage the risk of crop loss by rain is eliminated. However, the quantity of South Texas dry onions that may be currently stored in bulk drying bins is not presently significant.

Organizational Foremat for a South Texas Onion Exchange: All regulations and activities such as the proposed market information center, grade, size, quality, size of containers, weekly quantity control for rate of flow to market, surplus utilization program and instantaneous communications systems among shippers may be administered under the current South Texas Onion Federal Marketing Order. At the current time (1970) the South Texas Onion Federal Marketing Order may not be used directly to regulate the weekly quantity rate of flow to market or for a surplus utilization program. The current South Texas Marketing Order provides for an indirect control of weekly quantity flow by controlling packing house hours which has controlled the weekly rate of flow to market to a limited degree. A more positive quantity control is needed to bring about an orderly weekly flow of onions to market which may be accomplished by amending the current South Texas Onion Federal Marketing Order. Any activity related to minimum F.O.B. pricing is not permitted by law under the South Texas Onion Mar-

keting Order as it is a violation of the Sherman Anti-Trust Act.

Under the Capper-Volstead Act growers may organize a cooperative marketing association through which minimum prices may be established. This is accomplished by means of growers contracts which provide for the transferring of complete marketing control and title of their onions to the cooperative marketing association here-in-after referred to as the South Texas Onion Exchange. The Exchange would have sole marketing rights and control over members onions. This arrangement permits discussion of pricing information without being in violation of the anti-trust laws. The Exchange, in order to market the members onions, sign handlers contracts with existing and throughly experienced onion shipping firms. These shipping firms would be made authorized sales agents for the Exchange. The contracts between the Exchange and the authorized sales agents need to require the agents to abide by all rules and regulations of the Exchange which would include the selling of member's onions at the prices established by the directors of the Exchange. Penalty clauses in the event of violation are provided in both grower and handler contracts.

Executive direction can be organized in one of several ways. The Florida Fresh Produce Exchange is one example. The Board of Directors of the Florida Fresh Produce Exchange appoints a three-man celery marketing committee. These men are experienced in celery production as well as sales. This committee is assisted by the Exchange staff members who assemble information on quantity sold daily, the estimated quantity available for market for the next seven days, weather conditions expected to prevail, the unloads in various markets and related general information concerning crop movement. With this information, the committee establishes a selling price at the F.O.B. level for all authorized

sales agents to use. The committee performs this service twice weekly thereby establishing two pricing periods per week. However, it is not uncommon for the committee members to hold the telephone meetings daily. The members of the marketing committee and the Exchange office are connected by a closed circuit telephone system which makes it relatively easy to conduct a meeting.

The Florida Celery Federal Marketing Order and the Florida Fresh Produce Exchange have inter-locking boards of directors. The two organizations share the same office, the services of fieldmen and secretaries are both managed by the same individual. The Florida Celery Federal Marketing Order is mandatory on all producers and handlers, therefore most controls are instigated by this body. The Exchange is a voluntary organization and regulates only members, therefore only pricing information is generated under this program. The Exchange publishes operating policies dealing with consignments, previous commitments on unfilled orders, price adjustments at shipping points, price adjustments for quality on arrival, sales classifications, price protection, government inspection, invoices, sale of cull celery, grade standards and clear cut guidelines on the specific function of the marketing committee. The proposed South Texas Onion Exchange and the South Texas Onion Committee may provide a paralleled package of marketing services to the South Texas Onion Industry.

The Florida celery growers organized the Florida Fresh Produce Exchange in 1961 for the purpose of establishing minimum F.O.B. prices for celery. The Florida Fresh Produce Exchange together with the Federal Marketing Order enable the Florida Celery Industry to manage the market in an orderly manner with stable F.O.B. pricing. The Florida celery, sweet corn, pole bean

and north Florida white skinned potato industries, collect reliable market quantity and distribution information very quickly, efficiently, and economically for all elements of the respective industries. Each handler sends daily one copy of each sales invoice to the Exchange office. These data are aggregated and establish very accurate statistical records on the daily quantities shipped and the distribution. The amount shipped by each handler and the receiving firm is confidential information. Disclosure is avoided through aggregation of data. The Exchanges employ an auditing service to audit shippers records periodically which serves as an enforcement measure.

A similar organization is feasible for the South Texas Dry Onion Industry. With the proposed South Texas Onion Exchange and the Federal Marketing Order working in harmony, the ultimate in market management may be achieved. The two organizations may share the same offices, the services of the same fieldmen and secretaries, and both managed by the same individual. This provides for efficient administration. Organizational diagram Figure 5, illustrates diagrammatically the addition of the proposed South Texas Dry Onion Exchange to the South Texas Onion Marketing Order Committee with interlocking Board of Directors and other administrative personnel and function of each organization. The organization of a Market Information Center, instantaneous communication system among all shippers, positive weekly quantity rate of flow to market control mechanism and a surplus utilization program are all necessary organizational components that support the South Texas Dry Onion Exchange. Without these organizational elements the South Texas Dry Onion Exchange would be ineffective.

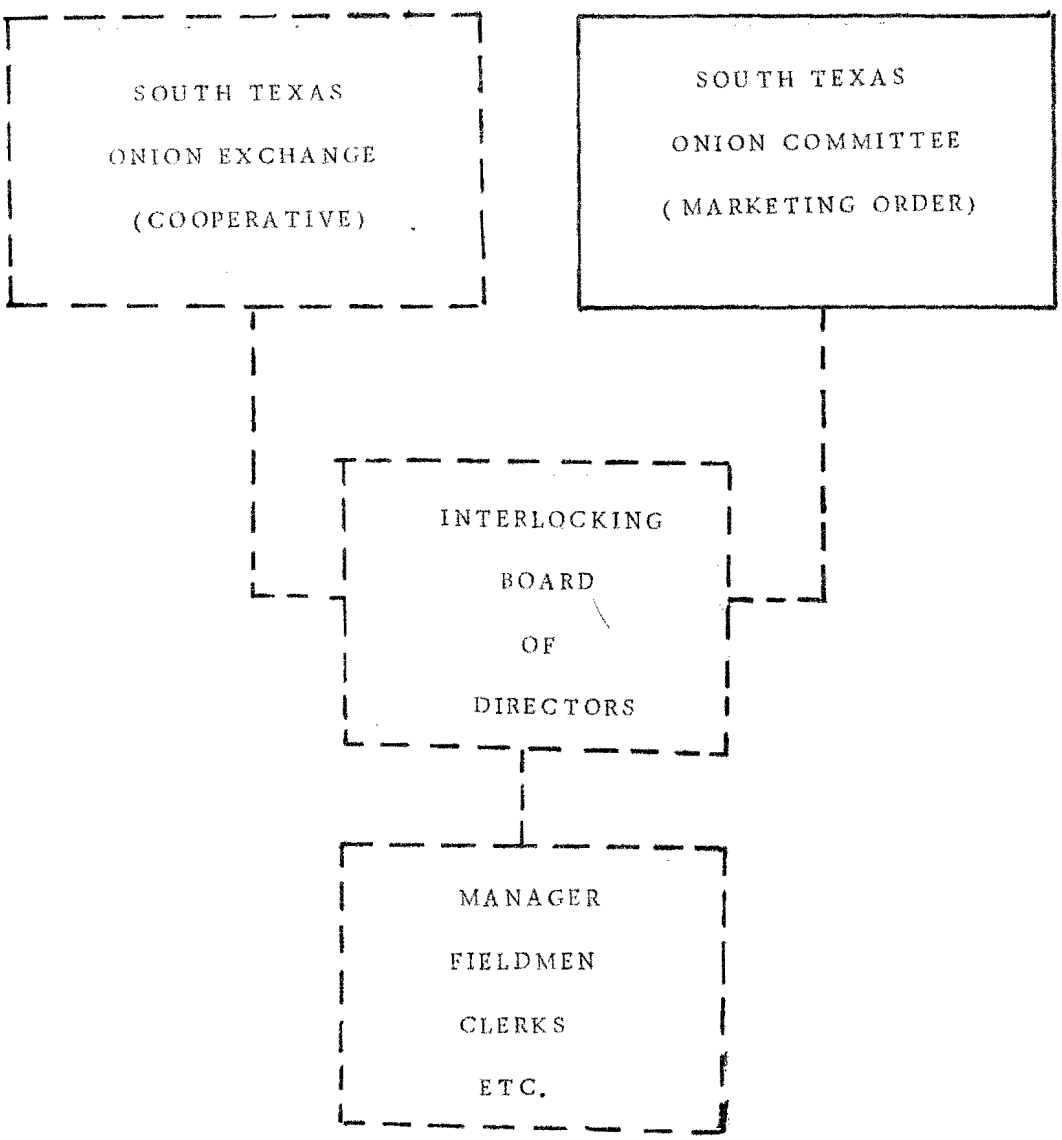


FIGURE 5. ORGANIZATIONAL DIAGRAM OF PROPOSED SOUTH TEXAS ONION EXCHANGE AND SOUTH TEXAS ONION COMMITTEE

MARKET MANAGEMENT

Potential Goals: With the previous discussed five organizational elements organized, the South Texas Dry Onion Industry would then be in a position to manage the F.O.B. market. Through complimentary action of the South Texas Dry Onion Exchange and the Federal Marketing Order, the following goals may be achieved.

1. Eliminate unproductive competition in marketing South Texas onions
2. Control of weekly rate of flow to market, when required for market stability
3. Standardize minimum F.O.B. prices and terms of trade for the industry.
4. Through the Market Information Center provide best and most complete market information to all South Texas onion growers and shippers thereby making the South Texas Dry Onion Industry the best informed group possible.
5. Establish a surplus utilization policy.
6. Monitor the distribution of South Texas dry onions among the various U. S. sub-markets. With the estimated demand for each sub-market known any mal-distribution can be relayed to all shippers through the closed circuit telephone system.
7. Increase buyers confidence as F.O.B. prices and terms of trade will be standardized for the entire Industry.

Pricing Under Market Management: Once all organizational elements are made operational, the South Texas Dry Onion Industry will have the capability of op-

erating as one central sales office. Each shipping sales office that handles the grower member dry onions becomes an authorized sales agency of the central sales office. Although all pricing competition is eliminated, competition still exists for sales. The normal previous relationship between the shipper and his accounts remain the same. Each shipper is assured that his competitor authorized sales agencies are selling at the same minimum price level established by the South Texas Dry Onion Exchange.

Within the above marketing environment for both shipper and buyer confidence is established. The buyer knows that the South Texas Dry Onion Industry has concentrated its selling activities through one central sales organization with standardized pricing and terms of trade. Buyers will no longer be able to call several shippers and find one that will reduce the price a dime to make the sale. This is a healthy competitive marketing environment. The shipper continues with the same grower relationship and continue to pack under the same labels serving the same accounts.

Under a central sales environment, the South Texas Dry Onion Industry will often have the capability to stabilize price to a degree never before experienced in the past. When this capability exists, the industry need be cautious not to over react. A relatively high F.O.B. price can cause as many problems as a low price. An unrealistic high price encourages new entry into the industry. Should the price be too high, imports, especially from Mexico could increase taking a larger share of the U. S. market. Northern U. S. production areas will likewise be encouraged to increase production for storage onions and extend the marketing period. An expansion of the marketing period for northern storage onions will be in direct competition with the South Texas

early spring onion deal. The competition from Mexico is less likely due to the trade barriers. Whenever the price of dry onions in U. S. is less than $3.75 per 50 lb bag at the border, the onion imports from Mexico decline.

The primary purpose of a central sales office is to stabilize the price during the very short run periods of time at a level that will clear the market. At this time there is no precise method of computing a price that will clear the market in the very short run period of all available supplies. However, Dr. Carl E. Shafer, Department of Agricultural Economics, Texas A&M University has recently (1971) initiated a research project entitled "The Intraseasonal Demand for Texas Early Spring Onions". This project will be completed in about two years. It is hopeful that the findings from this study will provide additional guidelines for the South Texas Dry Onion Industry in respect to pricing. The committee would need to use its best judgement to establish price levels based on information provided by the Market Information Center. Experienced growers and shippers are able to establish realistic very short run price levels as has been demonstrated by the Florida Fresh Produce Exchange in the marketing of celery. This brings into focus the need for the services of a competent marketing analyst either employed by or available to the South Texas Central Sales Organization. The Texas Agricultural Market Research and Development Center was recently organized to work with Texas food and fiber industries in marketing activities orientated towards problems of this nature. This is only one source for an outside marketing analyst service.

Market strategy would need be developed each year in accordance with the U. S. per capita supply level of January storage stocks and South Texas expected supply. The annual average U. S. per capita supply of January storage

stocks for the 10 year period 1960-70 was 2.60 pounds compared to 1.54 pounds for South Texas supply, Appendix VII, Table C. The degree of market management that is feasible would be associated directly with the magnitude of the per capita January storage stocks. When the per capita January storage stocks are relatively low, the maximum of market management would be possible, likewise when the per capita January storage stocks are relatively high, market management would be minimal. Consequently each specific year presents a unique set of supply conditions that need be evaluated and appropriate policy adapted.

When the total per capita January storage stocks plus South Texas supply is examined in relation to South Texas price during the 10 year period 1960-70, Appendix VII, Table C, the quantity-price relationship becomes evident. An effective South Texas Dry Onion Central Sales Office will provide as much service to ultimate consumers as to the South Texas Dry Onion Industry. All consumers are interested in securing an orderly flow of onions at a reasonable price level. The marketing environment created by the proposed South Texas Dry Onion Central Sales organization will provide a complimentary service to producers, shippers and consumers.

COST AND RETURNS OF A CENTRALIZED SALES ORGANIZATION

The estimated annual cost of a combined South Texas Dry Onion Exchange and the South Texas Onion Committee office is estimated to range from about $118,000 to $152,000, Table 45. The variance in cost is due primarily to the length of time the closed circuit telephone service is required among shippers, Table 46. This budget provides for a full time general manager for the dual organizations.

The position of general manager is an important element in the en-

TABLE 45

Estimated Typical Combined Annual Budget for Proposed South Texas Central Sales Exchange and Federal Marketing Order Committee

(1970 Dollars)

Service	Annual Estimate
General Manager and office manager (2)	$23,000-$32,000
Statistical clerk	5,000
Auditor-part time	6,000
Field men	8,500
Payroll taxes	3,000
Telephone & telegraph	2,400
Closed Circuit Telephone system among shippers	41,238
Travel - Committee included	12,000
Office rent	2,400
Postage	2,000
Market News leased wire service 6 mo. @ $106	650
Data processing	2,000
Office supplies & equipment	4,000
Furniture and texture	3,000
Insurance & bonds	1,500
Printing	1,000
Total	$117,688-126,688

Note: Add $25,567 for 12 month closed circuit telephone service among shippers.

TABLE 46

Estimated Annual Cost for Close Circuit Telephone System
Among 51 South Texas Onion Shippers
5 or 12 Month Service Periods

(1970 Dollars)

	Service	
	5 Months	12 Months
Fixed Annual Service Charge @ 150/shipper	$ 7,650	$ 7,650
Monthly Service Charge for 51 shippers - $4,900	24,500	58,800
Automatic recorder rental	163	355
Vacation rate 7 mos. @ $25/shipper	8,925	-
Total cost	$41,238	$66,805

Note: Original installation cost of $6,800, excluded.

Source: Frank Fusco, Bell Telephone Co., Harlingen, Texas.

tire organizational complex. Employment of a general manager need be based on business ability, not friendship. The General Manager, in order to be capable to serve in this capacity needs to have an equivalent of a Masters degree in Agricultural Economics with some previous real world work experience. The General Manager should not have any vested interest directly or indirectly in any growing or shipping operation. He must serve all growers and shippers in an equitable matter. The General Manager must be a good public relations man representing all firms of the South Texas industry.

The additional estimated annual economic returns generated by a Central Sales Organization to the South Texas Dry Onion Industry cannot be a precise measurement. It only can be a subjective measurement based on experience of similar ogranizations in the past.

Mr. George M. Talbott, Assistant Secretary and General Manager of the Florida Fresh Produce Exchange reporting the following economic condition prior and after the Exchange was organized.

> "At the beginning of the 1960-61 season it was beyond the wildest imagination to visualize the industry joining together into the type of close working relationship and cooperation as now exists. The question may well be asked, "Why and How?"
>
> First, there was enough economic desperation and need for survival within the industry that any straw was worth grabbing. Then too, in time of adversities, economic or otherwise, people are drawn together. Fires, tragedies, sickness and death have the same effect within industries as with humans. To emphasize the economic conditions, the average celery farm prices for the five seasons immediately prior to the establishment of any type of industry program were:
>
> $2.29 $3.18 $1.42 $1.69 $1.71
>
> Thus, in three of the five seasons the average celery farm price was less than $2.00 per crate. One of the five seasons was a freeze year with inevitable short supply and high prices.

In comparison, the economic conditions or average celery farm prices per crate since the industry organized its programs have been:

$3.55 $2.19 $2.90 $2.57 $2.91 $2.49 $3.08

It should be noted that 1961-62 (the season of the $3.55 price) was also a freeze year. There was a short supply of approximately 7,000,000 crates which contributed to the high price per crate. Conversely, in 1965-66, the average per crate price was $2.91, yet a little over 8,000,000 crates were marketed. This was the greatest number of crates of celery ever shipped during any season from the state of Florida.

For the past seven seasons F.O.B. celery prices have averaged over $2.00 per crate. Call it luck, coincidence or offer any other explanation as no particular reason can be singled out as the sole factor. However, it is the longest period of consistent and reasonable returns ever experienced by the industry. Such did not occur until the industry developed the will and desire to work together for their mutual benefit".

Mr. Wayne Hawkins, Manager of the Production and Marketing Division, Florida Fruit and Vegetable Association reported the following on pole beans and sweet corn.

"The funds for administering this program are derived from voluntary assessments of 2¢ per hamper. The first year the exchange was in operation the average price received for pole beans was increased by 68¢ per hamper over the previous year. The acreage planted and the number of hampers sold were both larger than the previous year. I cannot say that the exchange was completely responsible for this increase but I think it was at least partially responsible".

"The original goal of the exchange was to improve sweet corn prices. After the 1967 season, the chairman of the marketing committee reported at the annual meeting that the exchange was responsible for increasing the F.O.B. market for sweet corn by 41¢ per crate. This amounts to more than one million dollars extra that was returned to the growers".

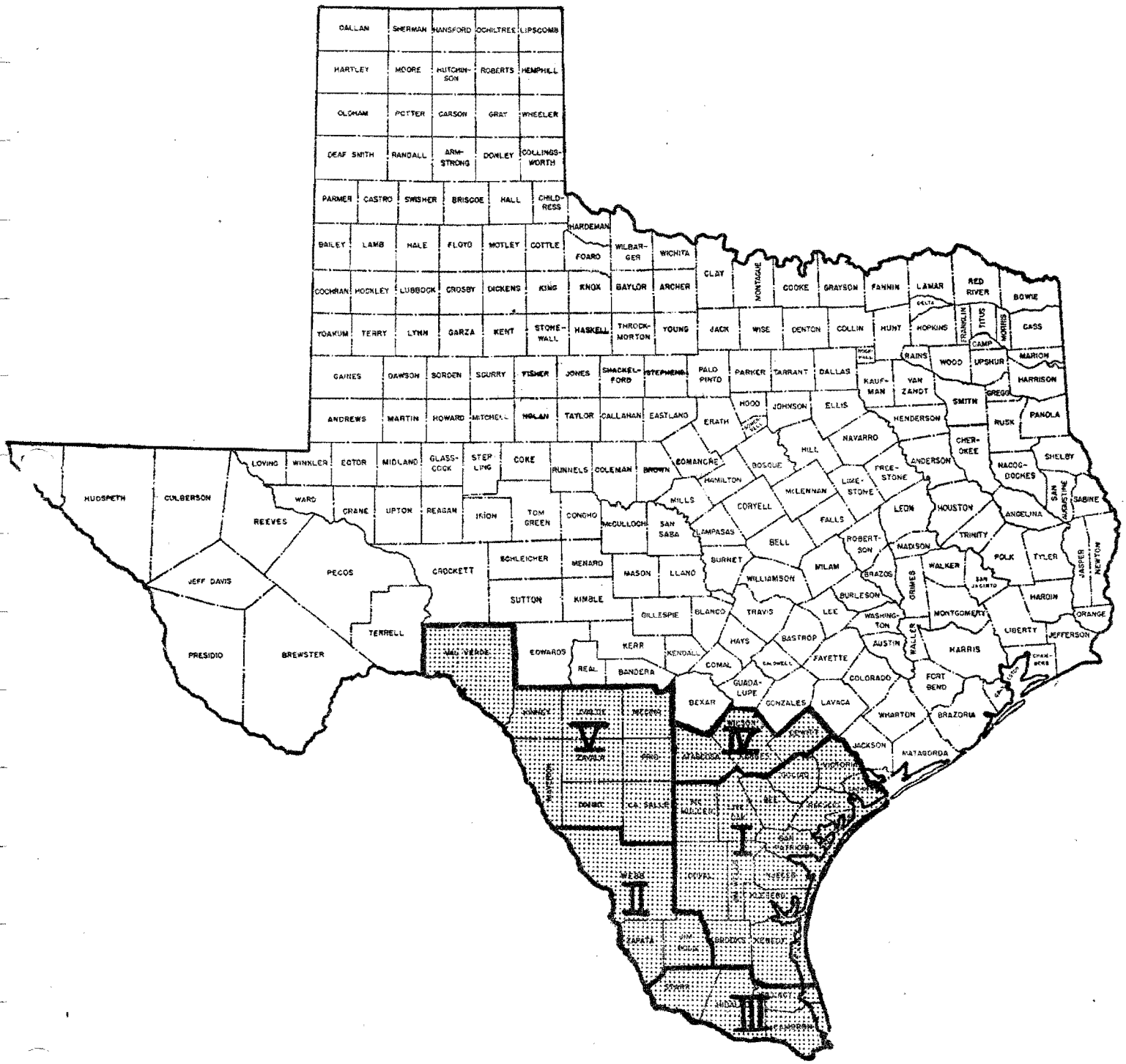
The South Texas onion shipments for the 2 year period 1967-69 averaged about 5 million 50 lb bag equivalents annually. An estimated annual operating expense of $150,000 for a dual South Texas Dry Onion Exchange and South Texas Onion Committee office, would cost the South Texas Industry about 3 cents per 50 lb bag

based on the 5 million bag level. The estimated returns on this investment by the South Texas Onion Industry is a matter of subjective judgement. A 25¢ per bag increase would generate an additional $1,250,000 or $8.33 for each dollar invested in the market organizational complex. With a cost return breakeven level of as low as 3 cents per 50 lb bag, the probability of returns exceeding cost is extremely favorable.

APPENDICES

APPENDIX I

South Texas Dry Onion Production Area and Districts as Defined by Federal Order No. 959, as Amended, TEXAS ONIONS



UNITED STATES DEPARTMENT OF AGRICULTURE

CONSUMER AND MARKETING SERVICE

[Reprinted from Federal Registers of January 25, 1961, March 9, 1962, and April 12, 1969]

PART 959—ONIONS GROWN IN SOUTH TEXAS

Order, as Amended, Regulating Handling

AUTHORITY: §§ 959.0 to 959.92 issued pursuant to secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674.

Miscellaneous Amendments

§ 959.0 Findings and determinations.

The findings and determinations hereinafter set forth are supplementary and in addition to the findings and determinations made in connection with the issuance of the order, and all of the said previous findings and determinations are hereby ratified and affirmed except insofar as such findings and determinations may be in conflict with the finding and determinations set forth herein.

(a) *Findings upon the basis of the hearing record.* Pursuant to the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), and the applicable rules of practice and procedure effective thereunder (7 CFR Part 900), a public hearing was held at Edinburg, Tex., on December 18, 1968, upon a proposed amendment of Marketing Agreement No. 143 and Order No. 959 (7 CFR Part 959) regulating the handling of onions grown in the South Texas production area. Upon the basis of the evidence introduced at such hearing and the record thereof, it is hereby found that:

(1) The said order as hereby amended and all of the terms and conditions thereof, will tend to effectuate the declared policy of the act with respect to onions produced in the production area, by establishing and maintaining such orderly marketing conditions therefor as will tend to establish, as prices to the producers thereof, parity prices and by protecting the interest of the consumer (i) by approaching the level of prices which it is declared in the act to be the policy of Congress to establish by a gradual correction of the current level of prices at as rapid a rate as the Secretary deems to be in the public interest and feasible in view of the current consumptive demand in domestic and foreign markets, and (ii) by authorizing no action which has for its purpose the maintenance of prices to producers of such onions above the parity level, and (iii) by authorizing the establishment and maintenance of such minimum standards of quality and maturity, and such grading and inspection requirements as may be incidental thereto, as will tend to effectuate such orderly marketing of such onions as will be in the public interest;

(2) The said order as hereby amended regulates the handling of onions grown in the production area in the same manner as, and are applicable only to persons in the respective classes of industrial and commercial activity specified in, a marketing order upon which hearings have been held;

(3) The said order as hereby amended is limited in application to the smallest regional production area which is practicable, consistently with carrying out the declared policy of the act; and the issuance of several orders applicable to subdivisions of the production area would not effectively carry out the declared policy of the act;

(4) The said order as hereby amended prescribes, so far as practicable, such different terms, applicable to different parts of the production area, as are necessary to give due recognition to the differences in the production and marketing of onions grown in the production area; and

(5) All handling of onions as defined in this part is in the current of interstate or foreign commerce or directly burdens, obstructs, or affects such commerce.

(b) *Additional findings.* It is hereby found that good cause exists for not postponing the effective date of this amendment beyond the date hereinafter specified and for making it effective on such date (5 U.S.C. 553): (1) Shipments of production area onions are expected to be moving in volume before mid-April and the amendment should be made effective as far as possible in advance of such date so that producers may avail themselves of any benefits that may be derivable from the amendment during the greatest possible portion of the current marketing season; (2) the provisions

of the amendment are well known to handlers and other interested persons by reason of the public hearing, the recommended decision, and the final decision thereon; (3) the producer referendum was held during the period March 27–April 2, 1969, when copies of the amendment were mailed to all known producers; (4) the changes effected by this amendment will not require advance preparation by handlers which cannot be completed prior to the effective date hereof; and (5) no useful purpose will be served by postponing the effective date beyond that hereinafter set forth.

(c) *Determinations.* It is hereby determined that:

(1) Handlers (excluding cooperative associations of producers who are not engaged in processing, distributing, or shipping onions covered by this order) who during the representative period (Aug. 1, 1967, through July 31, 1968), handled more than 50 percent of the volume of onions covered by the said order, have signed the marketing agreement, as amended, regulating the handling of onions grown in the production area, and

(2) The issuance of this order, amending the order, is approved or favored (i) by at least two-thirds of the producers of onions who participated in a referendum held during the period March 27–April 2, 1969, and who, during the determined representative period (Aug. 1, 1967, through July 31, 1968) were engaged within the production area in the production of onions for market, and (ii) by producers who participated in the aforesaid referendum and who, during the aforesaid representative period, produced for market at least two-thirds of the volume of such onions produced for market within the production area.

It is therefore ordered, That, on and after the effective date hereof, all handling of onions grown in the South Texas production area shall be in conformity to and in compliance with, the terms and conditions of the said order as hereby amended, as follows:

DEFINITIONS

§ 959.1 Secretary.

"Secretary" means the Secretary of Agriculture of the United States, or any officer or employee of the Department to whom authority has heretofore been delegated, or to whom authority may be hereafter delegated, to act in his stead.

§ 959.2 Act.

"Act" means Public Act No. 10, 73d Congress, as amended and as reenacted and amended by the Agricultural Marketing Agreement Act of 1937, as amended (secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674).

§ 959.3 Person.

"Person" means an individual, partnership, corporation, association or any other business unit.

§ 959.4 Production area.

"Production area" means the counties of Val Verde, Kinney, Uvalde, Medina, Wilson, Karnes, Goliad, Victoria, Calhoun, Maverick, Zavala, Frio, Atascosa, Dimmit, La Salle, McMullen, Live Oak, Bee, Refugio, Webb, Duval, Jim Wells, San Patricio, Nueces, Zapata, Jim Hogg, Brooks, Kleberg, Kenedy, Starr, De Witt, Aransas, Hidalgo, Willacy, and Cameron, in the State of Texas.

§ 959.5 Onions.

"Onions" means all varieties of Allium cepa commonly known as onions grown within the production area and marketed dry.

§ 959.6 Handler.

"Handler" is synonymous with "shipper" and means any person (except a common or contract carrier of onions owned by another person) who handles onions or causes onions to be handled.

§ 959.7 Handle.

"Handle" or "ship" means to package, load, sell, transport, or in any way to place onions in the current of the commerce within the production area or between the production area and any point outside thereof. Such term shall not include the transportation, sale, or delivery of field-run onions to a person in the production area who is a registered handler.

§ 959.8 Registered handler.

"Registered handler" means any person with adequate facilities within the production area for preparing onions for commercial market, who customarily does so, and who is so recorded by the committee, or any person who has access to such facilities within the production area, and has recorded with the committee his ability and willingness to assume customary obligations of preparing onions for commercial market.

§ 959.9 Producer.

"Producer" means any person engaged in a proprietary capacity in the production of onions for market.

§ 959.10 Grading.

"Grading" is synonymous with "preparation for market" and means the sorting or separation of onions into grades, sizes, and packs for market purposes.

§ 959.11 Grade and size.

"Grade" means any of the established grades of onions, and "size" means any of the established sizes of onions as defined and set forth in the United States Standards for Bermuda-Granex Type Onions (§§ 51.3195 to 51.3209 of this title) or any other United States Standards for onions, or amendments thereto, or modifications thereof, or variations based thereon, recommended by the committee and approved by the Secretary.

§ 959.12 Pack.

"Pack" means a quantity of onions specified by grade, size, weight, or count, or by type or condition of container, or any combination of these recommended by the committee and approved by the Secretary.

§ 959.13 Container.

"Container" means a box, bag, crate, hamper, basket, package, or any other receptacle used in the packaging, transportation, sale, shipment or other handling of onions.

§ 959.14 Varieties.

"Varieties" means and includes all classifications, subdivisions, or types of onions according to those definitive characteristics now or hereafter recognized by the United States Department of Agriculture or recommended by the committee and approved by the Secretary.

§ 959.15 Committee.

"Committee" means the South Texas Onion Committee, established pursuant to § 959.22.

§ 959.16 Fiscal period.

"Fiscal period" means the annual period beginning and ending on such dates as may be approved by the Secretary pursuant to recommendations of the committee.

§ 959.17 District.

"District" means each of the geographic divisions of the production area initially established pursuant to § 959.24 or as reestablished pursuant to § 959.25.

§ 959.18 Export.

"Export" means to ship onions to any destination which is not within the 48 contiguous States, or the District of Columbia, of the United States.

COMMITTEE

§ 959.22 Establishment and membership.

The South Texas Onion Committee, consisting of seventeen members, ten of whom shall be producers and seven of whom shall be handlers, is hereby established. For each member of the committee there shall be an alternate. Producer members and alternates shall not have a proprietary interest in or be employees of a handler organization.

§ 959.23 Term of office.

(a) The term of office of committee members and their respective alternates shall be for two years and shall begin as of August 1 and end as of July 31. The terms shall be so determined that about one-half of the total committee membership shall terminate each year.

(b) Committee members and alternates shall serve during the term of office for which they are selected and have qualified, or during that portion thereof beginning on the date on which they qualify during such term of office and continuing until the end thereof, and until their successors are selected and have qualified.

§ 959.24 Districts.

To determine a basis for selecting committee members, the following districts of the production area are hereby initially established:

District No. 1: (Coastal Bend) The Counties of Victoria, Calhoun, Goliad, Refugio, Bee, Live Oak, San Patricio, Aransas, Jim Wells, Nueces, Kleberg, Brooks, Kenedy, Duval, and McMullen in the State of Texas.

District No. 2: (Laredo) The Counties of Zapata, Webb, and Jim Hogg in the State of Texas.

connection with, issuance of certificates of privilege;

(i) To keep minutes, books, and records which clearly reflect all of the acts and transactions of the committee, and such minutes, books and records shall be subject to examination at any time by the Secretary or by his authorized agent or representative. Minutes of each committee meeting shall be reported promptly to the Secretary;

(j) At the beginning of each fiscal period, to prepare a budget of its expenses for such fiscal period, together with a report thereon;

(k) To cause the books of the committee to be audited by a competent accountant at least once each fiscal period, and at such other time as the committee may deem necessary or as the Secretary may request. The report of such audit shall show the receipt and expenditure of funds collected pursuant to this part. A copy of each such report shall be made available at the principal office of the committee for inspection by producers and handlers, and a copy of each such report shall be furnished the Secretary;

(l) To consult, cooperate, and exchange information with other marketing agreement committees and other individuals or agencies in connection with all proper committee activities and objectives under this part.

Expenses and Assessments

§ 959.40 Expenses.

The committee is authorized to incur such expenses as the Secretary may find are reasonable and likely to be incurred during each fiscal period for its maintenance and functioning, and for such purposes as the Secretary, pursuant to this subpart, determines to be appropriate. Handlers shall share expenses on the basis of a fiscal period. Each handler's share of such expenses shall be proportionate to the ratio between the total quantity of onions handled by him as the first handler thereof during a fiscal period and the quantity of onions handled by all handlers as first handlers thereof during such fiscal period.

§ 959.41 Budget.

As soon as practicable after the beginning of each fiscal period and as may be necessary thereafter, the committee shall prepare an estimated budget of income and expenditures necessary for the administration of this part. The committee may recommend a rate of assessment calculated to provide adequate funds to defray its proposed expenditures. The committee shall present such budget to the Secretary with an accompanying report showing the basis for its calculations.

§ 959.42 Assessments.

(a) The funds to cover the committee's expenses shall be acquired by the levying of assessments upon handlers as provided in this subpart. Each handler who first handles onions, which are regulated under this part, shall pay assessments to the committee upon demand, which assessments shall be in payment of such handler's pro rata share of the committee's expenses.

(b) Assessments shall be levied upon handlers at rates established by the Secretary. Such rates may be established upon the basis of the committee's recommendations and other available information. Such rates may be applied to specified containers used in the production area.

(c) At any time during, or subsequent to, a given fiscal period the committee may recommend the approval of an amended budget and an increase in the rate of assessment. Upon the basis of such recommendations, or other available information, the Secretary may approve an amended budget and increase the rate of assessment. Such increase shall be applicable to all onions which were regulated under this part and which were handled by the first handlers thereof during such fiscal period.

(d) The payment of assessments for the maintenance and functioning of the committee may be required under this part throughout the period it is in effect irrespective of whether particular provisions thereof are suspended or become inoperative.

§ 959.43 Accounting.

(a) Assessments collected in excess of expenses incurred shall be accounted for in accordance with one of the following:

(1) Excess funds not retained in a reserve, as provided in subparagraph (2) of this paragraph shall be refunded proportionately to the persons from whom they were collected.

(2) The committee, with the approval of the Secretary, may carry over excess funds into subsequent fiscal periods as reserves: *Provided*, That funds already in reserves do not equal approximately two fiscal periods' expenses. Such reserve funds may be used (i) to defray expenses during any fiscal period prior to the time assessment income is sufficient to cover such expenses, (ii) to cover deficits incurred during any fiscal period when assessment income is less than expenses, (iii) to defray expenses incurred during any period when any or all provisions of this part are suspended or are inoperative, (iv) to cover necessary expenses of liquidation in the event of termination of this part. Upon such termination, any funds not required to defray the necessary expenses of liquidation shall be disposed of in such manner as the Secretary may determine to be appropriate. To the extent practical such funds shall be returned pro rata to the persons from whom such funds were collected.

(b) All funds received by the committee pursuant to the provisions of this part shall be used solely for the purpose specified in this part and shall be accounted for in the manner provided for in this part. The Secretary may at any time require the committee and its members to account for all receipts and disbursements.

(c) Upon the removal or expiration of the term of office of any member of the committee, such member shall account for all receipts and disbursements and deliver all property and funds in his possession to the committee, and shall execute such assignments and other instruments as may be necessary or appropriate to vest in the committee full title to all of the property, funds, and claims vested in such member pursuant to this part.

(d) The committee may make recommendations to the Secretary for one or more of the members thereof, or any other person, to act as a trustee for holding records, funds, or any other committee property during periods of suspension of this subpart, or during any period or periods when regulations are not in effect and if the Secretary determines such action appropriate, he may direct that such person or persons shall act as trustee or trustees for the committee.

Research and Development

§ 959.48 Research and development.

The committee, with the approval of the Secretary, may establish or provide for the establishment of marketing research and development projects designed to assist, improve, or promote the marketing, distribution, and consumption of onions. The expenses of such projects shall be paid from funds collected pursuant to § 959.42.

Regulations

§ 959.50 Marketing policy.

(a) At the beginning of each season, and as the Secretary may require, the committee shall prepare a marketing policy. Such policy shall indicate the data on onion supplies and demand on which the committee bases its judgments and recommendations. It shall indicate also the kind or types of regulations contemplated during the ensuing season, and, to the extent practical, shall include recommendations for specific regulations. Notice of such marketing policy shall be given to producers, handlers, and other interested parties by bulletins, newspapers, or other appropriate media, and copies thereof shall be submitted to the Secretary and shall be available generally.

(b) Marketing policy statements relating to recommendations for regulations shall give appropriate consideration to onion supplies for the season, with special consideration to:

(1) Estimates of total supplies, including grade, size, and quality thereof, in the production area;

(2) Estimates of supplies in the competing areas;

(3) Market prices by grades, sizes, containers, and packs;

(4) Estimates of supplies of competing commodities;

(5) Anticipated marketing problems;

(6) Level and trend of consumer income; and

(7) Other relevant factors.

§ 959.51 Recommendations for regulations.

Upon complying with the requirements of § 959.50 the committee may recommend regulations to the Secretary whenever it finds that such regulations as are provided for in this subpart will tend to effectuate the declared policy of the act.

to removal or suspension by the Secretary at any time. Each and every order, regulation, decision, determination or other act of the committee shall be subject to the continuing right of the Secretary to disapprove of the same at any time. Upon such disapproval, the disapproved action of the said committee shall be deemed null and void, except as to acts done in reliance thereon or in compliance therewith prior to such disapproval by the Secretary.

§ 959.83 Effective time.

The provisions of this subpart, or any amendment thereto, shall become effective at such time as the Secretary may declare and shall continue in force until terminated in one of the ways specified in this subpart.

§ 959.84 Termination.

(a) The Secretary may, at any time, terminate the provisions of this subpart by giving at least one day's notice by means of a press release or in any other manner which he may determine.

(b) The Secretary shall terminate or suspend the operation of any or all of the provisions of this subpart whenever he finds that such provisions do not tend to effectuate the declared policy of the act.

(c) The Secretary shall terminate the provisions of this subpart at the end of any fiscal period whenever he finds that such termination is favored by a majority of producers who, during a representative period, have been engaged in the production of onions for market: *Provided*, That such majority has, during such representative period, produced for market more than fifty percent of the volume of such onions produced for market.

(d) The provisions of this subpart shall, in any event, terminate whenever the provisions of the act authorizing them cease to be in effect.

§ 959.85 Proceeding after termination.

(a) Upon the termination of the provisions of this subpart the then functioning members of the committee shall continue as joint trustees for the purpose of settling the affairs of the committee by liquidating all of the funds and property then in the possession of or under control of the committee, including claims for any funds unpaid or property not delivered at the time of such termination. Action by said trusteeship shall require the concurrence of a majority of the said trustees.

(b) The said trustees shall continue in such capacity until discharged by the Secretary; shall, from time to time, account for all receipts and disbursements and deliver all property on hand, together with all books and records of the committee and of the trustees, to such person as the Secretary may direct; and shall, upon request of the Secretary, execute such assignments or other instruments necessary or appropriate to vest in such persons full title and right to all of the funds, property, and claims vested in the committee or the trustees pursuant to this subpart.

(c) Any person to whom funds, property, or claims have been transferred or delivered by the committee or its members, pursuant to this section, shall be subject to the same obligations imposed upon the members of the committee and upon the said trustees.

§ 959.86 Effect of termination or amendments.

Unless otherwise expressly provided by the Secretary, the termination of this subpart or of any regulation issued pursuant to this subpart, or the issuance of any amendments to either thereof, shall not (a) affect or waive any right, duty, obligation, or liability which shall have arisen or which may thereafter arise in connection with any provision of this subpart or any regulation issued under this subpart, or (b) release or extinguish any violation of this subpart or of any regulation issued under this subpart, or (c) affect or impair any rights or remedies of the Secretary or of any other person with respect to any such violation.

§ 959.87 Duration of immunities.

The benefits, privileges, and immunities conferred upon any person by virtue of this subpart shall cease upon the termination of this subpart, except with respect to acts done under and during the existence of this subpart.

§ 959.88 Agents.

The Secretary may, by designation in writing, name any person, including any officer or employee of the United States Department of Agriculture, to act as his agent or representative in connection with any of the provisions of this subpart.

§ 959.89 Derogation.

Nothing contained in this subpart is, or shall be construed to be, in derogation or in modification of the rights of the Secretary or of the United States to exercise any powers granted by the act or otherwise, or, in accordance with such powers, to act in the premises whenever such action is deemed advisable.

§ 959.90 Personal liability.

No member or alternate of the committee nor any employee or agent thereof, shall be held personally responsible, either individually or jointly with others, in any way whatsoever, to any handler or to any person for errors in judgment, mistakes, or other acts, either of commission or omission, as such member, alternate, agent, or employee, except for acts of dishonesty, willful misconduct, or gross negligence.

§ 959.91 Separability.

If any provision of this subpart is declared invalid, or the applicability thereof to any person, circumstance, or thing is held invalid, the validity of the remainder of this subpart, or the applicability thereof to any other person, circumstance, or thing, shall not be affected thereby.

§ 959.92 Amendments.

Amendments to this subpart may be proposed, from time to time, by the committee or by the Secretary.

Effective date: Issued at Washington, D.C., April 8, 1969, to become effective April 8, 1969.

RICHARD E. LYNG,
Assistant Secretary.

APPENDIX II

MARKETING ORDERS AND AGREEMENTS IN EFFECT AT THE END OF THE 1969 FISCAL YEAR

1. California-Arizona Navel Oranges - M.O. No. 907
2. California-Arizona Valencia Oranges - M.O. No. 908
3. California-Arizona Grapefruit - M.O. No. 909
4. California-Arizona Lemons - M.O. 910
5. Florida Citrus Fruits - M.O. No. 905
6. Florida Limes - M.O. No. 911
7. Florida Indian River Grapefruit - M.O. No. 912
8. Florida Interior Grapefruit - M.O. No. 913
9. Texas Oranges and Grapefruit - M.O. No. 906
10. California Tree Fruit Agreement - M.O. No. 917
11. California Nectarines - M.O. No. 916
12. California Tokay Grapes - M.O. 926
13. California Olives - M.O. No. 932
14. Colorado Peaches - M.O. No. 919
15. Florida Avocados - M.O. No. 915
16. Georgia Peaches - M.O. No. 918
17. Idaho-Oregon Fresh Prunes - M.O. No. 925
18. Utah Peaches - M.O. No. 920
19. Washington Apricots - M.O. No. 922
20. Washington Sweet Cherries - M.O. No. 923
21. Washington Peaches - M.O. No. 921
22. Winter Pears - M.O. No. 927
23. Oregon-Washington Fresh Bartlett Pears - M.O. No. 931
24. Washington-Oregon Fresh Prunes - M.O. No. 924
25. Cranberries - M.O. No. 929
26. Idaho and Malheur County, Oregon Potato M.O. No. 945
27. Southeastern Potato - M.O. No. 935
28. Washington Potato - M.O. No. 946
29. Colorado Potato M.O. No. 948
30. Maine Potato M.O. No. 950
31. New England Potato M.O. No. 951
32. Oregon-California Potato M.O. No. 947
33. South Texas Onion M.O. 959
34. Idaho-Eastern Oregon Onion M.O. No. 958
35. Texas Valley Tomato M.O. No. 965
36. Florida Tomato M.O. No. 966
37. South Texas Lettuce M.O. No. 971
38. Florida Celery M.O. No. 967
39. California Almonds M.O. No. 981
40. Oregon and Washington Filberts M.O. No. 982
41. California, Oregon and Washington Walnuts M.O. No. 984
42. Peanuts M.O. No. 146
43. California Dates M.O. No. 987
44. California Raisins M.O. No. 989
45. California Dried Prunes M.O. No. 993
46. Washington, Oregon, Idaho, California Hops M.O. No. 991

APPENDIX III

FRESH PRODUCE TERMINOLOGY

Following is a list of terms and definitions now used by the industry[1]:

Quality: Shall be deemed to include size, color, shape, texture, cleanness, freedom from defects, and other more permanent physical properties of a product which affect its market value.

The following terms when used in market news reports in connection with "quality" shall be interpreted as follows:

Fine: Better than good. Superior in appearance, color and other quality factors. Do not use "fancy" as a synonym for "fine".

Good: In general, stock which has a high degree of merchantability with small percentage of defects. This term includes U. S. No. 1 stock generally, and 85% U. S. No. 1 or better quality on some commodities, such as lettuce.

Fair: Having a higher percentage of defects than "Good". From a quality standpoint, roughly around 75% U. S. No. 1 quality with a possible leeway of about 10% in either direction.

Ordinary: Having a fairly high percentage of defects as compared to "Good". Roughly 50 to 65% U. S. No. 1 quality with some leeway in either direction.

Poor: Having a heavy percentage of defects, with a low degree of salability except to "low priced" trade. More than 50% grade defects.

Condition: Shall be deemed to include stage of maturity, decay, freezing injury, shriveling, flabbiness, or any other deterioration which may have occurred, or progressed since the product was harvested and which may continue to progress.

The following terms when used in market news reports in connection with "Condition" shall be interpreted as meaning:

Good: Means such condition as does not justify any price reduction because of condition factors.

Fair: Means having a slight degree of off-condition factors which may warrant a small price reduction as compared to "Good".

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[1] U. S. Department of Agriculture, "Fresh Fruit and Vegetable Market News", 610 South Canal Street, Room 1060, Chicago, Illinois 60607. Vol. I No. 1.

Ordinary: Means having a heavier degree of off-condition factors which may warrant a substantial price reduction as compared to "Good".

Poor: Means so badly off-condition as may warrant price reduction. A combination of terms may be used in wide range in quality and/or condition, as "poor to ordinary", "ordinary to fair", "fair to good", etc. These terms may be further qualified by use of such terms as "Generally", "mostly", "Some", "few", etc. as defined in the next paragraph.

Demand: As used in our reports represents the immediate or current desire for a commodity coupled with the ability and willingness of the buyer to pay for it.

Practically No Demand: Indicates a stagnant condition of the market, with very little interest and very few or no sales.

Demand Light: To be used when buyers are few and the total volume of business is small.

Demand Slow: To be used when trading is lagging and buyers are doing much "shopping around" before making their purchases; but the total volume of business finally transacted may range from very light to slightly less than moderate. This term, like "market dull", is often overworked. Failure of supplies to clean up is often incorrectly reported as "demand slow" whereas excess supplies were the real problem.

Demand Fair: Indicates a market condition slower and less active than "demand moderate" and thus slightly below average. It is intermediate between "demand light" and "demand moderate".

Demand Moderate: (alt. Fairly good) To be used when buyers are purchasing normally, without excitement but not lagging.

Demand Improving: This is a comparative term, implying that buyers have been showing more confidence in the market situation. It is desirable to use this term in conjunction with other "demand" phrases, such as "demand light but improving".

Demand Good: This phrase indicates firm confidence on the part of buyers that general market conditions are good. It represents a satisfactory condition with consistent trading.

Demand Very Good: To be used when buyers are rapidly absorbing available supplies at prevailing prices.

Demands Exceeds Supply: Usually indicates a supply condition where some buyers are unable to secure stock for immediate shipment or delivery. This may exist during periods of light, moderate or even liberal supplies when buyers are anxious to buy.

Market Tones: "Market" terms are primarily used in our reports to indicate comparisons with conditions and prices which prevail on the previous day, and in certain situations, conditions expected in the day following, or both.

Market Strong: Indicates an upward trend to the market, with no surplus supplies. It implies a bullish market sentiment that anticipates higher prices the following day. Prices are usually already higher; there is often a general feeling that the market has not reached its highest level and further rises are in prospect. It can be supplemented with "price" phrases, such as "little change in prices", "prices advancing", etc., as an added clarification of the market sentiment, although such are not in general necessary.

Market Stronger: Represents a condition of actual and general price advances.

Market Slightly Stronger: Represents a condition in which price advances are less definite and less general than in "market stronger". The price range need not necessarily be higher, but it should show a definite strengthening by having a greater volume of sales at the higher end of the range, making a definitely high average, or "mostly" price.

Market Firms: Indicates a condition of increasing confidence on the part of most sellers, because of present or expected better demands, lighter supplies, etc. Prices are either holding at the level of the day before or a shade higher.

Market Steady: Represents a condition in which there are no appreciable price changes or trends in either direction. Usually represents a normal movement with consistant trading, with no definite sentiment that any immediate market changes are in prospect.

Market About Steady: A condition in which minor variations are noted, either above or below the price levels of the preceeding day, but which are apparently due to influences affecting primarily a few individual cases and which do not indicate any general upward or downward sentiment or trend for the market as a whole. Do not use in sense of "market barely steady".

Market Barely Steady: Indicates a condition of decreasing confidence on the part of the most sellers because of decreased demand supplies not cleaning up, heavier supplies in prospect, etc. Prices are either holding at the level of the day before or average a shade lower.

Market Dull: Represents a period of relative market inactivity but no definite tendency toward market changes. It is not to be used to indicate a condition of market weakness, nor if lower prices.

Market Unsettled: Indicates a condition of market uncertainty with lack of agreement on the part of the trade as to whether there is a weaker or stronger tendency to the market. It may also represent a waiting attitude pending the development of outcome of extraneous factors which might affect the market, such as storm damage, labor troubles, etc., and these factors may be mentioned, such as "market unsettled account truckers' strike", etc.

Market Slightly Weaker: Represents a condition in which price declines are not as definite nor as general as in "market weaker". The price range need not necessarily be lower but it should show a definite weakening by having a greater volume of sales at the lower end of the range, making a definitely lower average, or "mostly" price.

Market Weaker: Represents a condition of actual and general price declines.

Market Weak: Indicates a downward trend to the market. It implies a condition of market sentiment that anticipates lower prices the following day. Prices are usually already lower; there is often a general feeling that the full course of the decline has not been run, and that further decreases are in prospect. It can be supplemented with "price" phrases such as "little change in prices", "prices declining", etc., as an added clarification of the market sentiment, although such are not generally necessary.

Market Demoralized: This term is to be used only in very unusual cases. It describes a condition in which the market is over supplied with perishable products, which may or may not be either ripe or of inferior quality but which cannot be sold except at very low prices. The movement may be heavy, or it may just be the opposite; the determining factors are excessive supplies and very low prices, with receivers selling at almost any price offered.

Common Types of Sales:

Sales F.O.B. Shipping Point (FOBSP) means that the produce quoted or sold is to be placed free on board the boat, car, truck or other agency of transportation at shipping point, in suitable shipping condition and that the buyer assumes all risk of damage and delay in transit not caused by the shipper. The buyer shall have the right of inspection at destination before the goods are paid for, but only for the purpose of determining that the produce shipped, complied with the terms of the contract or order at time of shipment. Such right of inspection does not convey or imply any right of rejection by the buyer because of any loss, damage, deterioration or change which has occurred in transit. These sales may be made either "on the wire", on a cash basis by a local representative of the buyer, or by any other terms agreed upon by the parties involved in the sale.

Delivered Sales, Shipping Point Basis (FOBDEL) "Delivered sale" means that the produce is to be delivered by the seller on board car, or by truck or on dock if delivered by boat, at the market agreed upon, free of any charges for transportation or protective services. The seller assumes all risks of loss or damage in transit not caused by the buyer. "Delivered sales, shipping point basis" represents the shipping point base price or in other words, the delivered price less transportation and protective service charges. In a few sections the rate from one central point is used in figuring the delivered price regardless of the point from which the car is actually shipped. For example, delivered sales of Maine potatoes are based on the rate from Presque Isle. Where a common basing point is used this should be shown with the basis of sales, -e.g. "Delivered sales, shipping point basis Presque Isle rate".

Terminology with Quality Dimensions:

Occasional	-	1 to 5%
Few	-	5 to 10%
Some	-	10 to 25%
Many	-	25 to 45%
Most or Mostly	-	55 to 90%
Generally	-	More than 90%

APPENDIX IV

MARKETING SOUTH TEXAS SPRING ONIONS 1969 SEASON

THE EARLY SPRING PLANTED ACREAGE TOTALED 25,000, OF WHICH 21,000 ACRES WERE HARVESTED. THE YIELD PER ACRE WAS PLACED, BY THE TEXAS CROP & LIFESTOCK REPORTING SERVICE, AT 145 HUNDREDWEIGHT. PRODUCTION TOTALED A LITTLE MORE THAN 3 MILLION HUNDREDWEIGHT. THE AVERAGE SEASON PRICE PER HUNDREDWEIGHT WAS $3.25 MAKING A TOTAL CROP VALUE OF SLIGHTLY LESS THAN $10,000.00.

PRINCIPAL PRODUCING AREAS	PRINCIPAL COUNTIES
RIO GRANDE VALLEY	CAMERON, HIDALGO, STARR, WILLACY
COASTAL BEND	BEE, NUECES, SAN PATRICIO
LAREDO	WEBB, ZAPATA
WINTER GARDEN	DIMMIT, FRIO, KINNEY, LA SALLE, UVALDE, ZAVALA
EAGLE PASS	MAVERICK
SAN ANTONIO	ATASCOSA, BEXAR, MEDINA, WILSON

THE SHIPMENTS FROM THE LOWER RIO GRANDE VALLEY WERE 2,793 CARS BY RAIL AND 2,184 CARLOT EQUIVALENTS BY TRUCK. COASTAL BEND RAIL 139, TRUCK 91, LAREDO RAIL 457, TRUCK 207; WINTER GARDEN RAIL 560, TRUCK 533. THE TRUCK CARLOT CONVERSION FACTOR WAS 800 50-LB SACKS.

TEXAS EARLY SPRING ONIONS: ACRES FOR HARVEST AND INDICATED PRODUCTION BY AREAS

AREA	ACRES FOR HARVEST			YIELD PER ACRE			PRODUCTION		
	1967	1968	1969 1/	1967	1968	1969 1/	1967	1968	1969 1/
	- ACRES -			- 50-POUND BAGS -			- 1,000 50-LB BAGS.-		
RIO GRANDE VALLEY	13,800	11,200	14,000	340	284	300	4,692	3,180	4,200
COASTAL BEND 2/	2,600	2,300	1,200	170	130	240	442	300	288
LAREDO	1,300	1,900	1,400	500	280	350	650	532	490
WINTER GARDEN 3/	5,300	6,100	4,900	341	153	300	1,806	932	1,472
TOTAL ALL AREAS	23,000	21,500	21,500	330	230	300	7,590	4,944	6,450

1/ PRELIMINARY. 2/ INCLUDES WILSON COUNTY. 3/ INCLUDES SAN ANTONIO AND EAGLE PASS AREAS.

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB. SACKS - 1969 SEASON

THE FOLLOWING TABULATION OF PRICES COVER SALES OF TEXAS ONIONS DURING THE 1969 SEASON ON AN F.O.B. SHIPPING POINT BASIS. PRICES SHOWN REPRESENT THE RANGE AND/OR THE MOSTLY; FEW AND OCCASIONAL SALES ARE NOT SHOWN BECAUSE THESE TERMS REPRESENT 10% OR LESS OF THE SALES. 50-LB. MESH SACKS -

DATE	LOWER RIO GRANDE VALLEY - YELLOW TYPE - GRANO-GRANEX TYPE			- YELLOW TYPE - GRANOS		
	PREPACK	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE
	$	$	$	$	$	$
MAR. 17	1.65-1.75	1.65-1.75	1.65-1.75	-	-	-
18	1.65-1.75	1.65-1.75	1.65-1.75	-	-	-
19	1.65-1.75	1.65-1.75	1.65-1.75	-	-	-
20	1.65-1.75	1.65-1.75	1.65-1.75	-	-	-
21	1.65-1.65	1.65-1.65	1.65-1.75	-	-	-
24	1.65-1.75	1.65-1.75	1.65-1.75	-	-	-
25	1.65-1.85	1.60-1.75	1.65-1.75	-	-	-
26	1.65-1.85	1.50-1.65	1.60-1.75	-	-	FEW 2.00
27	1.75-1.85	1.50-1.75	1.50-1.75	-	-	FEW 2.00
28	1.75-1.85	1.50-1.75	1.50-1.75	-	-	FEW 2.00
APRIL 1	1.50-1.75	1.50-1.75	1.25-1.50	-	-	FEW 2.00
2	1.50-1.75	1.25-1.50	1.25-1.50	-	-	FEW 2.00
3	1.50-1.60	1.25-1.50	1.25-1.40	-	-	1.90-2.00
4	1.40-1.60	1.25-1.50	1.15-1.40	-	-	1.90-2.00
7	1.40-1.60	1.25-1.50	1.20-1.40	-	-	1.90-2.00
8	1.40-1.60	1.25-1.50	1.25-1.40	-	-	1.90-2.00
9	1.40-1.60	1.25-1.40	1.25-1.40	-	-	1.90-2.00
10	1.40-1.60	1.25-1.50	1.00-1.25	-	-	1.85-2.00
11	1.35-1.60	1.25-1.50	1.00-1.35	-	-	1.85-2.00
14	1.40-1.60	1.25-1.40	1.10-1.35	FEW 1.50	1.35-1.50	1.75-2.00
15	1.40-1.50	1.25-1.35	1.00-1.25	-	1.25-1.50	1.75-1.90

- - CONTINUED - -

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB. SACKS - 1969 SEASON - CONTINUED - (YELLOW TYPE)

DATE	LOWER RIO GRANDE VALLEY			GRANOS		
	GRANO-GRANEX TYPE					
	PREPACK	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE
	$	$	$	$	$	$
APRIL 16	1.40-1.60	1.25-1.40	1.10-1.35	-	1.25-1.40	1.75-1.85
17	1.40-1.60	1.25-1.40	1.10-1.35	-	1.35-1.40	1.75-1.85
18	1.40-1.60	1.20-1.35	1.10-1.25	-	1.25-1.40	1.65-1.85
21	1.40-1.60	1.25-1.40	1.10-1.25	-	1.25-1.40	1.75-1.85
22	1.40-1.60	1.25-1.50	1.00-1.35	-	1.25-1.50	1.65-1.75
23	1.50-1.65	1.25-1.40	1.00-1.35	-	1.25-1.40	1.60-1.85
24	1.50-1.75	1.15-1.40	1.10-1.35	-	1.25-1.40	1.75-1.85
25	1.50-1.75	1.20-1.35	1.00-1.25	-	1.25-1.40	1.65-1.85
28	1.50-1.75	1.15-1.35	1.00-1.35	-	1.25-1.40	1.65-1.85
29	1.50-1.75	1.25-1.35	1.10-1.35	-	1.25-1.50	1.60-1.75
30	1.60-1.75	1.10-1.40	1.00-1.35	-	1.25-1.35	1.65-1.75
MAY 1	1.60-1.75	1.10-1.35	1.10-1.35	1.50-1.55	1.15-1.40	1.50-1.85
2	1.60-1.65	-	1.15-1.35	1.50-1.55	1.15-1.40	1.60-1.75
5	1.50-1.75	1.00-1.35	1.00-1.25	1.50-1.60	1.15-1.35	1.50-1.75
6	1.40-1.60	1.15-1.35	1.00-1.35	1.40-1.60	1.15-1.35	1.45-1.75
7	1.50-1.65	1.25-1.35	1.00-1.25	1.50	1.25-1.35	1.50-1.75
8	1.50-1.65	1.25-1.35	1.00-1.25	1.50	1.25-1.35	1.50-1.75
12	1.50-1.75	1.40-1.50	1.25-1.50	1.50-1.75	1.40-1.50	1.65-1.75
13	1.75-2.00	1.40-1.50	1.40-1.50	1.75-2.00	1.50	1.75-2.00
14	1.75-2.00	1.40-1.50	1.35-1.50	1.65-1.85	1.25-1.50	1.75-2.00
15	1.75-2.00	1.40-1.75	1.35-1.60	1.65-1.85	1.50-1.65	1.75-2.00
	MOSTLY WINTER GARDEN DISTRICT					
MAY 16	1.75-2.00	1.40-1.75	1.30-1.60	1.75-2.00	1.40-1.65	1.75-2.00
19	2.00	1.40-1.75	1.40-1.75	1.75-2.00	1.50-1.75	2.00-2.25
20	2.00	1.60-1.75	1.60-1.75	1.75-1.90	1.75	2.00-2.25
21	1.75-2.00	1.40-1.60	1.50-1.60	1.75-2.00	1.50-1.60	1.75-2.00
22	1.75-1.85	1.40-1.50	1.50	1.75	1.50-1.60	1.75-2.00
23	1.60-1.75	1.40-1.50	1.40-1.50	1.60-1.75	1.50-1.60	1.75-2.00
26	1.65-1.75	1.35-1.50	1.35-1.50	1.50-1.75	1.35-1.50	1.75-2.00
27	1.50-1.75	1.35-1.60	1.25-1.50	-	1.35-1.50	1.75-1.85
28	1.50-1.75	1.35-1.50	1.25-1.50	1.40-1.60	1.35-1.50	1.75-1.85
29	1.35-1.65	1.25-1.35	1.25-1.35	1.40-1.60	1.35-1.50	1.75

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB SACKS - 1969 SEASON - CONTINUED - WHITE TYPE

DATE	LOWER RIO GRANDE VALLEY					
	WHITE VARIETY			WHITE BOILERS 25-LB. SACKS	RED TYPE	
	PREPACK	MEDIUM	LARGE		MEDIUM	LARGE
	$	$	$	$	$	$
MAR. 17	-	2.75-3.00	3.00-3.25	-	-	-
18	-	2.25-2.75	2.50-3.00	-	-	-
19	-	2.25-2.75	2.50-3.00	-	-	-
20	-	2.25-2.75	2.50-3.00	-	-	-
21	-	2.25-2.75	2.75-3.00	-	-	-
24	-	2.25-2.75	2.75-3.00	-	-	-
25	2.50	2.25-2.75	2.50-3.25	-	-	-
26	2.15-2.50	2.15-2.50	2.50-2.75	-	-	-
27	2.15-2.50	2.15-2.50	2.50-2.75	-	-	-
28	2.15-2.50	2.15-2.50	2.50-2.75	3.00-3.75	2.25-2.50	2.75-3.00
APRIL 1	2.00-2.25	2.00-2.25	2.50-2.75	3.00-3.25	2.00-2.25	2.50-2.75
2	1.90-2.25	1.90-2.25	2.25-2.75	3.25-3.50	2.25	2.50
3	1.75-2.25	2.15-2.25	2.25-2.50	2.75-3.25	2.25-2.75	2.25-2.75
4	2.00	2.00-2.25	2.25-2.50	3.00-3.25	2.25-2.75	2.25-2.75
7	1.90-2.25	2.00-2.25	2.50-2.50	2.75-3.25	2.00-2.15	2.35-2.50
8	1.75-2.00	2.00-2.25	2.25-2.50	3.00-3.25	2.00-2.40	2.00-2.40
9	1.75-2.10	2.25-2.50	2.25-2.50	3.00-3.25	2.00-2.50	2.00-2.50
10	1.85-2.25	2.25-2.50	2.25-2.50	3.00-3.25	A/	A/
11	1.75-2.00	2.00-2.50	2.25-2.50	3.00-3.25	2.15-2.25	2.35-2.50
14	1.75-2.00	2.25-2.75	2.40-2.75	3.00-3.25	A/	A/
15	1.75-2.00	2.25-2.75	2.25-2.75	3.00	A/	A/

- CONTINUED -

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB SACKS - 1969 SEASON - CONTINUED

DATE	LOWER RIO GRANDE VALLEY WHITE VARIETY Prepack $	Medium $	Large $	WHITE BOILERS 25-LB. SACKS $	RED TYPE Medium $	Large $
April 16	1.75-2.00	2.50-2.75	2.50-2.75	3.00-3.25	3.00	3.50-4.00
17	1.75-2.00	2.50-2.75	2.50-2.75	3.00-3.25	3.00	3.50
18	1.75-2.00	2.50-2.75	2.50-2.75	3.00-3.25	3.00	3.50
21	1.75-2.25	2.50-2.75	2.50-2.75	3.00-3.25	3.00-3.25	3.50-3.75
22	1.75-2.25	2.50-2.75	2.50-2.75	2.50-3.00	3.00-3.25	3.50-3.75
23	1.75-2.25	2.50-2.75	2.50-2.75	2.25-2.50	2.75-3.00	3.25-3.50
24	1.75-2.25	2.00-2.25	2.50-2.75	2.50-3.00	2.75	3.00-3.50
25	2.00-2.50	2.50-2.75	2.50-2.75	2.50-3.00	2.75-3.00	3.00-3.50
28	2.25-2.25	2.50-2.75	2.50-2.75	2.25-2.50	-	-
29	2.25-2.50	2.75-3.00	2.75-3.00	2.50	2.25-2.75	2.75-3.00
30	2.25	2.65-3.00	2.65-3.00	2.25-2.50	2.25-2.50	2.75-3.00
May 1	2.25-2.75	2.50-2.75	3.00-3.50	2.50	2.50-2.75	3.00
2	2.25	2.50-2.75	A/	2.25-2.50	2.50-2.75	2.75-3.00
5	2.25-2.75	2.75-3.00	2.75-3.50	-	-	-
	MOSTLY WINTERGARDEN DISTRICT					
May 6	2.25-2.75	2.50-2.75	3.00-3.50	2.25-3.00	-	-
7	2.25-3.00	2.50-2.75	2.75-3.00	2.25-3.00	-	-
8	2.50-3.00	2.50-2.75	2.75-3.50	2.75-3.00	-	-
12	2.40-2.75	3.00	3.25	2.75-3.00	-	-
13	2.50-2.75	3.00	3.25	2.75-3.00	-	-
14	2.50-2.75	3.00	3.15-3.25	Few 2.50	-	-
15	2.75-3.00	2.75-3.00	3.00-3.25	3.00	-	-
16	2.75-3.15	2.75-3.15	3.00-3.25	3.00	Few 2.50	Few 3.00
19	2.75	3.00-3.25	3.00-3.25	Few 3.00	-	-
20	2.25-2.50	3.00-3.25	3.25-3.50	Few 2.50	-	-
21	2.25-2.75	2.75-3.00	3.00	-	-	-
22	2.50-2.75	2.75-3.00	3.00	-	-	-
23	2.25-2.75	2.75-3.00	3.00	-	-	-
26	2.25-2.75	2.75-3.00	2.75-3.25	2.00B/	-	-
27	-	-	-	-	-	-
28	2.00-2.25	2.75-3.00	2.75-3.00	-	-	-
29	2.00-2.25	2.75-3.00	2.75-3.00	-	-	-
			- LAST REPORT -			

A/ INSUFFICIENT TO QUOTE.
B/ FAIR QUALITY.

TEXAS RAIL SHIPMENTS BY DISTRICTS EARLY SPRING ONIONS, WITH COMPARISONS

DISTRICT	1969	1968	1967	1966	1965	1964	1963
Lower Valley	2793	1890	2750	824	2286	1910	1431
Laredo District	457	238	600	297	491	576	494
Coastal Bend	139	389	201	54	132	398	249
Winter Garden	560	335	1050	463	696	1239	1376
TOTALS	1429	2852	4601	1638	3605	4123	3550

DAILY CARLOT SHIPMENTS OF SOUTH TEXAS ONIONS BY DISTRICTS 1969 SEASON WITH COMPARISONS

DATE	Lower Valley Rail	Lower Valley Truck	Coastal Bend Rail	Coastal Bend Truck A/	Laredo Rail	Laredo Truck A/	Winter Garden Rail	Winter Garden Truck A/	Total 1969 Rail	Total 1968 Rail
To Date	3	25	-	-	-	-	-	-	3	-
Feb. 1	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-

- CONTINUED -

DAILY CARLOT SHIPMENTS OF SOUTH TEXAS ONIONS BY DISTRICTS 1969 SEASON WITH COMPARISONS - CONTINUED

DATE	LOWER VALLEY		COASTAL BEND		LAREDO		WINTER GARDEN		TOTAL 1969	TOTAL 1968
	RAIL	TRUCK	RAIL	TRUCK[a]	RAIL	TRUCK[a]	RAIL	TRUCK[a]	RAIL	RAIL
FEB. 4	-	1	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-
6	-	1	-	-	-	-	-	-	-	-
7	-	1	-	-	-	-	-	-	-	-
8	-	5	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-
10	-	2	-	-	-	-	-	-	-	-
11	-	1	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-
14	-	2	-	-	-	-	-	-	-	-
15	-	2	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-
17	-	2	-	-	-	-	-	-	-	-
18	-	1	-	-	-	-	-	-	-	-
19	-	2	-	-	-	-	-	-	-	-
20	-	2	-	-	-	-	-	-	-	-
21	-	1	-	-	-	-	-	-	-	-
22	-	3	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-
25	-	2	-	-	-	-	-	-	-	-
26	-	3	-	-	-	-	-	-	-	-
27	-	3	-	-	-	-	-	-	-	-
28	-	3	-	-	-	-	-	-	-	-
MAR. 1	-	1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-
3	-	3	-	-	-	-	-	-	-	-
4	-	5	-	-	-	-	-	-	-	-
5	-	1	-	-	-	-	-	-	-	-
6	1	5	-	-	-	-	-	-	1	-
7	-	6	-	-	-	-	-	-	-	-
8	-	2	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-
10	-	2	-	-	-	-	-	-	-	-
11	1	4	-	-	-	-	-	-	-	-
12	2	4	-	-	-	-	-	-	-	-
13	2	3	-	-	-	-	-	-	-	-
14	1	7	-	-	-	-	-	-	-	-
15	1	10	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-
17	3	7	-	-	-	-	-	-	-	-
18	5	11	-	-	-	-	-	-	-	-
19	7	12	-	-	-	-	-	-	-	-
20	7	17	-	-	-	-	-	-	-	-
21	7	17	-	-	-	-	-	-	7	-
22	8	19	-	-	-	-	-	-	8	-
23	-	4	-	-	-	-	-	-	-	-
24	18	19	-	-	-	-	-	-	18	-
25	18	31	-	-	-	-	-	-	18	1
26	37	17	-	-	6	3	-	-	43	-
27	33	36	-	-	3	-	-	-	36	-
28	38	33	-	-	-	1	-	-	38	1
29	23	34	-	-	1	-	-	-	24	4
30	-	4	-	-	-	-	-	-	-	6
31	34	20	-	-	-	-	-	-	34	-
APR. 1	28	36	-	-	1	1	-	-	29	7
2	30	38	-	-	-	2	-	-	30	-
3	54	42	-	-	-	-	-	-	54	14
4	68	45	-	-	-	1	-	-	68	17
5	51	44	-	-	-	-	-	-	51	24

- CONTINUED -

DAILY CARLOT SHIPMENTS OF SOUTH TEXAS ONIONS BY DISTRICTS 1969 SEASON WITH COMPARISONS - CONTINUED

DATE		LOWER VALLEY		COASTAL BEND		LAREDO		WINTER GARDEN		TOTAL 1969	TOTAL 1968
		RAIL	TRUCK	RAIL	TRUCK A/	RAIL	TRUCK A/	RAIL	TRUCK A/	RAIL	RAIL
APR.	6	-	7	-	-	-	-	-	-	-	32
	7	62	47	-	-	2	1	-	-	68	-
	8	57	65	-	-	7	2	-	-	64	25
	9	56	73	-	-	7	1	-	-	63	25
	10	68	59	-	-	2	3	-	-	70	25
	11	70	59	-	-	5	8	-	-	75	26
	12	9	50	-	1	-	4	-	-	9	42
	13	-	11	-	-	-	-	-	-	-	-
	14	74	64	2	2	5	6	-	-	81	39
	15	67	59	-	-	10	4	-	-	77	46
	16	72	55	-	1	5	3	-	-	77	57
	17	68	43	-	-	3	4	2	1	73	74
	18	92	47	-	-	8	5	-	1	100	82
	19	45	40	-	-	2	4	-	1	47	77
	20	-	3	-	-	-	-	-	-	-	-
	21	61	47	1	2	4	3	4	2	70	75
	22	59	62	3	1	11	6	3	6	76	82
	23	86	46	2	7	12	6	3	-	103	121
	24	66	39	7	3	22	4	4	4	99	115
	25	99	45	5	3	13	6	11	4	128	119
	26	52	42	3	4	13	6	-	3	68	83
	27	-	4	-	-	-	-	-	-	-	7
	28	83	39	-	3	15	3	16	4	114	84
	29	96	43	3	3	23	12	13	11	135	88
	30	86	40	8	2	18	9	18	3	130	106
MAY	1	78	32	2	3	7	4	13	3	100	112
	2	83	47	4	3	20	5	21	14	128	106
	3	46	36	-	-	6	3	-	9	52	78
	4	-	4	-	-	-	-	-	-	-	1
	5	59	37	-	4	12	9	12	15	83	91
	6	67	36	5	6	17	9	24	11	113	53
	7	65	31	5	3	18	6	15	12	103	68
	8	53	33	1	3	22	8	10	7	86	67
	9	46	35	3	8	18	5	6	17	73	57
	10	30	27	6	1	6	3	-	8	42	40
	11	1	3	-	-	-	-	-	-	1	1
	12	36	14	2	4	23	8	14	6	75	44
	13	33	16	5	3	9	4	11	16	58	35
	14	24	19	8	4	9	3	15	5	56	63
	15	18	16	7	2	13	4	13	9	51	60
	16	9	23	-	1	5	2	8	19	18	46
	17	8	13	2	2	2	3	-	20	12	20
	18	-	3	-	-	-	-	-	-	-	2
	19	4	11	1	1	5	2	21	13	31	30
	20	7	8	1	-	8	6	24	11	40	36
	21	-	9	-	2	11	2	27	22	38	23
	22	2	5	1	1	4	2	16	18	23	31
	23	-	7	2	-	3	2	17	24	20	33
	24	-	2	-	2	1	4	-	16	3	11
	25	-	1	-	-	-	-	-	-	-	-
	26	-	1	-	-	4	-	16	16	20	6
	27	-	4	-	-	2	1	12	27	14	10
	28	2	2	-	-	4	-	9	14	15	9
	29	2	2	-	-	2	-	6	7	10	3
	30	1	3	-	-	-	-	1	12	2	2
	31	-	-	-	-	1	1	-	12	1	-
JUNE	1	-	-	-	-	-	-	-	-	-	-

- LAST REPORT

A/ FURNISHED BY SOUTH TEXAS ONION COMMITTEE.

WEEKLY SUMMARY OF CARLOT RAIL SHIPMENTS ONIONS - 1969 SEASON

WEEK ENDING	TEXAS	ARIZONA	CALIFORNIA	OTHERS	TOTAL UNITED STATES 1969	TOTAL UNITED STATES 1968	IMPORTS 1969	IMPORTS 1968
MAR. 29	178	-	-	-	178	11	10	13
APR. 5	287	-	-	-	287	103	-	-
12	439	-	-	-	439	172	3	1
19	475	-	2	-	477	444	-	-
26	605	-	7	-	612	676	8	11
MAY 3	628	-	29	-	657	742	6	24
10	486	10	67	-	563	653	-	-
17	302	149	134	-	585	697	-	-
24 A/	-	-	-	-	-	-	-	-
31	83	242	172	-	498	588	-	-
JAN 7	73	203	214	49	539	660	9	-
14	59	146	302	192	699	627	14	16
21	47	26	218	230	521	541	14	14
28	55	-	200	189	444	529	3	-

A/ UNAVAILABLE.

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1969 SEASON
SALES ON WHOLESALE MARKETS IN LESS THAN CARLOT QUANTITIES
(QUOTATIONS COVER STOCK OF GOOD MERCHANTABLE QUALITY UNLESS OTHERWISE STATED - 50-LB. SACKS - U.S. #1 QUALITY)

WEEK ENDING	BALTIMORE GRANEX MEDIUM $	BALTIMORE GRANEX LARGE $	BALTIMORE GRANO MEDIUM $	BALTIMORE GRANO LARGE $	BALTIMORE WHITE MEDIUM $	BALTIMORE WHITE LARGE $
MAR. 14	-	-	-	-	-	-
21	-	-	-	-	-	-
28	-	-	-	-	-	-
APR. 4	-	2.75	265-2.75	3.00-3.25	-	-
11	2.25-2.75	2.75	2.65-3.00	2.65-3.00	-	-
18	2.00-2.75	2.25-3.00	2.00-2.75	2.50-2.75	-	-
25	1.75-2.50	2.00-2.50	2.00-2.50	2.50-2.75	-	-
MAY 2	1.75-2.25	-	-	2.50-2.75	-	-
9	2.25	1.50-2.00	-	2.50-2.75	-	3.50-3.75
16	1.75-2.50	-	-	2.50-3.00	-	-
23	2.50	-	-	2.50-3.00	3.00	3.00
29	2.50-2.75	-	-	2.50-3.00	-	-
JUNE 2	-	-	-	-	-	-

WEEK ENDING	BOSTON GRANEX MEDIUM $	BOSTON GRANEX LARGE $	BOSTON GRANO MEDIUM $	BOSTON GRANO LARGE $	BOSTON WHITE MEDIUM $	BOSTON WHITE LARGE $
MAR. 14	-	-	-	-	-	-
21	-	-	-	-	-	-
28	-	-	-	-	-	-
APR. 4	2.75-3.00	2.50-2.75	2.65-2.75	2.50-3.00	-	-
11	2.25-2.90	2.40-3.00	2.25-2.90	2.65-3.00	-	-
18	2.15-2.50	2.25-2.80	2.15-2.50	2.25-2.80	-	-
25	2.15-2.50	2.50-2.75	2.15-2.50	2.50-2.75	-	-
MAY 2	2.50-3.00	2.75-3.00	2.35-3.00	2.75-3.00	-	-
9	2.40-2.65	2.50-2.85	2.50-2.65	2.50-2.85	-	-
16	2.40-2.75	2.25-2.75	2.40-3.00	2.25-2.50	2.50-3.00	-
23	2.60-3.00	2.75-3.00	2.60-3.00	2.75-3.00	-	-
29	2.50-2.65	2.25-2.85	2.50-2.75	2.25-2.85	2.75	-
JUNE 2	2.50-2.75	2.50-3.00	2.50-2.75	2.50-3.00	-	-

- CONTINUED -

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1969 SEASON - SALES ON WHOLESALE MARKETS - CONTINUED

WEEK ENDING		CHICAGO GRANEX Medium $	CHICAGO GRANEX Large $	CHICAGO GRANO Medium $	CHICAGO GRANO Large $	WHITE Medium $	WHITE Large $
Mar.	14	-	-	-	-	-	-
	21	-	2.25	-	-	-	-
	28	-	2.25-2.40	-	-	-	2.85
Apr.	4	2.35	2.25-2.50	2.35	-	3.00-3.25	3.00-3.50
	11	2.40-2.50	2.40-2.50	2.40-2.50	2.50-3.00	3.00-3.50	3.25-4.00
	18	2.25-2.35	2.25-2.85	2.25-2.90	2.40-3.00	-	-
	25	2.00-2.50	2.00-2.50	2.00-2.85	2.75-3.00	-	-
May	2	2.00-2.50	1.90-2.50	2.00-2.85	2.25-2.50	-	-
	9	1.90-2.50	2.25-2.50	2.00-2.75	2.25-2.75	-	-
	16	2.00-2.50	1.85-2.25	2.00-3.15	2.25-3.50	2.50-3.15	2.50-2.75
	23	2.00-3.25	1.75-2.25	2.00-3.15	2.00-3.00	-	-
	29	2.25-2.65	2.00-2.25	-	2.50-2.75	2.75	2.00-2.25
June	2	2.25-2.65	2.00-2.25	-	2.50	2.75	-

WEEK ENDING		CINCINNATI GRANEX Medium $	CINCINNATI GRANEX Large $	CINCINNATI GRANO Medium $	CINCINNATI GRANO Large $	WHITE Medium $	WHITE Large $
Mar.	14	-	-	2.50-2.75	2.50-2.75	-	-
	21	2.50-2.75	2.50-2.75	2.50-2.75	2.50-2.75	-	-
	28	2.75-3.00	3.00-3.50	2.75-3.00	3.00-3.75	-	-
Apr.	4	2.25-2.75	2.50-3.50	2.25-2.75	2.50-3.50	3.25-3.50	4.00
	11	2.00-3.00	2.50-3.00	2.00-3.00	2.50-3.00	3.00-3.50	3.00-4.00
	18	2.00-2.50	2.00-2.50	2.25-3.00	2.25-3.00	-	-
	25	1.75-3.00	1.75-2.50	2.25-2.50	2.50-3.00	-	4.25-4.50
May	2	1.75-2.25	1.75-2.50	2.25-2.75	2.50-2.75	-	-
	9	1.75-2.50	1.75-2.25	2.40-3.00	2.50-3.00	-	-
	16	2.00-3.00	1.75-2.50	2.00-3.25	2.50-3.00	3.15-3.25	-
	23	2.75-3.25	1.75-2.75	3.00-3.25	3.00-3.50	-	-
	29	2.15-2.25	2.00-2.50	2.75-3.00	2.75-3.25	3.00-3.65	-
June	2	2.65-2.75	2.65-2.75	2.65-2.75	2.65-2.75	3.25	-

WEEK ENDING		CLEVELAND GRANEX Medium $	CLEVELAND GRANEX Large $	CLEVELAND GRANO Medium $	CLEVELAND GRANO Large $	WHITE Medium $	WHITE Large $
Mar.	14	3.00-3.25	-	-	-	-	-
	21	-	2.75-3.00	-	2.75-3.00	-	-
	28	3.00-3.25	3.00-3.50	3.00-3.50	3.00-3.50	3.50-3.75	3.75-4.25
Apr.	4	2.75-3.00	2.00-3.00	2.75-3.00	2.00-3.00	3.50	4.00
	11	2.50-3.00	2.00-3.00	2.50-3.00	2.00-3.00	3.50	3.50-4.00
	18	2.50-3.00	3.00-3.25	-	3.00-3.25	3.50-4.50	3.00-4.50
	25	2.50-3.00	1.50-2.00	-	3.00-3.25	-	3.25-4.50
May	2	2.50-3.00	1.50-2.00	-	2.50-3.00	-	3.25-4.00
	9	2.50-3.00	1.50-2.00	-	2.75-3.00	3.00-3.50	3.00-4.00
	16	2.75-3.00	-	-	2.50-3.00	3.00-3.50	3.25-4.00
	23	2.75-3.00	-	-	2.50-3.00	3.00-3.50	3.25-4.00
	29	2.75-3.00	-	-	2.50-3.00	3.00-3.50	3.25-4.00
June	2	2.75-3.00	-	-	2.50-3.00	3.00-3.50	3.25-4.00

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1969 SEASON - SALES ON WHOLESALE MARKETS - CONTINUED -

WEEK ENDING	DETROIT					
	GRANEX		GRANO		WHITE	
	Medium	Large	Medium	Large	Medium	Large
	$	$	$	$	$	$
Mar. 14	-	-	-	-	-	-
21	-	-	-	-	-	-
28	-	-	-	-	-	-
Apr. 4	2.50-3.00	3.00-3.50	2.50-3.00	3.00-3.50	3.50-4.00	3.75-4.25
11	2.00-2.75	2.00-2.50	2.25-2.75	2.75-3.00	-	-
18	2.00-3.00	2.00-3.00	2.50-3.00	2.00-2.75	3.50	3.50-4.50
25	2.00-3.50	2.25-3.00	2.00-2.50	2.00-2.40	3.75-4.00	4.00-4.50
May 2	2.00-2.50	2.25-2.50	-	2.50-2.75	3.75	3.75
9	2.00-2.50	-	-	2.50-2.75	-	-
16	2.00-2.50	2.15-2.25	2.00-2.50	2.35-2.75	-	4.00
23	2.25-2.75	-	2.00-2.25	2.35-3.00	-	-
29	2.25-2.75	-	2.00-2.25	2.35-3.00	-	-
June 2	2.25+2.90	-	2.25	2.25-2.85	-	-

WEEK ENDING	NEW YORK					
	GRANEX		GRANO		WHITE	
	Medium	Large	Medium	Large	Medium	Large
	$	$	$	$	$	$
Mar. 14	-	-	-	-	-	-
21	-	-	-	-	-	-
28	2.75-3.00	2.50-2.75	2.75-3.00	2.75-3.00	-	-
Apr. 4	2.50-2.75	2.50-2.75	2.50-2.75	2.50-2.75	-	-
11	1.90-2.50	1.75-2.50	2.25-2.50	2.50-3.25	-	-
18	2.00-2.75	2.00-2.65	2.00-3.00	2.00-3.00	-	-
25	2.50-2.75	2.15-2.50	2.50-3.00	2.15-3.00	-	-
May 2	2.40-2.65	-	2.25	2.75-3.00	-	-
9	2.50-2.75	-	2.40-2.75	2.50-3.00	-	-
16	2.75-3.25	2.25-2.75	2.75-3.00	2.75-3.25	-	-
23	2.75-3.00	2.25-2.75	2.75-3.00	2.75-3.00	-	-
29	2.75-3.25	2.25-2.75	2.75-3.00	2.75-3.00	-	-
June 2	3.00-3.25	2.25-2.75	2.25-2.75	2.75-3.25	-	-

WEEK ENDING	PHILADELPHIA					
	GRANEX		GRANO		WHITE	
	Medium	Large	Medium	Large	Medium	Large
	$	$	$	$	$	$
Mar. 14	-	-	-	-	-	-
21	-	-	-	-	-	-
28	-	-	-	-	-	-
Apr. 4	-	-	-	-	-	-
11	-	-	-	-	-	-
18	2.25-2.75	1.75-2.65	2.25-2.50	2.65-3.00	-	-
25	2.40-2.75	2.00-2.60	2.00-2.25	2.50-3.00	-	-
May 2	2.50-2.65	2.15	-	2.25-3.00	-	-
9	2.50-2.75	2.00-2.25	-	2.65-2.90	-	-
16	2.50-2.75	2.00-2.25	-	2.50-3.00	-	-
23	2.75-3.00	2.00-2.25	-	2.75-3.00	-	-
29	2.75-3.00	2.00-2.25	-	2.75-3.00	-	-
June 2	2.00-2.75	2.65-2.75	-	2.50-2.85	-	-

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1969 SEASON - SALES ON WHOLESALE MARKETS - CONTINUED -

WEEK ENDING	PITTSBURGH					
	GRANEX		GRANO		WHITE	
	Medium	Large	Medium	Large	Medium	Large
	$	$	$	$	$	$
Mar. 14	2.75-3.00	-	-	-	-	-
21	2.50-3.00	2.75-3.25	2.50-2.75	3.00-3.25	-	-
28	2.50-2.75	-	-	-	-	-
Apr. 4	2.50-2.75	2.50-3.00	2.50-2.75	3.00	-	4.25
11	2.25-2.50	2.25-2.75	-	-	3.00-3.50	3.00-3.50
18	2.00-2.50	2.25-2.75	2.00-2.50	2.25-2.75	-	-
25	2.50-2.75	2.50-3.25	2.50-2.75	3.00	-	3.50-4.25
May 2	2.50-2.75	2.50-2.75	2.50-2.75	2.50-2.75	-	-
9	2.25-2.50	2.25-2.75	2.25-2.50	2.25-2.75	3.00-3.50	3.00-3.50
16	2.00-2.50	2.25-2.75	2.00-2.50	2.25-2.75	-	-
23	2.00-2.50	2.00-2.50	2.00-2.50	2.75-3.25	3.00-3.50	3.00-3.25
29	2.25-2.75	2.75-3.00	2.25-2.75	2.75-3.00	3.00-3.50	3.00-3.50
June 2	2.60-3.00	2.65-3.00	2.60-3.00	2.65-3.00	3.50	3.00-3.50

WEEK ENDING	ST. LOUIS					
	GRANEX		GRANO		WHITE	
	Medium	Large	Medium	Large	Medium	Large
	$	$	$	$	$	$
Mar. 14	-	-	-	-	-	-
21	2.00	2.25	-	-	4.00	4.00-4.25
28	1.75-2.75	2.25-2.75	-	-	3.00-4.00	3.00-4.50
Apr. 4	2.25-2.75	2.25-2.75	-	3.10-3.25	-	3.00-3.50
11	1.85-2.50	1.85-2.65	-	3.15-3.25	-	-
18	1.50-2.40	1.50-2.25	-	-	2.75-3.00	2.75-3.25
25	1.50-2.25	1.75-2.25	-	2.25-2.75	-	-
May 2	1.50-2.50	2.00	1.75-2.25	2.00-2.75	-	-
9	2.10-2.50	2.10-2.50	-	2.00-2.50	3.00-4.00	4.00-4.25
16	1.75-2.50	1.75-2.50	2.00-2.50	2.00-2.50	-	-
23	-	1.75-2.25	2.25-2.50	2.25-2.75	-	-
29	-	1.75-2.25	2.00-2.50	2.25-2.75	-	-
June 2	2.25-2.50	2.75	-	2.25-2.75	1.75-2.00	-

TEXAS EARLY SPRING ONIONS: ACRES HARVESTED BY AREAS, 1964-1969

AREA	1964	1965	1966	1967	1968	1969 1/
Rio Grande Valley	13,500	12,800	9,500	13,800	11,200	15,500
Coastal Bend 2/	3,500	3,200	2,000	2,600	2,300	1,200
Laredo	1,600	1,300	1,000	1,300	1,900	1,400
Winter Garden 3/	6,000	5,800	3,800	5,300	6,100	4,900
TOTAL	24,600	23,100	16,300	23,000	21,500	23,000

1/ Preliminary. 2/ Includes Wilson County. 3/ Includes Eagle Pass & San Antonio areas.

TEXAS EARLY SPRING ONION PRELIMINARY ACREAGE FOR HARVEST IN 1969 BY VARIETIES, SEEDED & TRANSPLANTED, BY AREAS.

AREA	YELLOW VARIETIES				WHITE VARIETIES		ALL ONIONS
	GRANOS		GRANEX & OTH. VARIETIES				
	Seeded	Trnsplted.	Seeded	Trnsplted.	Seeded	Trnsplted.	
Rio Grande Valley	4,140	530	8,740	190	1,820	80	15,500
Coastal Bend 1/	70	--	1,050	--	80	--	1,200
Laredo	250	90	830	110	80	40	1,400
Winter Garden 2/	1,230	860	1,960	340	370	140	4,900
1969 Season Total	5,960	1,480	12,580	640	2,350	260	23,000
1968 Season Total	3,970	2,050	11,560	650	2,620	650	21,500

1/ Includes Wilson County. 2/ Includes San Antonio and Eagle Pass areas.

In the Lower Rio Grande Valley a small acreage of early onions was planted in July and August. Harvest of these early fields got under way in mid-November with light supplies available in late November and December. Additional light supplies are expected to be available in January and February but movement was expected to be very light until about mid-March. In the Coastal Bend most of the crop was seeded in November and made good progress. Harvest was expected to get underway about mid-April, while in the Laredo area most of the direct seeded acreage was planted in late October and early November with transplanting completed in December. In the Winter Garden Direct seeding got underway in October. Approximately 27% of this season's crop was transplanted.

TEXAS EARLY SPRING ONIONS: ACREAGE, YIELD AND PRODUCTION BY AREAS, 1967 AND 1968 CROPS AND PRELIMINARY ACREAGE FOR 1969 CROP

Area	Acres for harvest			Yield per acre			Production		
	1967	1968	1969	1967	1968	1969 1/	1967	1968	1969 1/
				- Cwt. -			- Cwt. -		
Rio Grande Valley	13,800	11,200	15,500	170	142	--	2,346	1,590	--
Coastal Bend 2/	2,600	2,300	1,200	85	65	--	221	150	--
Laredo	1,300	1,900	1,400	250	140	--	325	266	--
Winter Garden 3/	5,300	6,100	4,900	170	76+	--	903	466	--
Total all areas	23,000	21,500	23,000	165	115	--	3,795	2,472	--

1/ First forecase of yield & production released 3/7/69. 2/ Includes Wilson County. 3/ Includes San Antonio and Eagle Bass areas.

TEXAS EARLY SPRING ONIONS, RAIL SHIPMENTS BY DISTRICTS, 1964-1968 1/

Year	Raymondville, Lower Valley	Coastal Bend	Winter Garden	Laredo	Total
	- Rail cars -				
1964	1,910	405	1,154	576	4,045
1965	2,146	303	686	494	3,629
1966	817	90	441	304	1,652
1967	2,750	201	1,050	600	4,601
1968	1,968	238	309	417	2,932

1/ For years 1964-65 rail cars were loaded 790 sacks of 50-lbs.each per car. Load per car averaged 760 50-lb. sacks in 1966 and 796 50-lb. sacks in 1967 and in 1968.

TEXAS EARLY SPRING ONIONS, RAIL SHIPMENTS BY MONTHS & DATE OF FIRST SHIPMENT, 1964-1968 1/

Year	Date of First Shipment	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
				- Rail cars -					
1964	March 10	-	-	143	2,053	1,550	277	22	4,045
1965	February 18	-	16	387	2,174	983	44	25	3,629
1966	January 29	1	-	15	796	824	16	-	1,652
1967	February 1	-	3	520	2,841	1,207	30	-	4,601
1968	March 25	-	-	13	1,476	1,381	62	-	2,932

1/ For year 1964-65 rail cars were loaded 790 sacks of 50-lbs.each per car. Load per car averaged 760 50-lb. sacks in 1966 and 796 50-lb. sacks in 1967 and in 1968.

TRUCK SHIPMENTS FROM SOUTH TEXAS, 1964-1968 BY DATE OF FIRST SHIPMENT & MONTHS 1/

Year	Date of First Shipment	Jan.	Feb.	Mar.	Apr.	May	June	July	Total
				- Carlot equivalents - 2/					
1964	February 2	-	7	445	2,530	1,443	397	-	4,822
1965	January 25	4	38	892	2,304	1,149	180	-	4,567
1966	March 16	-	-	13	1,152	998	51	-	2,214
1967	December 20	26	83	934	2,083	1,165	38	-	4,329
1968	March 16	-	-	63	1,735	1,444	70	-	3,312

1/ Truck shipments from Rio Grande Valley, Laredo, Coastal Bend and Winter Garden.
2/ Truck converted to carlot based on 700 50-lb sacks per carlot equivalent for years 1964-65. For 1966, 1967, and 1968 conversion factor was 800 50-lb. sacks.

ONION IMPORTS 1966-67: CARLOT EQUIVALENTS 1/ BY COUNTRY OF ORIGIN AND MONTHS

ORIGIN	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
						- 1966 -							
CHILE	-	-	27	52	21	2	-	-	-	-	-	-	102
MEXICO	212	200	294	175	76	14	4	-	-	12	126	151	1,264
OTHERS 2/	1	-	1	4	6	51	34	26	3	3	1	-	130
TOTAL	213	200	322	231	103	67	38	26	3	15	127	151	1,496
						- 1967 -							
CHILE	-	10	126	31	1	-	-	-	-	-	-	-	168
MEXICO	232	233	310	43	8	-	-	-	-	10	60	140	1,036
OTHERS 2/	-	-	8	4	-	32	7	23	9	1	-	2	116
TOTAL	232	243	444	78	9	32	37	23	9	11	60	142	1,320

1/ 20 TONS NET OR 800 50-LB. SACKS PER CARLOT EQUIVALENT.
2/ CANADA, ITALY AND NEW ZEALAND.

TEXAS EARLY SPRING ONIONS: PRICES RECEIVED BY MONTHS 1964-1968

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
			- DOLLARS PER CWT. 1/			
1964	-	-	4.25	2.75	2.45	2.80
1965	-	-	4.15	3.35	4.95	6.20
1966	-	4.00	3.90	8.40	6.80	4.80
1967	-	-	5.70	3.70	3.75	3.75
1968	-	7.20	5.50	8.80	5.00	4.10

1/ PACKED BASIS CONVERTED TO HUNDREDWEIGHT.

ONIONS: UTILIZATION AND STOCKS OF THE LATE SUMMER CROP, 1959 TO 1969 1/

CROP YEAR	PRODUCTION OF VALUE	UTILIZATION BEFORE JANUARY		JANUARY STOCKS			UTILIZATION BEFORE JANUARY	
		SOLD	LOSS	IN COMMON STORAGE	IN COLD STORAGE	TOTAL	SOLD	LOSS
				- 1,000 CWT. -				
1959	18,502	10620	2,579	4,891	424	5,315	4,553	750
1960	18,975	11,419	2,273	4,883	409	5,292	4,580	703
1961	17,217	10,911	1,941	4,125	262	4,387	4,087	278
1962	18,990	11,626	2,356	4,668	359	5,027	4,633	375
1963	18,829	12,044	2,157	4,369	274	4,643	4,392	236
1964	17,827	10,928	2,064	4,553	291	4,844	4,524	311
1965	20,798	11,767	3,254	5,544	250	5,794	5,203	574
1966	18,149	11,971	1,897	4,079	206	4,285	3,931	350
1967	19,027	12,570	1,672	4,609	202	4,811	4,247	538
1968	20,601	12,567	2,688	5,180	205	5,385		

1/ UTILIZATION DOES NOT BALANCE WITH LATE SUMMER PRODUCTION OR STOCKS BECAUSE:
(1) COLD STORAGE HOLDINGS INCLUDE ALL ONIONS REGARDLESS OF THE SEASONAL GROUP;
(2) COLD STORAGE ONIONS STORED OUTSIDE OF LATE SUMMER PRODUCING AREAS; AND
(3) CROSS-STATE MOVEMENT OF ONIONS IN SOME YEARS.

-Continued-

(Continued)

ONIONS: JANUARY 1 STOCKS HELD IN COMMON STORAGE BY GROWERS AND DEALERS IN LATE SUMMER STATES, BY STATES, ANNUAL 1967, 1968, AND 1969

State and Region	Jan. 1, 1967	Jan. 1, 1968	Jan. 1, 1969	State and Region	Jan. 1, 1967	Jan. 1, 1968	Jan. 1, 1969
		1,000 cwt.				1,000 cwt.	
New York	878	1,239	933	Idaho and			
Eastern	878	1,239	933	E.Oregon	1,120	1,048	1,396
Ohio	110	86	95	Colorado	200	260	260
Indiana	100	94	107	Utah	48	40	88
Michigan	790	1,000	1,080	Washington	105	100	210
Wisconsin	135	198	175	W.Oregon	430	334	532
Minnesota	87	135	105	Calif.	60	57	155
Iowa	16	18	24	Western	1,963	1,839	2,661
Central	1,238	1,531	1,586	T O T A L	4,079	4,609	5,180

APPENDIX V

MARKETING SOUTH TEXAS VEGETABLES 1969-70 SEASON

MARKETING SOUTH TEXAS SPRING ONIONS 1970 SEASON

THE EARLY SPRING ONION PRODUCTION IN TEXAS FOR 1970 WAS ESTIMATED AT 2,250,000 CWT., 26 PERCENT LESS THAN IN 1969. COOL WEATHER REDUCED YIELDS IN THE LOWER RIO GRANDE VALLEY IN MARCH. HARVEST GAINED MOMENTUM IN THE LOWER VALLEY IN LATE MARCH WITH PEAK MOVEMENT ABOUT MID-APRIL. SUPPLIES WERE AVAILABLE INTO MAY. IN THE LAREDO AREA, THE CROP GENERALLY MADE GOOD PROGRESS. HARVEST OF A FEW EARLY FIELDS GOT UNDERWAY IN EARLY APRIL WITH GENERAL HARVEST ABOUT MID-APRIL. IN THE COASTAL AREA, HARVEST BEGAN BEFORE MID-APRIL. IN THE WINTERGARDEN AREA SOME FIELDS HAD POOR STANDS. LIGHT HARVEST STARTED IN LATE APRIL WITH THE BULK OF THE CROP MOVING IN MAY.

THE SHIPMENTS FROM THE LOWER RIO GRANDE VALLEY WERE 2,997 CARS BY RAIL AND 3,262 CARLOT EQUIVALENTS BY TRUCK. COASTAL BEND RAIL 56, TRUCK 115 CARLOT EQUIVALENTS, LAREDO RAIL 456, 131 CARLOT EQUIVALENTS BY TRUCK, AND WINTER GARDEN DISTRICT RAIL 239, 312 CARLOT EQUIVALENTS BY TRUCK. THESE SHIPMENTS WERE THROUGH JUNE 15, 1970. THE TRUCK CONVERSION FACTOR WAS 800 50-LB SACKS PER CARLOT.

THE LATE SPRING ONION CROP WAS EXPECTED TO TOTAL 7,700 ACRES FOR HARVEST HIS YEAR, COMPARED WITH 7,900 ACRES HARVESTED IN 1969. THE ARIZONA CROP WAS GENERALLY IN GOOD CONDITION. HARVEST BEGAN EARLY MAY WITH SUPPLIES AVAILABLE INTO JULY. HARVEST GOT UNDERWAY IN EARLY APRIL IN THE IMPERIAL VALLEY OF CALIFORNIA, HOWEVER, STANDS WERE THIN ON MANY FIELDS. HARVEST IN THE SAN JOAQUIN VALLEY STARTED ABOUT MAY 1.

TEXAS EARLY SPRING ONIONS: ACRES FOR HARVEST AND INDICATED PRODUCTION BY AREAS

AREA	Acres for harvest			Yield per acre			Production		
	1968	1969	1970 1/	1968	1969	1970 1/	1968	1969	1970 1/
		Acres			Cwt.			1,000 cwt.	
Rio Grande Valley	11,200	14,000	13,500	142	153	120	1,590	2,146	1,620
Coastal Bend	2,300	1,200	700	65	100	100	150	120	70
Laredo	1,900	1,400	1,200	140	195	175	266	273	210
Winter Garden 2/	6,100	4,400	2,600	76	115	135	466	506	350
TOTAL ALL AREAS	21,500	21,000	18,000	115	145	125	2,472	3,045	2,250

1/ Preliminary. 2/ Includes San Antonio and Eagle Pass Areas.

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB. SACKS - 1970 SEASON

THE FOLLOWING TABULATION OF PRICES COVER SALES OF TEXAS ONIONS DURING THE 1970 SEASON ON AN F.O.B. SHIPPING POINT BASIS. PRICES SHOWN REPRESENT THE RANGE AND/OR THE MOSTLY; FEW AND OCCASIONAL SALES ARE NOT SHOWN BECAUSE THESE TERMS REPRESENT 10% OR LESS OF THE SALES. 50-LB. MESH SACKS - YELLOW TYPE -

DATE	LOWER RIO GRANDE VALLEY					
	GRANEX			GRANOS		
	Prepack	Medium 1/	Large	Prepack	Medium 1/	Large
	$	$	$	$	$	$
Mar. 9	3.50-4.00	3.50-4.00	4.00-4.25	-	-	-
10	3.50-4.00	3.50-4.00	4.00-4.50	-	-	-
11	3.50-4.00	4.00	4.25	-	-	-
12	3.75-4.00	4.00	4.00-4.25	-	-	-
13	3.50-3.75	4.00	4.00-4.50	-	-	-
16	3.50-4.00	4.00-4.25	4.00-4.50	-	-	-
17	3.50-4.00	4.00	4.25-4.50	-	-	-
18	3.50-4.00	4.00	4.00-4.50	-	-	-
19	4.00	4.00	4.50	-	-	-
20	3.75-4.00	4.00	4.50	-	-	-
23	3.75-4.00	4.00-4.25	4.25-4.50	-	-	-
24	3.75-4.00	4.00-4.25	4.25-4.50	-	-	-
25	3.75-4.00	3.75-4.00	4.00-4.25	-	-	-
26	3.75	4.00	4.00-4.25	-	-	-
27	3.75	4.00	4.00-4.25	-	-	-
30	3.50-3.75	3.50-3.75	3.50-4.00	-	-	-
31	3.50-3.85	3.50-3.75	3.50-4.00	-	-	-
Apr. 1	3.25-3.75	3.25-3.75	3.50-4.00	-	-	-
2	3.50	3.25-3.35	3.25-3.50	-	-	-
3	3.50	3.25	3.25-3.50	-	-	-

- CONTINUED -

DAILY F.O.B. PRICES TEXAS ONIONS IN 50-LB. SACKS - 1970 SEASON - CONTINUED -

DATE	LOWER RIO GRANDE VALLEY					
	GRANEX			GRANOS		
	PREPACK	MEDIUM 1/	LARGE	PREPACK	MEDIUM 1/	LARGE
	$	$	$	$	$	$
APR. 6	3.25-3.50	3.00	3.00-3.25	-	3.00-3.50	4.00-4.25
7	3.50	3.00-3.25	3.00-3.25	3.50	3.25-3.50	4.00-4.25
8	3.50	2.75-3.00	2.75-3.00	3.50	2.75-3.00	3.50-4.00
9	3.25-3.50	2.50-3.00	2.50-3.00	3.25-3.50	2.75-3.00	3.50-3.75
10	3.50	2.50-3.00	2.50-3.00	3.50	2.75-3.00	3.50
13	3.75-4.00	2.75-3.00	2.75-3.00	3.75-4.00	2.75-3.00	3.50-3.75
14	3.75-4.00	2.75-3.00	2.50-2.75	3.75-4.00	2.75-3.00	3.50
15	3.75-4.00	2.75-3.00	2.50-2.75	3.75-4.00	2.75-3.00	3.00-3.50
16	3.75-4.00	2.75-3.00	2.25-2.75	3.75-4.00	2.75-3.00	3.00-3.50
17	3.75-4.00	2.75-3.00	2.25-2.50	3.75-4.00	2.75-3.00	2.75-3.25
20	3.75-4.00	2.50-3.00	2.25-2.50	3.75-4.00	2.75-3.00	3.00-3.25
21	3.75-4.00	2.75-2.85	2.00-2.25	3.75-4.00	2.75-2.85	2.75-3.00
22	3.75-4.00	2.75-3.00	2.00-2.25	3.75-4.00	2.75-3.00	2.75-3.00
23	3.75	2.75-3.00	1.75-2.00	3.75	2.75-3.00	2.75-3.00
24	3.60-3.75	2.50-2.75	1.75-2.00	3.60-3.75	2.50-2.75	2.50 2.75
27	3.50	2.50-2.75	1.50-2.00	3.50	2.50-2.75	2.00-2.50
28	3.50	2.50	1.50-2.00	3.50	2.50	2.00-2.25
29	3.25-3.50	2.50	1.50-1.75	3.25-3.50	2.50	2.00-2.25
30	3.00-3.25	2.25	1.50-1.75	3.00-3.25	2.25	2.00-2.25
MAY 1	3.00-3.25	2.25	1.50-1.75	3.00-3.25	2.25	2.00-2.25
4	3.00	2.25	1.75	3.00	2.25	2.00-2.25
5	3.00-3.25	2.25	1.75	3.00-3.25	2.25	2.00-2.25
6	2.75-3.25	2.25	1.75	2.75-3.25	2.25	1.75-2.25
7	2.75-3.00	2.25-2.50	1.50-1.75	2.50-2.75	2.00-2.25	1.75-2.25
8	2.50-3.00	2.00-2.25	1.50-1.75	2.50-2.75	2.00	1.75-2.25
11	2.75	1.90-2.25	1.50-1.75	2.25-2.50	1.85-2.00	1.75-2.00
12	2.50-2.75	1.90-2.25	1.50-1.75	2.25-2.50	1.85-2.25	1.75-2.00
13	2.50-2.75	1.90-2.00	1.50-1.75	2.25-2.50	1.75-2.00	1.75-2.00
14	2.50-2.75	1.90-2.00	1.50-1.75	2.25-2.50	1.75-2.00	1.50-2.00
15	2.25-2.50	1.75-2.00	1.50-2.00	2.50	2.25	1.75-2.00
	SOUTH TEXAS POINTS					
MAY 18	2.75-3.00	2.00-2.25	1.50-2.00	2.35-2.75	2.00-2.25	1.75-2.25
19	2.50-2.75	1.75-2.00	1.75	2.50	1.75-2.25	1.75-2.25
20	2.50-2.75	2.00-2.25	1.75	2.50-2.75	1.75-2.25	1.75-2.25
21	2.75-3.00	2.00-2.50	1.75-2.00	2.50-2.75	2.00-2.50	1.75-2.25
22	2.75-3.00	1.90-2.00	1.75-2.00	2.50-2.75	2.00-2.50	1.75-2.25
25	2.50-3.00	1.75-2.25	1.75-2.00	2.50-3.00	1.75-2.25	1.75-2.25
26	2.50-3.00	1.75-2.25	1.75-2.00	2.50-3.00	1.75-2.25	1.75-2.25
27	2.75	1.75-2.25	1.75-2.00	2.50-3.00	2.00-2.25	2.00-2.25
28	-	-	-	2.75	2.25-2.50	2.25-2.50

- LAST REPORT -

1/ HEAVY TO MAXIMUM SIZE.

DAILY F.O.B. PRICES TEXAS ONIONS - 1970 SEASON - CONTINUED -

DATE	LOWER RIO GRANDE VALLEY					
	WHITE VARIETY 50-LB. SACKS			WHITE BOILERS 25-LB. SACKS	RED TYPE 25-LB. SACKS	
	PREPACK	MEDIUM	LARGE		MEDIUM	LARGE
	$	$	$	$	$	$
MAR. 9	-	6.50-7.00	6.50-7.00	-	-	-
10	6.00	6.50-7.00	6.50-7.00	5.00	-	-
11	6.00	6.50-7.00	6.50-7.00	-	-	-
12	5.25	6.00	6.00	-	-	-
13	4.50-5.00	5.00-6.00	5.00-6.00	-	-	-
16	4.50-5.00	5.00	5.00-5.50	-	-	-
17	4.50-5.00	5.00	5.00-5.50	-	-	-
18	5.00	5.00	5.00-5.50	-	-	-
19	4.25-4.50	4.50	4.50	-	-	-
20	4.25-4.50	4.50	4.50	-	-	-

- CONTINUED -

MARKETING SOUTH TEXAS VEGETABLES 1969-70 SEASON

DAILY F.O.B. PRICES TEXAS ONIONS - 1970 SEASON - CONTINUED -

DATE	LOWER RIO GRANDE VALLEY					
	WHITE VARIETY			WHITE BOILERS	RED TYPE	
	50-LB. SACKS			25-LB. SACKS	25-LB. SACKS	
	PREPACK	MEDIUM	LARGE		MEDIUM	LARGE
	$	$	$	$	$	$
MAR. 23	4.00	4.00	4.00-4.25	-	-	-
24	4.00	4.00	4.00-4.50	-	-	-
25	3.75-4.00	3.75-4.00	4.00	-	-	-
26	3.50	3.50-4.00	4.00	-	-	-
27	3.50	3.50-4.00	4.00	-	-	-
30	3.25-3.50	3.50-3.75	3.50-4.00	-	-	-
31	3.00-3.50	3.50-3.75	3.75-4.00	-	-	-
APR. 1	3.00-3.25	3.50-3.75	3.75-4.00	-	-	-
2	3.00	3.25-3.50	3.50-3.75	-	-	-
3	3.00	3.25-3.50	3.50-3.75	-	-	-
6	3.00-3.25	3.25-3.50	3.75-4.00	-	-	-
7	3.00-3.25	3.25-3.50	3.50-3.75	3.75	3.75	4.00
8	2.75-3.00	3.25-3.50	3.50-3.75	3.75-4.00	3.75	4.00
9	2.75-3.25	3.00-3.50	3.00-3.50	3.00-3.75	3.75	4.00
10	2.75-3.25	3.00-3.25	3.00-3.50	3.50-4.00	3.50-3.75	3.50-3.75
13	3.00-3.25	3.00-3.50	3.00-3.50	3.50-4.00	3.50-3.75	3.50-3.75
14	2.75-3.25	3.00-3.50	3.00-3.50	3.00-3.50	3.75	4.00
15	3.00	3.25-3.50	3.50	3.50-3.75	3.75	4.00
16	2.75-3.25	3.25-3.50	3.25-3.50	3.50-4.00	3.75	4.00
17	3.00	3.25	3.25-3.75	3.50-4.00	3.75	4.00
20	3.00	3.25	3.25-3.75	3.00-3.50	3.50	3.75
21	3.00-3.25	3.25	3.00-3.25	3.50-3.75	3.50-3.75	3.75-4.00
22	3.00-3.25	3.00-3.50	2.75-3.50	3.50-3.75	3.50-3.75	3.75-4.00
23	3.00-3.25	3.00-3.50	3.00-3.50	3.50-3.75	3.50-3.75	3.75-4.00
24	2.75	3.00-3.25	2.75-3.25	3.50-3.75	3.50-3.75	3.75-4.00
27	2.75-3.00	3.00-3.25	2.75-3.25	3.00-3.50	3.00-3.50	3.00-3.50
28	2.75-3.00	3.00-3.25	3.00-3.25	3.00-3.50	3.25-3.75	3.25-3.75
29	2.75-3.00	3.00	2.75-3.00	3.00-3.50	3.25-3.50	3.25-3.50
30	2.75-3.00	2.75-3.25	2.75-3.25	3.00-3.50	3.25-3.50	3.25-3.50
MAY 1	2.75-3.00	2.75-3.25	2.75-3.25	3.00-3.50	3.25-3.50	3.25-3.50
4	2.75-3.00	2.75-3.25	2.75-3.25	3.00-3.50	3.00-3.25	3.00-3.25
5	2.50-3.00	3.00	2.75-3.00	3.00-3.50	2.75-3.00	3.00-3.25
6	2.50-3.00	3.00	2.75-3.00	3.00-3.50	2.75-3.00	3.00-3.25
7	2.75-3.00	2.50-3.00	2.50-3.00	3.00-3.50	2.50-3.00	2.50-3.00
8	2.75-3.00	2.50-3.00	2.50-3.00	3.00-3.25	2.75-3.00	2.75-3.00
11	2.50	2.75	2.50	3.00-3.25	2.50-3.00	2.50-3.00
12	2.50-3.00	2.50-3.00	2.50-3.00	3.00-3.25	2.50-3.00	2.50-3.00
13	2.50-3.00	2.50-3.00	2.50-3.00	3.00-3.25	2.50-3.00	2.50-3.00
14	2.50	2.75-3.50	3.00-3.50	-	-	-
15	2.00	2.00	2.00-2.25	-	-	-
	SOUTH TEXAS POINTS					
18	-	3.50	3.50	-	-	-
19	-	-	-	-	-	-
20	-	3.00-3.50	3.00-3.50	-	-	-
21	-	3.00-3.50	2.75-3.25	-	-	-
22	-	3.00-3.50	3.00-3.50	-	-	-
25	2.75-3.00	2.75-3.50	3.00-3.50	-	-	-
26	2.75-3.00	2.75-3.50	3.00-3.50	-	-	-
27	2.75-3.00	2.75-3.50	3.00-3.50	-	-	-
28	2.75-3.00	2.75-3.50	3.00-3.50	-	-	-
	- LAST REPORT -					

TEXAS RAIL SHIPMENTS BY DISTRICTS EARLY SPRING ONIONS, WITH COMPARISONS

DISTRICT	1970	1969	1968	1967	1966	1965	1964
LOWER VALLEY 1/	2997	2798	1890	2750	824	2286	1810
LAREDO DISTRICT	456	457	238	600	297	491	576
COASTAL BEND	56	139	389	201	54	132	303
WINTER GARDEN	239	560	335	1050	463	696	1239
TOTALS	3748	1429	2852	4601	1638	3605	4728

1/ THROUGH 6/15/70.

MARKETING SOUTH TEXAS VEGETABLES 1969-70 SEASON

DAILY CARLOT SHIPMENTS OF SOUTH TEXAS ONIONS BY DISTRICTS 1970 SEASON WITH COMPARISONS

DATE	LOWER VALLEY		COASTAL BEND 1/		LAREDO 1/		WINTER GARDEN 1/		TOTAL 1970		TOTAL 1969	
	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK
TO DATE	3	32	-	-	-	-	-	-	3	32	4	60
MAR. 9	2	6	-	-	-	-	-	-	2	6	-	-
10	-	12	-	-	-	-	-	-	-	12	-	2
11	5	10	-	-	-	-	-	-	5	10	1	4
12	7	18	-	-	-	-	-	-	7	18	2	4
13	5	25	-	-	-	-	-	-	5	25	2	3
14	8	15	-	-	-	-	-	-	8	15	1	7
15	-	1	-	-	-	-	-	-	-	1	1	10
16	14	9	-	-	-	-	-	-	14	9	-	-
17	11	15	-	-	-	-	-	-	11	15	3	7
18	12	10	-	-	-	-	-	-	12	10	5	11
19	9	15	-	-	-	-	-	-	9	15	7	12
20	11	15	-	-	-	-	-	-	11	15	7	17
21	10	13	-	-	-	-	-	-	10	13	7	17
22	-	3	-	-	-	-	-	-	-	3	8	19
23	11	16	-	-	-	-	-	-	11	16	-	4
24	10	27	-	-	-	-	-	-	10	27	18	19
25	22	18	-	-	-	-	-	-	22	18	18	31
26	7	22	-	-	-	-	-	-	7	22	43	20
27	22	28	-	-	-	-	-	-	22	28	36	36
28	16	30	-	-	-	-	-	-	16	30	38	34
29	-	6	-	-	-	-	-	-	-	6	24	34
30	20	27	-	-	-	-	-	-	20	27	-	4
31	32	46	-	-	-	-	-	-	32	46	34	20
APR. 1	39	43	-	-	-	-	-	-	39	43	29	37
2	44	48	-	-	-	-	-	-	44	48	30	40
3	41	47	-	-	-	-	-	-	41	47	54	42
4	48	52	-	-	-	-	-	-	48	52	68	46
5	1	6	-	-	-	-	-	-	1	6	51	44
6	55	67	-	-	-	-	-	-	55	67	-	77
7	66	73	-	-	1	1	-	-	67	74	64	48
8	66	57	-	-	2	1	-	-	68	58	64	67
9	33	74	2	-	2	-	-	-	37	74	63	74
10	43	68	-	3	2	-	-	-	45	71	70	62
11	36	57	-	-	-	1	-	-	36	58	75	67
12	-	5	-	-	-	-	-	-	-	5	9	55
13	42	58	1	-	3	1	-	-	46	59	-	11
14	56	76	2	1	2	3	-	-	60	80	81	72
15	68	71	2	-	10	3	-	-	80	74	77	63
16	73	91	1	1	11	3	-	-	85	95	77	59
17	84	84	1	1	10	2	-	-	95	87	73	48
18	80	80	-	3	2	2	-	-	82	85	100	53
19	5	12	-	-	-	-	-	-	5	12	47	45

- CONTINUED -

DAILY CARLOT SHIPMENTS OF SOUTH TEXAS ONIONS BY DISTRICTS 1970 SEASON WITH COMPARISONS

DATE	LOWER VALLEY		COASTAL BEND 1/		LAREDO 1/		WINTER GARDEN 1/		TOTAL 1970		TOTAL 1969	
	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK	RAIL	TRUCK
APR. 20	101	79	3	2	18	2	-	-	122	83	-	3
21	119	87	-	4	17	6	-	-	136	97	70	54
22	99	72	5	2	21	4	-	-	125	78	76	75
23	93	68	4	2	9	5	-	1	106	76	103	59
24	111	67	6	8	21	4	18	1	156	80	99	50
25	89	68	1	3	-	3	-	-	90	74	128	56
26	2	42	-	-	-	-	2	-	4	42	68	55
27	101	61	-	4	12	2	6	7	119	74	-	4
28	94	77	-	4	16	6	8	9	118	96	114	49
29	108	55	1	3	9	3	2	2	120	63	135	69
30	87	60	-	4	5	3	1	4	93	71	130	54
MAY 1	71	66	1	2	9	4	1	8	82	80	100	42
2	42	48	-	4	5	2	-	5	47	59	128	69
3	-	5	-	-	-	-	1	-	1	5	52	48
4	58	72	-	2	12	3	5	5	75	82	-	4
5	65	67	-	4	9	5	4	13	78	89	83	65
6	69	52	-	5	3	2	4	6	76	65	113	62
7	51	53	5	3	12	7	6	10	74	73	103	52
8	44	51	1	10	7	4	2	9	54	74	86	51
9	56	63	1	3	11	4	5	7	75	77	73	65
10	1	9	-	-	-	-	-	-	1	9	42	40
11	44	40	3	1	6	3	5	16	58	60	1	3
12	49	52	4	1	9	2	11	16	73	71	75	31
13	49	40	3	5	15	3	5	11	72	59	58	39
14	43	54	-	7	14	2	9	9	66	72	56	31
15	24	40	2	3	11	4	9	8	46	55	51	31
16	39	47	-	2	9	2	1	6	49	57	18	45
17	1	4	1	-	-	-	-	-	2	4	12	38
18 2/	24	31	-	2	16	4	2	13	42	50	-	3
19"	22	39	1	1	14	3	6	10	43	53	31	27
20"	21	30	-	5	21	3	3	16	45	54	40	25
21"	18	29	-	2	12	5	7	13	37	49	38	35
22"	9	30	-	2	21	3	3	17	33	52	23	26
23"	6	16	-	-	2	1	-	13	8	30	20	33
24"	-	2	-	-	-	-	-	-	-	2	3	24
25"	4	11	-	-	11	2	6	34	21	47	-	1
26"	5	4	-	-	9	3	9	16	23	23	20	17
27"	1	13	-	-	4	1	10	10	15	24	14	32
28"	-	6	-	-	5	1	8	12	13	19	15	16
29"	2	7	-	-	4	2	5	9	11	18	10	9
30"	-	5	-	-	-	1	3	12	3	18	2	15
31"	-	-	-	5	-	-	-	-	5	-	1	13

1/ FURNISHED BY SOUTH TEXAS ONION COMMITTEE. 2/ SOUTH TEXAS POINTS.

MARKETING SOUTH TEXAS VEGETABLES 1969-70 SEASON

WEEKLY SUMMARY OF CARLOT RAIL SHIPMENTS ONIONS - 1970 SEASON

WEEK ENDING	TEXAS	ARIZONA	CALIFORNIA	OTHERS	TOTAL UNITED STATES 1970	TOTAL UNITED STATES 1969	IMPORTS 1970	IMPORTS 1969
APR. 24	698	-	53	-	751	646	15	6
MAY 1	574	-	68	-	642	711	-	-
9	433	-	71	1	505	587	5	-
16	398	50	138	-	586	600	-	-
23	246	301	140	-	687	620	1	4
30	137	330	142	-	609	531	6	-
JUNE 6	54	296	225	10	585	548	-	-
13	47	188	248	122	605	702	-	-
20	17	6	321	162	506	528	12	14
			-- LAST REPORT -					

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1970 SEASON

SALES ON WHOLESALE MARKETS IN LESS THAN CARLOT QUANTITIES

(QUOTATIONS COVER STOCK OF GOOD MERCHANTABLE QUALITY UNLESS OTHERWISE STATED-ALL 50-LB. SACKS - U. S. #1 QUALITY)

WEEK ENDING	BALTIMORE GRANEX MEDIUM $	BALTIMORE GRANEX LARGE $	BALTIMORE GRANEX PREPACK $	BALTIMORE GRANO MEDIUM $	BALTIMORE GRANO LARGE $	BALTIMORE GRANO PREPACK $	BALTIMORE WHITE MEDIUM $	BALTIMORE WHITE LARGE $	BALTIMORE WHITE PREPACK $
MAR. 20	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-
APR. 3	-	-	5.00-5.25	-	-	5.00-5.25	-	-	-
10	-	-	4.25-4.75	-	-	4.25-4.75	-	-	-
17	5.00	-	4.50-5.00	5.00	4.50-5.00	4.50-5.00	4.00	-	-
24	4.75-5.00	3.50-4.00	5.00	4.75-5.00	4.00-4.50	5.00	-	-	-
MAY 1	4.50-5.00	3.25-3.75	4.50-5.00	4.50-5.00	3.25-3.75	4.50-5.00	-	4.00	-
8	4.00-4.25	2.50-3.25	4.25	4.00-4.25	2.50-3.25	4.25	-	-	-
15	3.50-3.75	2.75-3.50	4.00-4.25	3.50-3.75	2.75-3.50	4.00-4.25	4.00-4.50	-	-
22	3.50-3.75	2.50-2.75	4.00-4.25	-	2.75-3.50	4.00-4.25	-	-	-
29	3.75	-	3.75-4.25	-	2.75-3.25	-	-	-	-
JUNE 5	4.00	3.00-3.25	4.00-4.25	4.00	3.00-3.25	4.00-4.25	-	-	-
12	-	-	-	3.75-4.00	3.25-3.50	-	-	-	-

WEEK ENDING	BOSTON GRANEX MEDIUM $	BOSTON GRANEX LARGE $	BOSTON GRANEX PREPACK $	BOSTON GRANO MEDIUM $	BOSTON GRANO LARGE $	BOSTON GRANO PREPACK $	BOSTON WHITE MEDIUM $	BOSTON WHITE LARGE $	BOSTON WHITE PREPACK $
MAR. 20	-	-	-	-	-	-	-	-	-
27	4.50-5.00	-	-	-	-	-	-	-	-
APR. 3	4.25-5.00	-	-	-	-	-	-	-	-
10	4.00-5.00	5.00-6.00	-	-	-	-	-	-	-
17	4.00-5.00	4.00-5.00	-	-	4.50-4.75	-	-	-	-
24	3.00-4.00	3.00-3.50	-	-	3.50-4.75	-	-	-	-
MAY 1	4.50-5.00	2.50-3.25	-	4.50-5.00	3.00-4.25	-	-	-	-
8	3.50-4.50	2.00-2.50	-	3.50-4.50	2.50-3.50	-	-	-	-
15	3.00-4.00	2.00-2.50	-	3.00-4.00	2.50-3.50	-	-	-	-
22	3.00-3.75	-	-	3.00-3.75	2.75-3.25	-	-	-	-
29	3.00-4.25	-	-	3.00-4.25	3.00-4.00	-	-	-	-
JUNE 5	3.75-4.00	3.25-3.50	-	3.85-4.00	3.00-3.75	-	-	-	-
12	3.50-4.25	-	-	3.50-4.25	3.00-3.50	-	-	-	-

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1970 SEASON - SALES OF WHOLESALE MARKETS - CONTINUED -

WEEK ENDING	CHICAGO								
	GRANEX			GRANO			WHITE		
	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK
	$	$	$	$	$	$	$	$	$
MAR. 20	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-
APR. 3	4.75-5.00	4.75	4.50-5.00	-	-	-	4.50-4.65	4.50-4.65	-
10	4.00-4.50	4.00-4.75	4.00-4.50	-	-	-	4.00-4.75	4.00-4.75	-
17	4.25-5.00	3.00-4.50	4.25-5.00	4.00-4.25	4.25-4.50	-	4.00-4.25	4.25-4.50	-
24	4.75-5.00	3.00-3.50	4.75-5.00	4.50	3.75-4.25	-	3.50-3.85	3.75-4.25	-
MAY 1	4.25-4.75	2.00-3.25	4.50-5.00	4.00	3.00-4.00	-	3.00-3.75	3.25-3.75	-
8	3.75-4.50	2.50-3.00	3.75-4.25	4.00	2.75-3.50	-	3.50-3.75	3.50-3.75	-
15	3.50-4.00	2.25	3.75-4.00	3.50-4.00	2.50-3.00	-	3.50-3.75	3.25	-
22	3.50-3.75	2.25-2.75	-	3.50-3.75	2.50-2.70	-	3.00-3.50	2.50-4.00	-
29	2.50-3.50	-	-	3.00-3.50	2.75-3.15	-	2.50-3.50	3.75-4.00	-
JUNE 5	3.50	-	-	3.25	3.00-3.50	-	3.25-3.50	3.75-4.00	-
12	3.50	-	-	3.25	2.75-3.50	-	-	2.75-3.25	-

WEEK ENDING	CINCINNATI								
	GRANEX			GRANO			WHITE		
	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK
	$	$	$	$	$	$	$	$	$
MAR. 20	3.75-4.25	5.50-5.75	-	4.00-4.50	-	-	5.00-6.00	-	-
27	3.75-5.00	-	-	-	-	-	6.00-7.00	-	-
APR. 3	4.00-4.25	4.25	-	-	-	-	4.50-5.00	-	-
10	4.00-4.50	5.00-6.00	-	-	-	-	4.00-5.00	4.00-4.25	-
17	4.00-5.00	5.00-5.50	-	-	-	-	4.00-4.50	5.00	-
24	4.50-5.00	4.25-4.50	-	4.50-5.00	4.00-4.25	-	4.00-4.50	4.25-5.00	-
MAY 1	4.50-4.75	3.25-3.75	-	4.00-4.75	3.25-4.25	-	3.50-4.25	4.00-5.00	-
8	3.25-3.50	3.00-3.50	-	3.25-4.50	3.25-4.25	-	3.50-4.50	3.75-4.50	-
15	3.00-4.25	2.25-3.00	-	3.50-4.50	3.00-3.75	-	3.50-4.00	3.50-4.00	-
22	-	1.75-2.50	-	3.50-4.00	2.75-3.25	-	3.75-3.85	3.25-4.00	-
29	3.00-4.00	3.00-3.50	-	3.50-4.00	3.00-3.75	-	4.00	3.75	-
JUNE 5	3.50-4.00	2.50-3.25	-	3.50-4.00	3.00-3.25	-	-	3.50	-
12	3.60-3.75	3.00-3.50	-	3.00-3.50	-	-	3.50-4.50	4.50	-

WEEK ENDING	CLEVELAND								
	GRANEX			GRANO			WHITE		
	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK	MEDIUM	LARGE	PREPACK
	$	$	$	$	$	$	$	$	$
MAR. 20	5.00-5.25	-	-	-	-	-	-	-	-
27	5.00-5.25	-	-	-	-	-	-	-	-
APR. 3	4.50-5.00	5.00-5.25	-	4.50-5.00	-	-	-	-	-
10	4.50-5.00	4.75-5.00	-	4.50-5.00	5.00-5.75	-	5.25-5.50	-	-
17	4.50-4.75	4.00-4.75	-	-	4.50-5.00	-	4.00-5.25	4.50-5.00	-
24	4.75-5.50	-	-	-	4.25-4.50	-	4.00-4.50	5.00	-
MAY 1	4.00-4.75	-	-	3.50-4.25	3.50-4.50	-	4.00-4.50	4.00-5.00	-
8	3.50-4.25	-	-	-	3.00-4.00	-	3.75-4.50	3.75-4.50	-
15	3.75-4.25	-	-	-	3.00-4.00	-	3.50-4.50	3.50-4.50	-
22	3.75-4.25	-	-	-	3.00-3.50	-	3.50-4.50	3.50-4.50	-
29	3.75-4.25	-	-	-	3.00-3.50	-	3.50-4.00	3.50-4.00	-
JUNE 5	3.75-4.25	-	-	-	3.00-3.50	-	3.50-4.00	3.50-4.00	-
12	3.75-4.25	-	-	-	-	-	3.50-4.00	3.50-4.00	-

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1970 SEASON - SALES OF WHOLESALE MARKETS - CONTINUED -

WEEK ENDING	DETROIT								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	*	*	*	5.00-5.25	-	-	-	-	-
27	-	-	-	4.50-5.25	4.25-5.00	-	4.50-5.00	-	-
Apr. 3	4.00-5.00	3.75-4.50	-	4.25-4.75	-	-	4.00-5.00	5.50-6.00	-
10	4.00-4.50	3.75-4.25	-	-	5.25-5.50	-	4.00-4.50	4.00-4.50	-
17	3.40-4.25	4.50-4.75	-	4.00-4.25	4.00-5.25	-	3.50-4.50	4.00-4.25	-
24	4.75-5.00	3.25-3.75	-	-	4.00-4.25	-	3.50-4.50	4.25-4.50	-
May 1	4.50-5.00	2.50-3.25	-	3.50-4.00	3.00-4.25	-	4.00-4.50	4.50	-
8	3.75-4.50	2.00-3.00	-	-	2.75-3.50	-	3.75-4.00	3.75-4.50	-
15	3.50-4.00	2.00-2.50	-	-	2.50-3.25	-	3.25-4.00	3.25-4.00	-
22	3.50-4.00	2.25-2.75	-	2.75-3.60	2.50-3.00	-	3.50	3.25-4.00	-
29	3.50-4.00	2.00-2.50	-	2.75-3.40	2.75-3.00	-	4.00	-	-
June 5	3.50-3.90	-	-	3.25-3.65	2.75-3.00	-	4.50	-	-
12	3.50-4.25	2.00-3.50	-	2.75-3.75	2.75-3.25	-	4.00-4.25	-	-

WEEK ENDING	KANSAS CITY								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	-	-	-	-	-	-	-	-	-
27	5.25	-	-	-	-	-	-	-	-
Apr. 3	4.75-5.50	5.00-5.50	-	-	-	-	5.00-5.25	5.25	-
10	3.75-5.00	3.75-5.00	-	-	-	-	4.25-5.00	4.75-5.25	-
17	3.75-4.00	3.50-4.00	-	-	-	-	4.25-4.50	4.50-4.75	-
24	4.00-4.25	3.25-4.00	-	3.75	4.00-4.25	-	4.50-4.75	4.50-5.00	-
May 1	3.75-4.25	2.75-3.50	-	3.75	3.50-4.25	-	4.25-4.50	4.00-4.50	-
8	3.50-4.00	2.50-3.00	-	3.50-3.75	2.75-4.00	-	4.25-4.50	4.00-4.50	-
15	3.50-4.25	2.40-3.00	-	3.00-3.25	3.00-3.50	-	3.50-4.25	3.75-4.25	-
22	3.00-3.25	2.25-3.00	-	3.00-3.50	3.00-3.50	-	3.75-4.00	-	-
29	3.00-3.25	2.50-3.00	-	3.25-3.50	3.25-3.50	-	3.75-4.00	4.00	-
June 5	2.75-4.50	2.50-3.00	-	3.25-3.50	3.25-3.50	-	4.00	-	-
12	2.75-3.25	2.50-3.00	-	3.25-3.50	-	-	4.00	-	-

WEEK ENDING	NEW YORK								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	5.00-5.25	-	-	-	-	-	-	-	-
27	4.50-5.00	-	-	-	-	-	-	-	-
Apr. 3	4.00-4.25	-	-	-	-	-	-	-	-
10	3.75-4.50	3.75-5.00	-	-	-	-	-	-	-
17	4.25-5.00	3.75-4.50	-	5.00	-	-	-	5.00	-
24	5.25-5.50	3.50-4.25	-	4.25-4.50	4.25-4.50	-	-	4.50-5.00	-
May 1	4.75-5.25	3.00-4.50	-	3.50-4.50	3.50-4.50	-	-	2.50-3.00	-
8	4.00-4.75	2.50-3.25	-	-	3.00-3.50	-	-	-	-
15	4.00-4.50	2.50-3.00	-	-	3.00-3.50	-	-	-	-
22	4.00-4.25	2.75-3.00	-	-	3.00-3.50	-	-	-	-
29	4.00-4.25	2.90-3.00	4.25-4.50	-	3.00-3.50	-	-	-	-
June 5	4.00-4.50	3.00-3.25	-	-	3.25-3.50	-	-	-	-
12	3.75-4.25	3.50	-	-	3.25-3.50	-	-	-	-

WEEKLY PRICE RANGE OF TEXAS ONIONS IN IMPORTANT MARKETS 1970 SEASON - SALES OF WHOLESALE MARKETS - CONTINUED -

WEEK ENDING	PHILADELPHIA								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	-	-	-	-	-	-	-	-	-
27	4.50-5.00	-	-	-	-	-	5.00	-	-
Apr. 3	-	-	-	-	-	-	-	-	-
10	-	4.75-5.00	-	-	-	-	-	-	-
17	3.75-4.25	3.25-3.50	5.00	-	4.50	-	-	-	-
24	3.50-3.75	2.50-3.25	-	-	4.00-4.50	-	-	-	-
May 1	4.00-4.50	2.00-2.75	4.00-4.50	-	3.25-4.00	-	-	-	-
8	-	2.00-2.50	3.50-4.00	-	2.50-3.25	-	-	4.75-5.00	-
15	-	2.00-2.75	3.25-3.75	-	2.50-3.00	-	-	-	-
22	-	-	4.00-4.50	-	2.00-3.25	-	-	4.50-4.75	-
29	-	-	4.00-4.25	-	3.00-3.50	-	4.75	-	-
June 5	-	-	3.75-4.00	-	3.75-4.00	-	-	5.00	-
12	3.25	-	3.75-4.00	-	3.50-4.00	-	-	-	-

WEEK ENDING	PITTSBURGH								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	4.50-5.00	4.50	-	-	-	-	-	-	-
27	4.25-4.75	4.25-4.75	-	-	-	-	-	-	-
Apr. 3	4.50-4.75	4.50-4.75	-	-	-	-	4.00-4.50	4.00-4.50	-
10	4.00-4.75	4.00-4.25	-	5.25	-	-	4.00-4.50	-	-
17	4.25-5.00	4.00-4.25	4.15-5.00	-	4.75-5.25	-	3.75-4.50	-	-
24	4.50-5.00	3.25-4.50	4.50-5.00	-	4.00-5.00	-	4.00-4.50	4.25-4.75	-
May 1	4.50-5.00	3.00-3.50	-	3.50-4.25	3.50-4.25	-	4.00-4.50	4.00-4.50	-
8	4.00-4.50	2.50-3.00	3.75-4.25	3.00-3.50	3.00-3.25	-	3.00-3.75	3.00-3.75	-
15	3.75-4.00	2.25-2.75	3.50-4.25	3.50-4.00	2.50-3.25	-	3.00-3.50	3.00-3.50	-
22	3.75-4.50	2.00-2.75	3.75-4.50	-	2.75-3.25	-	3.00-4.00	3.00-4.00	-
29	4.00-4.50	2.50-2.75	4.00-4.50	-	2.75-3.25	-	3.75-4.25	3.75-4.25	-
June 5	3.75-4.25	-	3.75-4.25	-	3.00-3.50	-	3.75-4.25	-	-
12	3.75-4.25	-	4.00-4.50	-	3.00-3.50	-	4.00-4.50	4.00-4.50	-

WEEK ENDING	ST. LOUIS								
	GRANEX			GRANO			WHITE		
	Medium	Large	Prepack	Medium	Large	Prepack	Medium	Large	Prepack
	$	$	$	$	$	$	$	$	$
Mar. 20	-	-	6.00-6.50	-	-	-	6.75-7.25	7.00-8.00	-
27	4.75-5.00	5.25	4.90-5.00	4.75-5.00	5.25	-	5.00-6.50	5.50-7.00	-
Apr. 3	4.50-5.00	4.50-5.50	4.75-5.00	-	-	-	4.65-4.75	5.00-5.25	-
10	4.00-4.75	4.00-4.75	4.50	-	-	-	4.50-4.75	4.00-5.25	-
17	3.25-4.40	3.50-4.25	4.00-4.50	4.25	3.75-4.75	-	3.75-4.50	4.00-4.50	-
24	3.25-3.75	3.25-3.75	4.25-4.75	3.75	3.75-4.50	-	3.25-4.25	3.00-4.25	-
May 1	2.50-3.50	2.50-3.25	3.75-4.75	3.00-4.00	3.50-3.75	4.25-4.50	3.00-3.50	3.00-3.75	-
8	3.00-3.50	2.50-3.25	3.75-4.75	4.00	3.00-4.00	4.25-4.50	3.00-3.75	3.00-3.75	-
15	3.00-3.75	2.50-3.25	3.50-4.50	3.00-3.75	3.00-3.75	-	3.00-3.50	3.00-3.75	-
22	2.50-3.00	2.50-3.25	3.00-4.00	2.75-3.75	2.50-3.50	2.50-3.75	3.25-3.85	2.75-3.50	3.60-4.00
29	3.50-3.60	2.40-3.25	3.00-3.75	2.50-3.25	2.75-3.75	3.00-3.75	3.50-3.65	3.00-3.50	-
June 5	2.75-3.00	3.25	3.25-3.75	3.00-3.25	3.00-3.50	3.65-3.75	3.65-4.00	3.50-4.25	3.65-3.75
12	3.25	-	3.25-3.50	3.00-3.75	3.00-3.50	3.25-3.75	3.75-4.00	3.50-4.25	3.75

APPENDIX VI

REGISTERED SOUTH TEXAS ONION HANDLERS BY LOCATIONS
1970

Carrizo Springs, Texas

1.	Evergreen Farm	P. O. Box 276
2.	Monson Brothers, Inc.	P. O. Box 278
3.	Charles Wetegrove	P. O. Box 722

Corpus Christi, Texas

4.	Abe M. Katz	P. O. Box 1438

Crystal City, Texas

5.	Joe Byrd, Produce Co.	P. O. Box 662
6.	La Mantia Cummum Collier & Co.	P. O. Box 96
7.	Warren Wagner, Inc.	P. O. Box 296

Edinburg, Texas

8.	C. E. Duncan Produce	P. O. Box 1019
9.	Vale Mayes & Co.	P. O. Box 966
10.	Wallace Fruit & Vegetable	P. O. Box 929

La Feria, Texas

11.	Arkansas Valley Produce of Texas	P. O. Box 1252
12.	Pacific Fruit & Produce	P. O. Box 218
13.	La Joya Lake Produce Co.	P. O. Drawer 2007-C

Laredo, Texas

14.	The R. V. Dublin Co.	P. O. Drawer 789
15.	N. H. Clark & Sons	P. O. Box 632
16.	James Riley	P. O. Box 877
17.	Randolph Slaughter Co.	P. O. Box 556
18.	David M. Slaughter & Son Inc.	P. O. Box 661
19.	Trautmann Brothers	P. O. Box 496
20.	T. J. Yancey & Son	P. O. Box 357

McAllen, Texas

21.	Deck Produce	P. O. Box 1106
22.	Griffin & Brand	P. O. Box 1840
23.	Griffin & Holder Co.	P. O. Box 153
24.	John B. Hardwicke Co.	P. O. Box 1990
25.	J & J Dist Co.	P. O. Box 846
26.	Louisiana Strawberry & Vegetable Dist. Co.	P. O. Box 1286
27.	McAllen Fruit & Vegetable	P. O. Box 100
28.	Strawberry, Inc.	P. O. Box 1286
29.	Valley Onion, Inc.	P. O. Box 35

APPENDIX VI - Continued

Mathis, Texas		
30.	Vahlsing Christina Corporation	P. O. Box 386
Mercedes, Texas		
31.	B & K Produce Co.	P. O. Box 153
32.	Butler Vegetable Co.	Rt. 2, Box 40
33.	Dan Logan Co., Inc.	P. O. Box 446
34.	Marvin Schwarz Produce	P. O. Box 152
Mission, Texas		
35.	Mission Shippers, Inc.	P. O. Box 216
North Uvalde, Texas		
36.	Alexander Market Co.	P. O. Box 247
37.	Cargil Produce	P. O. Box 175
Pharr, Texas		
38.	John E. Jancik Produce Co., Inc.	P. O. Box 617
39.	Rio Fresh Inc.	P. O. Box 796
40.	Wetegrove Produce Co.	Texas Hotel
Raymondville, Texas		
41.	Bob Allen Vegetable Co.	P. O. Box 838
42.	Fox Farms	P. O. Box 855
43.	G. F. McGee & Sons, Inc.	P. O. Box 577
44.	Charles Wetegrove Co.	P. O. Box 1147
Rio Grande City, Texas		
45.	Starr Produce Co.	P. O. Box 432
San Antonio, Texas		
46.	A. J. Tebbe & Sons	4600 Broadway
San Benito, Texas		
47.	Alexander Marketing Co.	P. O. Box 979
48.	J & M Produce Co.	P. O. Box 1010
49.	Valley Central Sales	Rt. 4, Box 128
Weslaco, Texas		
50.	Debruyn Texas Produce	P. O. Box 76
51.	Gulf Distributing Co.	P. O. Box 325
52.	Lamantia Cummum Collier & Co., Inc.	P. O. Box 974
53.	J. S. McManus	P. O. Box 568
54.	Quality Vegetable Co.	P. O. Box 974

SOURCE: South Texas Onion Committee, Mercedes, Texas.

APPENDIX VII

Price Analysis Data

TABLE A

U. S. Resident Population, Per Capita Disposable Income and Consumers Price Index 1955-70

Year	U.S. Population Resident July 1-Mil	U.S. Per Capita Disposable Income Dollars	Consumer Price Index (1957-59=100)
1955	165.1	1786	93.3
1956	168.1	1841	94.7
1957	171.2	1838	98.0
1958	174.1	1818	100.7
1959	177.1	1877	101.5
1960	180.0	1879	103.1
1961	183.0	1903	104.2
1962	185.7	1958	105.4
1963	188.4	2002	106.7
1964	191.1	2109	108.1
1965	193.5	2213	109.9
1966	195.5	2298	113.1
1967	197.4	2359	116.3
1968	199.3	2425	121.2
1969	201.3	2434	127.7
1970 1/	203.7	2470	135.0

1/ Preliminary estimates.

Source: U.S. Department of Agriculture, "National Food Situation," ERS, Washington, D.C. May 1971.

U.S. Department of Agriculture, "Working Data for Demand Analysis", ERS, Washington, D.C. October 1970.

TABLE B

Per Capita Supply of January 1 Onion Storage Stocks
Early Spring Onion Supply, and F.O.B. Real Price
1955-70

Year	Jan. 1 Per Capita Storage Stocks	Per Capita Early Spring Supply	F.O.B. Price Early Spring Onions Deflated by CPI 1/
	Pounds per Capita	Pounds per Capita	CWT
1955	3.06	1.41	3.42
1956	2.65	2.38	2.95
1957	2.71	1.58	4.54
1958	2.56	1.47	4.23
1959	2.46	1.21	5.32
1960	2.95	1.53	2.86
1961	2.88	1.38	3.31
1962	2.36	1.44	4.36
1963	2.67	1.56	3.88
1964	2.43	1.99	2.54
1965	2.50	1.55	3.41
1966	2.95	0.79	6.63
1967	2.17	1.92	3.48
1968	2.40	1.24	5.65
1969	2.70	1.51	2.54
1970	2.08	1.62	4.28

1/ CPI = Consumer Price Index

Source: U.S. Department of Agriculture, "Working Data for Demand Analysis"ERS Washington, D.C. October 1970.

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TABLE C

Relationship Between Early Spring Onion Real F.O.B. Price, Per Capita Supply of January 1 Storage Stocks Plus Early Spring Supply, Order Ranked by Price
1955-70

Year	Jan. 1 Storage Stocks	Early Spring Supply	Total Supply	Real 1/ F.O.B. Price
	Pounds/Capita	Pounds/Capita	Pounds/Capita	C.W.T.
1956	2.65	2.38	2.95	5.03
1960	2.95	1.53	2.86	4.48
1955	3.06	1.41	3.42	4.47
1964	2.43	1.99	2.54	4.42
1957	2.71	1.58	4.54	4.29
1961	2.88	1.38	3.31	4.26
1963	2.67	1.56	3.88	4.23
1969	2.70	1.51	2.54	4.21
1967	2.17	1.92	3.48	4.09
1965	2.50	1.55	3.41	4.05
1958	2.56	1.47	4.23	4.03
1962	2.36	1.44	4.36	3.80
1966	2.95	0.79	6.63	3.74
1970	2.08	1.62	4.28	3.70
1959	2.46	1.21	5.32	3.67
1968	2.40	1.24	5.65	3.64
Ave.	2.60	1.54	3.96	4.13

1/ Real F.O.B. Price is actual price divided by Consumer Price Index (CPI)

Source: Table B, Appendix VII

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