

# Chapter 17

## AN OVERVIEW OF WORLD PEANUT MARKETS

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### WORLD PEANUT PRODUCTION

The peanut is one of the five most important oilseeds produced in the world. However, its ranking has decreased from third to fifth as a result of the increasing importance of sunflower seed and rapeseed. Peanut production occurs on six continents, with four accounting for the majority of the production. World peanut production in 1990 to 1991 averaged 23,086,000 mt, a 36% increase over the 1970's average production of 17,004,000 mt (Table 1). Some of the production change was a result of an increase of 10% in the area harvested. However, the major factor for the production increase was the increase in yield from 0.93 mt/ha in the 1970s to 1.15 mt/ha from 1988 to 1991, a 24% increase.

To aid in the discussion of world markets, the peanut world was delineated

Table 1. World peanut production, area harvested, and yield, average 1970s, and 1980 to 1991 (from USDA, 1992a).

Year	Area harvested	Yield	Production
	thou ha	mt/ha	thou mt
1980	17763	0.92	16271
1981	18531	1.07	19832
1982	17951	0.97	17435
1983	17790	1.05	18738
1984	17659	1.11	19684
1985	17837	1.12	19990
1986	18366	1.11	20383
1987	18225	1.11	20317
1988	19776	1.18	23369
1989	19814	1.11	22049
1990	20005	1.14	22878
1991	20270	1.15	23296
<b>Average</b>			
1970s	18274	0.93	17004
1980s	18371	1.08	19807
1990/91	20136	1.15	23086



### Production by Regions and Major Countries

While world peanut production has increased, there has been regional variation. The increase was primarily in Asia with 1990 and 1991 production averaging 74% over the 1970s (Table 3). Production in East Asia increased 164%. This shows that almost all the increase in world peanut production since the 1970s has occurred in Asia. While world production increased about 6.1 mmt, production in Asia increased 7.0 mmt.

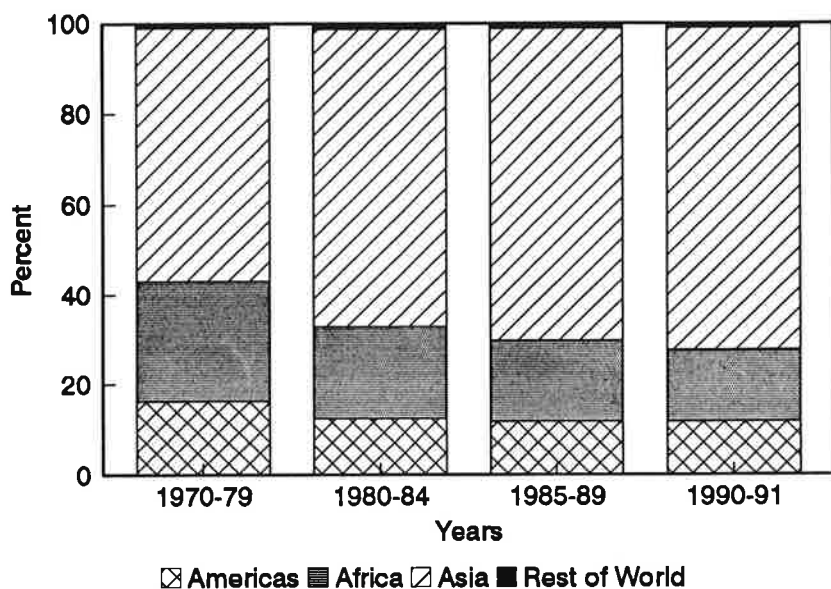
In the same period, peanut production in Africa decreased 20% from 4.6 mmt in the 1970s to 3.7 mmt in 1990 to 1991. Production in East Africa and South Africa decreased more than 40%. Total production in the Americas remained nearly level. But, subregion production varied with South America down about one-third while production increased about 18% in North America due to a large 1991 increase in the U.S..

With the regional production changes, there was a substantial shift in world production distribution. In 1990 and 1991, about 70% of the world's peanut production was in Asia compared to 56% in the 1970s (Fig. 1). Most of the distribution change was in East Asia with a shift from 14% of the world's production in the 1970s to more than 27% in 1990 and 1991. The other two Asiatic subregions remained approximately unchanged.

In contrast, in the 1970s nearly 27% of the world's peanut production was in Africa, but by 1990 and 1991 production declined to 16%. All subregions

**Table 3. Annual average world peanut production, by regions, 1970s, 1980-84, 1985-89, 1990-91 (from USDA, 1992a).**

Region	1970s	1980-84	1985-89	1990-91	Change from 1970s
	----- thou mt -----				%
<b>The Americas</b>					
N. America	1734	1641	1849	2039	18
S. America	1022	650	665	673	-34
Subtotal	2756	2291	2514	2712	-2
<b>Africa</b>					
E. Africa	1043	740	624	612	-41
S. Africa	780	483	434	417	-47
W. Africa	2762	2536	2752	2653	-4
Subtotal	4585	3759	3810	3682	-20
<b>Asia</b>					
E. Asia	2418	4181	6120	6374	164
S.E. Asia	1361	1675	1797	1969	45
S.W. Asia	5709	6280	6747	8119	42
Subtotal	9488	12136	14664	16462	74
<b>Rest of world</b>	175	206	234	230	31
<b>World total</b>	17004	18392	21222	23086	36



in Africa had substantial decreases. The relative position in the Americas decreased from 16% in the 1970s to about 12% in the 1980s and early 1990s. Most of the decrease in share occurred in South America with North America holding its share at 10%.

In 1990 and 1991, India, China, and the U.S. produced 70% of the world's peanuts compared to 56% in the 1970s (Table 4). While India and the U.S. have maintained their approximate share of production, the share of production in China increased from 13 to 27%. There has been a substantial change in the share of peanuts produced in the major producing countries in Africa decreasing from 15% of the world production in the 1970s to about 8% in 1990 and 1991.

### Area Harvested and Yield

The peanut area harvested and yield per ha, the contributing factors to production, varied substantially among regions and countries. The peanut area harvested in the world was 10% higher in 1990 and 1991 than in the 1970s. Most of the increase was in Asia where the harvested area was up 28% with the East Asia subregion up more than 50% (Table 5). Harvested area in Africa was down about 14% with the South Africa subregion decreasing by 41%. In the Americas, South America had a decrease of 55% in the area harvested while North America increased 33%.

More than 43% of peanut area harvested in the world was in India followed by 15% in China (Table 6). The proportion of the hectares of peanuts harvested in the world was higher in both countries in 1990 to 1991

**Table 4. Percentage distribution of annual peanut production in 10 major world countries, 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).**

Country	Production		Distribution			
	1990-91	% Change	1970s	1980-84	1985-89	1990-91
	avg	since 1970s				
thou mt	%	----- % -----				
India	8040	42.3	33.2	33.6	31.1	34.8
China	6234	179.2	13.1	21.2	28.2	27.0
U.S.	1939	15.4	9.9	8.5	8.3	8.4
Indonesia	905	41.6	3.8	4.2	3.8	3.9
Senegal	682	-22.8	5.2	4.0	3.6	3.0
Burma	502	23.6	2.4	3.0	2.5	2.2
Argentina	437	1.4	2.5	1.5	1.9	1.9
Nigeria	385	-24.3	3.0	2.7	1.9	1.7
Zaire	380	29.2	1.7	1.9	1.8	1.6
Sudan	362	-54.5	4.7	3.0	1.8	1.6
Rest of world	3220	-7.4	20.5	16.4	15.1	13.9
			----- thou mt -----			
World production	23086	35.8	17004	18392	21222	23086

**Table 5. Annual average of peanut area harvested by regions in 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).**

Region	1970s	1980-84	1985-89	1990-91	Change from 1970s
	----- thou ha -----				%
<b>The Americas</b>					
N. America	647	615	703	858	33
S. America	812	453	385	363	-55
Subtotal	1459	1068	1088	1221	-16
<b>Africa</b>					
E. Africa	1155	1081	809	840	-27
S. Africa	1108	868	736	655	-41
W. Africa	3974	3635	3651	3849	-3
Subtotal	6237	5584	5196	5344	-14
<b>Asia</b>					
E. Asia	1952	2462	3177	2981	53
S.E. Asia	1361	1417	1545	1706	25
S.W. Asia	7163	7292	7683	8773	22
Subtotal	10476	11171	12405	13460	28
<b>Rest of world</b>	101	116	114	111	23
<b>World total</b>	18273	17939	18803	20136	10

**Table 6. Percentage distribution of annual hectares of peanuts harvested in 10 major world countries, 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).**

Country	Area		Distribution			
	1990-91	% Change	1970s	1980-84	1985-89	1990-91
	avg	since 1970s				
thou ha	%	----- % -----				
India	8700	22.2	39.0	40.3	40.4	43.2
China	2913	58.4	10.1	13.2	16.5	14.5
U.S.	772	27.0	3.3	3.2	3.4	3.8
Indonesia	635	37.4	2.5	2.8	3.0	3.2
Senegal	907	-19.7	6.2	5.7	4.2	4.5
Burma	553	-9.9	3.4	3.2	3.0	2.7
Argentina	195	-45.2	1.9	0.9	1.0	1.0
Nigeria	745	-17.8	5.0	3.2	3.6	3.7
Zaire	530	16.7	2.5	2.8	2.8	2.6
Sudan	535	-35.9	4.6	4.6	2.8	2.7
Rest of world	3652	-7.5	21.5	20.1	19.3	18.1
			----- thou ha -----			
World	20136	10.2	18273	17939	18803	20136

than in the 1970s. Other major producing countries with more hectares of peanuts in 1990/91 than in the 1970s were the U.S., Indonesia, and Zaire. The major producing countries in Africa as well as Argentina had substantial decreases in peanut area harvested.

Peanut yields increased world-wide 24% from the 1970s (Table 7). Yields were up 34% in Asia with the East Asia subregion increasing 73%, from 1.24 to 2.14 mt/ha. Yields in North America remained about the same in the 1980s but decreased in the 1990s. Yields in South America increased almost 47%. Africa, as a region, had about a 7% decrease in yields with East Africa down 19%. Region yield levels appear to have stabilized in the late 1980s and into the 1990s (Fig. 2).

The yield per ha of peanuts in the U.S. was the highest of any major producing country in the world (Table 8). The largest increases in yield since the 1970s occurred in Argentina and China. In most of the major producing countries in Africa yields decreased.

When comparing area harvested and yield as factors contributing to production changes, the pattern was quite variable among and within regions. The substantial production increase in Asia was the result of both area harvested and yield increases. There were increases in both area harvested and yield in East Asia, but in Southeast and Southwest Asia the area harvested increased more percentage-wise than yield.

In North America area harvested increased while yield was down. With the area harvested increase more than offsetting the yield decrease, production increased. While yield was up substantially in South America, the area

Table 7. Peanut yield per hectare, by regions, 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).

Region	1970s	1980-84	1985-89	1990-91	% Change from 1970s
	mt/ha				%
<b>The Americas</b>					
N. America	2.68	2.66	2.64	2.37	-12
S. America	1.26	1.45	1.72	1.85	47
Average	1.91	2.15	2.31	2.22	16
<b>Africa</b>					
E. Africa	0.90	0.68	0.77	0.73	-19
S. Africa	0.70	0.55	0.59	0.64	-9
W. Africa	0.69	0.70	0.75	0.69	0
Average	0.74	0.67	0.73	0.69	-7
<b>Asia</b>					
E. Asia	1.24	1.70	1.93	2.14	73
S.E. Asia	1.00	1.18	1.16	1.15	15
S.W. Asia	0.80	0.86	0.87	0.93	16
Average	0.91	1.08	1.18	1.22	34
<b>Rest of world</b>	1.74	1.78	2.06	2.03	17
<b>World</b>	0.93	1.03	1.13	1.15	24

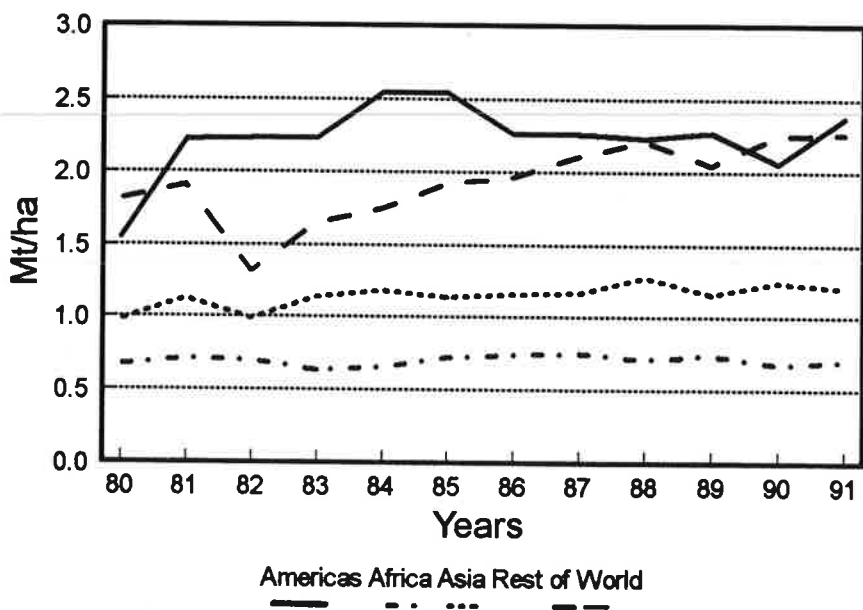


Fig. 2. Peanut production/ha by world regions from 1980 to 1991 (from USDA, 1992a).

**Table 8. Yield per hectare of peanuts in major production countries, 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).**

Region	1970s	1980-84	1985-89	1990-91	Change from 1970s
					mt/ha
India	0.79	0.86	0.87	0.92	16.4
China	1.21	1.65	1.93	2.14	76.8
U.S.	2.76	2.76	2.79	2.51	-9.1
Indonesia	1.38	1.54	1.44	1.43	3.6
Senegal	0.77	0.71	0.98	0.75	-2.6
Burma	0.67	0.94	0.94	0.91	35.8
Argentina	1.21	1.80	2.13	2.24	85.1
Nigeria	0.58	0.85	0.59	0.52	-10.3
Zaire	0.65	0.70	0.70	0.72	10.8
Sudan	0.95	0.65	0.73	0.68	-28.4
Rest of world	0.86	0.84	0.87	0.88	2.3
World	0.93	1.03	1.13	1.14	23.6

harvested decreased significantly resulting in a production decrease. There were both area harvested and yield decreases resulting in substantial production decreases in the East and South Africa subregions.

In China, increases in both hectares harvested of 58% and yield of 77% accounted for the substantial increase in peanut production. In India, the area harvested increased more percentage-wise than the yield increased. Yields in the U.S. were lower in 1990/91 than in the 1980s. However, the U.S. yield in 1990 was especially low due to severe drought conditions in one of the major production areas. Yields in 1991 were again near the 1980s average. Production in Indonesia was up primarily because of an increase in the area harvested. A much smaller area harvested was offset by a substantial yield increase in Argentina, resulting in stable production. In the major producing countries in Africa, three countries had both decreasing yields and area harvested with area harvested showing the greatest percentage decrease. Zaire was the only major peanut producing African country that had increases in both area harvested and yield resulting in an increase in production.

In summary, the Asiatic countries of India, China, Indonesia, and Burma have shown substantial increases in the area harvested and yield since the 1970s resulting in major production increases. Argentina and the U.S. had opposite area harvested and yield changes resulting in somewhat stable production. Most of the major production countries in Africa had substantial reductions in both the area harvested and yields resulting in substantial decreases in peanut production.

## WORLD PEANUT UTILIZATION

Nearly 23 mmt of peanuts were utilized annually in the world in 1990 and 1991, an increase of 35% from the 17 mmt in the 1970s (Table 9). Crushing



**Table 9. Percentage distribution of annual domestic peanut utilization, by world subregion, 1970s, 1980-84, 1985-89, and 1990-91 (from USDA, 1992a).**

Region distribution	1970s	1980-84	1985-89	1990-91
	----- % -----			
<b>The Americas</b>				
<b>N. America</b>				
Food	63.3	67.6	70.6	68.5
Crushed	24.9	15.5	18.3	24.2
Other <sup>a</sup>	11.8	16.9	11.1	7.3
Total use (thou mt)	1440	1391	1641	1680
<b>S. America</b>				
Food	12.5	16.4	29.2	32.7
Crushed	79.0	74.1	55.8	53.2
Other	8.5	9.5	15.0	14.1
Total use (thou mt)	950	539	505	475
<b>Africa</b>				
<b>E. Africa</b>				
Food	38.5	43.0	53.7	53.5
Crushed	48.3	50.4	40.6	41.0
Other	13.2	6.6	5.7	5.5
Total use (thou mt)	882	660	590	590
<b>S. Africa</b>				
Food	50.2	54.5	59.2	73.9
Crushed	36.5	31.8	35.3	20.9
Other	13.3	13.7	5.5	5.2
Total use (thou mt)	697	462	387	368
<b>W. Africa</b>				
Food	32.6	42.4	45.8	48.7
Crushed	58.2	43.6	44.1	42.1
Other	9.2	14.0	10.1	9.2
Total use (thou mt)	2576	2484	2718	2626
<b>Asia</b>				
<b>E. Asia</b>				
Food	42.7	41.7	39.3	39.7
Crushed	45.1	48.8	52.3	52.4
Other	12.2	9.5	8.4	7.9
Total use (thou mt)	2480	4088	5930	6127
<b>S.E. Asia</b>				
Food	54.7	55.0	58.6	63.8
Crushed	35.2	35.2	32.2	26.4
Other	10.1	9.8	9.2	9.8
Total use (thou mt)	1364	1700	1900	2121
<b>S.W. Asia</b>				
Food	8.0	7.5	7.4	7.3
Crushed	79.4	79.5	79.6	79.0
Other	12.6	13.0	13.0	13.7
Total use (thou mt)	5639	6250	6733	8084

Table 9 (Continued)

Region distribution	1970s	1980-84	1985-89	1990-91
	----- % -----			
<b>Europe</b>				
<b>(European Community and W. Europe)</b>				
Food	42.2	72.4	85.5	91.3
Crushed	57.3	26.1	13.5	8.3
Other	0.5	1.5	1.0	0.4
Total use (thou mt)	792	518	579	604
<b>E. Europe</b>				
Food	84.3	91.2	89.1	89.2
Crushed	15.7	8.8	10.9	10.8
Other	0.0	0.0	0.0	0.0
Total use (thou mt)	51	31	52	57
<b>Rest of world</b>				
Food	84.3	82.3	86.0	87.3
Crushed	15.1	11.6	11.1	7.9
Other	0.6	6.1	2.9	5.8
Total use (thou mt)	145	181	228	331
<b>World</b>				
Food	31.2	34.4	36.6	36.4
Crushed	57.9	54.0	53.3	53.6
Other	10.9	11.6	10.1	10.0
<b>Total use (thou mt)</b>	<b>17017</b>	<b>18354</b>	<b>21287</b>	<b>22989</b>

<sup>a</sup>Other includes exports, seed, losses, and nonreported uses.

peanuts for oil and meal remains the most important use of the world peanut production. About 53% of the world's peanut production was crushed for domestic use in the 1980s and early 1990s compared to 58% in the 1970s. Domestic food use increased from 5.3 mmt in the 1970s, or about 31% of the total use, to 8.4 mmt in the 1980s and early 1990s for more than 36% of the total use. Food use increased about 58% and crushing use increased about 25% since the 1970s. The remaining 11% of the production was exported, used for seed, or unaccounted for as to the use.

### Utilization by Regions

Trends in the total peanuts utilized and type of utilization were quite variable among the regions of the world. Utilization as food remains high in North America (Table 9). In contrast, South America's utilization as a food remains relatively low at about 33%, but has increased from 12% in the 1970s. Total utilization in South America decreased by 50% from the 1970s to the early 1990s.

East and South Africa had a decrease in total utilization in the early 1990s compared to the 1970s while utilization in West Africa remained the same. The percentage utilized as food has been increasing in all three regions and

ranged in the 1990s from 49 to 74% of total use. Peanut use for food in East and South Africa had decreased, but a higher proportion of the total used is for food than for oil.

The total utilization of peanuts increased substantially in the three Asiatic regions from the 1970s to the early 1990s. In Southeast Asia the percentage used for food increased, but in the other two regions food use remained about the same percentage-wise. Utilization of food in Southwest Asia remains below 10%, the lowest of all the subregions in the world. Peanut oil is a very important food component in this subregion.

An European Community (EC) policy change favored domestic production of rapeseed and sunflower seed as compared to the import of peanut oil. Total utilization of peanuts in the EC and Western Europe in the 1990s was down nearly 25% from the 1970s. However, food use as a percentage of total utilization more than doubled from the 1970s to the early 1990s to more than 90% as a result of the policy change. In Eastern Europe, total utilization of peanuts and the percentage used for food remained stable. Food use was near 90% of the total.

### Utilization by Major Countries

About two-thirds of the total peanuts produced in the world are utilized in India, China, and the U.S. (Table 10). Crushed peanuts are very important in India making up 80% of the domestic utilization. In China, the use was 37% for food and 50% or more for crushing, while in the U.S. nearly two-thirds were used for food. Another 11 countries utilized an additional 17% of the world's peanuts.

**Table 10. Utilization of peanuts annually for food and crushed for oil and meal in major consuming countries of the world, 1970s, and 1990-91 (from USDA, 1992a).**

Country	1970s			1990		
	Food ----- %	Crushed -----	Total use thou mt	Food ----- %	Crushed -----	Total use thou mt
India	7.2	80.2	5582	6.5	79.8	8005
China	37.4	49.6	2192	37.1	54.9	5810
U.S.	59.9	27.2	1304	64.7	27.1	1497
Indonesia	80.2	8.7	633	85.9	4.6	984
Senegal	8.6	75.4	839	20.3	63.1	710
Burma	26.1	69.0	406	19.6	70.2	492
Nigeria	18.7	76.6	475	74.5	15.1	382
Zaire	60.2	35.0	294	63.6	35.8	380
Sudan	30.2	53.5	635	41.9	50.7	340
Argentina	9.1	85.2	387	12.8	70.7	242
Vietnam	32.9	58.9	73	41.2	47.1	255
U.K.	100.0	0	104	100.0	0	166
Thailand	40.1	45.8	157	85.8	1.9	162
Japan	91.7	0.8	169	92.5	0	154
World	31.2	57.9	17017	36.4	53.6	22989

Utilization among the countries was quite variable between food use and crushing. Most countries were either heavy users of peanuts for food or heavy users of crushed peanuts for oil and meal. Since the 1970s there has been some change to a higher percentage use for food. However, in India and China, the two largest users of peanuts, the way peanuts are utilized has not changed since the 1970s.

## WORLD TRADE IN PEANUTS

Approximately 6.5% of the peanut production in the world enters into the export market. The percentage traded in the world has not changed from the 1970s. However, the countries involved in the peanut export market have changed. In the 1970s, 10 countries led by the U.S. (with nearly one-third of the total) exported 83% of the peanuts traded (Table 11). India and several African countries were important exporting countries in the 1970s with African countries accounting for 32% of the trade.

In the 1980s, eight countries, led again by the U.S. with 28% of the world trade, exported 80% of the world's peanuts. China and Argentina increased exports in the 1980s and were responsible for another 34% of the world peanut exports. The African countries' role in the peanut export business declined. The peanut trade shifted from a crush for oil to an edible peanut market. The African countries could not compete in the edible market because of aflatoxin problems. The shift in exports from oil to edible peanuts was primarily because Europe reduced its peanut imports for crushing due

**Table 11. Average annual world exports of peanuts in order of importance of major exporting country, 1970s, 1980s, 1990-91 (from USDA, 1992a).**

1970s			1980s			1990-91		
Country	Exports		Country	Exports		Country	Exports	
	thou mt	%		thou mt	%		thou mt	%
U.S.	363	32.3	U.S.	334	28.5	China	424	31.4
Sudan	161	14.3	China	278	23.7	U.S.	335	24.8
India	76	6.8	Argentina	121	10.3	Argentina	194	14.4
S. Africa	61	5.4	Sudan	57	4.8	Gambia	44	3.3
Gambia	54	4.8	Gambia	43	3.7	Vietnam	40	3.0
Brazil	47	4.2	India	42	3.6	India	35	2.6
Senegal	43	3.8	Vietnam	34	2.9			
China	42	3.6	S. Africa	30	2.6			
Nigeria	41	3.6						
Argentina	41	3.6						
Rest of world	195	17.6	Rest of world	234	19.9	Rest of world	276	20.5
World	1124	100.0	World	1173	100.0	World	1348	100.0

to changing the source of vegetable oils from peanut oil to other oilseeds.

In the early 1990s, China was the most important peanut exporting country with 31% of the world exports. The U.S. exports decreased to 25% of the market and was followed by Argentina with 14%. The three countries had 70% of the world peanut exports in 1990 and 1991. The U.S. lost a share of its export market in 1990/91 due to the lower production in the 1990 crop year. When the U.S. loses world market share, it usually requires more than 1 year to regain the share lost as well as to increase market share.

The major peanut importing countries have remained about the same in the 1970s, 1980s, and early 1990s, although there have been changes in the position of importance. The EC countries, Japan, and Canada are the primary peanut importers (Table 12). Very few peanuts are produced in these countries. France, the largest importer of peanuts in the 1970s, decreased its imports substantially. This was due to a policy shift encouraging the production and use of rapeseed and sunflower seed oil instead of using peanut oil. Italy also decreased its imports. Along with the United Kingdom and Japan, West Germany and the Netherlands became the major peanut importers in the 1980s and early 1990s.

### Trends in Market Share

The market share of peanut exports by the three major exporting countries—Argentina, China, and the U.S.—to the major importing countries has shown substantial variation in the 1980s. The U.S. has been the major exporter of peanuts to the EC but has been losing market share to China and Argentina (Fig. 3). In 1987 and 1988, the U.S. market share was about one-third compared to nearly 50% in earlier years. China's exports to the EC

**Table 12. Average annual imports of peanuts in order of importance of major importing country, 1970s, 1980s, and 1990-91 (from USDA, 1992a).**

1970s			1980s			1990-91		
Country	Imports		Country	Imports		Country	Imports	
	thou mt	%		thou mt	%		thou mt	%
France	269	23.9	U.K.	142	12.1	U.K.	171	12.6
U.K.	109	9.7	Netherlands	139	11.9	Netherlands	171	12.6
Italy	99	8.8	Japan	113	9.6	W. Germany	132	9.7
Japan	92	8.2	W. Germany	98	8.4	Japan	114	8.4
Canada	85	7.6	Canada	86	7.3	Singapore	90	6.6
Netherlands	84	7.5	France	79	6.7	Indonesia	82	6.1
W. Germany	79	7.0	Singapore	63	5.4	Canada	73	5.4
USSR	41	3.6	USSR	62	5.3	Hong Kong	65	4.8
Singapore	18	1.6	Hong Kong	61	5.2	USSR	55	4.1
Hong Kong	17	1.5	Indonesia	47	4.0	France	45	3.3
Indonesia	3	0.3	Italy	39	3.3	Switzerland	44	3.2
Rest of world	229	20.3	Rest of world	243	20.8	Rest of world	313	23.2
World	1125	100.0	World	1172	100.0	World	1355	100.0

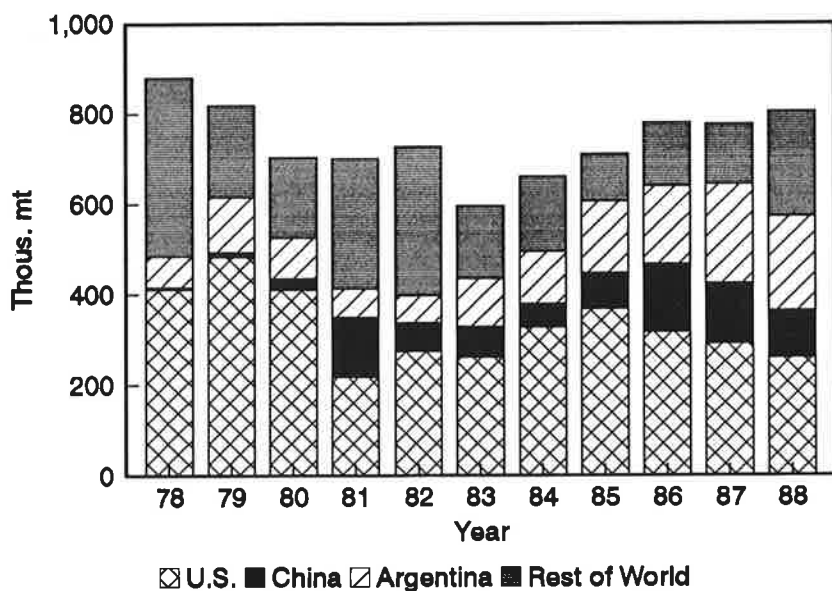


Fig. 3. Market share of peanut exports to the European Community by major exporting country from 1978 to 1989 (from USDA, 1992a).

moved from near zero to about 15%, and Argentine exports to the EC from less than 10% to about 25% in 1987 and 1988. The 1980 drought in the U.S. caused a substantial reduction in its exports to the EC. This opened the market in the 1980s for other countries to enter, in particular China. U.S. exports to Japan decreased in 1981, as well, due to the drought (Fig. 4).

The U.S. export share to Japan increased to average about 45% in the mid-1980s, but has been decreasing each year since to a current average of about 30%. While the share of U.S. exports to Japan has been decreasing, the share from China has increased from about 38 to 42% of the total. Peanut imports to Japan from countries other than the major three increased during the 1986 to 1988 period.

The U.S. is by far the largest exporter of shelled peanuts to Canada, but has lost a substantial share since 1985 (Fig. 5). As in the EC, China has become a major competitor of the U.S. for the Canadian market. In 1987 and 1988 China had about a one-third share of the peanut imports into Canada. The U.S. enhanced its competitive position in Canada beginning with the 1992 peanut crop. The peanut regulations were changed so that the lower-cost additional peanuts could be used in products exported to Canada instead of the higher-cost quota peanuts. One of the more significant aspects of the competitiveness of peanut exports has been the response from other countries to fill any gaps created by the U.S. Because of the short crops in the U.S. due to drought conditions, and to some extent to its current peanut program, there have been several shortages of export peanuts during the past 15 years.

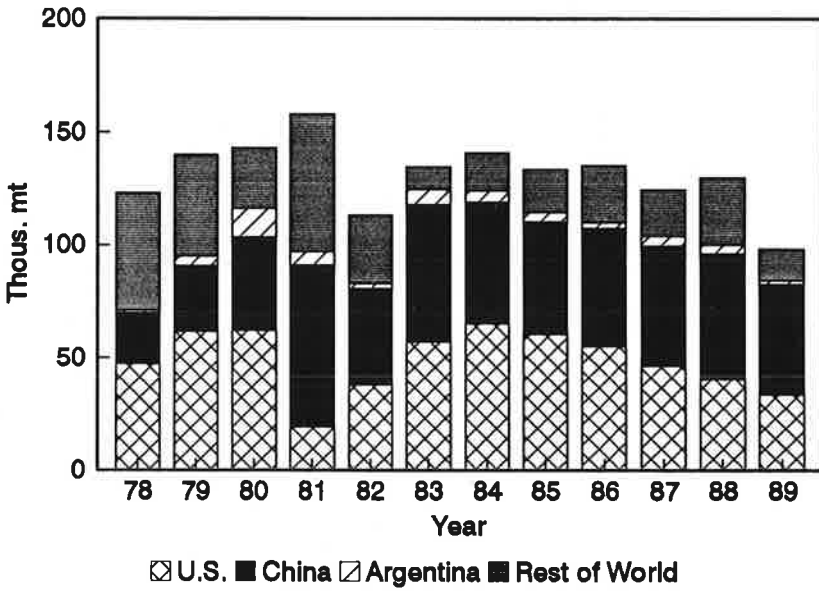


Fig. 4. Market share of peanut exports to Japan by major exporting country from 1978 to 1989 (from USDA, 1992a).

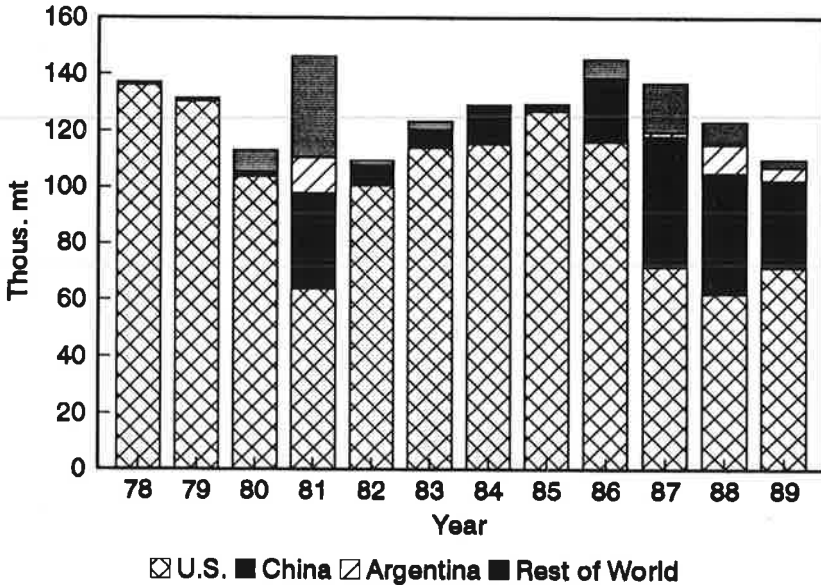


Fig. 5. Market share of peanut exports to Canada by major exporting country from 1978 to 1989 (from USDA, 1992a).

### Price and Quantity Relationships

The EC is the largest importer of peanuts of any world area (Table 12). Edible peanut prices quoted in the Rotterdam market are recognized as the world reference price in the peanut trade (Fig. 6). Observations of price variation in Rotterdam, in conjunction with the monthly August to February 1978 to 1991 production estimates in the southeastern U.S., revealed that prices moved in the opposite direction of the production estimates.

In an analysis of the variation of monthly peanut prices in Rotterdam, prices were found to be quite sensitive to the monthly estimates of peanut production in the U.S., especially to production in the Southeast (Carley *et al.*, 1992). The estimate of the relationship of price to quantity changes indicated a break-point, at about 1,000,000 mt of peanut production in the southeastern U.S. At a production level below this point, an estimated 50,000 mt change in production resulted in an estimated price change of \$125/mt in the opposite direction. For production above 1,000,000 mt, an estimated 50,000 mt production change resulted in an estimated price change of \$51 mt in the opposite direction.

The Chinese and Argentine prices in Rotterdam generally range lower than the U.S. price (Fig. 6). A change of \$100/mt in the Rotterdam price for U.S. shelled peanuts resulted in a \$60/mt change in the Chinese price and a \$67/mt change in the Argentine price both in the same direction of the U.S. price change (Carley *et al.*, 1992). Thus, production of peanuts in the southeastern U.S. is an important factor in the determination of the market price for peanuts exported by other major exporting countries.

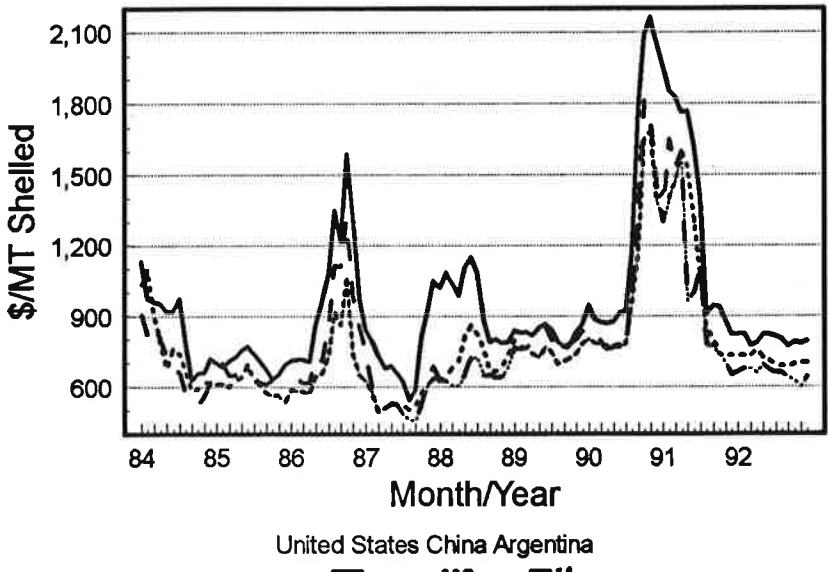


Fig. 6. Monthly average peanut prices in Rotterdam for runners, 40/50 shelled, from 1984 to 1993 (from the The Public Ledger, 1993).



## GOVERNMENT POLICIES AFFECTING PEANUT PRODUCTION AND TRADE

With the countries of the world moving toward freer trade, the issues of comparative advantage in peanut production and competitiveness in the world market for peanuts are becoming of prime importance (Fletcher and Carley, 1989; Fletcher, *et al.*, 1992b). Government intervention through various types of policies in individual countries may affect both production and trade. The approval of major trade agreements will result in a reduction in direct government intervention. When considering the future direction of the peanut industry, the negotiations leading to reduction of trade restrictions may mean that the U.S. peanut industry will be facing increased competition in world markets, including increased peanut imports into the U.S.

### Policies Affecting Production

Most of the government policies affecting peanut production in the world are subsidy programs that tend to reduce production costs for peanut producers. These include subsidies on credit, seed, fertilizer, chemicals, and irrigation (Table 13). The countries that have subsidy programs include Brazil, India, and several in Africa.

Brazil, India, Gambia, and the U.S. have some form of price supports. The U.S. program is the most extensive price support and production quota program of any country in the world (Carley and Fletcher, 1992). Total U.S. production of edible peanuts may be limited by the quota system, or more likely by the expected low price for peanuts produced in addition to quota peanuts. Since quota production has the highest priority for sale and use, in years of lower yields caused by unsatisfactory weather, the production quota limitation results in a tight market for export peanuts.

### Policies Affecting Trade

A few countries have government policies that affect peanut trade. Argentina has had an export tax on edible peanuts. This could, in effect, increase the cost of Argentina peanuts in world markets (Table 14).

**Table 13. Peanut production policies of major producing countries (from Lu, 1988).**

Country	Production policy
Brazil	Credit subsidy, minimum price support
Gambia	Fertilizer and chemical subsidy, price support
India	Seed and fertilizer subsidy, minimum price support
Nigeria	Seed and fertilizer subsidy
Senegal	Fertilizer subsidy
South Africa	Land bank and production credit
Sudan	Irrigation subsidy
U.S.	Production quota, two-price support prices, government purchase at support prices

**Table 14. Export and import policies for peanuts by major trading countries (from Lu, 1988).**

Country	Export policy	Import policy
Argentina	Tax on edible peanuts	
Japan		Tariffs and quota on imports
U.S.	Additional peanuts are primarily for export, a minimum price on additional peanuts purchased from government stocks for export	Tariffs and quota on imports

Both Japan and the U.S. have quotas that specify the quantity of peanuts that may be imported into the countries. The import restrictions, in effect, protect the domestic production price support programs. The import quota in the U.S. is for raw edible peanuts and amounts to only 771 mt each marketing year. Japan had an import quota of 60,000 mt of raw edible peanuts (Zhang, *et al.*, 1993). Import tariffs of varying amounts in Japan are applied to processed peanut products.

China and India use an implicit government policy that depends on the production and consumption balance in a production year and/or policies pertaining to currency exchange. A desire to obtain hard currency, such as U.S. dollars, may play a role in the export availability of export peanuts from China and India. India has a policy of becoming self-sufficient in the domestic vegetable oil market and in 1992/93 met that policy objective (The Public Ledger, 1993). Self-sufficiency in oilseed production in India may lead to increased availability of edible peanuts for export.

### **Non-Policy Variables Affecting Trade**

A few policies or conditions that may be interpreted as nongovernmental also impact on peanut trade. The increasing emphasis on peanut quality, especially the amount of aflatoxin and/or chemicals contained in peanuts and peanut products, is becoming a critical trade factor. Several countries in the EC are enforcing lower and lower amounts of contaminants as acceptable. For example, the acceptable limit on aflatoxin has been reduced to 5 - 8 ppb, depending on the country, with plans to reduce the level to zero.

Reliability of timely delivery of peanuts is a major factor in the export market. China had a problem with timely and reliable delivery in 1993. Argentina had problems in 1991 on reliable delivery. Credit considerations among countries, especially when exporting to second and third world countries, is becoming more important for opening new markets. Currency exchange rates cycle up and down causing product values to change which may impact on the export market.

Many of these factors impact on price. The U.S. enjoys a price advantage in the EC market relative to other countries. Quality, reliable delivery, and

credit play important roles in price determination. Also, the ability to satisfy demands for certain types of peanut products will become of increasing importance in opening a country's opportunities for exports. In Japan, for example, fried peanuts has become an increasingly important product in which the U.S. is not a supplier. In many countries peanut butter is little known or used. Developing such product markets may open export opportunities for the U.S.

### **Future Policies Affecting Production and Trade**

Increasing levels of government intervention into agricultural production and trade throughout the world has led many countries to call for new international agreements that may reduce the adverse effect of intervention. The overall objective is to provide the opportunity for all countries to conduct trade in agricultural commodities relatively free of restrictions. Government policy restrictions include production quotas and price supports that are used to enhance farm income, import quotas that are used to protect agricultural programs, and export subsidies of various forms that are used to provide incentives to export. In some situations, subsidies are used to dispose of surplus production. In other countries, import quotas and subsidies are used to maintain production of some commodities for food security purposes.

### **NAFTA and GATT Trade Agreements**

Major trade agreements that may affect peanut production and trade policies are the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA). GATT is a multilateral trade agreement among 117 countries that is expected to become effective by July 1, 1995. NAFTA is a trade agreement among Canada, Mexico, and the U.S. that became effective January 1, 1994. Both agreements include similar provisions that could impact on the U.S. peanut industry. The initial GATT agreement on agriculture is for only 6 years but is expected to be extended through further negotiations. In contrast, NAFTA removes all trade restrictions over a 15-year time period.

Major provisions in the agreements impacting on the world peanut industry are the elimination of nontariff barriers, tariffication, market access, reduction in subsidies that impact trade, and sanitary and phytosanitary measures. Nontariff barrier elimination would include the Section 22 quota import restriction in the U.S., raw peanut import quota restrictions in Japan, Korea and other East Asia countries, and India's export and import constraint to maintain self-sufficiency in vegetable oil. Tariffication involves converting nontariff barriers to tariffs, and then reducing the tariffs over a period of time. Market access provides a specified quantity of peanuts to be imported with minimum or no tariff. Sanitary/phytosanitary measures would be based on scientific evidence with emphasis on using international standards and information from international organizations. This prevents a country from setting arbitrary restrictions such as aflatoxin and chemical/pesticide tolerance levels that restrict trade in peanuts.

The U.S. domestic price support program for peanuts will not need to be

automatically changed under the GATT agreement. The price support program may be affected indirectly through the tariffication process, especially if minimizing potential government cost is a U.S. objective.

In the first year of the GATT agreement, under the market access section, 3% of the average U.S. domestic consumption of peanuts in 1986 to 1988 would be allowed to be imported at the current low tariff rates of 6.6 cents/kg for kernels and 9.35 cents/kg for in-shells (United States of America, 1993). This would amount to 33,770 mt in the first year and increase to 56,283 mt in the sixth year (Table 15). The U.S. entered into a side agreement with Argentina guaranteeing them 78% of the minimum access level for edible peanuts. The market access provision in NAFTA allows tariff-free imports of Mexican-grown peanuts of 3377 mt (10% of the GATT initial allowance) in the first year. It is not clear whether the Mexico access will be the same or increase by a 3% compound rate annually (USDA, 1992b). In addition, in each of the years of GATT an increasing quantity of peanut butter will be allowed to enter the U.S. at the current tariff rate of 6.6 cents/kg. The minimum import access level in the first year of GATT will allow an estimated 87,355 mt equivalent of farmers' stock peanuts to be imported into the U.S. compared with the current Section 22 quota of 1,168 mt. The import level in the first year is about 7.1% of the U.S. domestic quota for the 1995 marketing year. The U.S. import marketing year for edible peanuts will begin on April 1 and for peanut butter on January 1 while the U.S. peanut marketing year continues to begin on August 1.

**Table 15. Minimum import access levels for edible peanuts and peanut butter under GATT, 1995-2000 (from United States of America, 1994).**

Year <sup>a</sup>	Edible peanuts <sup>b</sup>	Peanut butter <sup>c</sup>	Farmers' stock peanut equivalent <sup>d</sup>
	----- mt -----		
1995	33770	19150	87355
1996	38273	19320	94498
1997	42775	19490	101640
1998	47278	19660	108784
1999	51781	19830	115927
2000	56283	20000	123069

<sup>a</sup>The import year for edible peanuts begins April 1 and January 1 for peanut butter.

<sup>b</sup>Argentina's share of edible peanut imports is 78%, Mexico's share is 3377 mt annually, and other countries share the remainder.

<sup>c</sup>The share of peanut butter imports from Canada is 14,500 mt, from Argentina 3650 mt, and other countries share the remainder.

<sup>d</sup>Edible peanuts and peanut butter were converted to farmers' stock equivalent using a factor of 1.515 for edible peanuts and 1.89 for peanut butter.

The tariff schedule for peanut and peanut butter imports above the minimum access levels into the U.S. are similar for both NAFTA and GATT. The tariffs will be reduced by 15% over the first 6-year period for both NAFTA and GATT. The tariffs under NAFTA will then be reduced to zero in the following 9 years. There is no such provision under GATT. The countries agree to begin negotiations for further tariff reductions in the sixth year of the agreement. The tariff for Mexican-produced peanuts in 1994 is \$783/mt for shelled and \$517/mt for in-shell peanuts (Table 16). The ad valorem tariff for GATT in 1995 is 151.1% for shelled and 187.9% for in-shell peanuts. The ad valorem rate for peanut butter under GATT is 151.1% in 1995.

If the U.S. domestic quota would be reduced by the minimum access level, farm peanut producer income would decrease by \$65.3 million (assuming a support price of \$747/mt) in the first year of the agreement (Table 17). By the sixth year, income would decrease by \$92 million. In terms of acreage, the U.S. will need about 31,200 fewer hectares of quota peanuts (assuming a national yield of 2801 kg/ha) in the first year. By the sixth year, the acreage reduction will reach 43,900 ha. If U.S. production quotas are not adjusted for the minimum access levels, government cost could reach \$39 million in the first year and increase to nearly \$55 million by the sixth year.

Peanut imports into the U.S. would affect each sector of the industry, but in differing ways. At some level of world prices that are below the U.S. support price, peanut product manufacturers would probably import peanuts. In world markets, U.S. edible peanuts have traditionally commanded a \$75 to \$100 mt premium over peanuts from other countries. With U.S. shelled peanuts at a price of \$1416/mt, peanuts from other origin countries may be worth about \$1300/mt or less to manufacturers, if the premium is maintained.

**Table 16. Estimated tariffs for shelled and prepared peanuts, in-shell peanuts and peanut butter imported above minimum access levels in the U.S. 1994-2000.**

Year	Shelled & prepared peanuts tariff			In-shell peanuts tariff			Peanut butter tariff
	NAFTA <sup>a</sup>		GATT <sup>b</sup>	NAFTA <sup>a</sup>		GATT <sup>b</sup>	GATT <sup>b</sup>
	Specific \$/mt	Ad valorem %	Ad valorem %	Specific \$/mt	Ad valorem %	Ad valorem %	Ad valorem %
1994	783	120.0		517	181.4		
1995	763	116.9	151.1	504	176.8	187.9	151.1
1996	743	113.9	147.3	490	172.1	183.1	147.3
1997	723	110.8	143.4	477	167.5	178.3	143.4
1998	703	107.7	139.5	464	162.8	173.4	139.5
1999	683	104.6	135.6	451	158.2	168.6	135.6
2000	607	93.0	131.8	400	140.6	163.8	131.8

<sup>a</sup>As shown in NAFTA (1992).

<sup>b</sup>As shown in United States of America (1994).

**Table 17. Potential peanut grower income and acreage reduction or government cost due to minimum import access under GATT, U.S., 1995-2000.**

Year	Farmer income reduction <sup>a</sup>	Acreage reduction <sup>b</sup>	Government cost <sup>c</sup>
	mil \$	thou ha	mil \$
1995	65.3	31.2	38.8
1996	70.6	33.7	42.0
1997	76.0	36.3	45.2
1998	81.3	38.8	48.3
1999	86.6	41.4	51.5
2000	92.0	43.9	54.7

<sup>a</sup>Farmers stock peanut equivalent in Table 15 multiplied by the average support price of \$747.37/mt.

<sup>b</sup>Farmers stock peanut equivalent in Table 15 divided by an average national yield of 2801 kg/ha.

<sup>c</sup>Farmers stock peanut equivalent in Table 15 multiplied by an average loss of \$444.23/mt to the CCC when sold for crushing.

## ISSUES AFFECTING PEANUT MARKETS IN THE FUTURE

As peanut imports into the U.S. increase under the minimum access provision and, as the tariff decreases, pressures will occur at the farm level in regard to the level of the support price and the quantity of marketing quota allocated to U.S. peanut farmers (Carley and Fletcher, 1992). For each \$50 mt decrease in the farm price, U.S. peanut farmers would gross about \$90 million less income. At the buyer-sheller sector level, increasing imports would decrease the quantity of peanuts that they buy, shell, and sell. In addition, the marketing structure and network for peanuts would change if peanut imports were to increase.

NAFTA and GATT could open additional markets for U.S. peanuts. For example, Japan would be required to increase its import quotas and reduce its tariffs. However, China would be more likely to gain in the Japanese market rather than the U.S. Some countries have agreed to commitments that may benefit U.S. peanut exports. Switzerland will eliminate duty over 6 years on peanuts for human consumption. Korea will reduce the in-quota tariff from 40 to 24% and Thailand will reduce the tariff on edible peanuts by 50%. Commitments by other countries are expected.

Whether the U.S. increases its export share under the new trade agreements will be highly dependent on the resulting world price. At the range of world prices in the 1980s and 1990s, U.S. peanut farmers would have problems selling peanuts at a price that covers all production costs excluding peanut

quota. Cost analysis by USDA for producing peanuts in the U.S. showed an average cost of \$510/mt FSP in the 1987-91 period. This converts to an estimated cleaned shelled peanut price of \$993/mt. As shown earlier, world prices in many years were well below such a price.

The world peanut market is dynamic and ever changing. The market has shifted from being driven by peanut oil to being driven by edible seeds. Due to the shift in emphasis, the major importers and exporters have changed over time. Depending on adjustments to the new trade agreements, the major players could change again.

GATT is a mechanism for world trade liberalization. With liberalization, factors such as marketing, transportation, processing technology and costs, and understanding and adjusting to the diverse cultural and social values including taste and preference will affect a country's ability to export or to compete with imported peanut products. Liberalization will impact price ratios, cost of production, and comparative advantage among countries.

Changes in peanut production patterns in major countries into the 21st century could influence utilization and world trade. In a workshop in 1992 on international approaches toward improvement of production and quality of peanuts, several reports were presented regarding the constraints and guidelines for several countries (Nigam, 1992). In China, the peanut-growing area is expected to be stabilized at the present level for the next 10 years. Any increase in peanut production will be the result of a focus on increasing yields. Domestic and international demand is expected to continue high.

In South Asia, in addition to an emphasis on increasing peanut productivity (yield), there is a great opportunity for increasing the area under cultivation. However, in India there is a limited scope for expanding the rainy season peanut area, but further expansion is expected in the post-rainy summer area. High yields and high-water efficiency are major attractions for growing more peanuts.

In the West African countries there are serious constraints to increasing peanut production. Priorities needing attention are improved seed, better pest management, labor-saving devices, emphasis on farming systems, and transfer of technology from other countries. Production in the region is not expected to increase even though the demand is there for more peanuts.

The peanut-producing areas in South America have continued to decline since the 1970s. A major cause was the substantial decrease in peanut oil extraction as a result of a shift to other more profitable oil sources. The higher yields did offset some of the reduction in area planted. Emphasis will continue to be placed on yield increases, improving quality, and reducing production costs.

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