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FINAL REPORT

MARKETING PLAN FOR NON-SUGAR AGRICULTURE IN BARBADOS

VOLUME 2 - APPENDICES

BY

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A STUDY FUNDED BY
INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE - BARBADOS

January 31, 1987

VOLUME 2 - APPENDICES

This document is Volume 2 of a two Volume Report on:

Marketing Plan for Non-Sugar Agriculture in Barbados.

Volume 1 is the Main Report.

LIST OF APPENDICES

TABLE 2

Agricultural Imports - 1985

($'000)

ITEM	Value of Imports		
	CARICOM	Other Countries	Total
Live Animals	-	502	502
Meat and Meat Preparations	325	35,148	35,473
Dairy Products and eggs	83	13,787	13,870
Fish and fish preparations	780	6,738	7,518
Cereal and Cereal Preparations	4,044	29,812	33,856
Fruit and Vegetables	6,561	18,689	25,250
Suga and Sugar Preparations	633	1,160	1,793
Coffee, Tea, etc.	1,776	5,977	7,753
Feeding Stuff for animals	765	7,211	7,976
Miscellaneous Food preparation	2,700	11,219	13,919
TOTAL	17,667	130,243	147,910

Source: Barbados Statistical Service

TABLE 3

EXPORT STATISTICS

(Unit - Kg)

COMMODITY	EXPORTED 1985	EXPORTED 1986 (Jan 20-Dec 20)
Yam	200,749	46,191
Sweet Potato	134,584	32,392
Eggplant	37,697	12,622
Okra	1,051	13,972
Hot Pepper	515	40,700
Sweet Pepper	27,140	2,040
Watermelon	530	945
Tamdew Melon	-	9,680
Breadfruit	24,831	21,109
Chinese Vegetables	3,123	1,261
Squash	25	366
Pawpaw	48	2,071
Mango	-	760
Guava	-	990
Lime	196	443
Golden Apples	46	168
Ginger Lilies	1,805 blooms	1,166 blooms
Water Coconut	-	349 coconuts
Sorrel	393	-

Source: BMC and CATCO Export Records

TABLE 4

NUMBER OF ANIMALS SLAUGHTERED AT BMC ABATTOIR 1981 - 1985 (March)

YEAR	CATTLE	PIGS	CALVES	SHEEP	GOAT	TOTAL
1981	637	4,910	131	1,088	69	6,835
1982	1,275	10,372	163	1,037	58	12,906
1983	1,253	11.299	91	1,463	105	14,211
1984	1,016	8,735	65	1,044	77	10,937
1985 Jan-Mar	299	2,109	21	316	11	2,716

Source: BMC. 1985 Annual Report

TABLE 5

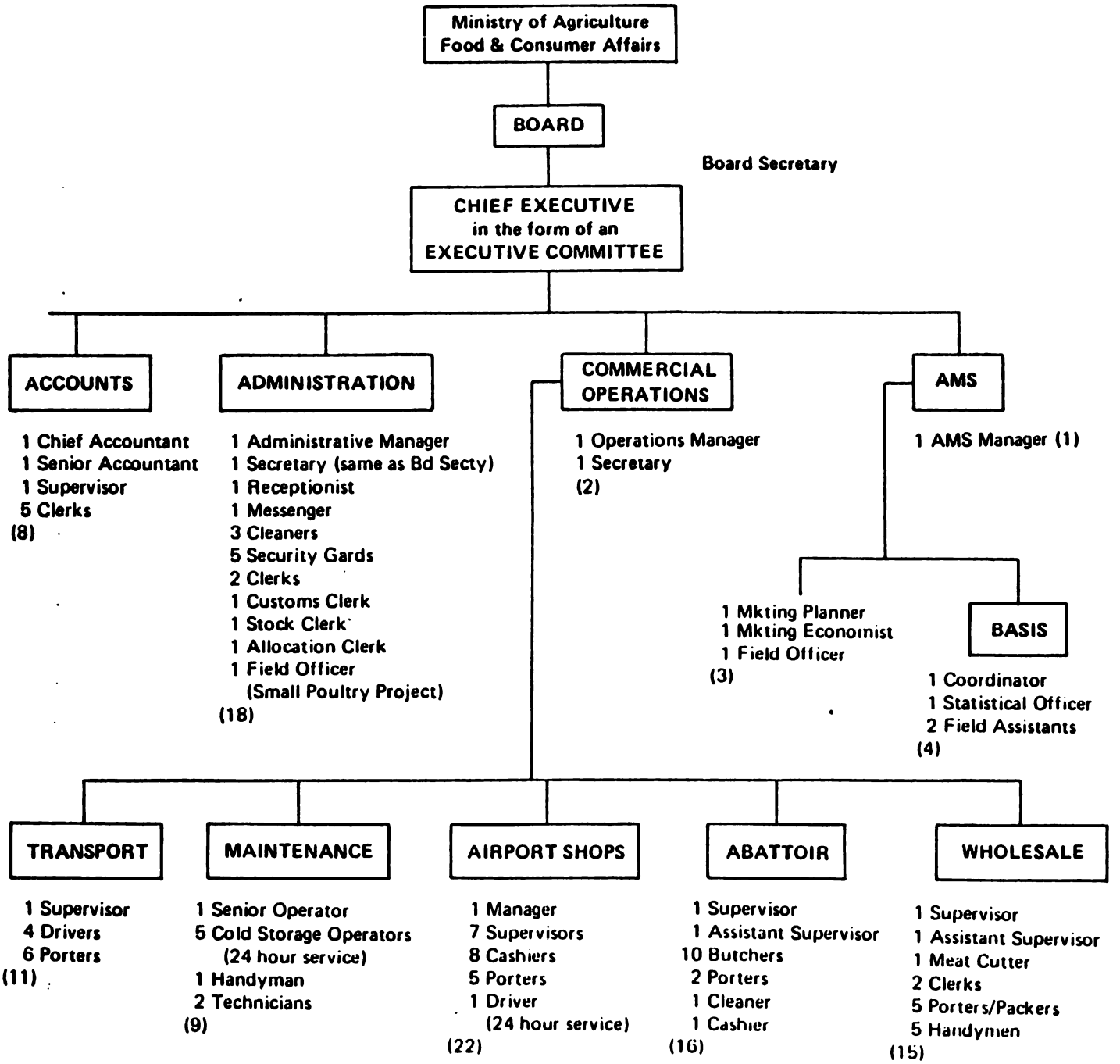
EXPORT PACKING UNIT - BMC

VOLUME OF PRODUCE EXPORTED JAN - MAY 1986

(kg)

COMMODITY	JANUARY	FEBRUARY	MARCH	APRIL	MAY	TOTAL
Yam	5 049	16 689	4 290	7 623	-	33 651
Sweet potato	1 574	5 792	3 473	4 326	9 140	24 305
Eggplant	610	4 335	4 286	1 959	1 449	12 639
Hot Pepper	409	1 659	1 570	2 130	1 615	7 383
Sweet Pepper	-	-	55	605	1 350	2 010
Okra	914	1 732	816	468	648	4 578
Watermelon	198	629	261	-	-	1 088
Yam Bean	354	216	84	150	-	804
Yard Long Bean	-	48	-	174	13	235
Chinese Cabbage	-	16	-	40	-	56
Paw paw	-	234	274	101	50	659
Breadfruit	331	-	-	-	1 517	1 848
Courgette	-		366	-	-	366
TamDew Melon	-	8 851	829	-	-	9 680
TOTAL	9 439	40 201	16 304	17 576	15 782	99 302

ORGANISATIONAL CHART (March 1985) Appendix 1



TOTAL STAFF (109)

TABLE 6

BARBADOS' PRODUCTION OF SELECTED AGRICULTURAL COMMODITIES

COMMODITY	UNITS ('000)	YEAR 1980	1981	1982	1983	1984	1985
Sugar	Tonne	-	94	86	85	100	100
Onions	Kg	472	396	432	764	549	776
Cotton (Lint)	kg	21	-	-	-	7	37
Yams	Kg	7,817	4,064	4,500	4,500	5,400	2,943
Sweet Potato	Kg	4,705	3,048	3,700	4,300	3,100	2,066
Beets	Kg	356	507	480	509	482	358
Pumpkins	Kg	512	527	493	576	540	362
Carrots	Kg	2,394	2,145	2,416	2,647	2,359	844
Tomatoes	Kg	1,636	1,055	1,208	1,344	1,219	372
Cucumbers	Kg	818	1,808	1,895	2,035	1,744	321
Cabbage	Kg	1,716	1,399	1,517	1,699	1,307	767
Sweet Peppers	Kg	N/A	N/A	N/A	N/A	92	67
Beans	Kg	520	510	565	533	493	384
Peanuts	Kg	-	-	9	18	32	52

SOurce: Ministry of Agriculture, Food and Fisheries

TABLE 7

GOVERNMENT EXPENDITURE FOR CROP RESEARCH AND DEVELOPMENT OF MINISTRY OF AGRICULTURE FOOD AND CONSUMER AFFAIRS

ITEM	YEAR		
	1985 - 1986	1984 - 1985	1983 - 1984
Crop Research & Development	2,547,619	2,775,361	176,627
Total Budget	20,422,356	18,524,103	6,656,415
% Of Total	12.47	14.98	2.65
RECURRENT			
Crop Research & Development	5,770,896	5,046,011	4,457,230
Total Budget	18,020,591	14,891,166	13,705,520
% of Total	32.02	33.09	32.52

Source: Estimates of Barbados.

TABLE 8

FOOD IMPORTS BY COMMODITY AND S.I.T.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ut.	Qnt. 1980	CIF. 1980	Qnt. 1981	CIF. 1981	Qnt. 1982	CIF. 1982
54.0000	Pigeon peas fresh or chilled	Kg	0	0	4,540	6,360	0	0
54.0000	Beets fresh or chilled	Kg	0	0	0	0	158	426
54.0000	Pigeon peas preserved by freezing in packages	kg	0	0	136	440	458	1,921
54.0000	String beans in bulk preserved by freezing	Kg	0	0	748	2,140	263	1,216
54.1000	Potatoes not sweet fresh or chilled	Kg	8,799,093	5,074,550	7,921,916	5,200,166	9,181,775	5,323,777
54.2100	Red kidney beans dried shelled split etc.	kg	20,641	46,524	27,626	62,863	35,291	69,783
54.2200	Other beans dried skinned split etc.	Kg	71,212	124,845	72,528	173,101	66,519	139,828
54.2300	Pigeon peas dried skinned split etc.	Kg	207,585	284,469	225,354	319,559	168,876	230,864
54.2400	Split peas dried skinned split etc.	kg	552,939	685,340	577,477	792,035	606,852	782,142
54.2500	Blackeye peas dried skinned split etc.	Kg	97,055	179,030	172,270	370,023	210,893	390,707
54.2600	Other peas dried skinned split etc.	kg	301,494	344,100	354,325	469,104	284,877	405,022
54.2900	Other dried leguminous vegetables shelled split	Kg	24,851	31,610	14,768	53,731	39,749	60,866
54.4000	Tomatoes fresh or chilled	Kg	221,258	548,380	338,225	868,290	56,401	112,866
54.5110	Garlic fresh or chilled	Kg	42,515	95,579	55,610	161,700	54,193	223,633
54.5120	Onions fresh Or chilled	Kg	1,832,235	1,623,082	1,705,601	1,631,501	1,732,735	1,211,502
54.5190	Other strong-smelling vegetables fresh	Kg	210	828	5,047	12,983	312	2,549
54.5910	String beans fresh or chilled	Kg	653	17,160	503	1,250	0	0
54.5919	Other peas and beans fresh or chilled	Kg	8,981	20,179	1,296	3,112	4,557	18,764
54.5920	Carrots fresh or chilled	Kg	14	21,285	23,160	68,145	0	0
54.5940	Sweet peppers fresh or chilled	Kg	4,915	16,795	4,869	13,007	354	1,510
54.5950	Cabbage fresh or chilled	Kg	104,159	148,125	42,601	56,990	629	1,108
54.5960	Okra fresh or chilled	Kg	360	272	316	407	1,349	1,488
54.5970	Cucumbers fresh or chilled	Kg	181	265	748	1,052	0	0
54.5980	Pumpkins fresh or chilled	Kg	28,306	23,742	30,403	18,939	19,494	23,655
54.5990	Other vegetables fresh or chilled	kg	66,651	265,847	128,972	402,334	62,957	266,913
54.5992	Zucchini fresh or chilled		0	0	0	0	0	0
54.5993	Lettuce		0	0	0	0	0	0
54.5999	Other vegetables fresh or chilled		0	0	0	0	0	0
54.6111	Carrots preserved by freezing in packages	Kg	0	0	0	0	0	0
54.6112	String beans preserved by freezing in packages	Kg	0	0	2,442	12,564	2,925	10,250
54.6115	Other peas preserved by freezing in packages	kg	21,445	63,429	15,166	52,572	20,469	50,437
54.6119	Other vegetables preserved by freezing in packages	Kg	117,987	149,249	23,901	116,129	38,667	108,928
54.6193	Pigeon peas in bulk preserved by freezing	Kg	0	0	448	904	0	0
54.6195	Other peas in bulk preserved by freezing	kg	6,085	13,180	3,768	10,308	3,952	12,859
54.6199	Other vegetables in bulk preserved by freezing	Kg	43,954	132,623	28,826	72,673	7,128	32,321
54.6210	Tomatoes preserved in brine sulphur etc.	Kg	0	0	0	0	0	0
54.6220	Onions preserved in brine sulphur water sel	kg	0	0	0	0	23	15,598
54.6230	Garlic preserved in brine sulphur water etc.	Kg	18	564	3	31	0	0
54.6240	Olives and capers preserved in brine sulphur	kg	166	1,150	168	525	57	320
54.6290	Other vegetables preserved in brine sulphur	Kg	696	2,806	3,730	10,210	4,563	8,917
54.8110	Arrowroot	Kg	0	0	412	654	1,566	6,499
54.8120	Dasheens and eddoes	kg	17,148	26,618	63,374	94,370	40,423	50,786
54.8130	Manioc	Kg	4,805	2,486	1,370	580	230	150
54.8140	Sweet potatoes	kg	2,358	1,436	29,233	47,772	27,387	35,208
54.8150	Tannias	Kg	18,582	22,139	0	0	409	245
54.8160	Yams	Kg	8,177	13,590	367	572	0	0

FOOD IMPORTS BY COMMODITY AND S.I.T.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ul.	Qnt. 1983	CIF. 1983	Qnt. 1984	CIF. 1984	Qnt. 1985	CIF. 1985
54.0000	Pigeon peas fresh or chilled	Kg	0	0	0	0	0	0
54.0000	Beets fresh or chilled	kg	0	0	0	0	0	0
54.0000	Pigeon peas preserved by freezing in packages	kg	0	0	0	0	0	0
54.0000	String beans in bulk preserved by freezing	Kg	0	0	0	0	0	0
54.1000	Potatoes not sweet fresh or chilled	Kg	9,091,173	5,627,909	9,585,522	6,004,947	8,693,826	4,155,878
54.2100	Red kidney beans dried shelled split etc.	kg	34,031	54,487	27,343	59,935	25,456	48,827
54.2200	Other beans dried skinned split etc.	kg	25,299	53,383	40,462	94,183	19,876	35,277
54.2300	Pigeon peas dried skinned split etc.	kg	184,148	240,350	61,042	99,064	138,710	207,477
54.2400	Split peas dried skinned split etc.	kg	589,389	712,937	534,827	669,854	581,727	671,926
54.2500	Blackeye peas dried skinned split etc.	kg	227,343	379,582	187,990	332,666	180,994	275,592
54.2600	Other peas dried skinned split etc.	Kg	354,298	467,875	317,812	412,751	319,175	421,105
54.2900	Other dried leguminous vegetables shelled split	kg	18,753	33,354	13,459	26,005	11,838	24,513
54.4000	Tomatoes fresh or chilled	kg	13,618	87,403	19,457	62,327	41,787	115,882
54.5110	Garlic fresh or chilled	Kg	35,462	113,726	56,370	126,455	55,878	184,249
54.5120	Onions fresh or chilled	Kg	1,402,627	1,140,615	2,046,822	1,785,593	1,630,483	1,120,507
54.5190	Other strong-smelling vegetables fresh	Kg	1,020	5,238	25	170	957	2,426
54.5910	String beans fresh or chilled	Kg	0	0	0	0	0	0
54.5919	Other peas and beans fresh or chilled	kg	34	62	9	104	458	1,994
54.5920	Carrots fresh or chilled	kg	295	486	15	11	0	0
54.5940	Sweet peppers fresh or chilled	kg	0	0	0	0	978	1,308
54.5950	Cabbage fresh or chilled	Kg	0	0	0	0	136	378
54.5960	Okra fresh or chilled	kg	0	0	0	0	0	0
54.5970	Cucumbers fresh or chilled	kg	0	0	0	0	0	0
54.5980	Pumpkins fresh or chilled	kg	13,969	19,746	37,853	22,945	15,989	8,058
54.5990	Other vegetables fresh or chilled	Kg	119,619	445,552	126,704	390,636	166,456	492,958
54.5992	Zucchini fresh or chilled		0	0	0	0	126	769
54.5993	Lettuce		0	0	0	0	24,721	51,221
54.5999	Other vegetables fresh or chilled		0	0	0	0	1,368	3,833
54.6111	Carrots preserved by freezing in packages	kg	4	18	0	0	1,361	2,513
54.6112	String beans preserved by freezing in packages	kg	4,579	20,091	3,712	19,085	1,973	5,618
54.6115	Other peas preserved by freezing in packages	kg	16,176	54,290	16,174	50,349	18,949	84,766
54.6119	Other vegetables preserved by freezing in packages	kg	20,075	90,709	17,181	72,637	16,028	67,883
54.6193	Pigeon peas in bulk preserved by freezing	kg	328	1,071	0	0	0	0
54.6195	Other peas in bulk preserved by freezing	kg	725	2,766	693	6,614	1,274	11,169
54.6199	Other vegetables in bulk preserved by freezing	kg	6,163	44,869	7,050	50,006	7,536	36,286
54.6210	Tomatoes preserved in brine sulphur etc.	kg	75	176	0	0	0	0
54.6220	Onions preserved in brine sulphur water set	kg	0	0	0	0	12,485	10,450
54.6230	Garlic preserved in brine sulphur water etc.	kg	5	45	25	57	242	5,824
54.6240	Olives and capers preserved in brine sulphur	kg	865	5,411	1,752	4,121	1,155	6,130
54.6290	Other vegetables preserved in brine sulphur	kg	7,838	17,005	7,922	16,117	6,149	12,797
54.8110	Arrowroot	kg	138	621	0	0	0	0
54.8120	Dasheens and eddoes	kg	24,088	16,933	149,853	37,404	55,377	18,061
54.8130	Manicc	Kg	0	0	0	0	0	0
54.8140	Sweet potatoes	kg	0	0	125,405	87,763	17,553	4,272
54.8150	Tannias	kg	6,442	6,785	11,200	8,768	1,146	725
54.8160	Yams	kg	0	0	709	512	82	28

FOOD IMPORTS BY COMMODITY AND S.I.T.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ut.	Qnt. 1980	CIF. 1980	Qnt. 1981	CIF. 1981	Qnt. 1982	CIF. 1982
54.8190	Other roots and tubers fresh dried whole or	kg	3,010	1,517	454	5,496	564	669
54.8200	Sugar beet whole or sliced fresh dried preserved	Kg	0	0	0	0	0	0
54.8400	Hop cones and lupulin	kg	3,283	36,575	7,936	105,809	6,622	94,380
54.8890	Other vegetables products used mainly for human	Kg	47	165	25	82	32	515
56.1000	Vegetables dried dehydrated whole sliced broken	Kg	3,832	56,517	6,444	73,569	11,048	89,254
56.4300	Flour meal, and flakes of potato	Kg	866	2,219	580	5,081	272	2,448
56.4500	Tapioca and sago and substitutes obtained fro	Kg	26,402	31,748	27,561	39,232	28,658	35,248
56.4910	Flour of dried leguminous vegetables	kg	287	977	294	4,309	17,360	24,438
56.4920	Flour of fruits under chapter 8	Kg	0	0	431	5,807	0	0
56.4930	Arrowroot flour	kg	0	0	109	983	423	2,334
56.4990	Other flour eg. cassava flour	kg	109	2,057	79	375	257	821
56.5110	Onions prepared or preserved by vinegar	kg	2,695	14,390	3,139	15,020	2,525	8,786
56.5120	Tomatoes prepared or preserved by vinegar etc.	Kg	12,642	23,517	223	1,157	4,830	8,530
56.5190	Other vegetables prepared or preserved by vinegar	Kg	47,284	192,702	48,237	162,292	35,387	126,727
56.5910	Tomatoes prepared or preserved other than by	Kg	85,361	151,656	40,814	75,122	54,816	134,430
56.5920	Tomato paste prepared or preserved other than by	Kg	39,178	150,077	55,439	145,144	57,700	149,682
56.5930	Peas and beans prepared or preserved other than	kg	233,624	556,769	225,454	558,447	204,855	483,817
56.5990	Other vegetables prepared or preserved other than	kg	252,720	823,003	158,430	584,405	230,841	783,978
57.1100	Oranges fresh or chilled	Kg	992,780	1,531,095	796,525	1,273,623	725,545	1,181,684
57.1110	Coconuts not shelled	kg	10,342	11,439	18,499	29,486	8,581	20,193
57.1120	Coconuts (dried) dessical	kg	22,139	36,277	29,155	84,039	13,849	47,245
57.1200	Mandarines tangerines and hybrids fr. or chld.	kg	12,878	17,403	29,708	45,168	7,036	19,984
57.2100	Lemons and limes fresh or dried	Kg	19,105	37,507	18,944	43,032	20,656	41,907
57.2200	Grapefruit fresh or dried	kg	298,231	287,557	145,191	177,318	178,595	226,386
57.2900	Other citrus fruits fresh or dried	Kg	16,759	29,552	117,159	184,427	604	439
57.3100	Bananas fresh	Kg	51,611	39,164	29,744	43,563	92,110	82,878
57.3200	Plantains fresh	Kg	375,181	298,595	620,995	666,264	365,921	389,798
57.3300	Banabas and plantains dried	Kg	31	161	59	290	0	0
57.4000	Apples fresh	Kg	640,106	1,257,808	875,786	1,729,230	409,669	1,071,377
57.5100	Grapes fresh	Kg	62,640	231,007	7,371	35,291	241,520	506,717
57.5200	Grapes dried	Kg	180,115	727,883	180,950	595,447	13,072	71,992
57.6000	Figs fresh or dried	kg	77	380	31	268	4	49
57.6100	Figs fresh	kg	0	0	0	0	0	0
57.6200	Figs	kg	0	0	0	0	0	0
57.7190	Other coconuts	Kg	7,500	6,424	905	1,164	513	2,024
57.7200	Brazil nuts fresh or dried shelled or not	Kg	490	2,500	5	15	0	0
57.7300	Cashew nuts fresh or dried shelled or not	Kg	69	1,323	29	854	101	1,224
57.7400	Almonds fresh or dried shelled or not	Kg	3,772	45,307	408	3,501	2,617	27,693
57.7500	Hazelnuts fresh or dried shelled or not	Kg	435	3,502	0	0	0	523
57.7990	Other nuts fresh or dried shelled or not	kg	1,776	15,563	348	3,567	4,487	16,201
57.9200	Pears and quinces fresh	Kg	10,000	27,111	20,606	41,053	5,407	14,983
57.9300	Stone fruit fresh	Kg	11,112	26,904	14,712	47,339	3,595	11,571
57.9400	Berries fresh	Kg	488	4,574	1,683	14,629	1,155	10,663
57.9500	Pineapples fresh or dried	kg	27,015	77,829	52,039	97,315	118,998	202,183
57.9600	Dates fresh or dried	kg	13,325	47,230	5,744	24,206	710	23,672
57.9710	Avocadoes fresh	Kg	11,569	13,426	194,985	16,151	5,996	4,281

FOOD IMPORTS BY COMMODITY AND S.I.I.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ut.	Qnt. 1983	CIF. 1983	Qnt. 1984	CIF. 1984	Qnt. 1985	CIF. 1985
54.8190	Other roots and tubers fresh dried whole or	kg	226	359	626	878	12,129	10,765
54.8200	Sugar beet whole or sliced fresh dried preserved	kg	3	50	0	0	0	0
54.8400	Hop cones and lupulin	kg	4,431	71,721	5,326	85,670	6,628	96,481
54.8890	Other vegetables products used mainly for human	Kg	2	278	0	0	0	0
56.1000	Vegetables dried dehydrated whole sliced broken	Kg	20,343	130,174	11,276	113,657	11,910	81,847
56.4300	Flour meal, and flakes of potato	Kg	3o,500	14,783	0	0	0	0
56.4500	Tapioca and sago and substitutes obtained from	kg	25,958	33,112	34,723	47,041	38,264	48,778
56.4910	Flour of dried leguminous vegetables	Kg	187	728	65	234	71	368
56.4920	Flour of fruits under chapter 8	kg	133	4,749	159	5,771	1,163	26,244
56.4930	Arrowroot flour	kg	666	3,652	0	0	45	73
56.4990	Other flour eg. cassava flour	kg	52	440	541	1,630	826	21,399
56.5110	Onions prepared or preserved by vinegar	Kg	2,340	8,529	5,166	12,832	3,171	9,383
56.5120	Tomatoes prepared or preserved by vinegar etc.	kg	2,906	5,435	5,098	10,047	6,818	12,840
56.5190	Other vegetables prepared or preserved by vinegar	Kg	36,992	138,578	60,928	195,297	56,477	188,753
56.5910	Tomatoes prepared or preserved other than by	kg	68,496	110,872	69,595	142,443	54,824	110,666
56.5920	Tomato paste prepared or preserved other than by	kg	55,210	164,047	62,438	135,897	44,833	107,447
56.5930	Peas and beans prepared or preserved other than	kg	203,301	473,679	255,210	557,859	242,615	534,990
56.5990	Other vegetables prepared or preserved other than	kg	325,381	754,538	151,013	615,233	206,610	737,409
57.1100	Oranges fresh or chilled	kg	1,067,663	1,554,334	1,101,213	1,680,610	1,236,454	1,634,897
57.1110	Coconuts not shelled	kg	6,261	5,047	16,242	21,697	10,590	14,105
57.1120	Coconuts (dried) dessical	kg	7,450	30,609	19,344	26,366	52,924	49,801
57.1200	Mandarines tangerines and hybrids fr. or chld.	kg	92,924	159,433	64,256	101,045	123,366	189,161
57.2100	Lemons and limes fresh or dried	kg	9,065	15,625	17,687	32,264	18,410	23,765
57.2200	Grapefruit fresh or dried	kg	129,234	143,198	167,040	170,748	146,127	98,754
57.2900	Other citrus fruits fresh or dried	kg	80,540	135,549	15,913	19,219	1,792	1,692
57.3100	Bananas fresh	kg	172,960	186,314	249,859	269,652	364,054	391,225
57.3200	Plantains fresh	kg	201,334	139,998	390,070	275,700	339,794	196,182
57.3300	Banabas and plantains dried	kg	102	656	1,428	785	3,624	6,899
57.4000	Apples fresh	kg	478,265	1,046,071	528,143	1,043,860	695,157	1,228,324
57.5100	Grapes fresh	kg	30,772	132,221	106,562	444,574	268,173	769,640
57.5200	Grapes dried	kg	240,176	618,692	223,519	489,677	286,355	622,050
57.6000	Figs fresh or dried	kg	92	716	322	1,705	399	1,562
57.6100	Figs fresh	kg	0	0	0	0	7	108
57.6200	Figs	kg	0	0	0	0	250	928
57.7190	Other coconuts	kg	2,777	35,599	813	3,457	824	1,599
57.7200	Brazil nuts fresh or dried shelled or not	kg	52	2,069	151	834	539	3,169
57.7300	Cashew nuts fresh or dried shelled or not	kg	436	3,968	263	2,565	2,993	62,600
57.7400	Almonds fresh or dried shelled or not	kg	4,268	34,674	3,852	40,432	8,421	62,250
57.7500	Hazelnuts fresh or dried shelled or not	kg	176	725	109	634	195	543
57.7990	Other nuts fresh or dried shelled or not	kg	2,743	16,963	3,644	29,359	6,850	42,186
57.9200	Pears and quinces fresh	kg	3,227	7,569	19,029	43,052	25,654	54,319
57.9300	Stone fruit fresh	kg	6,723	22,865	32,091	131,983	59,591	177,264
57.9400	Berries fresh	kg	1,143	12,143	1,924	16,050	8,516	29,944
57.9500	Pineapples fresh or dried	kg	114,482	185,881	139,231	244,382	265,085	354,454
57.9600	Dates fresh or dried	kg	1,732	27,863	1,675	8,736	3,891	26,344
57.9710	Avocadoes fresh	Kg	3,700	7,590	7,469	7,141	3,631	7,530

FOOD IMPORTS BY COMMODITY AND S.I.I.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ut.	Qnt. 1980	CIF. 1980	Qnt. 1981	CIF. 1981	Qnt. 1982	CIF. 1982
57.9720	Mangoes	Kg	226,875	201,895	194,297	162,610	171,453	229,697
57.9730	Mangosteens fresh guavas fresh	Kg	67	385	896	1046	484	705
57.9810	Melons fresh	kg	0	0	0	0	0	0
57.9890	Other fresh fruits	kg	0	0	0	0	0	0
57.9800	Other fruits fresh	Kg	9,405	13,874	771	1,560	400	2,229
57.9900	Other fruits dried	Kg	38,430	127,417	45,833	143,316	19,956	62,275
58.2100	Citrus peel preserved by sugar	Kg	792	2,444	6,189	17,573	3,822	16,671
58.2900	Other fruits and parts of plants prepared by	Kg	5,238	19,535	25,540	116,870	16,922	79,546
58.3100	Jams marmalades jellies etc	Kg	26,040	90,870	41,194	142,776	40,732	128,438
58.3900	Other jams marmalades jellies etc	Kg	99,639	376,228	110,173	351,618	126,208	444,970
58.3910	Pineapple							
58.5110	Orange juice concentrated (litre)	Kg	408,415	1,068,353	487,389	1,594,228	350,423	911,775
58.5120	Orange juice not concentrated	Kg	991,705	2,349,814	1,536,841	2,126,350	1,172,157	3,126,959
58.5210	Grapefruit juice concentrated	Kg	51,414	220,712	301,029	320,785	51,412	137,911
58.5220	Grapefruit juice not concentrated (litre)	kg	373,252	729,056	235,825	619,968	419,356	577,038
58.5310	Lime juice concentrated (litre)	Kg	6,039	36,066	5,094	20,173	2,937	6,075
58.5320	Lime juice not concentrated (litre)	Kg	25,883	101,403	13,783	57,566	10,000	38,985
58.5390	Other citrus juices (litre)	Kg	44,636	216,150	226,674	725,503	264,756	605,616
58.5400	Pineapple juice (litre)	Kg	298,234	501,991	437,288	612,515	211,841	469,748
58.5500	Tomato juice (litre)	Kg	48,273	86,694	61,439	74,649	93,798	62,991
58.5710	Other fruit juices (litre)	Kg	469,582	397,578	180,156	372,546	112,061	270,687
58.5720	Other vegetables juices (litre)	Kg	8,716	23,558	29,084	59,435	47,217	54,032
58.5810	Juice of orange and grapefruit	kg	0	0	5,315	16,268	5,507	15,262
58.5820	Pineapple base juices (litre)	Kg	437	2,892	32,599	77,024	64,556	162,601
58.5890	Other mixed juices (litre)	Kg	78,697	257,238	141,434	269,999	92,435	211,190
58.6100	Fruits preserved by freezing with no sugar	Kg	1,323	7,257	1,180	6,668	1,381	7,451
58.6110	Pineapple preserved by freezing without sugar	kg	0	0	0	0	0	0
58.6190	Other fruit preserved by freezing without sugar	kg	0	0	0	0	0	0
58.6200	Fruit prepared or preserved by freezing	Kg	0	0	0	0	0	0
58.6300	Fruit temporarily preserved not usable in this	Kg	42,554	150,346	61,907	167,474	58,733	147,595
58.6310	Pineapple temp. preserved inedible in this cond.	kg	0	0	0	0	0	0
58.6390	Other fruit temp. preserved inedible in this cond.	kg	0	0	0	0	0	0
58.6410	Peel of citrus fruit fresh dried frozen in brine	Kg	10,410	14,371	3,923	3,444	3,810	3,645
58.6490	Peel of melons fresh dried frozen in brine	Kg	9,512	41,691	3,190	15,613	4,862	11,982
58.9110	Groundnuts (peanuts) roasted	Kg	199,297	1,126,500	131,213	1,087,065	104,935	949,017
58.9190	Other nuts roasted	kg	14,973	164,352	45,680	367,303	22,707	240,113
58.9910	Mangoes prepared or preserved	Kg	1,792	10,218	190	1,924	1,432	7,526
58.9920	Pineapples prepared or preserved	Kg	54,613	140,690	76,470	223,363	67,046	154,855
58.9930	Grapefruits prepared or preserved	kg	19,658	42,991	14,513	32,858	61,729	156,808
58.9940	Oranges prepared or preserved	Kg	2,863	11,032	1,071	4,565	74	333
58.9990	Other fruit prepared or preserved	Kg	404,085	738,194	308,536	693,364	220,883	465,678
	All commodities			26,074,882		26,546,715		25,285,186

FOOD IMPORTS BY COMMODITY AND S.I.T.C. CODES. (1980-1985)

Code No	DIVISION : 05 - FRUITS AND VEGETABLES.	Ut.	Qnt. 1983	CIF. 1983	Qnt. 1984	CIF. 1984	Qnt. 1985	CIF. 1985
57.9720	Mangoes	kg	139,521	80,516	263,063	134,744	155,302	47,772
57.9730	Mangosteens fresh guavas fresh	kg	0	0	35	9	0	0
57.9810	Melons fresh	kg	0	0	0	0	3,137	3,251
57.9890	Other fresh fruits	kg	0	0	0	0	54e	1,826
57.9900	Other fruits fresh	kg	1,875	2,666	11,807	22,885	29,495	43,871
57.9900	Other fruits dried	Kg	46,287	187,223	39,875	140,158	39,155	139,063
58.2100	Citrus peel preserved by sugar	kg	4,886	27,908	665	3,771	6,780	23,814
58.2900	Other fruits and parts of plants prepared by	Kg	20,168	90,462	34,066	161,944	53,761	222,544
58.3100	Jams marmalades jellies etc	kg	53,678	59,652	36,941	109,869	30,784	85,524
58.3900	Other jams marmalades jellies etc	kg	89,725	303,344	129,132	368,167	175,726	411,956
58.3910	Pineapple						818	12998
58.5110	Orange juice concentrated (litre)	Kg	187,167	636,751	358,359	1,314,580	1,242,739	1,778,787
58.5120	Orange juice not concentrated	Kg	827,657	1,849,140	1,312,933	2,675,551	968,555	2,179,003
58.5210	Grapefruit juice concentrated	kg	88,530	70,012	32,430	73,673	28,232	66,001
58.5220	Grapefruit juice not concentrated (litre)	Kg	220,163	356,033	142,493	401,614	267,352	510,490
58.5310	Lime juice concentrated (litre)	kg	68,972	6,665	1,755	26,024	8,016	37,671
58.5320	Lime juice not concentrated (litre)	kg	19,624	4e,711	10,810	31,e87	7,596	29,409
58.5390	Other citrus juices (litre)	kg	152,161	253,146	85,491	307,373	216,2e6	474,741
58.5400	Pineapple juice (litre)	kg	476,592	456,561	300,049	e03,592	301,013	520,333
58.5500	Tomato juice (litre)	kg	78,864	81,612	26,011	5e,767	4e,418	87,57e
58.5710	Other fruit juices (litre)	kg	98,243	175,832	156,164	31?,e54	18e,309	332,941
58.5720	Other vegetables juices (litre)	kg	19,675	29,439	13,486	26,5e0	11,e95	25,93e
58.5810	Juice of orange and grapefruit	kg	5,772	14,961	4,917	15,e93	0	0
58.5820	Pineapple base juices (litre)	kg	44,e51	92,e3e	15,125	33,e09	10,756	26,521
58.5890	Other mixed juices (litre)	kg	16e,732	313,964	100,e56	247,181	186,057	449,218
58.6100	Fruits preserved by freezing with no sugar	kg	1,212	5,323	3?e	2,722	0	0
58.6110	Pineapple preserved by freezing without sugar	kg	0	0	0	0	3e0	3,315
58.6190	Other fruit preserved by freezing without sugar	kg	0	0	0	0	3,651	17,733
58.6200	Fruit prepared or preserved by freezing	Kg	0	0	2e	9e	771	4,027
58.6300	Fruit temporarily preserved not usable in this	kg	52,071	137,737	49,672	12e,444	0	0
58.6310	Pineapple temp. preserved inedible in this cond.	kg	0	0	0	0	2,174	8,203
58.6390	Other fruit temp. preserved inedible in this cond.	kg	0	0	0	0	55,675	123,702
58.6410	Peel of citrus fruit fresh dried frozen in brine	Kg	136	2,114	6,957	9,194	3,365	12,659
58.6490	Peel of melons fresh dried frozen in brine	kg	3,601	7,258	3,141	8,968	486	28,704
58.9110	Groundnuts (peanuts) roasted	Kg	67,415	516,009	58,333	347,292	78,278	481,047
58.9190	Other nuts roasted	Kg	21,318	184,406	16,559	186,846	29,228	262,673
58.9910	Mangoes prepared or preserved	Kg	22	142	0	0	168	901
58.9920	Pineapples prepared or preserved	kg	94,065	198,367	105,795	218,087	106,856	246,094
58.9930	Grapefruits prepared or preserved	kg	2,223	6,539	1,844	5,356	1,081	2,934
58.9940	Oranges prepared or preserved	Kg	12,456	19,693	738	2,637	5,205	10,687
58.9990	Other fruit prepared or preserved	Kg	215,006	573,938	193,436	590,471	184,244	500,223
	All commodities			22,971,479		25,474,601		25,249,610

EMPLOYMENT BY OCCUPATIONAL GROUP DURING 1980 TO 1983

Occupational Group ('000 Persons)	1980	1981	1982	1983
Professional, Technical and Related	10.2	11.6	10.7	9.6
Administrative and Managerial Personnel	3.1	3.3	3.9	3.9
Clerical and Related	15.2	13.9	13.8	14.2
Sales Workers	8.0	9.1	9.4	8.2
Service Workers	17.5	17.7	16.9	17.5
Agricultural Workers, fishermen, etc.	9.0	9.6	8.1	7.2
Production, process and quarry workers	9.1	10.4	8.5	7.9
Skilled craftsmen, (shoemakers, electrical fitters, plumbers, etc)	8.5	6.7	6.0	5.7
Transport, carpenters, printers and other workers not elsewhere classified	20.1	19.7	19.3	20.7
TOTALS	**100.6**	**102.0**	**96.6**	**94.9**

AVERAGE NUMBER OF PERSONS EMPLOYED IN THE SUGAR INDUSTRY DURING THE OUT-OF-CROP SEASON 1969 - 1984

YEAR	SUGAR ESTATES	SUGAR FACTORIES	TOTAL
1969	9,248	941	10,189
1970	7,976	794	8,770
1971	7,057	764	7,821
1972	6,513	787	7,300
1973	4,807	599	5,406
1974	4,519	570	5,089
1975	4,028	555	4,583
1976	3,844	498	4,342
1977	3,729	430	4,159
1978	3,848	481	4,329
1979	3,823	532	4,355
1980	3,012	465	3,477
1981	3,550	412	3,962
1982	3,191	278	3,469
1983	3,194	313	3,507
1984	2,293	268	2,561

NUMERICAL AND PERCENTAGE AGE DISTRIBUTION OF REGULAR EMPLOYEES IN THE SUGAR INDUSTRY 1980 - 1983 *

	1980		1981		1982		1983		1984	
AGE GROUP	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
Under 18	3	0.07	1	0.03	2	0.06	2	0.06	0	0.00
18 - 25	127	3.12	83	2.09	71	2.05	67	1.91	36	1.40
26 - 30	182	4.46	173	4.37	160	4.61	166	4.73	119	4.65
31 - 40	550	13.49	464	11.71	431	12.42	433	12.35	384	14.10
41 - 50	767	18.81	700	17.67	625	18.02	595	16.97	560	21.87
51 - 60	1,230	30.17	1,141	28.80	1,021	29.43	1,017	29.00	872	34.04
61 - 65	748	18.35	729	18.40	533	15.36	546	15.57	475	18.55
Over 65	470	11.53	671	16.94	626	18.05	681	19.42	115	4.49
TOTAL	**4,077**	**100.00**	**3,962**	**100.00**	**3,469**	**100.00**	**3,507**	**100.00**	**2,561**	**100.00**

* *Includes workers on sugar plantations and in sugar factories.*

REGISTERED SUGAR WORKERS (FIELD AND FACTORY) BY SEX 1976 - 1984

	PLANTATIONS		FACTORIES		TOTAL		
YEAR	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	GRAND TOTAL
1976	1,780	2,064	464	34	2,244	2,098	4,342
1977	1,655	2,074	400	30	2,055	2,104	4,159
1978	1,726	2,122	445	36	2,171	2,158	4,329
1979	1,726	2,097	483	49	2,209	2,146	4,355
1980	1,632	1,980	429	36	2,061	2,016	4,077
1981	1,670	1,880	376	36	2,046	1,916	3,962
1982	1,475	1,716	250	28	1,725	1,744	3,469
1983	1,484	1,710	285	28	1,769	1,738	3,507
1984	972	1,321	247	21	1,219	1,342	2,561

EMPLOYMENT IN AGRICULTURAL SECTOR

	1980	1984
Total Agricultural Labour	9,300	8,400
Registered Sugar Workers	4,079	2,561
- Factory	465	268
- Plantation	3,614	2,293
Registered as % of Total	43.9	30.5

APPENDIX 3

The following Tables give general data relevant to the review and evaluation of the marketing system in Barbados

TABLE 1

ESTIMATED YIELDS OF SELECTED CROPS (lbs./acre)

Crop	Rain-fed	Irrigated
Beans (string)	2,500 - 4,000	4,000 - 8,000
Breadfruit	27,000[1/]	-
Eggplant	4,000 - 7,000	8,000 - 20,000
Melons - musk		
- water	4,000 - 12,000	8,000 - 20,000
Okra	3,000 - 5,000	6,000 - 10,000
Hot Peppers	3,500 - 8,000	7,000 - 20,000
Sweet Peppers	3,000 - 6,000	5,000 - 10,000
Squash (Zucchini)	2,000 - 4,000	4,000 - 8,000
Sweet Potato - intercrop	4,000 - 10,000	-
- pure stand	6,000 - 16,000	-
Yam - intercrop	4,000 - 16,000	-
- pure stand	12,000 - 22,000	-

Sources: Producer Survey and Crop Recommendations (Fourth Edition), Ministry of Agriculture

[1/] Planning Unit - UNDP-FAO Project, Ministry of Agriculture, 1977

TABLE 2

Estimated % of Market for Fruits by Sector

Sector	%	Volume (lbs)
Supermarkets	55	4,489,224
Hotels	20	1,627,967
Institutions	15	1,085,267
Restaurants	10	875,289
TOTAL	100%	8,077,747

Source: A Survey of the Hotel, Restaurant, Supermarket and Institutional Markets for Fresh Produce in Barbados. Systems Group of Companies. September 1981. Conducted for the Inter-American Institute for Co-operation on Agriculture.

TABLE 3

Per Capita Consumption Estimates for Selected Fruits

Commodity	Market-based Per Capita Estimated (lbs.)	Production-based Per Capita Estimate (lbs.)
Orange	9.7	11.4
Grapefruit	5.3	8.3
Banana	6.4	-
Apple	5.3	-
Lime	3.3	2.2
Mango	3.0	4.8

TABLE 4 Appendix 3

CATCO BASE PRICE GUIDE 1986 - 1987

COMMODITY	PRICE (PER LB)	MARKET SEASON	MINIMUM WEEKLY VOLUME (KG)
SW POTATO	25	YR ROUND	10,000
YAM	35	JAN-MAY	10,000
BREADFRUIT	35	YR ROUND	9,000
EGGPLANT	27	NOV-APRIL	6,000
SW PEPPER	27	MAR-APRIL	6,000
HOT PEPPER	55	YR ROUND	2,000
OKRA	45	YR ROUND	2,000
CASSAVA	22	YR ROUND	5,000
SQUASH & PUMPKIN	20-30	YR ROUND	10,000
CHINESE VEG.	30-50	NOV-APRIL	5,000
MELON (GALIA)	26		
MELON (SUGAR BABY & TAMDEW)	20	NOV-APRIL	10,000
MISC. TREE CROPS (SOURSOP, PAWPAW, GOLDEN APPLE, LIME, MANGO, AVOCADO, BARBADOS CHERRY, ETC.	30-45	AS AVAILABLE	5,000

*BASED ON EXCHANGE RATE OF BARBADOS $3.000 STG £1.00

Additional crops which may become available or are requested by the market outlet will be subject to seperate pricing schedule depending on the potential market return and quantities available and or requested.

TABLE 5

Appendix 3

A Summary of Market Possibilities

Commodity	Local	Regional	U.S.	Other Extra-regional
Hot peppers	P, B, Bu, M	P, B, Bu, M	P, B, Bu, M	P, B Bu, M
Carrot	C, F, Fr, PP	C, F, Fr	-	-
Beet	B, C, P, Fr	B, C, P, Fr	-	-
Cabbage	PP, Fr	C, Fr	-	-
Mixed veg.	C, F	C, F	-	-
Onions	Bo, P	Bo, P	-	-
Dried peas	C	C	-	-
Green beans	C, Fr	C, Fr	-	-
Jams + Jellies	B, Sp, SmP	B, Sp, Smp	B, Sp, SmP	B, Sp, SmP
Soups	D, C	D, C	D, C Sp	D, C, Sp
Tomato-based products,e.g. sauces, pastes	B, C	B, C	-	-
Okra	F, C, Fr, M, Cu	F, C, Fr, M, Cu	F, C, M, Cu	F, C, M, Cu
Juices	C, Pas.Car.	C, Pas.Car.	Sp	Sp
Exotic fruit + veg., e.g. breadfruit	C	C	C	C
Radish/parsley	PP	PP	-	-
Cucumber	P	P	-	-

Legend:
- Bo - Boiled
- B - Bottled
- Bu - Bulk
- C - Canned
- Cu - Chilled
- D - Dried
- F - Frozen
- Fr - Fresh
- M - Mixed with other commodity
- P - Pickled
- PP - Partial Preparation Packaging
- Sp - Speciality

Source: Prospects for Agro-Industrial Expansion in Barbados. By G. Summers. Funded by USAID. 1984

	Buying Price	Retail Price	Mark-up %
Beans	1.50	2.27	50
Beet	0.80	1.62	100
Cabbage	0.30	0.64	110
Carrot	1.00	1.90	90
Cauliflower	1.50	2.75	80
Cucumber	1.00	1.40	40
Christophene	1.00	1.93	93
Eschalot	3.00	6.00	100
Lettuce (Head)	0.55	90	63
Okra	0.90	1.75	94
Pepper (Sweet)	0.50	1.00	100
Pumpkin	0.60	0.90	50
Tomato	1.00	1.40	40
Parsley	3.50	6.00	70
Hot Peppers	50	1.20	140
Plantains	0.65	1.10	69
Eddoes	0.60	1.00	66
Sweet Potatoes	0.35	(0.40 (special!)	14
		(0.55 (regular)	57
Banana	0.45	0.90	100
Grapefruit	0.50	0.75	50
Lime	1.20	2.00	66
Orange	1.00	1.90	90
Pineapple	1.20	2.00	66
	Average of 23 positions =		78

TABLE 7
SELECTED CROPS: AVERAGE MONTHLY WHOLESALE PRICES JANUARY 1983 — DECEMBER 1985
(in cents per kg)

CROP	YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	PRICE RANGE	AV. PRICE
Bean	83	251	322	278	324	414	320	245	265	302	346	300	399	245—414	314
	84	344	276	336	352	297	313	346	200	211	357	380	422	211—422	319
	85	388	322	252	204	263	289	332	270	234	394	444	412	204—444	317
Beet	83	101	115	126	234	276	273	227	218	216	223	238	264	101—276	209
	84	278	262	213	199	174	198	231	216	202	203	216	235	174—278	219
	85	313	280	280	192	175	162	212	220	208	198	204	210	162—313	221
Cabbage	83	121	117	209	353	384	276	207	176	304	337	445	467	117—467	283
	84	293	121	79	110	252	296	307	163	139	158	287	470	79—470	283
	85	413	355	186	140	124	188	345	334	266	354	432	489	124—432	302
Carrot	83	134	108	97	214	388	412	364	395	315	265	408	472	97—472	298
	84	448	359	286	211	145	195	261	306	287	248	218	296	145—448	272
	85	374	243	210	187	180	162	221	342	289	275	299	427	162—427	267
Cauliflower	83	377	359	331	377	381	373	375	390	379	386	399	414	331—414	378
	84	397	375	346	360	375	389	397	370	358	350	351	420	346—420	374
	85	411	382	343	365	346	358	384	395	370	404	410	391	343—411	380
Christophene	83	181	198	190	245	256	300	353	337	304	280	265	245	181—353	262
	84	251	243	227	232	248	272	261	310	291	231	234	246	227—310	254
	85	255	234	219	214	239	271	283	267	272	263	253	236	214—283	250
Cucumber	83	225	218	154	109	216	121	62	75	115	148	77	238	62—238	155
	84	128	99	134	198	115	117	156	93	65	67	109	142	65—198	118
	85	241	232	295	149	113	150	168	80	77	180	120	110	77—291	159
Eggplant	83	130	112	112	128	134	139	134	141	128	123	126	128	112—141	128
	84	128	139	133	130	129	131	129	142	146	136	132	134	128—146	135
	85	152	143	125	125	117	114	129	124	119	130	137	135	114—152	129
Marrow	83	79	75	75	77	73	79	79	79	79	86	84	81	73— 86	79
	84	79	88	89	86	82	84	85	—	87	88	88	87	79— 89	86
	85	90	85	82	89	—	92	100	97	99	89	86	86	82—100	90
Okra	83	174	236	229	231	234	227	225	183	137	130	126	185	126—236	193
	84	212	238	240	233	229	249	263	256	197	150	143	143	143—263	213
	85	205	267	286	269	241	205	229	248	222	212	193	199	193—289	231
Pepper — sweet	83	306	298	278	278	260	243	271	295	335	348	392	428	243—428	311
	84	432	410	254	198	196	210	252	214	217	227	241	347	196—432	266
	85	427	407	230	208	154	134	186	215	253	273	334	587	134—587	284

TABLE 1 CONT'D

CROP	YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	PRICE RANGE	AV. PRICE
Pumpkin — belly	83	81	90	90	104	121	159	161	163	146	123	112	104	81—163	121
	84	108	115	113	118	130	134	150	138	141	127	119	109	108—150	125
	85	125	103	107	122	139	147	160	166	156	143	117	113	103—166	133
Pumpkin — garden	83	137	134	150	163	192	194	203	198	196	179	163	161	134—203	172
	84	176	212	193	191	199	213	219	218	212	220	189	193	176—219	201
	85	210	187	182	186	195	210	219	225	203	204	197	181	181—225	199
Squash — finger	83	280	293	289	300	300	320	287	302	306	289	295	—	280—320	296
	84	315	302	294	297	299	289	293	297	291	269	260	318	260—318	294
	85	332	316	316	295	305	—	344	314	312	313	318	357	295—357	320
Tomato — large	83	218	220	209	377	428	425	489	551	534	529	545	553	209—553	423
	84	388	236	203	208	219	252	323	384	303	227	397	546	203—546	307
	85	436	229	209	179	238	330	348	376	281	329	428	532	179—532	326
Banana — green	83	73	75	73	75	73	73	77	75	77	75	75	77	73— 77	75
	84	73	—	82	78	83	84	83	82	86	90	89	89	73— 90	83
	85	82	83	81	74	87	80	83	75	80	82	74	73	73— 87	79
Cassava	83	112	115	119	108	119	119	121	117	117	121	119	112	108—121	116
	84	117	116	117	109	—	116	113	121	134	—	—	—	108—134	118
	85	—	107	—	111	111	111	117	116	114	113	115	112	107—117	113
Eddoe	83	141	137	143	130	119	139	—	—	172	159	157	154	119—172	145
	84	141	154	140	150	143	145	174	169	167	170	174	175	140—175	158
	85	173	144	140	144	147	169	155	150	157	158	158	158	140—173	154
Plantain	83	143	146	146	148	146	148	148	154	152	157	163	163	143—163	151
	84	159	168	163	162	164	158	162	167	165	161	159	163	158—168	163
	85	173	166	174	173	169	168	172	171	172	170	170	168	166—174	170
Sweet potato	83	51	51	46	51	51	60	66	71	75	75	77	73	46— 77	62
	84	77	79	77	90	115	124	155	152	148	126	109	88	77—155	112
	85	82	79	69	62	68	70	95	134	123	115	110	106	62—134	93
Yam	83	106	93	97	99	95	93	95	95	106	104	106	95	93—106	98
	84	86	88	86	86	88	87	88	103	—	—	133	127	86—133	97
	85	115	102	103	101	96	99	95	119	116	127	123	120	95—127	110
Eschalot	83	547	582	540	604	613	646	653	668	681	686	679	690	540—690	632
	84	683	690	685	676	774	761	786	763	793	761	752	781	670—793	742
	85	752	788	744	769	756	750	750	749	743	743	748	753	743—788	754
Marjoram	83	769	802	750	780	721	769	789	761	833	877	836	853	721—877	795
	84	822	851	788	773	775	774	770	821	762	763	824	868	770—868	799

TABLE 7 CONT'D

CROP	YR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	PRICE RANGE	AV. PRICE
Parsley	83	728	705	668	692	679	690	803	712	778	822	789	789	668—822	729
	84	814	783	746	705	714	704	694	705	675	678	731	706	678—814	721
	85	860	771	750	742	728	723	704	681	717	764	771	811	681—860	752
Pepper — hot	83	227	245	238	229	223	216	220	225	220	212	203	207	203—245	222
	84	207	216	203	202	201	198	203	205	206	192	205	216	192—216	204
	85	210	216	232	231	235	223	218	220	219	213	218	223	210—235	221
Thyme	83	882	891	908	899	862	864	906	937	950	966	926	948	862—966	911
	84	873	955	916	899	907	874	862	862	842	841	899	874	841—955	884
	85	905	894	898	882	878	842	832	842	853	868	860	—	—	—
Grapefruit	83	130	132	123	143	139	134	128	137	157	148	152	143	123—157	139
	84	141	139	133	132	134	145	143	143	156	141	147	153	132—156	142
	85	159	150	119	117	137	154	156	159	159	165	165	—	—	—
Lime	83	168	212	269	300	282	209	172	163	139	130	128	168	128—300	195
	84	240	304	297	286	240	174	138	132	123	117	123	119	117—304	191
	85	159	253	317	357	298	222	190	165	165	160	164	161	159—357	217
Mango	83	—	—	—	176	174	161	148	146	157	—	—	—	—	—
	84	—	—	—	233	168	156	162	162	168	—	—	—	—	—
	85	—	—	—	207	192	178	153	164	164—	—	—	—	—	—
Orange	83	225	223	245	256	260	256	258	260	240	229	236	247	223—260	244
	84	225	256	255	256	263	267	—	—	261	263	269	269	225—269	258
	85	250	251	263	267	269	270	269	271	271	270	270	270	250—271	266
Pineapple	83	375	331	377	364	348	344	348	337	324	313	320	311	311—377	341
	84	313	324	300	—	—	306	253	289	282	275	293	286	253—324	292
	85	—	281	307	306	301	297	302	309	306	308	308	301	281—309	302
Watermelon	83	—	—	212	227	220	205	192	157	123	123	157	207	123—227	182
	84	—	218	219	229	223	220	214	214	202	161	121	167	121—229	199
	85	—	—	247	247	234	217	193	187	163	164	165	200	163—247	202

TABLE 8
SEAWELL AIR SERVICES AIR FREIGHT[1/]

KGS	BDS$		
	UK	MIAMI	NEW YORK
500 and over	1.46	1.04	2.09
1000 and Over	1.34	2.09	1.81
2000 and Over	1.24	2.09	1.81

1/: Ratio going from Barbados to destinations

TABLE 9

GENERAL CARGO RATES

TO LONDON FROM:

ANTIGUA	**$ECD**
Minimum Charge	112.85
- 45 Kgs	19.67
45 Kgs	14.96
100 Kgs	11.65
300 Kgs	8.73
500 Kgs	7.31

BARBADOS	**$BDS**
Minimum Charge	112.85
- 45 Kgs	21.00
45 Kgs	15.86
100 Kgs	12.61
300 Kgs	9.57
500 Kgs	7.92

BERMUDA	**$BED**
Minimum Charge	56.18
- 45 Kgs	7.74
- 45 Kgs	5.93
100 Kgs	4.20
300 Kgs	2.71
500 Kgs	2.30

KINGSTON	**$JAO**
Minimum Chage	55.46
- 45 Kgs	17.85
45 Kgs	13.60
100 Kgs	10.51
300 Kgs	7.79
500 Kgs	6.59

MEXICO CITY	**$USD**
Minimum Charge	63.60
- 45 Kgs	10.49
- 45 Kgs	8.03
100 Kgs	6.68
300 Kgs	5.09
500 Kgs	4.47

NASSAU	**$BMD**
Minimum Charge	59.17
- 45Kgs	9.32
45 Kgs	7.17
100 Kgs	5.30
300 Kgs	3.71
500 Kgs	3.17

PANAMA CITY	**$BAL**
Minimum Charge	61.00
- 45 Kgs	12.03
45 Kgs	9.22
100 Kgs	7.40
300 Kgs	5.89
500 Kgs	4.82

PORT-OF-SPAIN	**$TTD**
Minimum Charge	112.85
- 45 Kgs	21.12
45 Kgs	16.00
100 Kgs	12.73
300 Kgs	9.79
500 Kgs	8.00

TO LONDON FROM:

ST. LUCIA	**$ECD**
Minimum Charge	117.66
- 45 Kgs	20.45
45 Kgs	25.45
100 Kgs	15.84
300 Kgs	9.51
500 Kgs	7.80

FROM LONDON TO:

ANTIGUA	**£UK**
Minimum Charge	37.00
- 100 Kgs	5.32
100 Kgs	3.37
300 Kgs	2.53
500 Kgs	2.12

BARBADOS	**£UK**
Minimum Charge	37.00
- 100 Kgs	5.69
100 Kgs	3.65
300 Kgs	2.77
500 Kgs	2.30

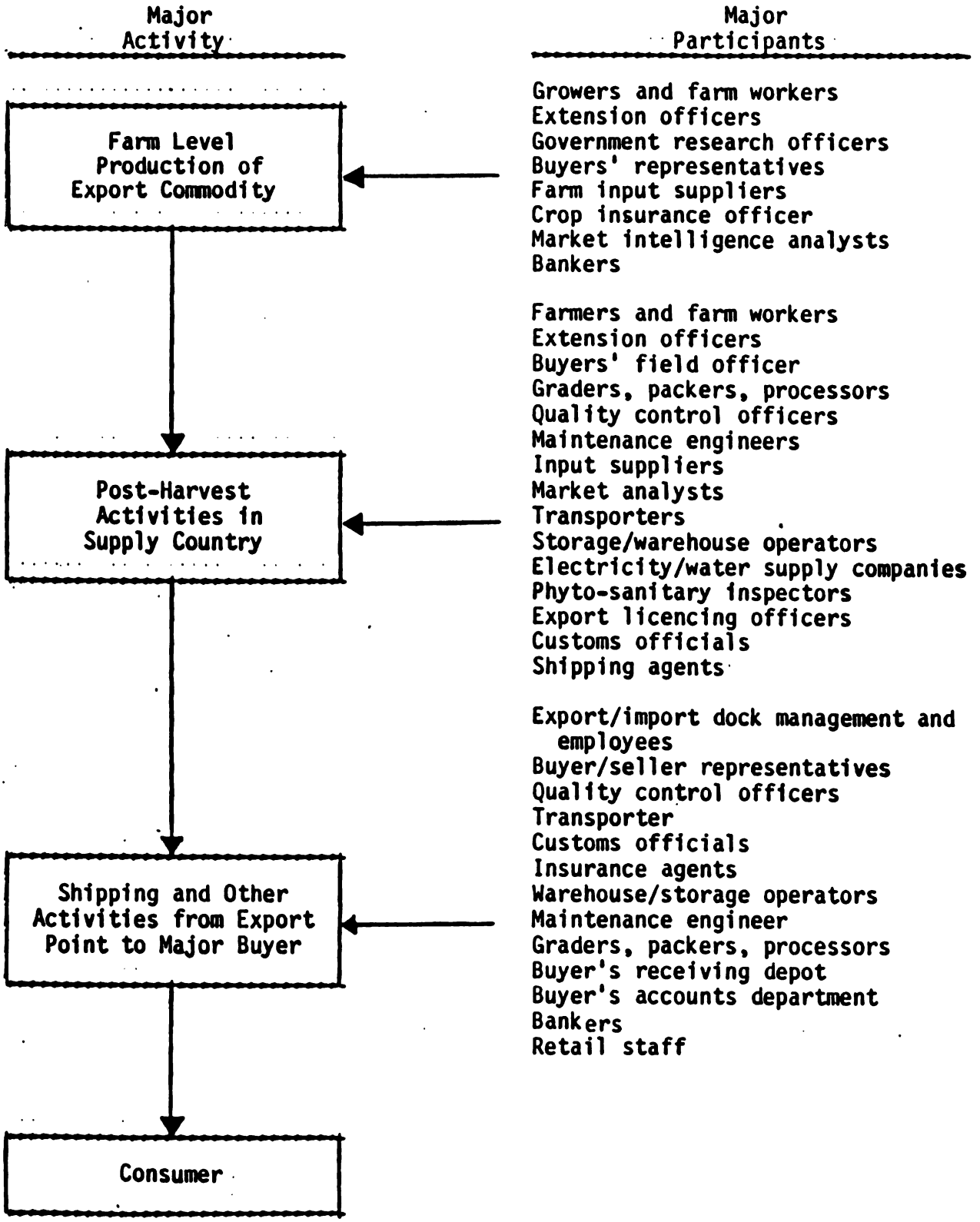
BERMUDA	**£UK**
Minimum Charge	37.00
- 100 Kgs	4.21
100 Kgs	2.45
300 Kgs	1.58
500 Kgs	1.34

KINGSTON	**£UK**
Minimum Charge	37.00
- 100 Kgs	5.29
100 Kgs	3.33
300 Kgs	2.47
500 Kgs	2.09

* 5 tonnes = 50% discount
10 tonnes = 75% discuont

CHART 1

Major Activities and Participants Associated with Marketing Fresh Produce



Source: BMC and UNDP/FAO Project

TABLE

RECOMMENDED TEMPERATURE, RELATIVE HUMIDITY AND APPROPRIATE STORAGE LIFE FOR VEGETABLES [1/]

COMMODITY	TEMPERATURE °F	RELATIVE HUMIDITY %	APPROX. LENGTH OF STORAGE PERIOD
Green beans	32 - 40	90	1 - 2 weeks
Cabbage	32	90 - 95	3 - 4 months
Carrots	32	90 - 95	4 - 5 months
Eggplant	45 - 50	90	1 week
Melon:			
Cantaloup (3/4 slip)	36 - 40	85 - 90	15 days
Cantaloup (full slip)	32 - 35	85 - 90	5 - 14 days
Honeydew	45 - 50	85 - 90	3 - 4 weeks
Watermelon	40 - 50	80 - 85	2 - 3 weeks
Okra	45 - 50	90 - 95	7 - 10 days
Onion	32	65 - 70	1 - 8 months
Sweet Pepper	45 - 50	90 - 95	2 - 3 weeks
Pumpkin	50 - 55	70 - 75	2 - 3 months
Sweet Potato	55 - 60	85 - 90	4 - 6 months
Breadfruit [2/]	57	85 - 90	Up to 1 week

Extracted From: *Deloitte Haskins and Sells Draft Report On: Export Marketing Opportunities for Selected Fresh Produce in Europe and North America and the Development of an Outline Export Marketing Strategy for Food Crops Produced in Barbados, whose sources were:*

1. *Lutz, J.M and Hardenburg, R.E. (1977)*

   The Commercial Storage of Fruits, Vegetables, and Florist and Nursery STocks, USDA Ag. Handbook No. 66.

2. *Ministry of Agriculture, Jamaica*

OPTIMAL CONDITIONS FOR EXPORTING PRODUCE 1/

PRODUCT	SIZE	NET WEIGHT KG	TEMPERATURE °C	RELATIVE HUMIDITY	INTERIOR CARTON MEASUREMENTS	REMARKS
Sweet pepper	s/65-75 m.m. m/75-85 m.m. 1/85-95 m.m. x1/95-105 m.m.	5.0 6.0	7	95	484x352x105 354x280x234	avoid heavy etheylene producing products
Hot pepper	medium	2.0	7	95	265x205x135	
Onion	1/45-55 2/55-65 3/65-75 4/75-95	25	ventilated	70 - 75	820x540 bags	allow maximum ventilation during storage and shipping
Sweet potatoes	m/200-350 grs 1/350-550 grs x1/550-800 grs	10.0	14	90	380x275x195	
Okra	1½" - 2½"	2.0	8	90 - 95	265x205x135	avoid chilling below 70°C and bruising
Pumpkin	no standards exist but selected by size needed	-	10 - 12	50 - 75	no standard exist, may send in bulk bins	10-12 curing days at 27 - 30°C recom.
Aubergine	m/200-300 grs 1/300-400 grs x1/400-480 grs	66.0	12	90 - 95	435x285x180	3% extra weight to allow evaporation
Carrot and Garlic	will advise	later				

1/: *Source: AGRIDEV - Barbados Agricultural Deiversification Project*

SECTION 5

SEASONALITY OF CROPS

DIFFERENT ESTIMATES OF SEASONALITY AND DURATION OF CROP FOR EGG PLANT, OKRA, SWEET PEPPERS, SWEET POTATOES, PUMPKIN AND YAMS[1]

	"PROFILES ON AGRICULTURAL DEVELOPMENT IN B'DOS[1] ESTIMATE OF DURATION OF PRODUCTION PERIOD			"VEGETABLE CROP RECOMMENDATIONS"[2] ESTIMATE		
MMODITY	WEEKS TO HARVEST AFTER PLANTING DATE	TOTAL PRODUCTION PERIOD (MONTHS)[5]	HARVEST MONTHS	SEASONALITY	DURATION OF CROP	AGRICULTURAL PLANNING UNIT/ BAS[3] ESTIMATE OF DURATION O CROP
g Plant	12 - 30	9	All year	All year	Harvesting can start 12-15 weeks after direct seeding. Vaughan's hybrid is about 1 mth earlier that Black Beauty. Fruits can be harvested over a long period but young plants are more productive.	26 weeks
ra	9 - 10[4]	6½	Oct. - Jan[6] Feb. - Sept.[6]	All year	Approximately 9-10 weeks from seeding to first harvest	28 weeks
eet Peppers	12[4]	5½	All year	All Year	About 12 weeks after direct seeding. Fruits can be harvested over a long period but for best yield crop should replanted after first full bearing season	18 weeks
eet Potatoes	12 - 18[4]	5 - 8	All year	All year[7]	Early varieties mature in about 12-14 weeks and late varieties in 20-24 weeks	20 weeks
mpkin	12 - 24	6	All year	n.a.	n.a.	n.a.
ms	30 - 40	8 - 10	Nov. - Feb.	Yams are preferably planted in May, and certainly not later than July	Early varieties may be harvested in Nov. & Dec. Crop Lisbon may be harvested from January onwards.	9 months

Source: Systems - Export Development Plan for Food Crops. Phase 1. Preliminary Investigation.

Footnotes to Estimates of Seasonality and Duration of Crops

1/: Source: "Profiles on Agricultural Development in Barbados" Report No. 3: Opportunities for Agricultural Production and Farming" (Volume 11). December 1977. Ministry of Agriculture Food and Consumer Affairs. Planning Unit, UNDP-FAO Project, BAR 73/005.

2/: Source: "Vegetable Crop Recommendations. 2nd Edition (1976) Ministry of Agriculture, Barbados.

3/: Source: Documents entitled "Costs of Production per Acre" dated April 1978 (with the exception of the documents on yams which was undated), obtainable from the Ministry of Agriculture's Planning Unit and from the Barbados Agricultural Society, and apparently prepared by these two bodies.

4/: To start of Harvest.

5/: Giving time to complete harvest and refill the land for the next crop.

6/: According to "Profiles on Agricultural Development .....", the Feb-Sept crop is expected usually to fetch a higher ex-field price than the Oct-Jan crop.

7/: Sweet potatoes may be planted throughout the year. By the Local Food Production (Defence) Control Order, 1942, No. 2, sweet potatoes on plantations should be planted as early as practicable in 'preparation land'. In 'thrown-out land' they must be planted between September and November, depending on the parish involved. (Source: "Vegetable Crop Recommendations .....").

SEASONALITY AND DURATION OF RAIN-FED CROPS - BARBADOS 1/

CROP	PLANTING	MONTHS UNTIL BEGIN HARVEST	MONTHS UNTIL END HARVEST	HARVEST MONTHS
Yams	May - June	9	6 - 10	January - February
Sweet Potatoes	May - Nov	4 - 5	4 - 6	November - April
Eddoes	June	6 - 7	6 - 7	November - January
Pumpkin	May - Nov	4	6 - 7	September - April
Sweet Pepper 2/	All year	3	4 - 5	All year
Sugar Cane	Oct - Nov	-	-	February - June

1/: *Source: Systems - Export Development Plan for Food Crops. Phase 2. Detailed Investigation.*

2/: *Irrigated*

APPENDIX 6

QUALITY STANDARDS AND SPECIFICATIONS FOR SELECTED EXPORTS TO THE EEC

Data Sources:

The following data were extracted from a number of Studies on Export Marketing of Produce to selected countries.

The sources are appropiately designated.

COMMON QUALITY STANDARDS FOR SWEET PEPPERS 1/

1. DEFINITION OF PRODUCE

This standard applies to sweet peppers of the varieties grown from *Capsicum annum L.* to be supplied fresh to the consumer, sweet peppers for commercial processing are excluded.

11. QUALITY REQUIREMENTS

A. General

The purpose of the standard is to define the quality requirements for sweet peppers at the dispatching stage after preparation and packaging.

B. Minimum Requirements

(i) The sweet peppers must be:

- whole
- fresh in appearance
- sound
- clean, practically free of visible foreign matter
- well developed
- with stalks attached
- free from frost damage, unhealed injury, sunburn, abnormal external moisture
- free from foreign smell and taste.

(ii) The state of the produce must be such as to enable it to withstand transport and handling, to be kept in good condition until it reaches its place of destination and to meet market requirements there.

1/: Source: *Deloitte Haskins and Sells Associates Draft Report on: Export Marketing Opportunities for Selected Fresh Produce in Europe and North America and the Development of an Outline Export Marketing Strategy for Food Crops Produced in Barbados whose source was the Official Journal of the European community.*

C. Classification

Sweet peppers are graded into two quality classes which are defined below:

(i) Class 1

Sweet peppers must be of good quality, of normal shape, development and colouring for the variety, and with due regard to the degree of ripeness.

They must be:

- firm
- virtually free from blemish
- with their stalk, which may be slightly damaged or cut, provided that the calyx is intact.

(ii) Class 11

This class comprises of sweet peppers which are of marketable quality which do not qualify for inclusion in the higher class but satisfy the minimum requirements specified above. The peppers may :

- show defects in shape and development
- be less firm without being withered
- show sunburn or slight healed injuries not exceeding 1cm^2 per pepper if superficial, and 2cm long if the injury is elongated
- show slight dry superficial cracks altogether not exceeding 3 cm in length.

The stalk may be damaged or cut.

111. SIZING

A. General

Sizing is compulsory for Class 1 and not compulsory for Class 11 provided minimum sizes are observed. Size is determined by the diameter or width across the shoulder. In the case of flat pepper (tomato peppers) the width is takes as the maximum equatorial diameter.

B. Minimum Sizes

(i) Elongated sweet peppers (tapering): 30 mm.

(ii) Square blunt sweet peppers (eg. Bell Boy): 50 mm

(iii) Square tapering sweet peppers ('peg top') (eg. New Ace): 40 mm

(iv) Flattened sweet peppers (tomato peppers): 55 mm

C. Uniformity

For sized sweet peppers the difference in diameter between the largest and smallest pepper in any one package or lot may not exceed 20 mm.

1V. TOLERANCES

Tolerances in respect of quality and size are allowed in each package for substandard produce.

A. Quality Tolerances

(i) Class 1: 10% by number or weight of peppers not satisfying the requirements of the class but meeting the requirements of the class immediately below (Class 11).

(ii) Class 11: 10% by number or weight of peppers not satisfying the requirements of the class or the minimum requirements. Produce affected by rotting, pronounced bruising or unhealed cracks is not included in this tolerance.

B. Size Tolerance

(i) Class 1: 10% by number or weight of peppers not conforming to the sizes claimed but within a margin of ± 5 mm. No more than 5% may be below the minimum size laid down.

(ii) Class 11: Where sized, 10% by number or weight of peppers not conforming to the sizes but within a margin of ± mm. No more than 5% may be below the minimum size laid down.

Unsized: 5% by number of weight of peppers not more that 5 mm below the minimum size laid down.

V. PACKAGING AND PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only sweet peppers of the same origin, variety or commercial type, quality and size (if sized). Class 1 peppers must have appreciably the same degree of ripeness and colouring. Sized, elongated peppers should be reasonably uniform in length and the visible contents must be representative of the whole.

B. Packaging

Packaging must be of such a kind as to ensure that the produce is properly protected.

Any paper or other material used inside the package must be new and harmless to human food. When printed matter is used, the printing must be on the outside only so as not to come into contact with the produce. The produce when packaged must be free from any foreign bodies.

V1. MARKING

Each package must bear the following particulars legibly and indelibly market on the outside:

A. Identification

Packer)
) Name and address or code mark
Dispatcher)

B. Nature of Produce

Identification of type (sweet peppers 'elongated', 'square blunt', 'square tapering', 'flattened') or variety (where the contents of the package are not visible from the outside).

C. Origin of Produce

District of origin, or national, regional or local trade name.

D. Commercial Specifications

- class
- size - where sized - minimum and maximum diameter
  - otherwise - 'unsized'
- weight or number of units (optional).

E. Official Control Mark: (optional).

COMMON QUALITY STANDARDS FOR AUBERGINES (Eggplant)[1/]

Revised Standard concerning the Standarization, Marketing and Commercial Quality Control of

AUBERGINES

moving in trade between and to European Countries

1. DEFINITION OF PRODUCE

This standard applies to aubergines, fruit of the varieties (cultivars) *esculentum, insanum, ovigerum,* grown from Solanum melongena L., to be supplied fresh to the consumer, aubergines for processing being excluded. According to their shape, a distinction is made between:

- elongated aubergines
- globus or pear-shaped aubergines

11. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements for aubergines at the dispatching stage, after preparation and packaging.

A. Minimum Requirements

In all cases, subject to the special provisions for each class and the tolerances allowed, the aubergines must be:

- whole
- fresh in appearance
- firm
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded in any case
- clean, practically free of any visible foreign matter
- sufficiently developed (without over development of seeds) and the flesh must not be fibrous or woody
- provided with calyx and peduncle which may be slightly damaged

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1/: Source: *Deloitte Haskins and Sells Associates Draft Report on: Export Marketing Opportunities for Selected Fresh Produce in Europe and North America and the Development of an Outline Export Marketing Strategy for Food Crops Produced in Barbados whose source was AGI/WP. 1/Eur. Stan 37 Rev 2.*

- free of abnormal external moisture
- free of foreign smell and/or taste

The development and condition of the aubergines must be such as to enable them to withstand transport and handling, ensuring that they arrive in satisfactory condition at the place of destination.

B. Classification

The aubergines are classified in two classes below:

(i) Class "1"

Aubergines in this class must be of good quality. They must also be:

- practically free from sunburn
- of a shape and colour normal for the variety; a slight discolouration at the base is allowed.

The aubergines may, however, show the following slight defects provided that these do not impair the general appearance, quality, conservation or presentation of the produce, and do not exceed a total surface area of three sq. cm:

- slight bruising
- healed cracks

(ii) Class "11"

This class comprises aubergines which do not qualify for inclusion in Class "1", but satisfy the minimum requirements specified above. Provided they retain their essential characteristics of quality and presentation, they may show the following defects:

- defects in shape and colouring
- slight sunburn, provided it does not cover more than $4cm^2$
- slight dry superficial defects provided that they do not cover more than $4\ cm^2$

111. PROVISIONS CONCERNING SIZING

Sizing of aubergines, obligatory in Class 1 is determined by either:

- the maximum diameter of the section perpendicular in the longitudinal axis, or
- by weight

For sizing by diameter, the minimum diameter is fixed at 40 mm for elongated aubergines and 70 mm for globus or pear-shaped aubergines.

The difference between the smallest and largest aubergines in the same package must not exceed:

- 20 mm for elongated aubergines
- 25 mm for globus or pear-shaped aubergines

For sizing by weight, the minimum weight is fixed at 100 grammes. The following scale must be complied with:

- 100 to 300 g. with a maximum difference of 75 g. between smallest and largest aubergines in the same package.
- 300 to 500 g. with a maximum difference of 100 g. between the smallest and largest aubergines in the same package.
- above 500 g. with a maximum difference of 250 g. between the smallest and largest aubergines in the same package.

1V. PROVISIONS CONCERNING TOLERANCES

The following tolerances in respect of quality and size are allowed for produce not satisfying the requirements of the class indicated in each package.

A. Quality Tolerances

Class "1": - 10 percent by number or weight of aubergines not satisfying the requirements for the class, but meeting those for Class "11" or, exceptionally, coming within the tolerances for that class.

Class "11": 10 percent by number or weight of aubergines neither the requirements for the class nor the minimum requirements, with the exception of produce affected by rotting, marked bruising or unhealed cracks.

B. Size Tolerances

For all classes: 10 percent by number or weight of aubergines not conforming to the size identified. In any case, the tolerance is not applicable to aubergines, the diameter of which is more than 5 mm under the minimum diameter or, in the case of sizing by weight, to aubergines weighing less than 90 g.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only aubergines of the same origin, variety, quality and of mostly the same stage of maturity, development and colouration.

As regards Class 1, uniformity applies to the size as well.

The visible part of each package must be representative of the entire contents.

"Elongated" aubergines packed in the same package must be sufficiently uniform as regards length.

B. Packaging

Aubergines must be packed in such a way as to protect the produce properly.

The materials, and particularly the paper, used inside the package must be new, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly paper or stamps, bearing trade specifications is allowed provided that the printing or labelling has been done with a non-toxic ink or glue.

Packages must be free of all foreign matter.

V1. PROVISIONS CONCERING MARKING

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked and visible from the outside:

A. Identification

Packer and/or Dispatcher } Name and address, or officially issued or accepted code mark

B. Nature of Produce

- "Aubergines" (when the contents are not visible from the outside).
- Name of variety (optional)

C. Origin of Produce

- Country of origin and, optionally, district where grown or national, regional or local trade name.

D. Commercial Specifications

- Class
- When sized, the size expressed by minimum and maximum diameters or weight
- Weight or number of units.

E. Official control mark (optional).

COMMON QUALITY STANDARDS FOR MELONS[1/]

Standard relating to the marketing and commercial quality control of

MELONS

moving in trade between and to European Countries

1. DEFINITION OF PRODUCE

This standard applies to melons (cultivars) grown from "*Cucumis melo L.*" to be supplied fresh to the consumer, melons for industrial processing being excluded.

11. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality provisions for melons at the dispatching stage, after preparation and packaging.

A. Minimum Requirements

(i) In all cases, subject to the special provisions laid down in each class and the tolerances allowed, the melons must be:

- whole
- sound
- clean and practically free from any visible foreign matter
- free from abnormal external moisture
- free from foreign smell and/or taste
- sufficiently developed and ripe
- of fresh appearance

(ii) The development and condition of the melons must be such as to enable them to withstand transport and handling ensuring that they arrive in satisfactory condition at the place of destination.

1/: Source: *Deloitte Haskins and Sells Associates Draft Report on: Export Marketing Opportunities for Selected Fresh Produce in Europe and North America and the Development of an Outline Export Marketing Strategy for Food Crops Produced in Barbados whose source was: Agri/WP. 1/11 UN. ECE Standard No. 41*

B. Classification

Melons are classified into two classes defined below:

(i) Class "1"

Melons in this class must be of good quality

They must also be:

- well developed
- free from cracks and bruises (slight cracks around the peduncle of less than 2 cm in length that do not reach the pulp are not considered as blemishes);
- the lenght of the peduncle, in the case of fruit belonging to varities that do not separate at the time of ripening, may not exceed 3 cm.

(ii) Class "11"

This class comprises melons which may mot qualify for inclusion in the higher class but satisfy the minimum requirements specified above. They may have the following defects provided these do not alter the general appearance and quality of the produce:

- a slight deformity;
- a slight discolouration of the rind and pulp of the fruit;
- slight damage by pests;
- slight external bruising and cracks that do not reach the pulp of the fruit.

111. PROVISIONS CONCERNING SIZING

Sizing is determined by the weight of each melon or the diameter of the equatorial section.

When the size is expressed in terms of weight, the largest melon in each package may not weigh over 50 percent more than the smallest.

When the size is expressed in terms of diameter, the diameter of the largest melon may not be over 20 percent more than the diameter of the smallest.

Sizing is compulsory for class "1" only.

IV. PROVISIONS CONCERNING TOLERANCE

The following tolerances for quality and size are allowed for sub-standard produce in each package.

A. Quality Tolerances

(i) Class "1"

10 percent by number or weight of melons not satisfying the requirements of this class, but satisfying those of Class "11", or, exceptionally, coming within the tolerances for that class.

(ii) Class "11"

10 percent by number or weight of melons not satisfying the requirements of the class, nor the minimum requirements with the exception of produce that is visibly affected by rot.

B. Sizing Tolerances

For all classes (sizing being optional for class "11") 10 percent by number or weight of melons whose size is greater or less than that specified on the package.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only melons of the same origin, variety (cultivar), quality class, size and shape and which have reached practically the same stage of ripeness and development and are of practically the same colour.

The top layer must be representative of the entire contents of the package.

B. Packaging

Melons must be so packed as to ensure that they are adequately protected.

The materials, and in particular the paper, used inside the packages must be new, clean and of a quality such as to avoid causing any external or internal changes to the produce. The use of materials, and in particular papers or stamps bearing commercial inscriptions is allowed, provided that the printing or labelling is done with non-toxic ink or glue.

The packages must be free from any foreign body.

V1. PROVISIONS CONCERNING MARKING

Each package must bear the following particulars, in letters grouped on the same side legibly and indelibly marked and visible from the outside.

A. Identification

Packer and/or) Name and address or officially issued or
Dispatcher) accepted code mark

B. Nature of Produce

- "Melons" (if the contents are not visible from the outside)

  Name of variety or type.

C. Origin of Products

- Country of origin and, optionally, national, regional or local trade name.

D. Commercial specifications

- class
- Size (by either weight or diameter)
- Weight or number of items

E. Official Control Mark (optional)

LEGAL REQUIREMENTS [1/]

A. PHYTO-SANITARY

Agriculture Canada, Food Production and Inspection Branch, inspects all fresh fruits and vegetables entering Canada, under the Plant Quarantine Act. The Act requires that the fruits and vegetables be 100 percent free from soil and insects, and in new containers. There are currently no specific prohibitions on West Indian produce, but this situation can change.

Produce entering Canada by truck is cleared at the port of entry, and inspection occurs at the importers warehouse. Airport inspection, as stated above, is conducted Monday to Friday only, from 9 AM to 5 PM.

An Import Permit is required with regard to root crops only. The importer is responsible for the application for this permit, which takes approximately two weeks to process and is free. The permit may be annual or by shipment, and a different permit is required for each importer.

B. DUTY/CUSTOMS

All produce from Barbados is free from duty under the British Preferential Tariff (BPT). If an item is also under the General Preferential Tariff (GPT) and the GPT is lower than the BPT, then in order to obtain the lower rate, a Certificate of Origin (Form 'A') is required, obtainable from the Barbados Government. This has relevance only with regard to fruit juices NOP (not otherwise provided). There is no sales tax on foodstuffs. Relevant Tariff Codes are as follows:

1/: Source: Systems - Export Development Plan for Food Crops, Phase 2. Detailed Investigation.

8734-1	Peppers
8741-1	Sweet Potato and Yams
8747-1	Vegetables NOP
8950-1	Sweet potato processed
9045-1	Okra sliced and salted
9600-1	Fruit NOP
9700-1	Plantain, pineapple, pomegranate, guavas, mango
9800-1	Banana
10663-2	Fruit Juice NOP - free from GPT with Form 'A'
9022-1	Vegetable sauces - 12.5%
10523-1	Fruit sauce of class not grown in Canada

A copy of a Customs booklet entitled "Documentation Simplified" has been submitted to BAS under separate cover.

C. GRADING

Grades are not relevant to West Indian Produce, since none of the fruits or vegetables are graded products under Canadian legislation.

Potential Exports For Barbados to Canada

Yams	- Good potential; yellow yams preferred; summer season preferred.
Sweet Potato	- difficult to compete with U.S. on price.
Pumpkin	- difficult to compete with U.S. on price.
Eddoes	- good potential due to Jamaica problems.
Tannias	- hard to compete with Dominican Republic
Christophene	- cannot compete with Costa Rica.
Okra	- good potential for baby okra (1½ - 2½").
Dasheen	- difficult to compete with Dominican Republic.
Bittermelon	- good potential for tapered.
Breadfruit	- small market - too perishable.
Hot Peppers	- Scotch Bonnet variety has limited potential.
Plantain	- No - too much care required.
Ginger	- cannot compete with Dominican Republic, Hawaii.
Long Beans	- some potential.

THE EUROPEAN MARKET FOR DOMINICAN FRUITS AND VEGETABLES[1/]

4.1 EEC Import Regulations

There are a number of regulations associated with EEC import of fruit and vegetables which apply fairly consistently to all crops examined in the study. These are the tariffs and quality standards imposed by the EEC, and the health requirements.

As an ACP country, under the Lomè agreement with the EEC, none of the exotics for export from Dominica are subject to duties.

The EEC has developed common quality standards which apply to 33 imported and locally produced fruits and vegetables. These standards do not include any of the products in this study. Therefore no official quality standards apply. Unofficially these fruits and vegetables are regulated according to standards set by the major exporters. The greater the competition the more important it is to conform to, or exceed the standards set by other producers.

EEC regulations do require the exporter to place on the outside of each carton the classification Category 1 (or Cat. 1). Without this designation the boxes are liable to be taken off the market by inspectors. It the quality is visibly poor a government official may downgrade the box to Cat.11 or 111 which means a loss to the producer or the importer, financially as well as to reputation.

1/: *Source: AGRODEV - Dominica Market Study. The Market for Exotic and Ethnic Fruit and Vegetables from Dominica in the United Kingdom, West Germany and te Netherlands. June 1985.*

Plant health import legislation is uniform throughout the EEC. In the case of the fruit included in the study no phytosanitary certificate nor reforwarding phytosanitary certificate is required, with the exception of grapefruit which requires both. All raw vegetables must be accompanied by both certificates and must have been washed or cleaned to remove any soil or beetle pests from their roots.

It is acceptable but not required for the fruits to have been fumigated with hydrocyanic acid gas or methyl bromide gas.

The competative aspects of the market tend to be the same for the majority of the fruits and vegetables in the study and are in order of importance: price, seasonal availability, variety and quality, and continuity of supply.

GEEST SPECIFICATIONS FOR PRODUCE 1/

YAM SPECIFICATION

QUALITY

(a) All roots to be fresh, clean and well developed.

(b) Roots which are damaged, that is, broken, bruised or scarred should not be packed.

(c) Skin should be sound and not broken.

(d) Colour should be typical of the variety.

(e) Roots must be free of pest and disease.

(f) No visible spray residues to be present.

SIZES

Only roots larger than 2 lbs. should be packed. (Normal requirements are for roots over 4 lbs. in weight).

PACKAGING

(a) Yams to be packed in strong cardboard cartons.

(b) Ventilation holes to be pressed out.

(c) After packing cartons to be strapped individually.

(d) Weight to be 4o lbs net on U.K. arrival (42 lbs. in W.I.).

LABELLING

Each carton to clearly show the following:

(a) origin

(b) Commodity

(c) Weight

(d) Supplier

1/: Source: SYSTEMS : Export Development Plan for Food Crops, Phase 2, Detailed Investigation.

SWEET POTATOES SPECIFICATION

QUALITY

(a) All root to be fresh, clean and well developed.

(b) Roots which are damaged, that is, cut, broken, bruised or scarred should not be packed.

(c) Skin should be intact.

(d) Roots must be free of pest disease.

(e) Skin should be red with a white flesh.

(f) No visible spray residues to be present.

SIZES

Roots shosuld be as large as possible, that is, up to ten inches in length and four inches in diameter.

PACKAGING

(a) To be packed in strong cardboard cartons.

(b) Ventilation holes to be pressed out.

(c) After packing cartons to be strapped individually.

(d) Weight to be 40 lb. net on U.K. arrival (42 lbs. in W.I.).

LABELLING

Each carton to clearly show the following:

(a) Origin

(b) Commodity

(c) Weight

(d) Supplier

CHILLIES SPECIFICATION

QUALITY

(a) The chillies should be fresh, dry, clean and free from mechanical damage, pest and disease damage, slime, rots and foreign bodies.

(b) The colour should be uniform green or red.

(c) Red and green chillies should not be mixed in the same carton.

(d) Only one variety should be packed in the same carton.

TRIM

The chillies should be free of any part of the parent.

SIZE

Chillies should be of uniform size.

PACKAGING

(a) Weights to be x 4lb. per carton.

(b) Ventilation holes to be pressed out.

LABELLING

Each carton to be labelled with the following:

(a) Origin
(b) Commodity
(c) Weight
(d) Shipper

AUBERGINE SPECIFICATION

QUALITY

(a) The Aubergine should be fresh, firm, dry, clean, free of mechanical damage, pest and disease damage, slime, rots and foreign bodies.

(b) The colour should be uniform, shiny and purple.

(c) Calyx should be fresh and green.

TRIM

Aubergine must be free from any part of the parent plant, with no more than 1½ inches of the calyx remaining.

SIZE

The fruit should be graded into the following sizes:

5 - 9 ozs	Small
9 - 14 ozs	Medium (best size)
14 - 19 ozs	Large

PACKAGING

(a) Weights be x 11 lbs. net per carton.

(b) Ventilation holes to be pressed out.

(c) Aubergines to be packed neatly into carton.

LABELLING

Each carton to be labelled with the following:

(a) Origin

(b) Commodity

(c) Weight

(d) Shipper

PUMPKIN SPECIFICATION

QUALITY

(a) All pumpkins to be fresh, clean and well developed.

(b) Pumpkins which are damaged, that is, cut, bruised or scarred should not be packed.

(c) Pumpkins must be free of pest and disease.

(d) Skins should be intact.

(e) No visible spray residues to be present.

(f) Yellow flesh variety preferred to white.

SIZES

Pumpkins should be of uniform size if possible weighing approximately 8 lbs. each.

PACKAGING

(a) To be packed in polyprolene bags.

(b) Each bag to contain x 40 lb. weight landed in U.K. (42 lbs. in W.I.).

LABELLING

Each bag to be clearly marked with the following:

(a) Origin

(b) Commodity

(c) Weight

(d) Supplier

AGREEMENT FOR GROWING AND SALE OF PRODUCE

THIS AGREEMENT is made the day of , 1986 BETWEEN of (hereinafter called "the Grower") of the ONE PART and BARBADOS MARKETING CORPORATION (hereinafter called "BMC") of the OTHER PART:

WHEREBY in order to encourage and assist the Grower in carrying on the business of agriculture in Barbados and the marketing of his crops set out in the Schedule hereto upon and subject to the terms and conditions hereinafter contained, namely:

1. All produce shall be delivered to BMC Packhouse at the expense of the Grower.

2. The produce will be delivered to the BMC Packhouse by the Grower in the quantities and at the times set out in the Schedule hereto.

3. All produce purchased shall be of exportable quality according to specifications supplied and the BMC may reject any produce not in keeping with that standard. (See schedule hereto).

4. The Grower shall co-operate with the BMC during the growing season of the crop by allowing the BMC or its agent to monitor the progress of growth, the anticipated size of the crop, the extent of the harvesting season and the date when it is anticipated that delivery of the produce will commence.

5. If the BMC shall not notify the Grower or the person effecting delivery on his behalf as soon as possible after delivery but in a period not normally exceeding 24 hours after such delivery of BMC's rejection thereof BMC shall be deemed to have accepted such delivery. Any variation from this will be specified in the schedule hereto.

6. BMC shall not be required to accept any delivery in excess of the quality set out in the Schedule hereto.

7. The BMC shall pay for produce accepted for export as follows:

a) produce accepted for export between the first of the month and the fifteenth of the said month will be paid for at the end of that month.

b) produce accepted for export between the sixteenth of the month and the end of the said month will be paid for on the fifteenth of the month following.

8. The price to be paid for the crops shall be set out in the Schedule hereto.

9. If the Grower shall -

(a) fail to comply with the provisions of clause 4 hereto.

(b) fail to give the BMC Packhouse not less than 7 days advance notice of commencement of deliveries, or

(c) sell and/or dispose of any portion of the produce of the crops covered by this Agreement otherwise than to the BMC,

then the BMC shall be entitled to refuse to accept any produce of the crops covered by this Agreement.

10. In the event of the BMC being unable to accept produce which is of exportable quality within the terms of the schedule hereto, the BMC shall nevertheless be financially liable for the product concerned.

11. The Grower shall be granted exemption from the terms of this Agreement only if he loses his crop or fails to achieve the expected yield from that crop as a result of natural disaster, epidemic or other problems not related to bad husbandry or carelessness on the part of the Grower.

12. The BMC will provide production recommendations which the Grower will be required to follow in the endeavour to achieve maximum production yield from the crop. Only insecticides, herbicides, fungicides, etc, approved by the BMC Packhouse will be used.

13. This Agreement shall remain in force and subsist for all purposes for the duration of the crop Schedule(s).

14. Any dispute or question in connection with this Agreement or matters arising hereunder shall be referred to arbitration under the provisions of the Arbitration Act for the time being in force.

15. Without obligation, the BMC will attempt to dispose of any rejects at the best possible market prices. If required the Grower can collect his own rejects to displace of as he sees fit.

16. Any spoilage after delivery at the Packhouse which is beyond the control of the Grower shall be the responsibility of the BMC.

17. In this Agreement the expression "the Schedule hereto" includes the Schedule hereto attached and any Schedule hereafter attached or agreed upon by the parties hereto in substitution thereafter or in addition thereto.

IN WITNESS whereof the said parties have hereunto set their hands the day and year hereinbefore written.

SIGNED AND DELIVERED by the said)
in the presence of:-)

SIGNED AND DELIVERED by the said)
)
BARBADOS MARKETING CORPORATION in)
the presence of:-

THE SCHEDULE

Description of Land:

Description of crop and
Acreage to be planted:
Date of Planting:

Anticipated date of
Commencement of harvest:

Anticipated daily/weekly
deliveries of produce and
quantity of each delivery:

Price to be paid:

Description of Requirements:

APPENDIX 8

This following Cost of Production Data have been obtained from the Barbados Marketing Corporation's Agricultural Marketing Services Division.

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP: EGG PLANT VARIETY: BLACK BEAUTY

DURATION: 12 - 20 WEEKS

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost				
1.	**LAND PREPARATION**			
i.	Ploughing	1 Way	125/AC	50.00
ii.	Harrowing	2 Ways	125/AC	100.00
iii.	Furrowing	1 Way	90/AC	72.00
iv.	Rotavating	1 Way	110/AC	88.00
	SUBTOTAL			310.00
2.	**PLANTING & PROPAGATION**			
	Seed	1.25 lbs/AC	58.70/lb	73.38
	Machine(planting and rolling)	1	48.00/AC	48.00
	SUBTOTAL			121.38
3.	**FERTILISATION**			
i.	12.12.17.2	8 bags x 50 kg/bag	56.00/bg	448.00
ii.	Fertex	4 app x 5 lbs/app	2.05/lb	41.00
iii.	Ergostim	3 x 160 cc/app	0.14/cc	67.20
iv.	This	14 x 1 pt/app	3.79/pt	53.06
	Machine	3 app	36.00/app	108.00
	SUBTOTAL			712.26

OPERATION		FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST BDS $
4.	WEED CONTROL			
	Materials			
i.	Dacthal	1 app x 10 lbs/AC	14.45/lb	144.50
ii.	Handweeding	10 times	10.63/time	106.30
	Machine	1 app	36/AC	36.00
	SUBTOTAL			286.80
5.	PEST & DISEASE CONTROL			
	Materials			
i.	Chlorodane	1 x 1 pt/AC	12.90/pt	12.90
ii.	Furadan	1 x 30 lb/AC	4.85/lb	145.50
iii.	Diazinon	8 x 1 pt/AC	12.90/pt	103.20
iv.	Perfexthion	9 x 1 pt/AC	7.50/pt	67.50
v.	Manzate	9 x 2 lbs/AC	5.62/lb	101.16
vi.	Bravo	8 x 3 pts/AC	9.23/pt	221.52
vii.	Sticker/spreader	17 x 3 ozs/app	.3533/oz	18.02
	Machine	17 app	36.00/app	612.00
	SUBTOTAL			1 281.80
6.	IRRIGATION			
	Labour	43.5 hours	3.63/hr	157.91
	Machine/energy	5 months	74.00/month	370.00
	SUBTOTAL			527.91
7.	HARVESTING			
	Labour and transport to farmgate	45 000 lbs/AC	0.04/lbs	1800
	SUBTOTAL			1800

OPERATION		FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST $ BDS
8.	Transport to packing station.			
	Labour unskilled	8 x 1.5 hours	3.63/hr	43.56
	Machine	8 trips		527.04
	SUBTOTAL			570.60
9.	REMOVAL OF CULLS FROM FIELD			
	Labour - unskilled	10 hours	3.02	30.20
	" - skilled	1 hour	4.98	4.98
				35.18
10.	INTEREST ON WORKING CAPITAL (12%)			147.06
	SUBTOTAL V. COST			5 697.99
	FIXED COSTS			
11.	Land rent		200/yr	76.92
12.	Management (10% of var.cost)			569.80
13.	Depreciation			
	Irrigation equipment			107.00
	SUBTOTAL			753.72
14.	Interest on Fixed Capital (15%)			80.25
	SUBTOTAL — F. COST			833.97
	TOTAL COST			6 531.96
Yield per acre		45 000 lbs		
Cost of production per lb		$ 0.15.		

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP: OKRA VARIETY: CLEMSON SPINELESS

DURATION: 9 - 26 WEEKS

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost				
1.	LAND PREPARATION			
i.	Ploughing	1 Way	125/AC	50.00
ii.	Harrowing	2 Ways	125/AC	100.00
iii.	Furrowing	1 Way	70/AC	72.00
iv.	Rotavating	1 Way	119/AC	88.00
	SUBTOTAL			310.00
2.	PLANTING AND PROPAGATION			
	Seed	12 lbs	7.35/lb	88.20
	Machine (planting and rolling)		48.00/AC	48.00
	SUBTOTAL			136.20
3.	FERTILISER APPLICATION			
	12.12.17.2	4 bgs.x 50 kg/bg	56.00/bg	224.00
	Ammonium Sulphate	4 bgs x 50 kg/bg	40.60/bg	162.40
	Machine	1 app	36.00/app	36.00
	Labour	8 woman hours	3.02/wh	24.16
	SUBTOTAL			446.56

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
4.	WEED CONTROL			
	Materials			
i.	Dacthal	10 lbs/AC	14.45/lb	144.50
ii.	Gramoxone	2 pts/AC	5.90/pt	11.80
	Machine	1 app	36.00/app	36.00
	SUBTOTAL			192.30
5.	PEST & DISEASE CONTROL			
	Material			
i.	Perfekthion	4 app x 1 pt/app	7.50/pt	30.00
ii.	Orthene	4 app x 1 lb/app	23.60/lb	94.4
iii.	Benlate	8 app x 8 ozs/app	2.17/oz	138.88
iv.	Mancozeb	4 app x 1.5lbs/app	5.62/lb	33.72
v.	Ambush (during harvest).	12 app x .25pts/app	10.53/pt	31.60
vi.	Sticker/spreader	8 app x 3 ozs/app	.3533/oz	8.48
	Machine	8 app x	36.00	288.00
	SUBTOTAL			625.08
6.	IRRIGATION			
	Labour	43.5 hours	3.63	157.91
	Energy	5 months	74.00	370.00
	SUBTOTAL			527.91
7.	HARVESTING *			
	Labour (picking, grading, packing).	12 000 lbs	0.11/lb	1 320.00
	SUBTOTAL			1 320.00
	Interest on working capital (12%)			120.12
	SUBTOTAL VAR. COST			2 670

OPERATION		FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST BDS $
	FIXED COST			
10.	Land Rent		200/yr	100.00
11.	Management (10% of var. cost)			367.82
12.	Depreciation - irrigation equipment			107.00
	SUBTOTAL			574.82
	INTEREST ON FIXED CAPITAL			80.25
	SUBTOTAL - FIXED COST			655.07
	TOTAL COST			4 333.24

Yield per acre - 15 000 lbs

Cost of production per lb $ 0.29

* Assumes use of newly designed bag for harvesting okras.

Agriucltural Marketing Services Division - (BMC) September, 1985.

Appendix 8

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP: SWEET POTATO VARIETY: A26/7

DURATION: 5 MONTHS

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST PDS $
Variable Cost				
1. LAND PREPARATION				
i.	Ploughing	1 Way	125/AC	100.00
ii.	Harrowing	2 Ways	125/AC	200
iii.	Furrowing	1 Way	90/AC	72
iv.	Rotavating	1 Way	110/AC	88
	SUBTOTAL			460
2. PLANTING AND PROPAGATION				
	Cutting and Planting	10 000 Cutting/AC	.025/Cutting	250.00
	SUBTOTAL			250.00
3. FERTILISER APPLICATION				
	No Application recommended			
4. WEED CONTROL				
i.	Dacthal	12 lbs/AC	14.45/lb	173.40
	Machine	1 App	36.00/App	36.00
	SUBTOTAL			209.40

OPERATION		FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST BDS $
5.	PEST & DISEASE CONTROL			
i.	Perfekthion	12 app x 1 pt/AC	7.50/pt	90.00
ii.	Chlorodane	1 app x 1 pt/AC	12.90/pt	12.90
iii.	Bravo	6 app x 3 pts/app	9.23/pt	166.14
v.	Sticker/spreader	12 app x 3 ozs/app	.3533/oz.	12.72
vi.	Machine	12 app	36.00/app	432.00
	SUBTOTAL			713.76
6.	IRRIGATION			
	Labour	43.5 hours	3.63/hr	157.91
	Machine/energy	5 months	74.00/month	370.00
	SUBTOTAL			527.91
7.	HARVESTING			
	Labour (digging, cleaning, bagging),	30 000 lbs	0.07/lb	2 100.00
	SUBTOTAL			2 100.00
8.	INTEREST ON WORKING CAPITAL			124.28
9.	SUBTOTAL - VAR. COST			4 385.35
	FIXED COST			
10.	Land Rent		200/yr	100.00
11.	Management (10% var. cost)			438.54
12.	Depreciation - Equipment			107.00
	SUBTOTAL			645.54

OPERATION	FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST BDS $
13. INTEREST ON FIXED CAPITAL(15%)			80.25
SUBTOTAL - FIXED COST			725.79
TOTAL COST			5 111.14

Yield per acre	30 000 lbs
Cost of production per lb.	$ 0.17

NB: UNIRRIGATED

Yield per acre	16 000 lbs
Total cost	3 378.28
Cost of Production per lb	$ 0.21

Appendix 8

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP : Watermelon VARIETY: Sugar Baby

DURATION: 12 - 14 weeks

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost				
1. Land Preparation				
(i)	Ploughing	1 way	125/ac	50.00
(ii)	Harrowing	2 ways	125/ac	100.00
(iii)	Furrowing	1 way	90/ac	72.00
(iv)	Rotavating	1 way	110/ac	88.00
				310.00
2. Planting and Progation				
Seed		1.25 lbs/ac	24.00 /lb	30.00
Machine (planting producing			48.00/ac	48.00
				78.00
3. Fertiliser Application				
Materials				
(i)	12.12.17.2	4 bags x 50kgs/bag	56.00/bag	224.00
(ii)	Fertex	3 x 5lbs/app	2.05/lb	30.75
	Machine (incl. labour)	1 app	36.00/app	36.00
	SUB-TOTAL			290.75
4. Weed Control				
Materials				
(i)	Alanap	2 gals/ac	43.45	86.90
	Machine (incl. labour)	1 app	36.00/app	36.00
				122.90

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST $ BDS
5. Pest And Disease Control				
Materials				
(i)	Perfekthion.	3 x 1pt/app	7.50/pt	22.50
(ii)	Diazinon	3 x 1pt/app	12.90/pt	38.70
(iii)	Sevin	6 x 1lb/app	11.36/lb	68.16
(iv)	Benlate	3 x 6oz/app	2.17/oz	39.06
(v)	Captan	3 x 6oz/app	.50/oz	9.00
(vi)	Mancozeb	3 x1.5lbs/app	5.62/lb	25.29
(vii)	Sticker/spreader	6 x 3ozs/app	.3533/oz	6.36
	Machine (incl. labour	6 app	36.00	216.00
	SUB-TOTAL			425.07
6. Irrigation				
Labour		26.1 hours	3.63/hr	94.74
Machine/Energy		3 months	74.00/mth	222.00
	SUB-TOTAL			316.74
7. Harvesting				
Labour		15 000 lbs/ac	0.0136/lb	204.00
	SUB-TOTAL			204.00
8. Interest on Working Capital (12%).				31.56
	SUB-TOTAL			31.56
Sub-Total Var. Cost				1 747.44
FIXED COST				
10. Land Rent			200/yr	53.85
11. Management (10% Var.Cost.)				174.74
12. Depreciation				
(i)	Irrigation Equipment			64.20
	SUB-TOTAL			292.79

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST $ BDS
13. Interest on Fixed Capital (15%)			48.15
SUB-TOTAL FIXED COST			340.94
TOTAL COST			2 088.38

Yield Per Acre	1 500 lbs
Cost of Production per lb	$ 0.14

Appendix 8

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP: Squash VARIETY: Zucchini

DURATION: 8 - 12 weeks

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost.			
1. Land Preparation			
i. Ploughing	1 way	125/ac	50.00
ii. Harrowing	2 ways	125/ac	100.00
iii. Furrowing	1 way	90/ac	72.00
iv. Rotavating	1 way	110/ac	88.00
SUB-TOTAL			310.00
2. Planting and Propagation			
Seed	3.5 lbs/ac	17.60/lb.	61.60
Machine (planting and rolling).		48.00/ac	48.00
SUB-TOTAL			109.60
3. Fertiliser Application			
Materials			
i. 12.12.17.2	4 bags x 50 kg/bg	56.00	224.00
ii. Fertex	3 x 5 lbs/app	2.05/lb	30.75
Machine (incl. labour)	1 app	36.00/app	36.00
SUB-TOTAL			290.75
4. Weed Control			
Materials			
i. Alanap	2 gals/ac	43.45/gal	86.90
Machine (incl. labour)	1 App	36.00/app	36.00
SUB-TOTAL			122.90

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
5. Pest and Disease Control			
i. Perfekthion	3 x 1pt/app	7.50/pt	22.50
ii. Diazinon	3 x 1pt/app	12.90/pt	38.70
iii. Sevin	6 x 1lb/app	11.36/lb	68.16
iv. Benlate	3 x 6 oz/app	2.17/oz	39.06
v. Captan	3 x 6 Oz/app	.50/oz	9.00
vi. Mancozeb	3 x1.5lbs/app	5.62/lb	25.29
vii. Sticker/Spreader	6 x 3 ozs/app	.3533/oz	6.36
Machine (incl. labour)	6 app	36.00/app	216.00
SUB-TOTAL			425.07
6. Irrigation			
Labour	26.1 hour	3.63/hr	94.74
Machine(Energy)	3 months	74/month	222.00
SUB-TOTAL			316.74
7. Harvesting.			
Labour	15 000 lbs/ac	.0307/lb	460.50
SUB-TOTAL			460.50
8. Interest on Working Capital (12%)			36.82
SUB-TOTAL			36.82
SUB-TOTAL VAR. COST			2 072.38
FIXED COST			
10. Land Rent		200/yr	50.00
11. Management (10% of Var.Cost)			207.24

Appendix 8
SQUASH

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
12. Depreciation			
i. Irrigation Equipment			64.20
SUB-TOTAL F. COST			321.44
13. Interest on Fixed Capial (15%)			48.15
SUB-TOTAL - FIXED COST			369.59
TOTAL COST			2 441.97
Yield Per Acre	15 000 lbs		
Cost of Production per lb	$ 0.16.		

Agricultural Marketing Services Division - (BMC). September, 1985

AMS DIVISION

NOTES: COST OF PRODUCTION - SEPTEMBER 1985

1. Land Preparation:

Rates used are commercial rates. A 20% reduction is assumed for owner's profit, and a further adjustment is made depending on the duration of the crop.

2. Costs Of Materials:

These are based on actual prices of materials as supplied by local suppliers (as at date). The frequency/amount of materials is based on discussions with agricultural personnel and farmers.

3. Cost Of Labour:

Based on actual price of labour (as at date).

4. Other Cost (Interest, Rent, etc.)

Assumptions have been based on " going costs".

COST OF PRODUCTION PER ACRE

SEPTEMBER 1985

CROP: SWEET PEPPER VARIETY: CALIFORNIA WONDER

DURATION: 12 - 16 WEEKS

OPERATION		FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost				
1. LAND PREPARATION				
i.	Ploughing	1 Way	1 25/AC	50
ii.	Harrowing	2 Ways	1 25/AC	100
iii.	Furrowing	1 Way	90/AC	72
iv.	Rotavating	1 Way	1 10/AC	88
	SUBTOTAL			310·00
2. PLANTING AND PROPAGATION				
Seed		1.25/AC	72.10/lb	90.13
Machine planting & rolling		1	48.00/AC	48.00
	SUBTOTAL			138.13
3. FERTILISER				
i.. .	12.12.17.2	8 bags x 50 kg/bag	56.00/bg.	448.00
ii.	Fertex	4 app x 5 lbs/app	2.05/lb	41.00
iii.	This	12 x 1pt/app	3.79/pt	45.48
iv.	Erosgtim	3 x 160 cc	0.14/cc	67.20
	Machine	3 app	36.00/app	108.00
	SUBTOTAL			709.68

OPERATION		FREQUENCY/AMOUNT	RATE $ UNIT	TOTAL COST HDL $
4.	WEED CONTROL			
	Materials			
i.	Prefar	1 app x 1.5 gals	79.82/gal	119.73
ii.	Machine	1	36.00/app	36.00
	Hand weeding	10 times	10.63/time	106.30
	SUBTOTAL			262.03
5.	PEST & DISEASE CONTROL			
	Materials			
i.	Furadan	1 x 30 lbs/AC	4.85/lb	145.50
ii.	Chlorodane	1 x 1 pt/app	12.90/pt	12.90
iii.	Lannate	12 x 1 pt/app	11.44/pt	137.28
iv.	Kocide 600	12 x 3 pts/app	8.85/pt	318.60
v.	Sticker spreader	9 x 3 ozs/app	.3533/oz	9.54
	Machine	15 app	36.00/app	540.00
	SUBTOTAL			1 163.82
6.	IRRIGATION			
	Labour	34.8 manhours	3.63/mh	126.32
	Machine/energy	4 months	74.00/month	296.00
	SUBTOTAL			422.32
7.	HARVESTING			
	Labour and transport to farmgate	25 000 lbs	.0672	1680
	SUBTOTAL			1680
8.	TRANSPORT TO PACKING STATION			
	Labout (unskilled)	6 x 1.5 hours	3.63/hr.	32.67
	Machine	6 trips		395.28
	SUBTOTAL			427.95

	OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
9.	REMOVAL OF CULLS FROM FIELD			
	Unskilled labour	18 hours	3.02	54.36
	Skilled labour	1 hour	4.98	4.98
	SUBTOTAL			59.34
10.	INTEREST ON WORKING CAPITAL (12%)			112.43
	SUBTOTAL VAR. COST			5 285.70
	FIXED COST			
11.	LAND RENT		200/yr	69.23
12.	MANAGEMENT (10% Var. Cost)			528.57
13.	DEPRECIATION			
	Irrigation Equipment			85.60
	SUBTOTAL			683.40
14.	Interest on fixed capital			64.20
	SUBTOTAL - FIXED COST			747.60
	TOTAL COST			6 033.30
	Yield per acre*	25 000 lbs		
	Cost of production per lb.	$ 0.24		

* This yield assumes the use of TRICKLE IRRIGATION

COST OF PRODUCTION PER ACRE

Appendix 8

SEPTEMBER 1985

CROP: Yam (Mechanical Production) Variety: Crop Lisbon

DRUATION: 9 Months

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
Variable Cost			
1. Land Preparation			
i. Ploughing	1 way	125/ac	100.00
ii. Harrowing	2 ways	125/ac	200.00
iii. Furrowing	1 way	90/ac	75.00
iv. Rotavating	1 way	110/ac	88.00
SUB-TOTAL			460.00
2. Planting and Propagation			
Planting Material	900 lbs/ac	0.40/lb	360.00
Treatment of Planting material			
i. Benlate	1 app x 8 ozs/app	2.17/oz	17.36
ii. Diazinon	1 app x 4 pts	12.90/pt	51.60
mechanical planting (cutting, dipping and planting)	1 acre	48.18/ac	48.18
SUB-TOTAL			477.14
3. Fertiliser Application			
12.12.17.2	4 bgs x 50kg/bg	56.00/bg	224.00
Machine (incl. labour)	1 app	36.00	36.00
SUB-TOTAL			260.00
4. Weed Control			
Materials			
i. Atrazine	2 lbs/ac	3.11/lb	6.22
Machine (incl. Labour)	1 app	36.00	36.00
SUB-TOTAL			42.22

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST BDS $
5. Pest and Disease Control			
i. Furadan	30 lbs/ac	4.85/lb	145.50
ii. Benlate	5 app x 8oz/app	2.17/oz	86.80
iii. Bravo	5 app x 2.5pts/app	9.23	115.38
iv. Sticker/Spreader	5 app x 3oz/app	.3533/oz	5.30
Machine (incl. Labour)	5 app	36.00/app	180.80
SUB-TOTAL			532.98
6. Harvesting			
Harvesting, grading and transport to shed	1 4000 lbs	0.03/lb	420.00
SUB-TOTAL			420.00
7. Interest on working Capital (12%)			140.83
SUB-TOTAL			140.83
SUB-TOTAL VAR. COST			2 333.17
FIXED COST			
8. Land Rent		220/yr	150.00
9. Management (10% Var. Cost)			233.32
10. Depreciation			-
SUB-TOTAL			383.32
Interest on Fixed Capital			-
SUB-TOTAL FIXED COST			383.32
TOTAL COST			2 716.49
Yield Per Acre	14 000 lbs		
Cost of Production per lb	$ 0.19		

COST OF PRODUCTION PER ACRE

Appendix 8

SEPTEMBER 1985

CROP: Yam (Manual Production) Variety: Crop Lisbon

DURATION: 9 Months

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST $ BDS
Variable Cost			
1. Land Preparation			
i. Ploughing	1 way	125/ac	100.00
ii. Harrowing	2 ways	125/ac	200.00
iii. Furrowing	1 way	90/ac	72.00
iv. Rotavating	1 way	110/ac	88.00
SUB-TOTAL			460.00
2. Planting And Propagation			
Planting Material	900 lbs/ac	0.40/lb	360.00
Treatment of Planting material			
i. Benlate	1 app x 8 oz.	2.17/oz	17.36
ii. Diazinon	1 app x 4 pts	12.90/pt	51.60
Hand Planting-Preparing Holes	3600 plants/ac	0.66/100	23.76
-Preparing Plants	3600 plants/ac	0.66/100	23.76
-Planting	3600 plants/ac	1.14/100	41.04
SUB-TOTAL			517.52
3. Fertiliser Application			
12.12.17.2	4 bgs x 50kg/bg	56.00/bg	224.00
Machine (incl. labour)	1 app	36.00	36.00
SUB-TOTAL			260.00

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST $ BDS
4. Weed Control			
Materials			
i. Atrazine	2 lbs/ac	3.11/lb	6.22
Machine (incl. Labour)	1 app	36.00	36.00
SUB-TOTAL			42.22
5. Pest And Disease Control			
Materials			
i. Furadan	30 lbs/ac	4.85/lb	145.50
ii. Benlate	5 app x 8 oz/app	2.17/oz	86.80
iii. Bravo	5 app x2.5oz/app	9.23/oz	115.38
iv. Sticker/Spreader	5 app x 3 ozs/app	.3533/oz	5.30
Machine (incl. labour)	5 app	36.00/app	180.00
SUB-TOTAL			532.98
6. Harvesting			
Manual - Whole Yam	10 500 lbs	2.42/100 lbs	254.10
- Cut Yam	3 500 lbs	0.53/100 lbs	18.55
Collecting, transport Weighing and packing	14 000	0.06/lb	840.00
SUB-TOTAL			1 112.65
7. Interest on Working Capital (12%)			175.63
SUB-TOTAL			175.63
SUB-TOTAL VAR. COST			3 101.00
FIXED COST			
8. Land Rent		200/yr	150.00
9. Management (10% of Var. Cost.)			310.00
10. Depreciation			-
SUB-TOTAL			460.10

OPERATION	FREQUENCY/AMOUNT	RATE $/UNIT	TOTAL COST $ BDS
11. Interest on Fixed Cost			-
SUB-TOTAL ON FIXED COST			460.10
TOTAL COST			3 561.10
Yield Per Acre		14 000 lbs	
Cost Of Production Per lb		$ 0.25	

ESTIMATED COST OF PRODUCTION PER ACRE 1/

CROP: PAPAYA

Estimated duration of crop: 18 months

No. of plants per acre: 810

ESTABLISHMENT

LAND PREPARATION

Ploughing	81.00	
Harrowing	101.00	
Rotavation	81.00	
Furrowing	65.00	
Drain construction	85.00	
		413.00

PLANTING

1. Wind breaks

Plants	42.50	
Labour	56.82	
		98.78

2. Papaya crop

Layout and digging	168.90	
Materials (Labour)	35.00	
Purchase of plants		
Cost of plants	607.50	
Transportation	80.00	
Handling	66.88	
Setting of plants:		
Labour	189.95 + 4.69 = 194.64	
Inputs and materials		
Fertilizer	87.18	
Manure	64.00	
Furadan	34.97	
~~Labour~~	~~173.59~~	
Replanting	39.87	
		1,378.94
		1,890.72

1/: Extracted from the document: "Estimated Cost of Production for Pawpaw in Barbados" by R. Rarnum, R. Marte, E. Webster. December 1986, IICA

MAINTENANCE

WEED CONTROL - ALTERNATIVES

METHOD A: Farming

Chemicals (initial clearing)	39.38	
Equipment	18.95	
Labour	37.05	
Labour - Weeding	864.00	
		959.38

Method B: Mechanical, Chemical and Manual

Machine	79.29	
Chemicals	275.66	
Labour	164.15	
Equipment	41.75	
Manual (circle weeding)	712.50	
		1,273.35

Method C: Chemical and Manual

Chemical	275.66	
Equipment	41.75	
Labour	164.15	
Manual (circle and flat weeding)	1,110.92	
		1,592.48

IRRIGATION - ALTERNATIVES

Method A: Rainfed

Water (public) to set out plants	112.56	
Labour to apply	43.74	
		156.30

Method B: Drip irrigation

i. Using public water

Equipment and installation	2,175.00	
Water - public	1,781.43	
		3,956.43

ii. Using well water

Equipment and installation	2,525.00	
Electricity and maintenance	500.00	
		3,025.00

FERTILIZATION		
Granular fertilizer	4,357.10	
Labour	717.57	
Foliar Fertilizer	249.15	
		5,325.82
PEST AND DISEASE CONTROL		
Fungicides	1,918.54	
Pesticides	1,494.90	
Labour	2,371.20	
Equipment	401.60	
		6,186.24
HARVESTING AND GENERAL COSTS		
HARVESTING AND HANDLING		
Materials		
Crates	120.00	
Tools	52.00	
Labour	2,251.20	
Post harvest treatment		
Fungicide	1,657.15	
Labour	500.00	
Materials	375.20	
		4,955.35
LAND		
Rental for 18 months	150.00	

Under conditions of adequate availability of water, the expected production per tree is 100 lbs, giving an expected production per acre of 81,000 lbs.
At a selling price of $0.50 per lb
the expected total income is $40,500.00.

Under rainfed conditions the expected production per tree is 60 lbs, giving an expected production per acre of 48,600 lbs.
At a selling price of $0.50 per lb
the expected total income is $24,300.00.

Table 1: Estimated Cost of Production and Expected Net Income per Acre for Papaya Production, using different combinations of Weed Control and Irrigation Methods, exclusive of Finance Charges.

		Method of Irrigation		
Method of Weed Control		Rainfed	Drip Public water	Drip Well water
Farming	1.	$19,623.81	$23,423.94	$22,492.51
	2.	$ 4,676.19	$17,076.06	$18,007.49
Mech/Chem/Manual	1.	$19,937.78	$23,737.91	$22,806.48
	2.	$ 4,362.22	$16,762.09	$17,693.52
Chemical/Manual	1.	$20,256.91	$24,057.04	$23,305.61
	2.	$ 4,043.09	$16,442.96	$17,194.39

Note:
1. - Estimated Cost of Production.
2. - Expected Net Income.

Table 2: Estimated Cost of Production and Expected Net Income per Acre for Papaya Production, using different combinations of Weed Control and Irrigation Methods, inclusive of Finance Charges.

		Method of Irrigation		
Method of Weed Control		Rainfed	Drip Public water	Drip Well water
Farming	1.	$20,890.04	$24,935.38	$23,943.85
	2.	$ 3,409.96	$15,564.62	$16,556.15
Mech/Chem/Manual	1.	$21,224.28	$25,269.59	$24,278.07
	2.	$ 3,075.72	$15,230.41	$16,221.93
Chemical/Manual	1.	$21,564.01	$25,609.33	$24,809.43
	2.	$ 2,735.99	$14,890.67	$15,690.57

Note:
1. - Estimated Cost of Production.
2. - Expected Net Income.

Financing: Finance charges are calculated at an interest rate of 8% over a period of 18 months.

PROJECT PROPOSALS

INTRODUCTION

Following from the recommendations made in Section 2-6 three project proposals have been designed. This is seen as being in keeping with one of the original objectives of the study - to produce tangible benefits to the local processing sector.

Projects are proposed for the following areas:

- Provision of technical assistance to existing agro-processors
- Establishment of a locally processed food promotion programme
- Development of the market for unique products.

In each instance the AMC division of the BMC will be responsible for co-ordinating the project activities.

PROJECT PROPOSALS

PROJECT: Provision of Technical Assistance to Existing Agro Processors.

Beneficiaries

Polyproducts
Barpac
Other Food Processors

Source: Proposals for Agro-Industrial Expansion in Barbados. By G. Summers. Funded by USAID. 1984.

PROJECT DESCRIPTION

Provision of Plant Equiment Specialist (1 month)

- advise on most suitable machinery for processing operations
- identify potential suppliers of recommended machinery
- provide suggested plant lay out.

Provision of Two Production Managers (2 x 1 year)

- establish vegetable processing line at Barpac (1 manager)
- develop vegetable processing line at Polyproducts (1 manager)
- achieve maximum line efficiency (both managers)
- provide consulting services to other food processors (both managers, 1 day per week).

CO-ORDINATION

The AMS Division of the BMC will be responsible for co-ordinating the activities of the technical assistance staff and providing progress reports.

COSTS

Estimated at US$ 170,000.

PROJECT: Establishment of a Locally Processed Food Promotion Programme.

BENEFICIARIES

Local food processors.

PROJECT DESCRIPTION

- Preparing and publishing of newspaper, magazine articles, radio and television programmes on nutrient and convenience value, and ways of preparing locally processed foods.

- Preparing and distributing recipe books geared to commercial food establishments.

- Preparing and distributing small recipe books and leaflets for the general consumers.

- Co-ordinating and sponsoring food shows and competitions.

PROJECT LOCATION

Based within the AMS Division of the BMC.

PROJECT COSTS

Food Promotion Specialist	US$20,000 (2 years)
Promotion Budget	5,000
	US$25,000

PROJECT: Development of the Market for Unique Products.

BENEFICIARIES

Local processors/entrepreneurs with an interest in developing products for the unique market.

POSSIBLE COMMODITIES

Pepper sauce
Pure jams and jellies
Exotic fruit juices
Sugar cane juice
West Indian Cherry Products

STAGES NECESSARY FOR MARKET DEVELOPMENT

1. Identify market opportunity (ies)
2. Check supply potential and initial profitability calculation.
3. Contact potential buyer(s) to determine specific requirements - quality, volume, price, etc.
4. Contact potential supplier(s) to determine production capabilities and price aspirations.
5. Undertake feasibility study to confirm profitability of proposed venture (may include sample shipment)
6. Agree with buyer(s) and supplier(s) on details of a production and marketing programme (including product price, grades, packaging and delivery requirements, etc).
7. Plan production and marketing activities to meet price, quality, quantity requirements to the final buyer.
8. Discuss and refine plan with participating parties.
9. Implement production and marketing programme for pilot shipments.
10. Monitor progress and adjust programme as necessary.

11. Meet with final buyer and other production and marketing system participants to determine reaction to pilot programme.
12. Establish firm targets (price, quantity, quality, etc.) for full scape production and marketing programme.
13. Repeat planning procedure outlined above (6-8).
14. Implement production and marketing programmes for full scale shipments
15. Monitor progress and adjust programme as necessary.

PROJECT DESCRIPTION

Through the AMS Division of the BMC assist in identify potential markets and establishing contacts to be provided. Also assistance with planning and co-ordinating the various stages necessary for market development.

COSTS

US$10,000 for investigating potential market and conducting feasibility studies.

APPENDIX 10

The following are the profiles of the Projects identified in the Marketing Action Plan.

PROJECT PROFILE

TITLE: PROGRAMME: PRODUCTION PROGRAMME

PROJECT: CROP INSURANCE PROJECT

OBJECTIVE(S):

To evaluate crop insurance within the Barbados context and recommend on the introduction of a pilot scheme.

DESCRIPTION/COMPONENTS:

The crop insurance project will involve a three (3) month evaluation of crop insurance and the development of a pilot scheme for Barbados. The second phase of this project will involve the implementation of the pilot scheme in conjunction with the Insurance Corporation of Barbados during year 2 of the Action Plan.

COST:

The project is estimated to cost $30,000 in year 1 and $150,000 per year from year 2. Total cost over five years would be $630,000. Funding will be provided by the Government and from international agencies as grants.

IMPLEMENTATION:

The Barbados Marketing Corporation in conjunction with the Insurance Corporation of Barbados will be responsible for the implementation of the pilot scheme. A thorough evaluation of the project will be undertaken during year 5 of the Action Plan.

PROJECT PROFILE

TITLE: PROGRAMME: PRODUCTION

PROJECT: CO-OPERATIVE DEVELOPMENT PROJECT

OBJECTIVE(S):

(1) To strengthen the institutional capability of the Co-operative Department to mobilize and establish agricultural co-operatives.

(2) To provide Technical Assistance to agricultural co-operatives during the initial years.

DESCRIPTION/COMPONENTS:

- evaluation of agricultural co-operatives in Barbados (1 year)
- establishment of Agricultural Co-operatives Unit within the Co-operatives Department (staff for 5 years)
- training for Co-op Department staff and members of co-operatives (3yrs)
- technical assistance personnel (2 years)

COST:

The total cost of the project is estimated at $585,000 to be provided by the Government and international grant funding.

IMPLEMENTATION:

The Ministry of Agriculture through the Division of Co-operatives will be responsible for implementing the project including the sourcing of technical assistance.

TITLE: PROGRAMME: PRODUCTION

PROJECT: RESEARCH/EXTENSION DEVELOPMENT

OBJECTIVE(S):

To further develop the research/extension approach in the delivery of these services to the farming community.

DESCRIPTION/COMPONENTS:

- evaluation of management and organization of total research and extension system (during year 1)
- provision of additional staff (for 5 years)
- training (over 5 years)

COST:

The total cost of the project is estimated at $570,000 to be provided by the Government and international grant funding.

IMPLEMENTATION:

The Ministry of Agriculture will be responsible for the implementation of the project.

PROJECT PROFILE

TITLE: PROGRAMME: PRODUCTION

PROJECT: ANALYSIS OF INPUT SUPPORT SYSTEM

OBJECTIVE(S):

To evaluate the input supply system with a view towards providing recommendations for improved efficiency.

DESCRIPTION/COMPONENTS:

The project will involve a three (3) month evaluation of the input supply system.

COST:

The total cost of the Study is estimated at $30,000. Grant funding will be sought.

IMPLEMENTATION:

The Ministry of Agriculture through the Planning Unit will implement the Study.

TITLE: PROGRAMME: PRODUCTION

PROJECT: AGRICULTURAL CENSUS PROJECT

OBJECTIVE(S):

To collect, compile and publish current data on agricultural resources, crop and livestock production and the structure and organization of the agricultural sector.

DESCRIPTION/COMPONENTS:

Preparation of enumeration manuals

Recruitment and training of enumerators

Field enumeration

Analysis and publication of data

COST:

The estimated cost to conduct the census is $500,000. The source of funds will be the Government and international funding agency.

IMPLEMENTATION:

The Ministry of Agriculture in association with the Department of Statistical Services will implement the project in Year 2 of the Action Plan.

PROJECT PROFILE

TITLE: PROGRAMME: PRODUCTION
PROJECT: FARMER REGISTRATION PROJECT

OBJECTIVE(S):

To develop a register of farmers in Barbados and a profile of their production characteristics.

DESCRIPTION/COMPONENTS:

- Develop a register and profile of farmers from the cencus data in conjunction with field visits.
- Coding and storing of data in the computer.

COST:

The estimated cost of this project is $100,000.

IMPLEMENTATION:

The Ministry of Agriculture will implement this project with funding from the Government and international funding agency during year 3 of Action Plan.

TITLE: PROGRAMME: PRODUCTION
PROJECT: COST OF PRODUCTION STUDY

OBJECTIVE(S):

(1) To update the cost of production data

(2) To identify the major components of cost

(3) To ascertain the reasons for the level of cost.

DESCRIPTION/COMPONENTS:

The project will involve a three (3) month investigation and analysis of cost of production on small and large farms for major activities.

COST:

The estimated total cost of the study is $30,000.

IMPLEMENTATION:

The Ministry of Agriculture through the Planning Unit will implement the Study during year 2 of the Action Plan.

PROJECT PROFILE

TITLE: PROGRAMME: AGRICULTURAL SERVICES
PROJECT: INFORMATION/INTELLIGENCE AND MARKET ANALYSIS

OBJECTIVE(S):

To strengthen the institutional capability of the Barbados Marketing Corporation (BMC) to gather market information, conduct market analysis and provide market intelligence through its BASIS programme.

DESCRIPTION/COMPONENTS:

Provision of additional staff (for 5 years)

Training

Data/Publication Facilities

Technical Assistance to review and modify information forecasting system (1 year)

COST:

The total cost of the project is estimated at $350,000 to be provided by the Barbados Marketing Corporation (BMC) and international grant funding.

IMPLEMENTATION:

The project will start in year 1 of the Action Plan and the BMC will be responsible for its implementation.

TITLE: PROGRAMME: AGRICULTURAL SERVICES
PROJECT: PROJECT IDENTIFICATION, DEVELOPMENT AND PROMOTION

OBJECTIVE(S):

To promote agricultural investment projects and assist in their identification and formulation.

DESCRIPTION/COMPONENTS:

This project will involve the training of staff within: BNB, BDB, BMC and the Planning Unit - Ministry of Agriculture, Food and Fisheries in the relevant project skills. These institutions will be expected to play a role in promoting agricultural investment by offering project formulation and analysis services to the public.

COST:

The total cost of this project is estimated at $80,000 over two (2) years. Grant funds will be sought.

IMPLEMENTATION:

The Agricultural Planning Unit will be responsible for the co-ordination of this project.

PROJECT PROFILE

TITLE: **PROGRAMME:** AGRICULTURAL CREDIT
PROJECT: AGRICULTURAL LINE OF CREDIT

OBJECTIVE(S):

To make available a line of credit to the BNB and BDB for on-lending to primary and secondary agricultural products at concessionary rates of interest.

DESCRIPTION/COMPONENTS:

The project will involve the Government seeking loan assistance from international agencies to be provided to BNB and BDB for on-lending to non-sugar agriculture. The project will also require these institutions to have in place adequate staff to supervise all projects under the loan.

COST:

The total line of credit will be $10 million to be drawn down approximately as shown in Section 6.

IMPLEMENTATION:

The project will be co-ordinated through the Central Bank of Barbados.

TITLE: **PROGRAMME:** AGRICULTURAL CREDIT
PROJECT: EXPORT REVOLVING FUND

OBJECTIVE(S):

(1) To facilitate the timely payment to producers for produce destined for exports.

(2) To finance the purchase of packaging material and other related export cost associated with the exports of non-sugar commodities.

DESCRIPTION/COMPONENTS:

The project will involve the Government securing funds for the establishment of a non-sugar agriculture export revolving fund. These funds will be used to achieved the stated project objectives. The project will require that procedures for administration, application, processing and disbursement be formulated and detailed.

COST:

The estimated cost of establishing the Fund is $3 million ($1 million annually for three (3) years). These funds will be provided by the Government and external loans.

IMPLEMENTATION:

The project will be co-ordinated by the Central Bank of Barbados.

PROJECT PROFILE

TITLE: PROGRAMME: AGRICULTURAL MARKETING

PROJECT: PUBLIC MARKET IMPROVEMENT

OBJECTIVE(S):

To improve the trading environment of the public markets by the upgrading of physical facilities and supply of equipment.

DESCRIPTION/COMPONENTS:

The project will involve the technical evaluation of all the public markets in order to determine the future of each market. A second compoonent would involve the renovation of the selected markets and the implementation of any recommendation on the improvement of management. and on the provision of additional services.

COST:

The evaluation exercise will provide the necessary cost details, however, an indicative estimate of $3 million is provided. The source of funding would be the Government and loan financing.

IMPLEMENTATION:

The project would be implemented through the Special Assignments Division of the Ministry of Agriculture during year 3.

TITLE: PROGRAMME: AGRICULTURAL MARKETING

PROJECT: EVALUATION OF HUCKSTER SYSTEM

OBJECTIVE(S):

To evaluate the marketing activities of the huckster system to identify any inefficiencies and to make appropriate recommendations.

DESCRIPTION/COMPONENTS:

The project will involve a three (3) month study of the huckster system. It also provides for the formulation and implementation of any sub-projects identified by the Study.

COST:

The estimated cost of the study is $30,000 while the allocation for sub-projects is $150,000. Financing to be provided the the Government and international grant funding.

IMPLEMENTATION:

The project will be implemented by the Planning Unit of the Ministry of Agriculture from year 2.

PROJECT PROFILE

TITLE: **PROGRAMME:** AGRICULTURAL MARKETING

PROJECT: PROMOTION OF AGRICULTURAL PROJECTS

OBJECTIVE(S):

(1) To promote increase consumption of non-sugar agricultural products locally;

(2) To promote and develop markets for locally produced products abroad.

DESCRIPTION/COMPONENTS:

The project will involve the preparation of a comprehensive food promotion programme for the local market and export promotion drives.

COST:

The annual budget for the food promotion programme is $200,000 for the duration (5 years) of the marketing Action Plan to be provided by the Government and grant funds.

IMPLEMENTATION:

The project will be implemented by the Barbados Marketing Corporation.

TITLE: **PROGRAMME:** AGRICULTURAL MARKETING

PROJECT: CO-OPERATIVE COLLECTION AND DISTRIBUTION CENTRES

OBJECTIVE(S):

To make resources available for the development of co-operative collection and distribution centres.

DESCRIPTION/COMPONENTS:

The project will provide concessionary financing to farmer co-operatives for the construction and equiping of these centres. It will also provide Technical Assistance in the form of a Marketing Specialist for one year to work with co-operatives establishing such centres.

COST:

The estimated cost of the project is $620,000 to be provided through loan and grant funds according to the schedule in Section 6.

IMPLEMENTATION:

The project will be co-ordinated by the Co-operative Division of the Ministry of Agriculture.

PROJECT PROFILE

TITLE: PROGRAMME: AGRO-PROCESSING

PROJECT: AGRO-PROCESSING RESEARCH AND DEVELOPMENT

OBJECTIVE(S)

To provide a research and development service which would seek to identify new products and refine the production techniques of existing products to ensure improved quality.

DESCRIPTION/COMPONENTS:

The project will provide laboratory testing facilities and the required staff to operate these facilities.

COST:

The estimated cost of this project is $510,000 to be provided by the BADC and international grant funds.

IMPLEMENTATION:

The responsibility for implementing the project will be that of the BADC. The project will commence in Year 3.

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TITLE: PROGRAMME: AGRO-PROCESSING.

PROJECT: STORAGE AND DRYING FACILITY FOR PEANUTS AND ONIONS

OBJECTIVES:

To provide a facility for the drying and storage of peanuts and onions.

DESCRIPTION/COMPONENTS:

The components of the project will involve:

- updating the feasibility study on storage facilities
- provision of adequate infrastructure and equipment to achieve the objectives
- installation of management and staff structure
- provision of adequate working capital

COST The estimated capital investment for the project is $1.5 million to be provided by the Government and borrowed funds.

IMPLEMENTATION:

The infrastructure works of the project will be implemented by the Special Assignments Division of the Ministry of Agriculture. The management of the project will be undertaken jointly by public and private sector participation. The project will commence in year 2.

PROJECT PROFILE

TITLE: PROGRAMME: AGRO-PROCESSING

PROJECT: AGRO-PROCESSING ADVISORY SERVICE

OBJECTIVE(S):

To provide Technical Assistance to the agro-processing sub-sector in the areas of equipment technology and product development and marketing.

DESCRIPTION/COMPONENTS:

The components of the project will involve the provision of two (2) Specialists for one year each.

COST:

The estimated cost of the project is $240,000 to be provided by grant financing.

IMPLEMENTATION:

The BADC will be responsible for the implementation of the project which will commence in year 2.

TITLE: PROGRAMME: AGRO-PROCESSING

PROJECT: COMMERCIAL/COTTAGE INDUSTRY DEVELOPMENT PROJECT

OBJECTIVE(S):

To facilitate investment in commercial/cottage industry type agro-industry projects.

DESCRIPTION/COMPONENTS:

The project will involve the utilization of funds provided through the line of credit from the agricultural credit programme for investment in such agro-industry projects as: canning and freezing of vegetables, processing of root crops and the processing of fruits.

COST:

The estimated cost of implementing this project is $3 million.

IMPLEMENTATION:

The BADC will be involved with the co-ordination of this project which will be linked to the Agro-processing Advisory Service project and the Agro-processing Research and Development project.

PROJECT PROFILE

TITLE: PROGRAMME: TRAINING

PROJECT: AGRICULTURAL TRAINING NEEDS

OBJECTIVE(S):

(1) To identify the training needs required to implement the agricultural diversification programme;

(2) To provide the training opportunities identified under the programme.

DESCRIPTION/COMPONENTS:

The project will involve the development of a comprehensive training programme for the agricultural sector and the provision of funds for the implementation of the training programmes.

COST:

The total cost estimated for the implementation of this project is $450,000 to be provided by the Government, international funding agencies and the various institutions in the agricultural sector.

IMPLEMENTATION:

The project will be implemented by the Ministry of Agriculture in conjunction with the Government Training Unit.

TITLE: PROGRAMME: INCENTIVE PROGRAMME

PROJECT: AGRICULTURAL INCENTIVE PROJECT

OBJECTIVE(S):

(1) To review the existing production incentive package and recommend a package more suited to the present development thrust;

(2) To review the existing industrial package with a view to ascertaining their relevance to agro-processing and agricultural marketing.

DESCRIPTION/COMPONENTS:

The project will involve two 3 month evaluations of the production incentive package and industrial incentive package respectively and the implementation of the respective recommendations.

COST:

The estimated total cost of both packages over the life of the Marketing Programme is $860,000 to be provided by the Government and grant funding.

IMPLEMENTATION:

The project will be implemented by the Ministry of Agriculture in conjunction with the Industrial Development Corporation.

PROJECT PROFILE

TITLE: PROGRAMME: AGRICULTURAL SERVICES

PROJECT: NATIONAL GRADES AND STANDARDS PROJECTS

OBJECTIVE(S):

(1) To develop grades and standards relevant to Barbados agriculture.

(2) To promote the use of these grades and standards in local trade of agricultural products.

DESCRIPTION/COMPONENTS:

The components of the project will involve:

- Technical Assistance for one year to develop the grades and standards
- Promotion and advertising for the duration of the Action Plan.

COST:

The total cost of the project is estimated at $320,000 to be provided by the Barbados Marketing Corporation (BMC) and international grand funds.

IMPLEMENTATION:

The Barbados Marketing Corporation (BMC) will be responsible for the implementation of the project.

PROJECT PROFILE

TITLE. PROGRAMME: AGRICULTURAL MARKETING

PROJECT: CENTRAL EXPORT FACILITY

OBJECTIVE(S):

To provide facilities for storage, packing and export of non-sugar agricultural commodities.

DESCRIPTION/COMPONENTS:

The components of the project will involve:

- updating the feasibility study on an export marketing facility
- provision of adequate infrastructure facilities and equipment to achieve the objectives
- installation of a management and staff structure
- provision of adequate working capital

COST:

The estimated capital investment rquirement for the project is $3 million to be provided by the Government and borrowed funds.

IMPLEMENTATION:

The infrastructure works of the projects will be implemented through the Special Assignments Division of the Ministry of Agriculture. The management of the project will be undertaken by a special Board comprising of public and private sector respresentation. The project will be implemented in year 2.

PROJECT PROFILE

TITLE: PROGRAMME: INSTITUTIONAL

PROJECT: STRENGTHENING OF AGRICULTURAL/MARKETING INSTITUTIONS

OBJECTIVES:

To provide institutional support to those institutions involved in agricultural marketing with a view towards achieving optimum performance.

DESCRIPTION/COMPONENTS:

The project will consist of the following components:

A. Strengthening of the BMC/BADC:

- by evaluating their ogranizational structure and modifying to suit the roles identified in the Marketing Action Plan;
- addition and training of staff as needed.

B. Strengthening of the Agricultural Planning and Policy Analysis Unit of the Ministry of Agriculture:

- provision of staff to undertake the various roles and functions of the Unit;
- creation of a project implementation section within the Planning Unit to ensure proper monitoring and implementation of the Marketing Action Plan.

C. Technical Assistance support to BSIL/BAS/ATCO, BNB/BDB.

COST:

The estimated cost of implementing this project over the five year period is $850,000 as shown in the schedule in Section 6. Funds would be provided by the Government and international grant funding.

IMPLEMENTATION:

Implementation of the project will be by the Ministry of Agriculture.

MINISTRY OF AGRICULTURE FOOD AND CONSUMER AFFAIRS

Agricultural Incentives Programme

A. Farm Incentive Scheme

1. Spraying Equipment

(i) A grant of 50% of the cost of a sprayer can to a maximum of $180.00

(ii) The grant is available for purchase of spray cans for spraying of crops, weeds or livestock.

2. Irrigation

(i) A grant of 50% of cost of establishing an approved irrigation system to a maximum of $30,000.00 for individual farmers;

(ii) A grant of 60% of cost of establishing an approved irrigation system to a maximum of $36,000.00 where two or more farmers are prepared to share common facilities;

(iii) A grant of 75% of cost of establishing an approved irrigation system is available to Registered Agricultural Co-operatives;

(iv) Once a grant has been approved the applicant(s) will be entitled to receive up to 50% of the sum approved towards the cost of sinking the well.

3. Pasture Development

(i) A grant of $500.00 per hectare ($202.00 per acre) or 30% of cost, whichever is less, for establishing approved pasture for crops;

(ii) A grant of $1200.00 per hectare ($485.00 per acre) or 30% of cost, whichever is less, for fencing pastures;

(iii) Pasture development grants are available for a maximum of 50 acres.

4. Sugar Cane Choppers

A grant of 50% of the cost of a sugar cane chopper to a maximum of $2,500 .00 per farmer.

5. Establishment of Silos

A grant of 25% of cost of establishing a silo to a maximum of $4,000.00 per farmer

6. Orchard Development

(i) A grant of $3.00 per tree per annum for a maximum of 500 trees per farmer

(ii) The grant is restricted to farmers in the Scotland District which is now a Fruit Tree Zone;

(iii) The grant is available to farmers producing at least 50 trees in pure stand;

(iv) In order to qualify for a grant, trees must be maintained in a condition satisfactory to the Chief Agricultural Officer.

7. Assistance to Registered Agricultural Co-operatives

(i) A grant of 25% of cost of machinery and equipment to be used for agricultural purposes;

(ii) A rebate of 50% of cost preparing land is available to Agricultural Co-operatives which own land cultivation equipment;

(iii) The rebate is however restricted to preparation of lands being operated by members of the particular co-operatives and is calculated on the basis of the rates prevailing under Government's Motor Tractor Scheme.

8. Rebates on Agricultural Machinery

(i) A rebate of 18% of the purchase price on agricultural machinery excluding sugar cane harvesters;

(ii) A rebate of 10% of the purchase price on chopper cane harvesters and ancillary equipment purchased by individual estates (applicants)

(iii) A rebate of 15% of the purchase price on chopper cane harvesters and ancillary equipment purchased by a sugar cane harvesting company or co-operative;

(iv) A rebate of 18% of the purchase price on the Barbadian Developed Sugar Harvesting System/Carib Cane Harvesters;

(v) A 40% investment allowance on machinery purchased for the manufacture and refining of sugar.

(vi) The above rebates are claimable at the time of filing of Income Tax Returns through the Government's Inland Revenue Department.

9. Rebate On Land Tax

A rebate of $150.00 per hectare ($61.00 per acre) is available for land holdings of not less than .75 hectares (1.9 acres) in respect of land taxes on presentation of proof that the gross value of crops or livestock produced on the holding exceeded $1,000.00 per hectare ($405.00 per acre) during the preceding year.

10. Land Cultivation Rebates

(i) A once-for-all rebate of ~~$250.00~~ $420.00 per hectare (~~$101.00~~ $170.00 per acre) is available to land owners who have paid the idle land levy ($500.00 per hectare/~~$121.00~~ $202.00 per acre) to help cover expenses incurred in bringing the land back into production.

(ii) A rebate is available for the cultivation of land holdings of less than 5 hectares (12 acres) for rental of land preparation machinery and equipment as follows:-

	Rebate ($)	
	Per Hectare	Per Acre
Furrowing	80.00	33.00
Harrowing	120.00	50.00
Ploughing	100.00	40.00
Rotavating	100.00	40.00

(iii) The rebate at (ii) above will be given directly under the Government's Motor Tractor Cultivation Scheme. Where the farmer utilizes the services of a private operator then he has to make an application for the subsidy.

(iv) The rebate at (ii) will not be available for any operations for which a claim has been made as at (i) above

B. Grassland Scheme

(i) Planting material is available free of cost to farmers for the purpose of establishing pastures of selected grasses and legumes.

(ii) A subsidized service is available to farmers for cutting, raking a and baling hay as follows:

(a) cutting - $153.00/ha ($62.00 per acre)

(b) raking - $49.00/ha ($20.00 per acre)

(c) baling - 109.00/ha ($44.00 per acre)

C. Motor Tractor Cultivation Scheme

Land preparation machinery and equipment owned by Government is made available to farmers for the purpose of preparing lands. It is made available at highly subsidized rates.

D. Livestock Breeding Services

Subsidized Stud Services are available at most agricultural stations as follows:

	RATES (£)
Cattle - AI (fresh semen)	4.00
AI (frozen semen)	6.00
Pigs - Boars	1.25
- -	[illegible]
Goats - Bucks	.75 .75
Rabbits (bucks)	.50
Sheep (rams)	.25
Cattle (bulls)	-

E. Supply of Livestock

Livestock are available at most Agricultural Stations at the following subsidized prices:

	PRICE (£)
Calves (Bulls)	100.00
(heifers)	150.00
Lambs	35.00
Kids Bucks Does	60.00 75.00
Piglets* (local stock)	60.00
Rabbits	

F. Supply of Seedlings

The following are available at highly subsidized rates as follows:-

	PRICE ($)
Fruit trees	7.00
Windbreak trees	1.50
Vegetable seedlings	.25

G. 15. Services for Fruit Tree Owners

(i) Fruit tree owners can have their fruit trees sprayed at the cost of $3.00 per tree

(ii) A grafting service is available free of cost to fruit tree owners who request it.

H. Import Duty Concessions

A number of important agricultural items required for use in production are free of import duty as follows:

Tariff Heading No.	Tariff Description	Agricultural Item (if not specified in Tariff Description	Remarks
01.02	Live animals of bovine species		
01.03	Live swine		
01.04	Live sheep and goats		
01.05	Live poultry, that is to say fowls, ducks, geese, turkeys and guinea fowls		
01.06	Other live animals	Rabbits	
04.05.II	Eggs for hatching, imported in accordance with a permit issued by the proper authorities		Also free of duty under First Schedule Part III Item No. 61
10.05	Maize		
12.03	Seeds, fruits and spores of kind used for sowing		

Tariff Heading No.	Tariff Description	Agricultural Item (if not specified in Tariff Description	Remarks
12.07	Plants and parts of trees, bushes shrubs or other plants, being goods of a kind used primarily in perfumery, pharmacy or for insecticidal, fungal or similar purposes.		
30.02	Antisera, microbial vaccines, toxins, microbial cultures and similar products.		
30.03	Medicaments (including veterinary medicaments but excluding 30.03.9).		
31.01	Guano and other natural animal or vegetable fertilizers whether or not mixed together, but not chemically treated.		
31.02.4	Sodium nitrate, natural		
31.02.9	Other		
31.03	Mineral or chemical fertilizers, phosphatic		
31.04	Mineral or chemical fertilizers potassic		
38.11	Insecticides, fungicides, weed-killers		Free under First Schedule Part III Item 283.
59.05	Nets and netting made of twine, cordage, or rope and made up fishing nets of yarn, twine, cordage or rope	Net and Netting for protecting crops	Free under First Schedule Item 203
76.06	Tubes and pipes and blanks therefor, of aluminium	Irrigation tubing	Free under First Sedule Part 111 Item No.97.
76.07	Tube and pipe fittings of aluminium	Irrigation fittings	

Tariff Heading No.	Tariff Description	Agricultural Item (if not specified in Tariff Description)	Remarks
82.01	Hand tools, the following: Spades, shovels, [illegible] picks, hoes, forks, rakes, axes, bills, hooks and similar hewing tools scythes, sickles, hay, knives, grass shears, timber wedges and other tools of a kind used in agriculture, horticulture or forestry		
84.10	Pumps for liquid, whether or not fitted with measuring devices	Irrigation pumps	Free under First Schedu Schedule Part III Item No. 97
84.21.2	Mechanical appliances for projecting, dispersing or spraying liquids or powders for use in agriculture.		
84.24	Agricultural and Horticultural machinery for soil preparation or utilization (excluding lawn and sports and ground rollers)		Free under First Schedule Part 111 Items nos. 275 and 28
84.25	Harvesting and threshing machinery straw and fodder presses, hay or grass mowers; winnowing and similar cleaning machines for seed, grain or leguminous vegetables and egg-grading and other grading machines for agricultural produce (but dxcluding 84.25.1)		Free Under First Schedule Part III Item Nos. 275 & 283
84.26	Dairy machinery (including milking machines)		
84.28	Other agricultural, horticultural poultry-keeping and bee-keeping machinery, germination plant fitted with mechanical or thermal equipment, poultry incubators and broilers		Free under First Schedule Item No.2
87.01.2	Tractors for use in agriculture		

APPENDIX 12

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LIST OF PERSONS INTERVIEWED

NAME

Mr. Michael Moran	-	IICA, Barbados
Mr. Gooding	-	Ministry of Agriculture
Mr. Haynes	-	Ministry of Agriculture
Mr. Jordon	-	Barbados Marketing Corporation
Mr. Clyde King	-	Barbados Marketing Corporation
Messers: Errie Deane, Rudder, Simmons, JOhnson, Robinson, G. Armstrong, J. Armstrong	-	Barbados Sugar Industry Limited
Mr. David Kinch	-	Wakefield Plantation
Mr. Hensley Benn	-	Barbados Agricultural Society
Mr. Peter Miller	-	Miller Brothers
Mr. C.O. Williams	-	C.O. Williams Company
Mr. Patrick Bethel	-	Friendship Plantation
Mr. Cedric King	-	King Agro Foods
Mr. Sam Waithe	-	Caribbean Airways
Mr. David Seale	-	R. L Seale & Co.
Mr. Michael Mahon	-	WIMCAL

Supervisor of Public Markets

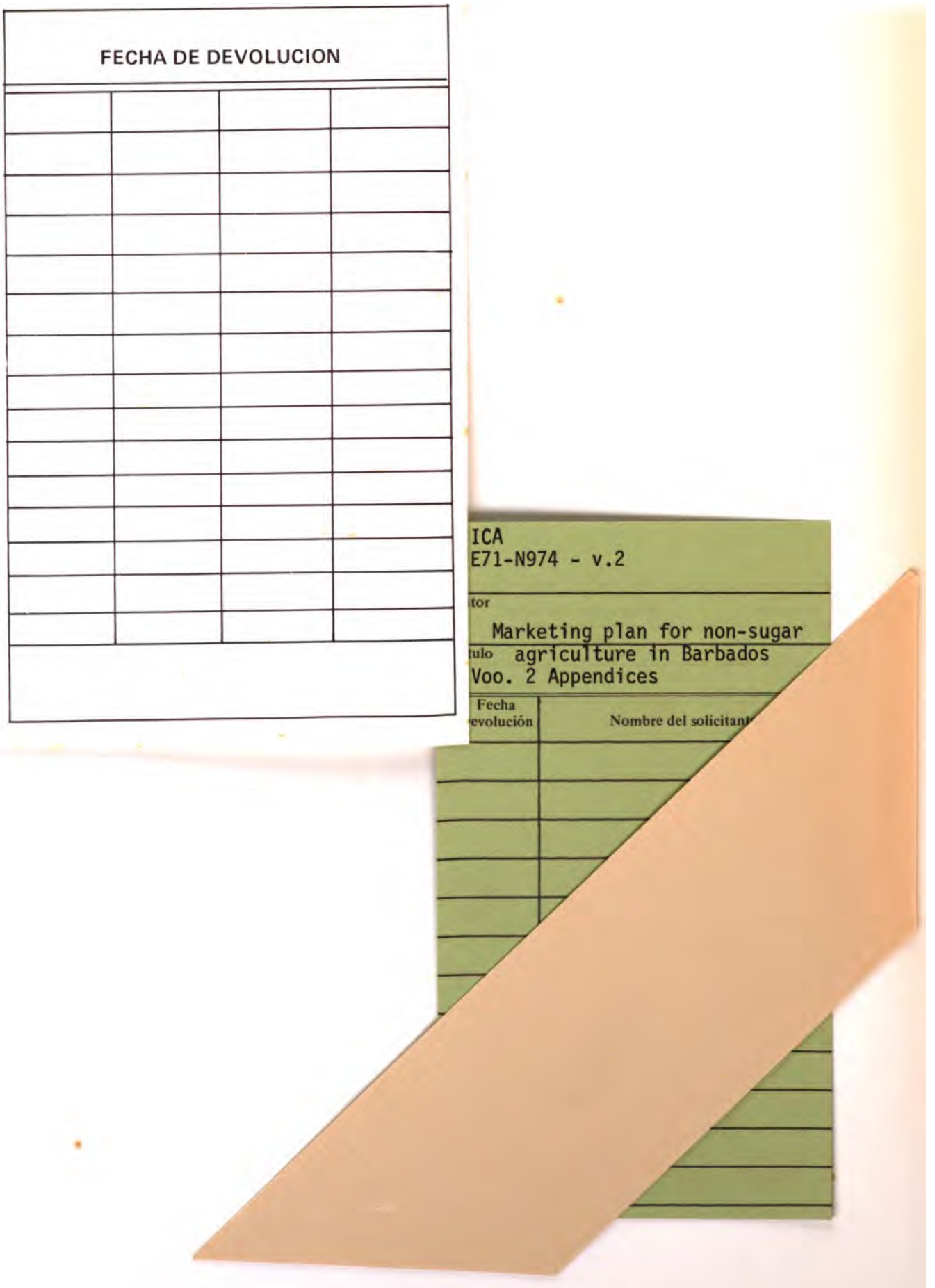
French's

Alamac Trading

Joint Meeting with Officials of: BSIL, BAS, BMC and Director of IICA.

Interviews at Goddards, J.B's, Paradise Hotel, Pizza House (Holetown), Fairchild Street Market Vendors, Cheapside Market Vendors, St. George Co-op and Street Vendors around the city of Bridgetown.

Permanent Secretary and Officials of the Ministry of Agriculture, Director of IICA, Manager of BMC and Marketing Officer, BADC (Joint Meeting to receive Progress Report)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