

THE CAUSES OF THE FOOD PRICE CRISIS: SUGAR

SUMMARY OF WORLD SUGAR MARKET DEVELOPMENTS

World sugar production has been growing faster than consumption. This is due to the strong and steady increase of production and exports by Brazil, the leading player on the sugar market, has kept world stocks at comfortable levels. As a consequence, world sugar prices did not follow the recent spike of other commodity prices, despite the significant impact of the EU sugar reform on decreasing the EU's production and exportable surplus. Although both Australia and Thailand affected by low yields in recent years, sugar prices showed volatility and a surge in 2006, the long-term trend in the sector is basically driven by ethanol use of sugar cane. Human consumption is increasing in the developing world, but the strongest factor of increase has been demand for ethanol in Brazil, which accounts for over 40% of world ethanol production, essentially all from sugarcane.

MAIN WORLD MARKET TRENDS

Production

- Area stayed roughly the same in all major players except for Brazil, where it increased notably since 2002, and in the EU where it diminished starting from 2006. World sugar production has risen during the 1995-2004 period, made a jump upwards in 2006 and continued slower growth in 2007. Brazil, the major sugar producer, has substantially increased its production, especially since 2002. Production in the EU starts to decrease from 2006 due to the impact of the sugar reform. The US shows an increase in 2006/07, while production in Australia decreased 2006/07 due to droughts. Thai production falls in 2004/05, as a result of low yields, but picks up again in 2006.

Consumption

- World sugar consumption shows a steady path of moderate increase. Some major players (US, EU, Australia) have moved to more steady consumption in recent years, in others consumption continues to grow.

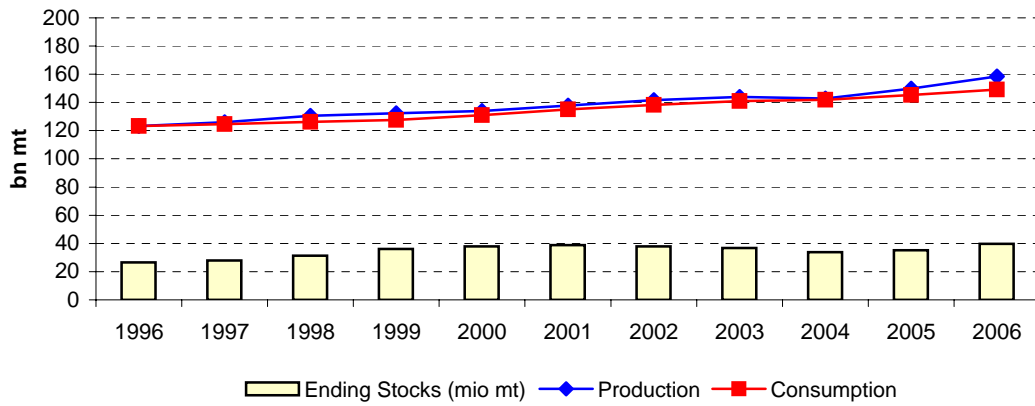
Trade

- Brazil strengthened its position as main exporter steadily and substantially with growth of 350% in net exports from 1995 to 2007. Thailand is back to being second largest exporter after a drop in 2004/05. Australia saw a reduction of net export in 2006/07. The EU, due to the impact of the sugar reform, moves from being net exporter to being net importer in 2006/07.

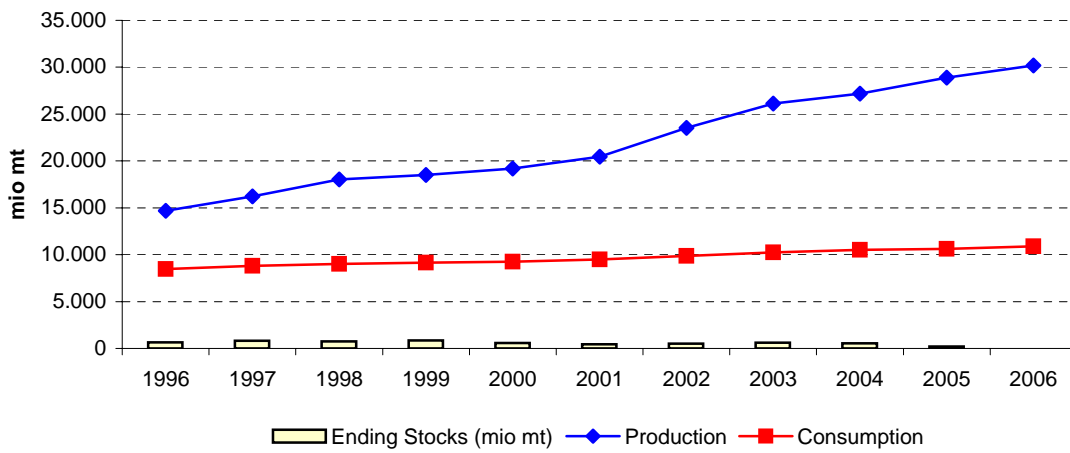
Ending stocks / Prices

- High volatility, but also a clear downward path in real terms, characterise the market, with production growing faster than consumption, and a comfortable level of stocks at world level, despite their decline among some of major players.

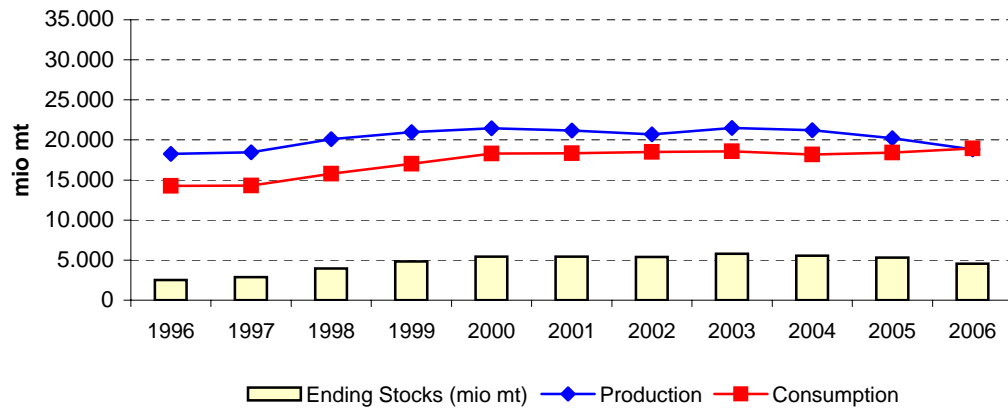
World sugar - 3 year moving average 1995-2007



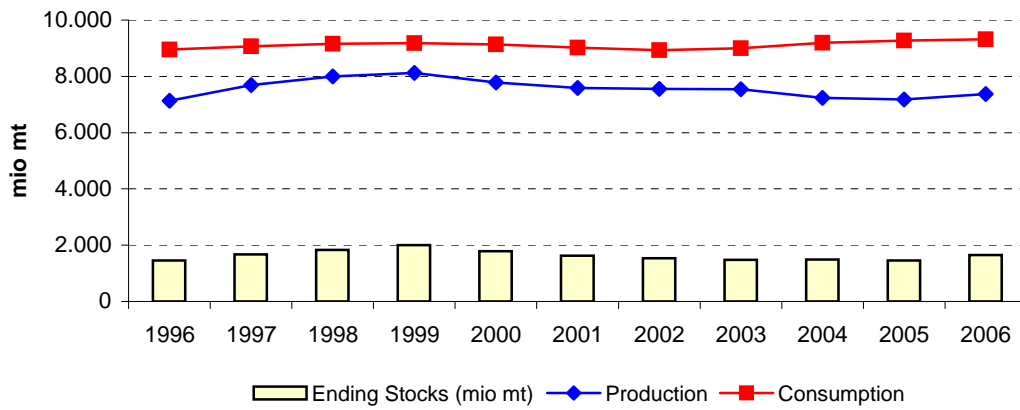
Brazil sugar - 3 year moving average 1995-2007



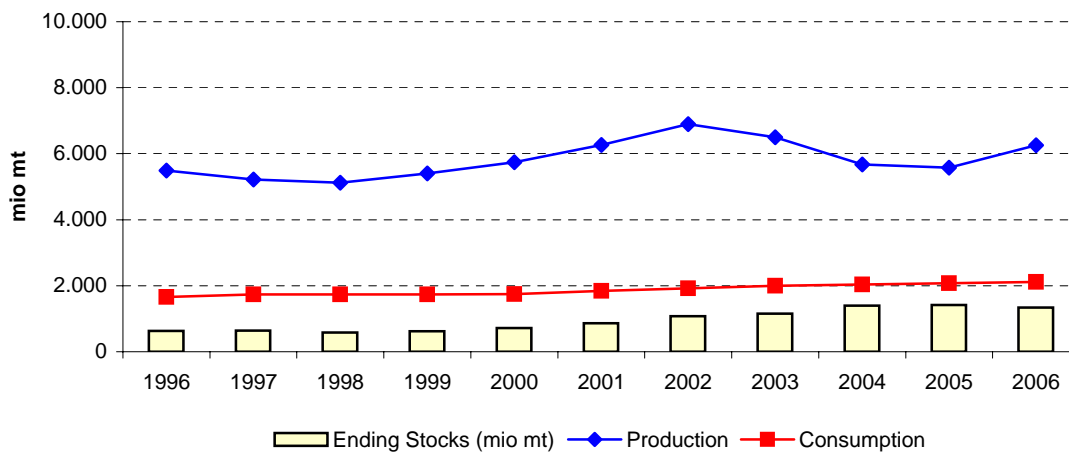
EU sugar - 3 year moving average 1995-2007



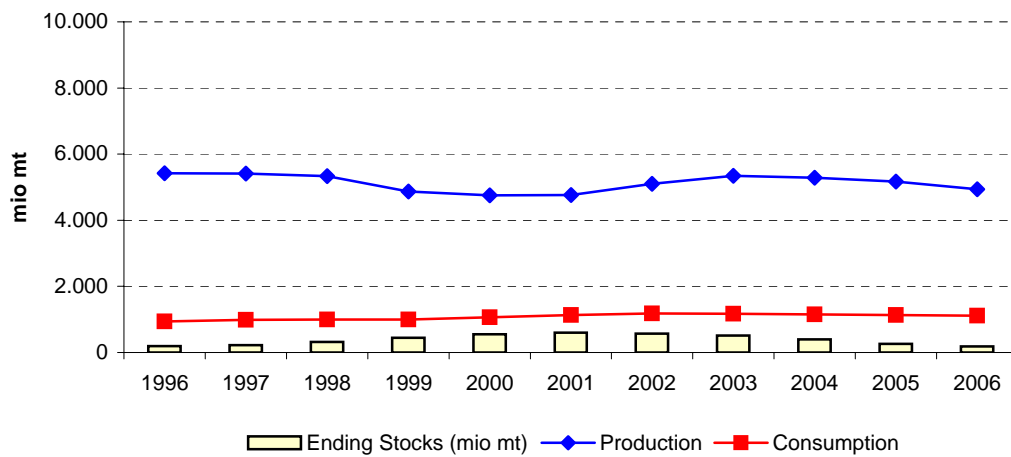
US sugar - 3 year moving average 1995-2007



Thailand sugar - 3 year moving average 1995-2007



Australia sugar - 3 year moving average 1995-2007



World	High prices			Low prices				High prices			Very high prices		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Area Sugar beet (mio Ha)	8	8	7	7	6	7	6	6	6	6	5	6	5
Area Sugarcane (mio Ha)	19	19	19	19	19	19	19	20	20	20	20	21	22
Total Area (mio Ha)	28	27	27	26	26	26	25	26	25	25	26	27	27
Yield Sugar beet (mt/ha)	34	35	36	39	41	39	41	41	44	46	47	46	44
Yield Sugarcane (mt/ha)	63	65	65	66	65	64	65	65	65	65	65	68	70
Production Sugar beet (mio mt)	274.160	270.489	263.144	264.286	263.190	252.864	250.171	263.888	252.394	262.232	255.273	259.396	242.262
Production Sugarcane (mio mt)	1.220.031	1.252.137	1.251.759	1.274.065	1.250.223	1.220.533	1.252.511	1.282.857	1.275.228	1.276.757	1.359.153	1.488.834	1.562.905
Production Sugar (mio mt)	122.168	122.549	125.032	130.237	136.264	130.867	134.432	148.341	142.421	140.829	144.860	164.066	166.676
Ending Stocks (mio mt)	27.258	26.712	25.738	31.061	37.281	40.046	36.568	39.758	37.713	32.850	31.064	41.581	46.509
Total Trade (mio mt)	25.668	23.916	24.590	25.140	31.017	29.062	29.450	33.215	32.326	33.106	34.977	36.587	37.350
Consumption (mio mt)	120.754	123.095	126.005	124.914	127.581	130.123	135.259	139.638	139.705	143.259	142.967	149.385	155.049
Price (\$/mt)*	29,28	26,36	25,06	19,67	13,81	18,03	19,04	15,18	15,63	15,80	21,79	32,59	22,22

European Union	High prices			Low prices				High prices			Very high prices		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Area Sugar beet (mio Ha)	2.094	2.023	2.041	2.005	2.518	2.466	2.459	2.339	2.247	2.240	2.182	1.807	1.677
Area Sugarcane (mio Ha)	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Area (mio Ha)	2.095	2.024	2.042	2.006	2.519	2.467	2.460	2.340	2.248	2.241	2.183	1.808	1.678
Yield Sugar beet (mt/ha)	53,45	56,27	59,51	57,43	54,73	51,66	56,00	54,34	57,89	60,18	58,37	59,08	60,40
Yield Sugarcane (mt/ha)	45,98	62,47	86,68	76,99	97,48	91,08	88,55	78,65	65,38	68,15	62,13	60,66	60,76
Production Sugar beet (mio mt)	111.922	113.841	121.468	115.145	137.821	127.409	137.715	127.083	130.078	134.798	127.374	106.750	101.285
Production Sugarcane (mio mt)	55	79	115	84	115	95	84	86	75	53	57	55	53
Production Sugar (mio mt)	17.234	18.221	19.305	17.818	23.114	22.024	19.224	22.311	20.500	21.707	21.471	17.450	17.490
Ending Stocks (mio mt)	2.066	2.535	3.001	3.107	5.719	5.647	4.913	5.768	5.450	6.132	5.088	4.704	3.840
Net Trade (mio mt)	5.021	3.420	4.532	3.462	3.615	4.075	1.886	2.500	2.344	2.664	4.857	-1.366	-1.546
Consumption (mio mt)	14.146	14.332	14.307	14.250	18.776	18.021	18.072	18.956	18.474	18.361	17.658	19.200	19.900

United States	High prices			Low prices				High prices			Very high prices		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Area Sugar beet (mio Ha)	536	578	587	618	618	556	502	551	545	529	503	528	505
Area Sugarcane (mio Ha)	336	348	359	381	381	395	393	393	377	356	347	343	337
Total Area (mio Ha)	871	926	947	999	999	951	895	944	922	885	850	870	841
Yield Sugar beet (mt/ha)	45,19	46,90	50,22	49,05	49,05	53,13	46,43	45,65	51,08	51,50	49,48	58,58	57,37
Yield Sugarcane (mt/ha)	74,82	78,18	82,63	79,95	79,95	78,70	75,72	78,20	76,94	69,44	64,59	74,04	78,43
Production Sugar beet (mio mt)	24.204	27.112	29.483	30.318	30.318	29.521	23.322	25.135	27.860	27.235	24.887	30.902	28.950
Production Sugarcane (mio mt)	25.117	27.218	29.704	30.461	30.461	31.108	29.733	30.756	28.977	24.714	22.433	25.367	26.400
Production Sugar (mio mt)	6.535	7.276	7.597	8.203	8.210	7.955	7.167	7.644	7.846	7.146	6.712	7.662	7.726
Ending Stocks (mio mt)	1.350	1.523	1.487	2.013	2.010	1.977	1.386	1.515	1.721	1.208	1.540	1.632	1.782
Net Import (mio mt)	-2.325	-1.800	-1.446	-1.372	-1.372	-1.315	-1.268	-1.441	-1.330	-1.670	-2.939	-1.504	-1.799
Consumption (mio mt)	8.838	8.904	9.132	9.173	9.173	9.191	9.048	8.810	8.947	9.242	9.381	9.194	9.375

	High prices			Low prices				High prices			Very high prices		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brazil													
<i>Area Sugar beet (mio Ha)</i>													
<i>Area Sugarcane (mio Ha)</i>	4.827	4.880	4.880	4.972	4.860	4.650	4.550	4.810	5.050	5.350	5.610	5.940	6.470
Total Area (mio Ha)	4.827	4.880	4.880	4.972	4.860	4.650	4.550	4.810	5.050	5.350	5.610	5.940	6.470
<i>Yield Sugar beet (mt/ha)</i>													
<i>Yield Sugarcane (mt/ha)</i>	52,00	58,50	61,48	61,95	62,76	55,16	64,40	66,53	71,07	72,11	68,89	72,05	73,57
<i>Production Sugar beet (mio mt)</i>													
<i>Production Sugarcane (mio mt)</i>	251.000	285.500	300.000	308.000	305.000	256.500	293.000	320.000	358.900	385.800	386.500	428.000	476.000
Production Sugar (mio mt)	13.700	14.650	15.700	18.300	20.100	17.100	20.400	23.810	26.400	28.175	26.945	31.517	32.067
Ending Stocks (mio mt)	510	860	560	1.010	710	860	210	270	1.030	585	0	0	0
Net Export (mio mt)	5.800	5.800	7.200	8.750	11.300	7.700	11.600	14.000	15.240	18.020	16.995	20.783	20.633
Consumption (mio mt)	8.100	8.500	8.800	9.100	9.100	9.250	9.450	9.750	10.400	10.600	10.535	10.733	11.433
Thailand													
<i>Area Sugar beet (mio Ha)</i>													
<i>Area Sugarcane (mio Ha)</i>	965	930	930	920	920	920	950	1.121	1.050	990	950	1.030	1.040
Total Area (mio Ha)	965	930	930	920	920	920	950	1.121	1.050	990	950	1.030	1.040
<i>Yield Sugar beet (mt/ha)</i>													
<i>Yield Sugarcane (mt/ha)</i>	58,44	50,40	52,15	54,41	57,75	52,88	62,62	66,10	61,43	48,30	49,16	61,94	65,38
<i>Production Sugar beet (mio mt)</i>													
<i>Production Sugarcane (mio mt)</i>	56.394	46.874	48.500	50.059	53.129	48.652	59.493	74.100	64.500	47.820	46.700	63.800	68.000
Production Sugar (mio mt)	6.223	6.013	4.245	5.386	5.721	5.107	6.397	7.286	7.010	5.187	4.835	6.720	7.200
Ending Stocks (mio mt)	632	800	450	684	608	571	979	1.045	1.215	1.217	1.760	1.280	980
Net Export (mio mt)	4.537	4.194	2.839	3.352	4.147	3.394	4.157	5.280	4.860	3.115	2.242	5.100	5.300
Consumption (mio mt)	1.560	1.651	1.756	1.800	1.650	1.750	1.832	1.940	1.980	2.070	2.050	2.100	2.200
Australia													
<i>Area Sugar beet (mio Ha)</i>													
<i>Area Sugarcane (mio Ha)</i>	377	390	415	414	419	411	417	423	448	434	415	420	425
Total Area (mio Ha)	377	390	415	414	419	411	417	423	448	434	415	420	425
<i>Yield Sugar beet (mt/ha)</i>													
<i>Yield Sugarcane (mt/ha)</i>	95,20	99,06	95,21	94,48	95,32	75,98	77,93	89,76	82,33	88,94	91,95	85,71	77,65
<i>Production Sugar beet (mio mt)</i>													
<i>Production Sugarcane (mio mt)</i>	35.889	38.632	39.513	39.116	39.940	31.228	32.496	37.968	36.884	38.600	38.161	36.000	33.000
Production Sugar (mio mt)	5.049	5.659	5.567	4.997	5.448	4.162	4.662	5.461	5.178	5.388	5.297	4.822	4.700
Ending Stocks (mio mt)	101	228	253	183	518	634	507	662	543	343	291	162	111
Net Export (mio mt)	4.240	4.562	4.552	4.072	4.118	3.051	3.589	4.106	4.147	4.438	4.199	3.851	3.651
Consumption (mio mt)	860	970	990	995	995	995	1.200	1.200	1.150	1.150	1.150	1.100	1.100

Source:

Fapri - World Agricultural Outlook; (*) World Bank

World	Averages				3 year moving average											
	1995-97	1998-01	2002-05	2006-07	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Area Sugar beet (mio Ha)	8	6	6	6	8	7	7	7	6	6	6	6	6	6	6	
Area Sugarcane (mio Ha)	19	19	20	22	19	19	19	19	19	19	20	20	20	20	21	
Total Area (mio Ha)	27	26	26	27	27	27	26	26	26	26	26	26	25	26	27	
Yield Sugar beet (mt/ha)	35	40	45	45	35	37	39	39	40	40	42	44	46	46	46	
Yield Sugarcane (mt/ha)	64	65	66	71	64	65	65	65	64	65	65	65	66	68	70	
Production Sugar beet (mio mt)	269.264	257.628	258.447	250.829	269.264	265.973	263.540	260.113	255.408	255.641	255.484	259.504	256.633	258.967	252.310	
Production Sugarcane (mio mt)	1.241.309	1.249.333	1.298.499	1.525.870	1.241.309	1.259.321	1.258.683	1.248.274	1.241.089	1.251.967	1.270.199	1.278.281	1.303.713	1.374.915	1.470.298	
Production Sugar (mio mt)	123.250	132.950	144.113	165.371	123.250	125.939	130.511	132.456	133.854	137.880	141.731	143.864	142.703	149.918	158.534	
Ending Stocks (mio mt)	26.569,19	36.238,97	35.346,25	44.045,00	26.569,19	27.836,98	31.360,01	36.129,29	37.965,00	38.790,67	38.013,00	36.773,67	33.875,67	35.165,00	39.718,00	
Total Trade (mio mt)	24.725	28.667	33.406	36.969	24.725	24.549	26.916	28.406	29.843	30.576	31.664	32.882	33.470	34.890	36.305	
Consumption (mio mt)	123.285	129.469	141.392	152.217	123.285	124.671	126.167	127.539	130.988	135.007	138.201	140.867	141.977	145.204	149.134	
Price (\$/mt)*	27	18	17	27	27	24	20	17	17	17	17	16	18	23	26	

European Union	Averages				3 year moving average											
	1995-97	1998-01	2002-05	2006-07	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Area Sugar beet (mio Ha)	2.053	2.362	2.252	1.742	2.053	2.023	2.188	2.330	2.481	2.421	2.348	2.275	2.223	2.076	1.889	
Area Sugarcane (mio Ha)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total Area (mio Ha)	2.054	2.363	2.253	1.743	2.054	2.024	2.189	2.331	2.482	2.422	2.349	2.276	2.224	2.077	1.890	
Yield Sugar beet (mt/ha)	56	55	58	60	56	58	57	55	54	54	56	57	59	59	59	
Yield Sugarcane (mt/ha)	65	89	69	61	65	75	87	89	92	86	78	71	65	64	61	
Production Sugar beet (mio mt)	115.743	129.523	129.833	104.018	115.743	116.818	124.811	126.792	134.315	130.736	131.625	130.653	130.750	122.974	111.803	
Production Sugarcane (mio mt)	83	94	68	54	83	92	104	98	98	89	82	72	62	55	55	
Production Sugar (mio mt)	18.253	20.545	21.497	17.470	18.253	18.448	20.079	20.985	21.454	21.186	20.678	21.506	21.226	20.209	18.804	
Ending Stocks (mio mt)	2.534,00	4.846,50	5.609,50	4.272,00	2.534,00	2.881,00	3.942,33	4.824,33	5.426,33	5.442,67	5.377,00	5.783,33	5.556,67	5.308,00	4.544,00	
Net Trade (mio mt)	4.324	3.260	3.091	-1.456	4.324	3.805	3.870	3.717	3.192	2.820	2.243	2.503	3.288	2.052	648	
Consumption (mio mt)	14.262	17.280	18.362	19.550	14.262	14.296	15.778	17.016	18.290	18.350	18.501	18.597	18.164	18.406	18.919	

United States	Averages				3 year moving average											
	1995-97	1998-01	2002-05	2006-07	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Area Sugar beet (mio Ha)	567	574	532	516	567	594	608	597	559	536	533	542	526	520	512	
Area Sugarcane (mio Ha)	348	387	368	340	348	363	374	386	390	394	388	375	360	349	342	
Total Area (mio Ha)	915	961	900	856	915	957	982	983	948	930	920	917	886	868	854	
Yield Sugar beet (mt/ha)	47	49	49	58	47	49	49	50	50	48	48	49	51	53	55	
Yield Sugarcane (mt/ha)	79	79	72	76	79	80	81	80	78	78	77	75	70	69	72	
Production Sugar beet (mio mt)	26.933	28.370	26.279	29.926	26.933	28.971	30.040	30.052	27.720	25.993	25.439	26.743	26.660	27.675	28.246	
Production Sugarcane (mio mt)	27.346	30.441	26.720	25.883	27.346	29.128	30.208	30.676	30.434	30.533	29.822	28.149	25.375	24.171	24.733	
Production Sugar (mio mt)	7.136	7.884	7.337	7.694	7.136	7.692	8.003	8.123	7.777	7.589	7.552	7.545	7.235	7.173	7.367	
Ending Stocks (mio mt)	1.453,31	1.846,71	1.496,17	1.706,78	1.453,31	1.674,36	1.836,78	2.000,28	1.791,26	1.626,12	1.540,64	1.481,43	1.489,90	1.460,27	1.651,32	
Net Import (mio mt)	-1.857	-1.332	-1.845	-1.652	-1.857	-1.539	-1.396	-1.353	-1.318	-1.341	-1.346	-1.480	-1.980	-2.038	-2.081	
Consumption (mio mt)	8.958	9.146	9.095	9.285	8.958	9.069	9.159	9.179	9.137	9.016	8.935	9.000	9.190	9.273	9.317	

	Averages				3 year moving average											
	1995-97	1998-01	2002-05	2006-07	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Brazil																
<i>Area Sugar beet (mio Ha)</i>																
<i>Area Sugarcane (mio Ha)</i>	4.862	4.758	5.205	6.205	4.862	4.911	4.904	4.827	4.687	4.670	4.803	5.070	5.337	5.633	6.007	
<i>Total Area (mio Ha)</i>	4.862	4.758	5.205	6.205	4.862	4.911	4.904	4.827	4.687	4.670	4.803	5.070	5.337	5.633	6.007	
<i>Yield Sugar beet (mt/ha)</i>																
<i>Yield Sugarcane (mt/ha)</i>	57	61	70	73	57	61	62	60	61	62	67	70	71	71	72	
<i>Production Sugar beet (mio mt)</i>																
<i>Production Sugarcane (mio mt)</i>	278.833	290.625	362.800	452.000	278.833	297.833	304.333	289.833	284.833	289.833	323.967	354.900	377.067	400.100	430.167	
Production Sugar (mio mt)	14.683	18.975	26.333	31.792	14.683	16.217	18.033	18.500	19.200	20.437	23.537	26.128	27.173	28.879	30.176	
<i>Ending Stocks (mio mt)</i>	643,33	697,50	471,25	0,00	643,33	810,00	760,00	860,00	593,33	446,67	503,33	628,33	538,33	195,00	0,00	
Net Export (mio mt)	6.267	9.838	16.064	20.708	6.267	7.250	9.083	9.250	10.200	11.100	13.613	15.753	16.752	18.599	19.471	
Consumption (mio mt)	8.467	9.225	10.321	11.083	8.467	8.800	9.000	9.150	9.267	9.483	9.867	10.250	10.512	10.623	10.901	
Thailand																
<i>Area Sugar beet (mio Ha)</i>																
<i>Area Sugarcane (mio Ha)</i>	942	928	1.028	1.035	942	927	923	920	930	997	1.040	1.054	997	990	1.007	
<i>Total Area (mio Ha)</i>	942	928	1.028	1.035	942	927	923	920	930	997	1.040	1.054	997	990	1.007	
<i>Yield Sugar beet (mt/ha)</i>																
<i>Yield Sugarcane (mt/ha)</i>	54	57	56	64	54	52	55	55	58	61	63	59	53	53	59	
<i>Production Sugar beet (mio mt)</i>																
<i>Production Sugarcane (mio mt)</i>	50.589	52.833	58.280	65.900	50.589	48.478	50.563	50.613	53.758	60.748	66.031	62.140	53.007	52.773	59.500	
Production Sugar (mio mt)	5.494	5.653	6.080	6.960	5.494	5.215	5.117	5.405	5.742	6.263	6.898	6.494	5.677	5.581	6.252	
<i>Ending Stocks (mio mt)</i>	627,33	710,50	1.309,25	1.130,00	627,33	644,67	580,67	621,00	719,33	865,00	1.079,67	1.159,00	1.397,33	1.419,00	1.340,00	
Net Export (mio mt)	3.857	3.763	3.874	5.200	3.857	3.462	3.446	3.631	3.899	4.277	4.766	4.418	3.406	3.486	4.214	
Consumption (mio mt)	1.656	1.758	2.010	2.150	1.656	1.736	1.735	1.733	1.744	1.841	1.917	1.997	2.033	2.073	2.117	
Australia																
<i>Area Sugar beet (mio Ha)</i>																
<i>Area Sugarcane (mio Ha)</i>	394	415	430	423	394	406	416	415	416	417	429	435	432	423	420	
<i>Total Area (mio Ha)</i>	394	415	430	423	394	406	416	415	416	417	429	435	432	423	420	
<i>Yield Sugar beet (mt/ha)</i>																
<i>Yield Sugarcane (mt/ha)</i>	96	86	88	82	96	96	95	89	83	81	83	87	88	89	85	
<i>Production Sugar beet (mio mt)</i>																
<i>Production Sugarcane (mio mt)</i>	38.011	35.695	37.903	34.500	38.011	39.087	39.523	36.761	34.555	33.897	35.783	37.817	37.882	37.587	35.720	
Production Sugar (mio mt)	5.425	4.817	5.331	4.761	5.425	5.408	5.337	4.869	4.757	4.762	5.100	5.342	5.288	5.169	4.940	
<i>Ending Stocks (mio mt)</i>	194,00	460,50	459,75	136,50	194,00	221,33	318,00	445,00	553,00	601,00	570,67	516,00	392,33	265,33	188,00	
Net Export (mio mt)	4.451	3.708	4.223	3.751	4.451	4.395	4.247	3.747	3.586	3.582	3.947	4.230	4.261	4.163	3.900	
Consumption (mio mt)	940	1.046	1.163	1.100	940	985	993	995	1.063	1.132	1.183	1.167	1.150	1.133	1.117	

Source:

Fapri - World Agricultural Outlook; (*) World Bank