

GUM ARABIC
MARKET NEWS SERVICE (MNS)
QUARTERLY EDITION



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Market News Service

GUM ARABIC

Report prepared for ITC's Market News Service by: Mr. Salif Touré

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The information provided in this report was obtained from several sources and relates to various Gum Arabic characteristics, the supply and demand situation of the product, economic and legislative environment as well as the effects of climate change on its global trade.

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Overview of Gum Arabic

The previous report provided a range of detailed information on gum arabic. As stated, gum arabic, of all the gum types, is the most popular and the most in demand both in the producing regions and internationally.

The product

Gum arabic is the substance exuded from *Acacia senegal* or *Acacia seyal* tree barks. These two species belong to the larger Mimosaceae Legumes plant family. Gum produced by *Acacia senegal* is known as 'hard gum' while gum from *Acacia seyal* is known as 'flaky gum'.

Gum arabic ranges from pale orange-brown in color and, when ruptured, releases a vitreous substance. High-quality gum arabic is round or tear-shaped, orange-brown in colour with a non-glossy surface. When crushed or broken, the resulting pieces are paler in colour and vitreous. Unlike several other plant-based gums, gum arabic dissolves easily in water (up to 50%). *Acacia senegal* gum, in particular, has a low viscosity of 16ml/g on average. It forms a colourless, tasteless solution and is largely non-reactive when mixed with other chemical compounds.

Chemically, gum arabic is a slightly acidic complex compound composed of glycoproteins, polysaccharides and their associated calcium, magnesium and potassium salts. The key compound is a branched polysaccharide known as arabinic acid or arabin. It is composed of a D-galactose (1,3)-linked base connected to branched (1,6)-linked L-arabinose, L-rhamnose and D-glucuronic acids. The proteins are known as arabinogalactans and are rich in hydroxyproline.

Laboratory tests have established the following characteristics differentiating the *Acacia senegal* and *Acacia seyal* varieties of gum arabic:

Table 1. Main characteristics of gum arabic

	<i>Acacia senegal</i>	<i>Acacia seyal</i>
Optical rotation/degrees	- 30	+ 51
Average molecular weight (Mw)	380 000	850 000
4-O-methylglucuronic acid	1,5	5,5
Rhamnose (%)	13	4
Nitrogen (%)	0,36	0,15
Glucuronic acid (%)	14,5	6,5
Galactose (%)	44	38
Arabinose (%)	27	46

Source: 3rd NGARA publications series, September 2005

Gum arabic is a soluble, edible fibre. As a result, it remains functional within the organism as has been demonstrated by several studies. Edible fibres are defined as the remains of plant cells that are not completely hydrolyzed by enzymes in the small intestine and later diffuse into the large intestine, where they are fermented by microflora.

Polysaccharides from the membrane wall (cellulose, semi-helluloses, and pectins) as well as cytoplasmic polysaccharides (gums, resistant starch and inulins) are also described as edible fibres.

Gum arabic is composed primarily of highly branched galactane polymers, linked to side galactose and/or arabinose chains, which in turn are linked to rhamnose or glucuronic acid residues. The human digestive system does not secrete or synthesise enzymes that effectively hydrolyse such polysaccharides. Hence, gum arabic transits through the stomach and the small intestine without being digested until it is fermented in the large intestine by bacteria.

Gum arabic is completely fermented in the colon because no detectable amounts are excreted with the faeces. It is broken down and excreted as gas during respiration or absorbed by the mucus layer in the form of short fatty acids. Other soluble edible fibers, such as guar gum or pectin, undergo the same fate in the digestive system.

A joint FAO/WHO committee of experts on food additives (JECFA) indicated in its Compendium on food additives-Addendum 7 (1999) that no distinctions were made between *Acacia senegal* and *Acacia seyal*. Gums obtained from other

Acacia species, though, were not considered equivalent.

In Europe, Gum Arabic is authorized as a food additive named E414; while in the United States it possesses the FDA GRAS (Generally Recognized as Safe) status. The "codex alimentarius" attributes an "E" code to other types of traded gums. Hence, E412 is attributed to Guar gum, E413 for gum from acanthus and tragacanth plants, E415 for Xanthane gum, E416 for Karaya gum, E417 for Tara gum and E418 for Gellane gum.

Major uses of Gum Arabic

Gum Arabic is utilized in the food industry to set flavors, as an emulsifying agent, to prevent the crystallization of sugar in confectionary and as a stabilizing agent in frozen dairy products. It is also useful in the baking industry because of its viscous and adhesive properties, which are used to stabilize mousses, and as a turbidity agent in beer.

In the pharmaceutical industry, gum arabic is utilized to stabilize emulsions, as a binding agent and for coating medications. It is also included in the mixtures for eye drops and cough syrups.

In the cosmetic field, it is used as an adhesive in the fabrication of face powders and masks but also used in making lotions creamy and smooth. In the chemical industry, gum arabic is utilized as glue, as a colloid protector and as a preserving agent for inks.

It is also used to sensitize lithographic plates, to stiffen cloth, coat certain paper types and for coating metals to prevent corrosion. It is equally utilized in manufacturing matchsticks and ceramics (Cossalter, 1991).

Gum Arabic has several local uses including ink manufacturing, making adhesives, crafts making, in cosmetic products, in confectionary and in foodstuff. It is also utilized in special meals and as chewing gum. Focusing specifically on human consumption, gum arabic is an excellent dietary and nutritional product because it contains less than 1cal for every gram.

Ever since the pharaonic era, gum has been utilized in traditional medicine as a calming and softening agent. It is equally included in (traditional) medicine concoctions to address internal ailments such as cough, diarrhea, dysentery and hemorrhage and applied externally, to treat inflammations. It is also used in veterinary medicine, to treat skin diseases and inflammations for example.

GLOBAL MARKET

Between 2007 and 2008, gum arabic prices were on the rise as were the prices of agricultural products in general—a result of the food and energy crisis. At the end of 2008, the global economy became more fragile by the prevailing financial crisis. Could the global gum arabic trade be affected by these factors?

The following section covers an analysis of the potential impact of the current financial crisis on the demand of basic agricultural products and gum arabic, in particular.

Global crude gum exports and price trends

World exports of crude gum arabic originate primarily from African producing countries, of which Sudan, Chad and Nigeria are the major ones. Notably, these countries lack a developed local industry capable of effectively processing the crude gum arabic, a privilege that is currently limited to developed countries. Yet, there is an increasing number of facilities in Sudan, Nigeria and Senegal able to simply crush and grind the gum.

The amount of crude gum arabic (in tons, kg) exported by the major African gum-producing countries between the 1st quarter of 2007 and the second quarter of 2008 are presented in tables 2, 3 and 4 for Nigeria, Sudan and Chad respectively.

In 2007, Sudan exported 37 902 tons (68%) of gum arabic while Chad exported 11 774 tons (21%) and Nigeria exported 6 319 tons (11%). In 2007, these three countries exported 55,995 tons of crude gum arabic in total, a decline from the 2006 total of 62,192 tons. A decrease of about 10%, the latter figure is close to the total value reported for 2004, namely 54,895 tons. However, in relation to the global consumption total in 2007 (51,728 tons), it is noteworthy that global supply exceeded the demand.

The amount of crude gum exported by Sudan and Nigeria during the first quarter of 2008 was relatively lower than the amount reported for the first quarter of 2007, a decline of 19% and 52%, respectively. Chadian exports, on the other hand, rose dramatically (135%) in that same period.

Table 2. Amount of crude gum arabic exported by Nigeria between 2007-Q1 and 2008-Q2 (Mirror data)

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2	
	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit
'United States of America	592 716	Kg	582 098	Kg	700 522	Kg	187 250	Kg	63 000	Kg	254 000	Kg
'China	144 000	Kg	79 655	Kg	501 374	Kg					100 000	Kg
'France	260	Ton	1 085,9	Ton	455	Ton	313,7	Ton	381,8	Ton	243,6	Ton
'Germany	181	Ton	203	Ton	120	Ton	142,5	Ton	180	Ton	446	Ton
'Italy											0,8	Ton
'Japan							20 460	Kg				
'Netherlands			21	Ton								
'United Kingdom	241,2	Ton	221	Ton	220	Ton			22	Ton	60	Ton
'Denmark	42	Ton										
'Argentina					700	Kg						
'Brazil	1 500	Kg					3 000	Kg				

Source: ITC (TradeMap) based on COMTRADE statistical data

Table 3. Amount of crude gum arabic exported by Sudan between 2007-Q1 & 2008-Q2 (mirror data)

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2	
	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit
'Japan	220 000	Kg	399 000	Kg	438 000	Kg	620 000	Kg	179 000	Kg	610 000	Kg
'United States of America	600 400	Kg	873 500	Kg	1 156 088	Kg	1 460 000	Kg	420 000	Kg	507 889	Kg
'China			5 000	Kg	100	Kg	5 356	Kg	2 650	Kg	29 000	Kg
'France	5 020	Ton	4 760	Ton	4 277	Ton	4 570,7	Ton	4 677,3	Ton	4 078,5	Ton
'Germany	484	Ton	828	Ton	392	Ton	698	Ton	1 161	Ton	604	Ton
'Iceland	20 000	Kg	40 000	Kg			20 000	Kg	20 000	Kg		
'Ireland	378	Ton	93,3	Ton	102	Ton	495,6	Ton	150,5	Ton		Ton
'Italy	390	Ton	728	Ton	520,8	Ton	655	Ton	283,3	Ton	532	Ton
'Colombia	2 000	Kg			10 000	Kg					4 500	Kg
'Denmark	60	Ton			40	Ton	80	Ton	40	Ton		
'Finland			120	Ton	200	Ton					100	Ton
'Argentina	15 000	Kg	20 000	Kg	1 102	Kg	22 303	Kg	2 100,7	Kg	2 100	Kg
'Belgium			220	Ton	120	Ton	240	Ton	120	Ton	380	Ton
'Brazil	4 000	Kg					5 000	Kg	3 000	Kg	3 000	Kg
'Chile	131,56	Kg										
'Taiwan			20 000	Kg			20 000	Kg			20 000	Kg
'Norway	39 400	Kg	35 800	Kg	35 200	Kg	55 600	Kg	54 200	Kg	19 200	Kg
'South Africa			607	Kg	879	Kg						
'Sweden			703,6	Ton	91,3	Tons	379,9	Ton				
'Switzerland											20 000	Kg
'Uganda							600	Kg				
'United Kingdom	419	Ton	1 869,4	Ton	1 040,6	Ton	1 781	Ton	560,6	Ton	360,3	Ton

Source: ITC (TradeMap) based on COMTRADE statistical data

Table 4. Amount of crude gum arabic exported by Chad between 2007-Q1 and 2008-Q2 (mirror data)

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2	
	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit	Exported quantities	Unit
'U.S.A	163 325	Kg	785 418	Kg	1 932 640	Kg	724 300	Kg	293 800	Kg	2 488 568	Kg
'France	120	Ton	1 304,5	Ton	2 102,3	Ton	1 877,7	Ton	1 384,9	Ton	2 796,7	Ton
'Germany			840	Ton	484	Ton	80	Ton			1 480	Ton
'Italy			20	Ton								
'Japan					6 000	Kg						
'Morocco	1 000	Kg	1 550	Kg			1 000	Kg	1 000	Kg		
'Sweden			497,6	Ton								
'United Kingdom			80,8	Ton	494,2	Ton	200	Ton	80,6	Ton	121	Ton
'Argentina			50	Kg					1 000	Kg	1 000	Kg
'Brazil							6 500	Kg				
'China			26 000	Kg	4 500	Kg	19 800	Kg				
'Colombia							2 400	Kg				

Source: ITC (TradeMap) based on COMTRADE statistical data

In relation to exports, the price of gum arabic fluctuated and increasing for some countries as illustrated in Tables 5, 6 and 7. These tables display the list of import markets and price trends for the three primary African gum-producing and exporter countries. Given the scarcity of reliable statistical data from the exporter countries, the numbers provided in these tables are aggregate mirror

data obtained from the various importer countries. For simplicity purposes, the report analyses only the countries that reported more than once. During this time period, Sudan conducted trade relations with 22 countries, Chad with twelve and Nigeria with eleven.

Table 5. Import markets for gum arabic exported by Sudan between 2007-Q1 and 2008-Q2 (Mirror data)

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Exported value in 2008-Q2 (millions, USD)	Exported quantities in 2008-Q2	Unit in 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'France	1801	USD/T	1498	USD/T	1678	USD/T	1353	USD/T	1868	USD/T	1552	USD/T	6329	4078,5	Ton
'Japan	2,38	USD/Kg	2,4	USD/Kg	2,73	USD/Kg	3,48	USD/Kg	3,61	USD/Kg	3,25	USD/Kg	1980	610000	Kg
'Germany	2793	USD/T	2827	USD/T	2783	USD/T	2235	USD/T	2583	USD/T	2503	USD/T	1512	604	Ton
'U.S.A	1,87	USD/Kg	1,85	USD/Kg	2,61	USD/Kg	1,57	USD/Kg	0,86	USD/Kg	2,3	USD/Kg	1169	507889	Kg
'Italy	2541	USD/T	2157	USD/T	2227	USD/T	2478	USD/T	2118	USD/T	2158	USD/T	1148	532	Ton
'Belgium			2809	USD/T	2475	USD/T	2508	USD/T	2542	USD/T	2626	USD/T	998	380	Ton
'United Kingdom	2377	USD/T	1886	USD/T	1760	USD/T	1884	USD/T	1523	USD/T	1954	USD/T	704	360,3	Ton
'Finland			2442	USD/T	2620	USD/T					3010	USD/T	301	100	Ton
'China			4	USD/Kg	10	USD/Kg	4,48	USD/Kg	4,15	USD/Kg	3,62	USD/Kg	105	29000	Kg
'Norway	4,54	USD/Kg	3,66	USD/Kg	4,69	USD/Kg	4,42	USD/Kg	5,35	USD/Kg	5,05	USD/Kg	97	19200	Kg
'Taiwan			2,6	USD/Kg			2,05	USD/Kg			3,75	USD/Kg	75	20000	Kg
'Switzerland											2,9	USD/Kg	58	20000	Kg
'Colombia	3,5	USD/Kg			3,5	USD/Kg					4,22	USD/Kg	19	4500	Kg
'Argentina	2,93	USD/Kg	0,85	USD/Kg	21	USD/Kg	1,43	USD/Kg	3,81	USD/Kg	7,14	USD/Kg	15	2100	Kg
'Brazil	3,5	USD/Kg					3,4	USD/Kg	4,33	USD/Kg	4,33	USD/Kg	13	3000	Kg
'Chile	7,6	USD/Kg													
'Denmark	3933	USD/T			2800	USD/T	2950	USD/T	3175	USD/T					
'Iceland	4,65	USD/Kg	3,95	USD/Kg			3,7	USD/Kg	3,6	USD/Kg					
'Ireland	3701	USD/T	3944	USD/T	2706	USD/T	2369	USD/T	2392	USD/T					
'Uganda							1,67	USD/Kg							
'South Africa			4,94	USD/Kg	4,55	USD/Kg									
'Sweden			2723	USD/T	2892	USD/T	3074	USD/T							

Source: ITC (TradeMap) based on COMTRADE statistical data

Table 6. Import markets for gum arabic exported by Chad between 2007-Q1 and 2008-Q2

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Exported value in 2008-Q2 (millions, USD)	Exported quantities en 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'Germany	2420	USD/T	2207	USD/T	2200	USD/T	1909	USD/T	2067	USD/T	2247	USD/T	1002	446	Ton
'United States of America	2,14	USD/Kg	2,38	USD/Kg	1,52	USD/Kg	1,54	USD/Kg	2,16	USD/Kg	2,62	USD/Kg	665	254000	Kg
'France	1162	USD/T	1114	USD/T	1657	USD/T	1498	USD/T	1404	USD/T	1860	USD/T	453	243,6	Ton
'United Kingdom	1057	USD/T	1873	USD/T	968	USD/T		USD/T	1000	USD/T	950	USD/T	57	60	Ton
'China	0,62	USD/Kg	0,68	USD/Kg	0,59	USD/Kg					0,52	USD/Kg	52	100000	Kg
'Italy											7500	USD/T	6	0,8	Ton
'Japan							3,18	USD/Kg							
'Pays-Bas			2429	USD/T											
'Denmark	3310	USD/T													
'Argentina					2,86	USD/Kg									
'Brazil	1,33	USD/Kg					1,33	USD/Kg							

Source: ITC (TradeMap) based on COMTRADE statistical data

Table 7. Import markets for gum arabic exported by Nigeria between 2007-Q1 and 2008-Q2

Importers	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Exported value in 2008-Q2 (millions, USD)	Exported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'United States of America	3,48	USD/Kg	2,18	USD/Kg	1,43	USD/Kg	2,02	USD/Kg	1,5	USD/Kg	2,09	USD/Kg	5198	2488568	Kg
'France	1117	USD/T	1543	USD/T	1344	USD/T	1403	USD/T	1420	USD/T	1750	USD/T	4895	2796,7	Ton
'Germany			1900	USD/T	2029	USD/T	1913	USD/T			1724	USD/T	2552	1480	Ton
'United Kingdom			953	USD/T	1864	USD/T	1075	USD/T	1390	USD/T	1777	USD/T	215	121	Ton
'Argentina			20	USD/Kg					8	USD/Kg	8	USD/Kg	8	1000	Kg
'Brazil							1,54	USD/Kg							
'China			2,85	USD/Kg	8,44	USD/Kg	0,76	USD/Kg							
'Colombia							4,17	USD/Kg							
'Italy			2600	USD/T											
'Japan					6	USD/Kg									
'Morocco	3	USD/Kg	5,81	USD/Kg			3	USD/Kg	9	USD/Kg					
'Sweden			2757	USD/T											

Source: ITC (TradeMap) based on COMTRADE statistical data

Global imports and price trends

Apart from the African producer and exporter countries, other non-producer countries also supply the major importer countries. These countries re-export the gum imported generating significantly different profit margins from those of the producer countries (see Table 20 and Table 21). The re-exported products undergo various industrial processes in the purification process this increasing their final value.

The following tables reveal the import markets and the major importer countries, namely France (Table 8), the United States (Table 9),

the United Kingdom (Table 10), Germany (Table 11), Italy (Table 12), Belgium (Table 14), India (Table 15), Ireland (Table 16), as well as emerging countries such as Japan (Table 13), China (Table 17), Brazil (Table 18) and Argentina (Table 19). The global prices listed are based on calculations performed on mirror and direct data.

Both countries which report and do not report their data were considered. For simplicity purposes, the report analyses only the countries that reported more than once.

Table 8. Suppliers of the gum arabic imported by France between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	1892	USD/T	1589	USD/T	1659	USD/T	1504	USD/T	1796	USD/T	1766	USD/T	14103	7984,2	Ton
'Sudan	1801	USD/T	1498	USD/T	1678	USD/T	1353	USD/T	1868	USD/T	1552	USD/T	6329	4078,5	Ton
'Chad	1117	USD/T	1543	USD/T	1344	USD/T	1403	USD/T	1420	USD/T	1750	USD/T	4895	2796,7	Ton
'Senegal	2038	USD/T	2583	USD/T	2508	USD/T	3903	USD/T	3960	USD/T	2678	USD/T	631	235,6	Ton
'Nigeria	1162	USD/T	1114	USD/T	1657	USD/T	1498	USD/T	1404	USD/T	1860	USD/T	453	243,6	Ton
'Italy	2115	USD/T	1773	USD/T	1785	USD/T	2444	USD/T	2175	USD/T	2344	USD/T	353	150,6	Ton
'Mauritania			2325	USD/T	2242	USD/T			2317	USD/T	2400	USD/T	288	120	Ton
'Netherlands	8955	USD/T	9531	USD/T	6535	USD/T	10949	USD/T	3804	USD/T	7857	USD/T	209	26,6	Ton
'Mali			1775	USD/T	1647	USD/T	963	USD/T	1149	USD/T	1897	USD/T	203	107	Ton
'Eritrea			2105	USD/T	2209	USD/T	2105	USD/T			2300	USD/T	138	60	Ton
'Iran (Islamic Rep.)									4185	USD/T	5505	USD/T	109	19,8	Ton
'Ivory Coast											4773	USD/T	105	22	Ton
'United Kingdom	3372	USD/T	2989	USD/T	2679	USD/T	2814	USD/T	2789	USD/T	3095	USD/T	104	33,6	Ton
'Germany	6200	USD/T	4213	USD/T	8404	USD/T	2211	USD/T	2112	USD/T	5500	USD/T	99	18	Ton
'India			2127	USD/T	2833	USD/T			2539	USD/T	1629	USD/T	58	35,6	Ton
'Belgium	1834	USD/T	3574	USD/T	3774	USD/T	9560	USD/T	8085	USD/T	8491	USD/T	45	5,3	Ton
'Niger					1227	USD/T			1754	USD/T	1409	USD/T	31	22	Ton
'Singapore							5660	USD/T			5652	USD/T	26	4,6	Ton
'China	2381	USD/T			2000	USD/T					3415	USD/T	14	4,1	Ton
'Taiwan			25000	USD/T							22500	USD/T	9	0,4	Ton
'Indonesia			12400	USD/T			2467	USD/T	4706	USD/T	15000	USD/T	3	0,2	Ton
'Spain					1341	USD/T	909	USD/T	1852	USD/T			0	0	Ton
'Switzerland	6167	USD/T	2000	USD/T		USD/T		USD/T	2353	USD/T			0	0	Ton
'Ireland	1000	USD/T											0	0	Ton
'Poland			7500	USD/T									0	0	Ton
'Portugal					6667	USD/T	2727	USD/T					0	0	Ton
'Denmark							5583	USD/T					0	0	Ton
'Ethiopia									1010	USD/T			0		
'Cameroon			849	USD/T	862	USD/T			906	USD/T			0		
'Finland					2500	USD/T							0	0	Ton
'Chile							1386	USD/T					0	0	Ton
'Japan	111429	USD/T	40000	USD/T	45000	USD/T			126250	USD/T			0	0	Ton
'USA					8162	USD/T	11628	USD/T	5909	USD/T			0	0	Ton
'Burkina Faso	960	USD/T			1261	USD/T							0		

Table 9. Suppliers of the gum arabic imported by USA between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2	
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit				
'World	2,84	USD/Kg	2,68	USD/Kg	2,33	USD/Kg	2,46	USD/Kg	2,43	USD/Kg	2,78	USD/Kg	13153	4736403	Kilogram	
'Chad	3,48	USD/Kg	2,18	USD/Kg	1,43	USD/Kg	2,02	USD/Kg	1,5	USD/Kg	2,09	USD/Kg	5198	2488568	Kilogram	
'France	3,4	USD/Kg	3,14	USD/Kg	3,35	USD/Kg	3,12	USD/Kg	3	USD/Kg	3,93	USD/Kg	4475	1137748	Kilogram	
'Sudan	1,87	USD/Kg	1,85	USD/Kg	2,61	USD/Kg	1,57	USD/Kg	0,86	USD/Kg	2,3	USD/Kg	1169	507889	Kilogram	
'United Kingdom	3,99	USD/Kg	5,47	USD/Kg	4,67	USD/Kg	5,32	USD/Kg	3,34	USD/Kg	5,16	USD/Kg	940	182000	Kilogram	
'Nigeria	2,14	USD/Kg	2,38	USD/Kg	1,52	USD/Kg	1,54	USD/Kg	2,16	USD/Kg	2,62	USD/Kg	665	254000	Kilogram	
'Germany	3,49	USD/Kg	2,86	USD/Kg	3,87	USD/Kg	3,66	USD/Kg	4,76	USD/Kg	4,4	USD/Kg	536	121760	Kilogram	
'Canada									2,85	USD/Kg	4,4	USD/Kg	77	17508	Kilogram	
'Mauritania											2,6	USD/Kg	55	21137	Kilogram	
'India	71	USD/Kg	5	USD/Kg			2,45	USD/Kg	90	USD/Kg	11	USD/Kg	21	1850	Kilogram	
'Italy			2,38	USD/Kg	2,23	USD/Kg	2,17	USD/Kg	2,48	USD/Kg	3,19	USD/Kg	11	3443	Kilogram	
'Kenya			12	USD/Kg						14	USD/Kg	12	USD/Kg	6	500	Kilogram
'Mali	2	USD/Kg											0			
'Mexico	9,52	USD/Kg											0	0		
'Spain	2,77	USD/Kg			3,94	USD/Kg							0			
'Ethiopia			8	USD/Kg			3,61	USD/Kg					0			
'Eritrea							3,78	USD/Kg					0			
'Switzerland									6,29	USD/Kg			0			

Source : ITC (TradeMap) based on US Census Bureau Statistical data

Table10. Suppliers of the gum arabic imported by the UK between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Value imported in 2008-Q2, (millions, USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	2302	USD/Ton	2117	USD/Ton	2054	USD/Ton	2138	USD/Ton	2146	USD/Ton	2833	USD/Ton	3226	1138,9	Ton
'France	3495	USD/Ton	3738	USD/Ton	3527	USD/Ton	3530	USD/Ton	2878	USD/Ton	3713	USD/Ton	1940	522,5	Ton
'Sudan	2377	USD/Ton	1886	USD/Ton	1760	USD/Ton	1884	USD/Ton	1523	USD/Ton	1954	USD/Ton	704	360,3	Ton
'U.S.A	1708	USD/Ton	4795	USD/Ton	5009	USD/Ton	5414	USD/Ton	4500	USD/Ton	3795	USD/Ton	219	57,7	Ton
'Chad			953	USD/Ton	1864	USD/Ton	1075	USD/Ton	1390	USD/Ton	1777	USD/Ton	215	121	Ton
'Nigeria	1057	USD/Ton	1873	USD/Ton	968	USD/Ton			1000	USD/Ton	950	USD/Ton	57	60	Ton
'Germany	4779	USD/Ton	4468	USD/Ton	5570	USD/Ton	4659	USD/Ton	5917	USD/Ton	5125	USD/Ton	41	8	Ton
'Japan			8170	USD/Ton	6190	USD/Ton					11429	USD/Ton	24	2,1	Ton
'Belgium					15000	USD/Ton	17500	USD/Ton	1635	USD/Ton	2778	USD/Ton	10	3,6	Ton
'India	3000	USD/Ton	3333	USD/Ton	3226	USD/Ton	3333	USD/Ton	3964	USD/Ton	3000	USD/Ton	9	3	Ton
'Netherlands	4516	USD/Ton			4000	USD/Ton	5161	USD/Ton			10000	USD/Ton	7	0,7	Ton
'Nicaragua			783	USD/Ton			825	USD/Ton					0		Ton
'Switzerland									5714	USD/Ton			0	0	Ton
'Thailand			23333	USD/Ton									0		Ton
'United Arab Emirates			941	USD/Ton									0		Ton
'Brazil			2381	USD/Ton									0	0	Ton
'China			10000	USD/Ton									0	0	Ton
'Croatia							100000	USD/Ton					0		Ton
'Kenya									2108	USD/Ton			0		Ton
'Morocco	2550	USD/Ton											0		Ton
'Greece			90000	USD/Ton									0		Ton
'Italy	720	USD/Ton	662	USD/Ton	680	USD/Ton	810	USD/Ton	4000	USD/Ton			0	0	Ton

Source: ITC (TradeMap) based on EUROSTAT statistical data

Table11. Suppliers of the gum arabic imported by Germany between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, USD)	Imported quantities 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	3598	USD/T	2698	USD/T	2875	USD/T	2631	USD/T	2753	USD/T	2569	USD/T	8441	3285,2	Ton
'Chad			1900	USD/T	2029	USD/T	1913	USD/T			1724	USD/T	2552	1480	Ton
'France	5128	USD/T	5659	USD/T	4721	USD/T	4198	USD/T	5541	USD/T	4751	USD/T	2201	463,3	Ton
'Sudan	2793	USD/T	2827	USD/T	2783	USD/T	2235	USD/T	2583	USD/T	2503	USD/T	1512	604	Ton
'Nigeria	2420	USD/T	2207	USD/T	2200	USD/T	1909	USD/T	2067	USD/T	2247	USD/T	1002	446	Ton
'United Kingdom	4639	USD/T	3835	USD/T	5440	USD/T	4119	USD/T	4334	USD/T	4517	USD/T	725	160,5	Ton
'Japan	6628	USD/T		USD/T	8333	USD/T	8667	USD/T	10000	USD/T	4769	USD/T	279	58,5	Ton
'Netherlands	3419	USD/T	3597	USD/T	5181	USD/T	3333	USD/T	5484	USD/T	3950	USD/T	47	11,9	Ton
'Mali											1550	USD/T	31	20	Ton
'Burkina Faso											1294	USD/T	26	20,1	Ton
'Italy	4472	USD/T	3448	USD/T	3537	USD/T	3922	USD/T	3427	USD/T	4048	USD/T	17	4,2	Ton
'Spain	2195	USD/T	2326	USD/T	2317	USD/T	2812	USD/T	2157	USD/T	2692	USD/T	14	5,2	Ton
'India	8000	USD/T					5294	USD/T	1200	USD/T	6500	USD/T	13	2	Ton
'Indonesia			1167	USD/T	1200	USD/T					875	USD/T	7	8	Ton
'Switzerland	10000	USD/T			6053	USD/T	15000	USD/T			25000	USD/T	5	0,2	Ton
'United States of America			10000	USD/T					30000	USD/T	25000	USD/T	5	0,2	Ton
'Belgium											4000	USD/T	4	1	Ton
'China											10000	USD/T	1	0,1	Ton
'Ethiopia			2000	USD/T	1250	USD/T							0		Ton
'Finland			5000	USD/T									0	0	Ton
'Austria	1739	USD/T											0	0	Ton
'Palestine									2810	USD/T			0		Ton
'Hungary			6667	USD/T									0	0	Ton
'VietNam					2573	USD/T	2706	USD/T	2680	USD/T			0		Ton
'Kenya									2680	USD/T			0		Ton
'Senegal									2100	USD/T			0		Ton

Source: ITC (TradeMap) based on EUROSTAT statistical data

Table12. Suppliers of the gum arabic imported by Italy between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	2919	USD/T	2518	USD/T	2530	USD/T	2834	USD/T	2901	USD/T	2871	USD/T	2875	1001,4	Ton
'France	3340	USD/T	2769	USD/T	2908	USD/T	3267	USD/T	3288	USD/T	3697	USD/T	1473	398,4	Ton
'Sudan	2541	USD/T	2157	USD/T	2227	USD/T	2478	USD/T	2118	USD/T	2158	USD/T	1148	532	Ton
'United Kingdom	7500	USD/T	4618	USD/T	2690	USD/T	3591	USD/T	4160	USD/T	3165	USD/T	163	51,5	Ton
'Germany	4427	USD/T	5055	USD/T	5238	USD/T	4015	USD/T	5793	USD/T	4754	USD/T	58	12,2	Ton
'Belgium	1500	USD/T	2000	USD/T	1538	USD/T	1667	USD/T	2593	USD/T	2727	USD/T	15	5,5	Ton
'Denmark	18571	USD/T	5000	USD/T		USD/T	2841	USD/T		USD/T	13000	USD/T	13	1	Ton
'Nigeria											7500	USD/T	6	0,8	Ton
'India							3100	USD/T							
'Chad			2600	USD/T											
'China							3750	USD/T							
'Lebanon			2500	USD/T											
'Mali	1100	USD/T													
'U.S.A	20000	USD/T							15000	USD/T					
'Sweden					1250	USD/T	3333	USD/T							
'Switzerland	6500	USD/T	20000	USD/T	3934	USD/T									
'Austria					1667	USD/T									

Source: ITC (TradeMap) based on EUROSTAT statistical data

Table13. Suppliers of the gum arabic imported by Japan between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	3,3	USD/Kg	3,04	USD/Kg	3,15	USD/Kg	3,89	USD/Kg	4,18	USD/Kg	3,77	USD/Kg	3284	871639	Kilogram
'Sudan	2,38	USD/Kg	2,4	USD/Kg	2,73	USD/Kg	3,48	USD/Kg	3,61	USD/Kg	3,25	USD/Kg	1980	610000	Kilogram
'France	4,14	USD/Kg	4,22	USD/Kg	4,39	USD/Kg	5,12	USD/Kg	4,47	USD/Kg	4,84	USD/Kg	696	143660	Kilogram
'United States of America	4,18	USD/Kg	3,66	USD/Kg	3,06	USD/Kg	3,54	USD/Kg	4,19	USD/Kg	3,95	USD/Kg	283	71704	Kilogram
'Germany	4,99	USD/Kg	5,28	USD/Kg	5,33	USD/Kg	5,06	USD/Kg	5,33	USD/Kg	5,79	USD/Kg	175	30230	Kilogram
'India											11	USD/Kg	111	10000	Kilogram
'United Kingdom			5,83	USD/Kg					6,45	USD/Kg	6,29	USD/Kg	38	6045	Kilogram
'Chad					6	USD/Kg							0	0	Kilogram
'Nigeria							3,18	USD/Kg					0	0	Kilogram

Source: ITC (TradeMap) based on statistical data from the Japanese Ministry of Finance

Table14. Suppliers of the gum arabic imported by Belgium between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	4928	USD/Ton	3750	USD/Ton	3765	USD/Ton	3153	USD/Ton	3204	USD/Ton	3292	USD/Ton	2526	767,2	Ton
'Sudan			2809	USD/Ton	2475	USD/Ton	2508	USD/Ton	2542	USD/Ton	2626	USD/Ton	998	380	Ton
'France	5867	USD/Ton	4634	USD/Ton	4174	USD/Ton	4286	USD/Ton	3927	USD/Ton	4497	USD/Ton	643	143	Ton
'United Kingdom	4583	USD/Ton	4840	USD/Ton	5708	USD/Ton	4797	USD/Ton	4061	USD/Ton	4146	USD/Ton	612	147,6	Ton
'Germany	2439	USD/Ton	4772	USD/Ton	4355	USD/Ton	3220	USD/Ton	4042	USD/Ton	3633	USD/Ton	210	57,8	Ton
'India		USD/Ton			3973	USD/Ton			2500	USD/Ton	2500	USD/Ton	27	10,8	Ton
'Netherlands	7425	USD/Ton	5254	USD/Ton	10000	USD/Ton	10000	USD/Ton			4200	USD/Ton	21	5	Ton
'Mali							5000	USD/Ton	545	USD/Ton	609	USD/Ton	14	23	Ton
'Saudi Arabia	3325	USD/Ton											0		
'Spain					6667	USD/Ton		USD/Ton				USD/Ton	0	0	Ton
'United Arab Emirates									1600	USD/Ton			0		
'Italy			4861	USD/Ton					5714	USD/Ton			0	0	Ton

Source: ITC (TradeMap) based on EUROSTAT statistical data

Table15. Suppliers of the gum arabic imported by India between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'France	3621	USD/T	5271	USD/T	5571	USD/T	5562	USD/T	5359	USD/T	5612	USD/T	243	43,3	Ton
'Belgium	6154	USD/T			6731	USD/T			6800	USD/T	8000	USD/T	40	5	Ton
'United States of America											3,52	USD/Kg	20	5678	Kilogram
'United Kingdom	3773	USD/T	8000	USD/T		USD/T	2756	USD/T	6438	USD/T	1500	USD/T	12	8	Ton
'Switzerland	9,76	USD/Kg	8	USD/Kg	7,5	USD/Kg	7,5	USD/Kg	8	USD/Kg	8,33	USD/Kg	5	600	Kilogram
'Japan			44	USD/Kg	52	USD/Kg					50	USD/Kg	3	60	Kilogram
'Argentina													0	0	
'Germany							950	USD/T					0	0	Ton
'Guatemala															
'Ireland							5780	USD/T							
'Italy			10000	USD/T											
'Netherlands	7000	USD/T													

Source: ITC (TradeMap) based on COMTRADE statistical data

Table16. Suppliers of gum arabic imported by Ireland between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	4722	USD/T	5620	USD/T	5479	USD/T	4220	USD/T	4409	USD/T	5405	USD/T	4414	816,6	Ton
'United Kingdom	5328	USD/T	5766	USD/T	5989	USD/T	6101	USD/T	4709	USD/T	5245	USD/T	2641	503,5	Ton
'France	7000	USD/T	6660	USD/T	6694	USD/T	6599	USD/T	6261	USD/T	5762	USD/T	1489	258,4	Ton
'Belgium	4583	USD/T	4708	USD/T	4750	USD/T	4333	USD/T	2212	USD/T	3953	USD/T	136	34,4	Ton
'Germany					5000	USD/T					7049	USD/T	86	12,2	Ton
'Italy	7857	USD/T	7857	USD/T	7857	USD/T	4909	USD/T			7778	USD/T	63	8,1	Ton
'Sudan	3701	USD/T	3944	USD/T	2706	USD/T	2369	USD/T	2392	USD/T			0		
'U.S.A	6092	USD/T	13333	USD/T	13333	USD/T	6333	USD/T	6667	USD/T			0		
'Uruguay	9542	USD/T											0		

Source: ITC (TradeMap) based on EUROSTAT statistical data

Table 17. Suppliers of the gum arabic imported by China between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	3,1	USD/Kg	3,75	USD/Kg	2,42	USD/Kg	4,23	USD/Kg	4,15	USD/Kg	3,56	USD/Kg	1912	536546	kilogram
'France	3,88	USD/Kg	4,44	USD/Kg	4,54	USD/Kg	4,32	USD/Kg	3,86	USD/Kg	4,26	USD/Kg	1285	301401	kilogram
'United Kingdom	3,79	USD/Kg	5,12	USD/Kg	5,02	USD/Kg	4,62	USD/Kg	4,26	USD/Kg	4,56	USD/Kg	198	43375	kilogram
'U.S.A	3,65	USD/Kg	3,88	USD/Kg	3,51	USD/Kg	9,38	USD/Kg	5,23	USD/Kg	4,07	USD/Kg	115	28283	kilogram
'Japan	4,05	USD/Kg	4,4	USD/Kg	4,35	USD/Kg	3,81	USD/Kg	3,99	USD/Kg	4,66	USD/Kg	114	24440	kilogram
'Sudan			4	USD/Kg	10	USD/Kg	4,48	USD/Kg	4,15	USD/Kg	3,62	USD/Kg	105	29000	kilogram
'Nigeria	0,62	USD/Kg	0,68	USD/Kg	0,59	USD/Kg					0,52	USD/Kg	52	100000	kilogram
'Germany	5,67	USD/Kg	4,58	USD/Kg	3,46	USD/Kg	3,96	USD/Kg	4,9	USD/Kg	4,88	USD/Kg	29	5947	kilogram
'India	6,25	USD/Kg									3,17	USD/Kg	13	4100	kilogram
'Italy	10	USD/Kg	4,43	USD/Kg					12	USD/Kg			0		
'Republic of Korea					6,67	USD/Kg	5	USD/Kg	6	USD/Kg			0		
'Taiwan	5,78	USD/Kg	7	USD/Kg	7	USD/Kg							0		
'Belgium	5,67	USD/Kg			5,9	USD/Kg	6,5	USD/Kg	6,5	USD/Kg			0		
'Chad			2,85	USD/Kg	8,44	USD/Kg	0,76	USD/Kg					0		
'Denmark			12	USD/Kg			8,75	USD/Kg					0		

Source: ITC (TradeMap) based on statistical data obtained from Chinese Customs

Table 18. Suppliers of gum arabic imported by Brazil between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	4,31	USD/Kg	3,53	USD/Kg	4,71	USD/Kg	2,94	USD/Kg	3,84	USD/Kg	5,22	USD/Kg	1325	253692	Net Kilogram
'France	4,22	USD/Kg	3,87	USD/Kg	4,85	USD/Kg	2,93	USD/Kg	3,61	USD/Kg	5	USD/Kg	596	119126	Net Kilogram
'United States of America	4,57	USD/Kg	1,71	USD/Kg	3,79	USD/Kg	2,28	USD/Kg	5,17	USD/Kg	5,41	USD/Kg	431	79626	Net Kilogram
'Senegal			6,67	USD/Kg	9,77	USD/Kg			10	USD/Kg	10	USD/Kg	90	8800	Net Kilogram
'Germany	2,3	USD/Kg	2,57	USD/Kg	4,95	USD/Kg	2,96	USD/Kg	2,95	USD/Kg	3,63	USD/Kg	88	24250	Net Kilogram
'Italy	5,06	USD/Kg	3,61	USD/Kg	3,57	USD/Kg	5,1	USD/Kg	10	USD/Kg	5,43	USD/Kg	75	13800	Net Kilogram
'Sudan	3,5	USD/Kg					3,4	USD/Kg	4,33	USD/Kg	4,33	USD/Kg	13	3000	Net Kilogram
'United Kingdom	7,38	USD/Kg	6	USD/Kg	2,5	USD/Kg	4,5	USD/Kg	2,5	USD/Kg	3,71	USD/Kg	13	3500	Net Kilogram
'Ireland											11	USD/Kg	11	990	Net Kilogram
'Argentina			8	USD/Kg	1,18	USD/Kg	13	USD/Kg	11	USD/Kg	13	USD/Kg	8	600	Net Kilogram
'Chad							1,54	USD/Kg					0		
'Republic of Korea							20	USD/Kg					0		
'Nigeria	1,33	USD/Kg					1,33	USD/Kg					0		

Source: (ITC TradeMap)

Table 19. Suppliers of gum arabic imported by Argentina between 2007-Q1 and 2008-Q2

Exporters	2007-Q1		2007-Q2		2007-Q3		2007-Q4		2008-Q1		2008-Q2		Imported value in 2008-Q2 (millions, in USD)	Imported quantities in 2008-Q2	Unit 2008-Q2
	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit	Unit value	Unit			
'World	4,79	USD/Kg	4,01	USD/Kg	4,39	USD/Kg	4,24	USD/Kg	4,39	USD/Kg	4,20	USD/Kg	578	137 605,61	Kilogram
'United Kingdom	6,17	USD/Kg	5,77	USD/Kg	6,33	USD/Kg	4,62	USD/Kg	4,93	USD/Kg	4,69	USD/Kg	260	55 400	Kilogram
'France	5,38	USD/Kg	4,34	USD/Kg	4,27	USD/Kg	4,79	USD/Kg	4,74	USD/Kg	4,30	USD/Kg	141	32 805,5	Kilogram
'Italy	2,87	USD/Kg	1,59	USD/Kg	2,69	USD/Kg	2,81	USD/Kg	2,49	USD/Kg	2,79	USD/Kg	58	20 800,3	Kilogram
'India				USD/Kg		USD/Kg		USD/Kg	3,67	USD/Kg	4	USD/Kg	40	10 000	Kilogram
'U.S.A	5,50	USD/Kg	7,11	USD/Kg	3,93	USD/Kg	3,79	USD/Kg	4,60	USD/Kg	3,66	USD/Kg	28	7 649,81	Kilogram
'Germany	8	USD/Kg	5,67	USD/Kg	5,33	USD/Kg	5,10	USD/Kg	5	USD/Kg	5,71	USD/Kg	22	3 850	Kilogram
'Sudan	2,93	USD/Kg	0,85	USD/Kg	21	USD/Kg	1,43	USD/Kg	3,81	USD/Kg	7,14	USD/Kg	15	2 100	Kilogram
'Argentina											2	USD/Kg	8	4 000	Kilogram
'Chad			20	USD/Kg					8	USD/Kg	8	USD/Kg	8	1 000	Kilogram
'Spain									6,85	USD/Kg			0	0	
'Nigeria					2,86	USD/Kg							0	0	
'Iran (Islamic Republic)	20	USD/Kg											0	0	
'Ireland	6,32	USD/Kg							4,92	USD/Kg			0	0	

Source: (ITC TradeMap)

**Table 20. Unit values for gum arabic imported by leading importing countries
(All grades combined, in USD/ton)**

Pays	Q1-07	Q2-07	Q3-07	Q4-07	Q1-08	Q2-08
France	1892	1589	1659	1504	1796	1766
USA	2840	2680	2330	2460	2430	2780
UK	2302	2117	2054	2138	2146	2833
Germany	3598	2698	2875	2631	2753	2569
Italy	2919	2518	2530	2834	2901	2871
Japan	3300	3040	3150	3890	4180	3770
Belgium	4928	3750	3765	3153	3204	3292
Ireland	4722	5620	5479	4220	4409	5405
China	3100	3750	2420	4230	4150	3560
Brazil	4310	3530	4710	2940	3840	5220
Argentina	4790	4010	4390	4240	4390	4200

Source: ITC (TradeMap)

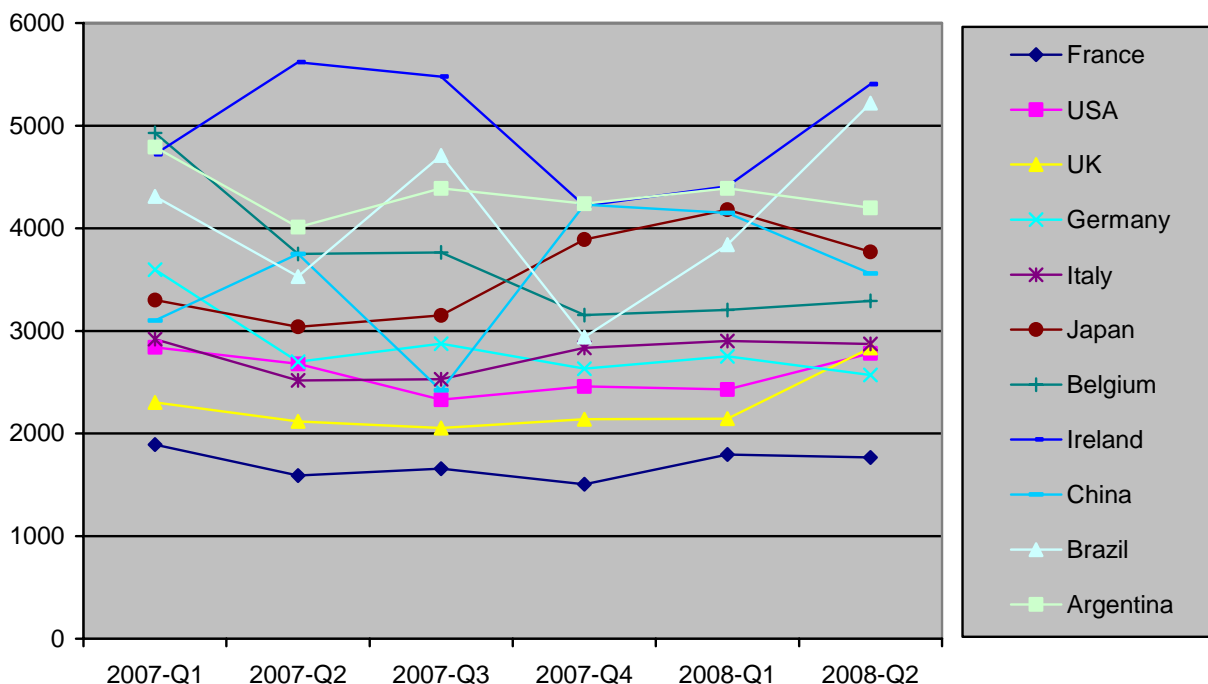


Figure 1. Changes in the unit price of gum arabic imported by leading importing countries (in USD/ton)

The trend in world prices remained relatively stable between 2007-Q1 and 2008-Q2, as shown in Figure 1. Overall, France, Germany, Italy, USA, and the UK imported at a rate under 3000 USD/ton. The supplies of crude gum arabic for these countries came predominantly from African gum producing countries.

France, to date, obtains the best rates for its gum arabic imports (namely less than 2000 USD/ton) followed by the USA and the UK. The other gum importing countries paid high rates because they consume mostly processed gum arabic and only a very small amount of crude gum arabic.

Table21. Unit values for gum arabic re-exports by the leading importing countries (USD/ton)

Country	2003	2004	2005	2006	2007
USA	-	-	4400	5200	4070
France	2365	3181	4964	4250	3834
UK	2357	4164	4778	5506	4907
Germany	2536	3975	5796	5223	4667
Italy	2096	1799	3159	2530	2497
Ireland	1449	4853	5990	5686	5265
Belgium	1238	2088	3798	4251	4383

Sources: ITC (TradeMap) based on EUROSTAT and US Census Bureau statistical data

Figure 2 show that Ireland has consistently obtained, since 2004, the best unit value for its re-exportation of gum arabic. However, Ireland also imports its gum arabic at high rates. Germany and the UK also obtained the

good unit values for the re-exportation of their supplies of gum arabic, followed by the USA. Yet, in terms of absolute values, France maintains a leading position because it re-exports significant quantities of gum arabic.

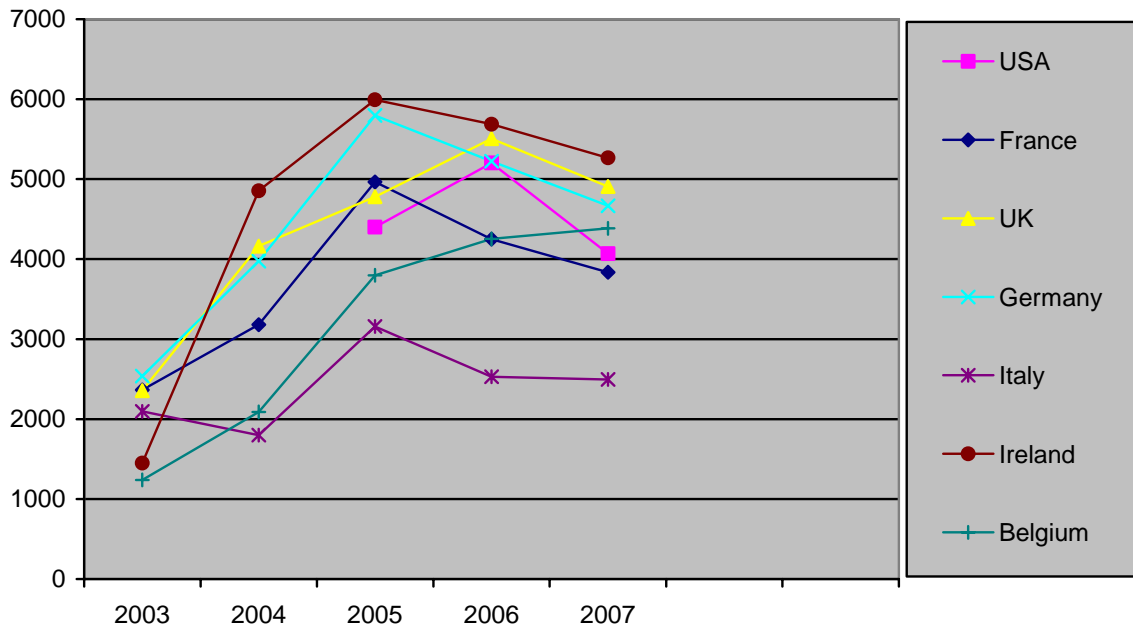


Figure 2. Changes in the unit values for gum arabic re-exported by the leading importing countries (USD/ton)

Factors affecting the global market

Climatic conditions

Excellent pluviometry figures recorded for most of the Sub-Saharan African countries in 2008, especially those situated in the gum arabic producing regions, led to remarkable agricultural yields. Some countries had taken bold measures to achieve such results, especially following the 2007-2008 food crisis. Senegal, for example, created the GOANA ("Agricultural Initiative for Food Security and Abundance") while Mali formed a "Rice Initiative". The excellent yield in agricultural food products combined with a decreased demand for gum arabic is projected to decrease gum arabic production. Gum producers traditionally exchanged harvested gum arabic for food products. In the absence of more profitable rates and if the downward trend in demand were to persist, gum arabic production will be affected in the 2008-2009 period.

Heavy rainfall, which lasted till end October, led to a dramatic growth in *Acacia senegal* trees and resulted in a delay of the *Acacia senegal* gum collection and harvest period. In fact, in "Guidimikan" (a gum-producing region situated between Mali, Senegal and Mauritania), the first gum collection sessions,

which ran from end October through beginning November, ended without yielding any gum. A similar situation is expected for other countries in the "gum belt" region stretching from the Atlantic Ocean and the Red Sea.

Until mid-December, "hard" gum arabic production was relatively low compared to the same period in previous years. The wave of cold sweeping through the Sahelian region, since the beginning of December, also contributed to decreased gum arabic production. Hence, the 2008-2009-harvest period of gum arabic is expected to intensify only in early 2009 (January/February). A similar prognostic applies for "flaky gum", which usually enters the market a little later.

Another equally significant consequence of the heavy rainfall is the deterioration of roads leading to production and harvest regions, which has in turn affected the flow of gum. However, the heavy rainfall recorded in 2008 is projected to have an overall positive effect on gum arabic. The rainfall is expected to encourage the regeneration and development of gum trees in future.

Legal aspects

Initiatives promoting artificial gum tree plantations are increasing because of the growth of carbon markets under the Kyoto protocol especially among private companies. This mechanism permits the mobilisation of funds and is excellent for such projects, which generally require large financial investments that the private sector cannot mobilize easily.

The Kyoto Protocol, in effect until end 2012, does not account for primary forests. Consequently, these resources are not adequately protected whereas they represent a key source of revenue for riverside populations. Developing countries with large forests are requesting measures to be devised to preserve their natural forests. The

state of the latter is deteriorating due to climatic factors and human action, and ultimately affecting the country's productivity. In fact, markets for forest carbon funds only take damaged ecosystems and changes in technology as an indication for an alternative to the utilisation of wood resources for local energy needs.

Recent talks on greenhouse gases were held in Poznan (Poland) and Brussels (Belgium) to outline future steps in anticipation of the expiration of the Kyoto protocol. These talks are expected to lead to a new international agreement in Copenhagen (Denmark) in December 2009, one that would take natural terrains into account. This would significantly alter the current context of gum arabic, which

grows in such regions while also mobilizing the funds for the proper management and development of large forest terrains.

Some countries, Mali for example, are positioned to bring about substantial changes through a set of decentralization policies that would transfer capabilities to communities. In fact, the status of *Acacia senegal*, essentially protected by African forestry legislation, would change and allow a greater implication of the local populations in its protection.

An FDA notification published on the 21st of November 2008 approved the decrease of the caloric value of gum arabic from 4 cal/g to 1.7 cal/g. The notification came as a response to a request put forth by the French firm CNI, a leader in the sector. This notification is projected to revamp the global demand for gum arabic although, to date, this news has received mixed reactions from the industry. The caloric value of gum arabic is generally low: 2cal/g in Europe and 1cal/g in Japan. The US figures were therefore the exception.

According to a TIC Gums spokesperson, one of the major US gum arabic suppliers, this decision will be advantageous for manufacturers and consumers, particularly as far as the nutritional label is concerned. Listing a lower caloric value for gum arabic will render gum arabic a more attractive

source of soluble fiber to be included in a food regimen.

A study published on the 20th November 2008 demonstrated that gum arabic has prebiotic properties and is able to, for example, stimulate the human intestine. In fact, a research group composed of Wim Calame of Kerry Technical Center nutrition group and a group of scientists of NutriScience BV and Kerry Ingredients revealed that a 10-gram dose of gum arabic resulted in significantly more production of bifidobacteria, lactobacillus and bacteroids than an equivalent dose of inulin. Prebiotic gum arabic, they concluded, is at least as effective as inulin.

Prebiotic products are defined as follows: non-digestible substances with beneficial physiological properties, capable of selectively stimulating the growth or activity of a limited number of indigenous bacteria. According to Frost and Sullivan, they are worth about 90 million Euros on the European market in 2008 and predicted to reach 179.7 million Euros in 2010.

Yet, the major development in recent years in the domain of legal aspects surrounding gum arabic remains the inclusion, by JEFCA, of *Acacia seyal* in its definition of gum arabic. This opens new doors for its utilization in the future.

The global financial crisis

According to experts in the domain, the current financial crisis has been the most damaging, with the exception of the 1929 crisis. Without going into technical detail, one can attribute the origin of the current crisis to US sub-prime mortgage loans, the effects of which were propagated worldwide especially within developed countries due to globalization and bank interdependence.

Experts have predicted that emerging countries will not be greatly affected by the crisis due to the minimal connection of their financial systems to the global system. The only exception remains for subsidiaries of foreign banks based in emerging countries and the fact that their economies are based primarily on the real sector. Hence, their relative marginalization from the global financial system and the fact that their growth stems largely from the real economy has

seemingly spared emerging countries from the instability affecting the rest of the world.

Yet, it would be beneficial for these countries to understand in detail the potential effects of this economic crisis on their economies, which rely heavily on agricultural and mining exports to developed countries. The importing countries, which are also the major donors of development aid, are increasingly fragilised by the economic crisis and confronted with economic recessions. These factors can potentially affect their demand for products originating from least developing and developing countries—and/or their aid donations.

In light of this situation one recurring question remains: Is Africa also at risk from the repercussions of the financial/credit crisis? Is its real economy not likely to be eventually

affected? As was previously mentioned, African economies are largely dependent on exports. The major destinations for exported products are the United States, the European Union and, more and more, Asia. The revenue obtained from these exports constitutes the majority of state budgets.

Because one aspect of the financial crisis is scarcity of credit and in light of a looming economic recession for countries that import African agricultural products, two outcomes are possible. The first is a decrease in demand of products by importer countries resulting in an eventual decrease in exported quantities and revenues obtained from exported products. The second is a decrease in rates due to changes in the supply and demand of the product: a supply greater than the usual demand from traditional consumers leading ultimately to a decline in revenue obtained from exports. Such declines in export revenues are likely to negatively affect the budgets of several countries and, in so doing, decrease socio-economic investments.

The current financial crisis also has other potential negative aspects on least developing and developing economies, and African economies in particular. Development aid and the flow of tourists to African destinations will potentially decrease. Given the fact that development aid from developed countries is based largely on taxpayer money, their citizens may become less enthusiastic about the transfer of this money to poorer countries while they themselves grapple with tough economic conditions, which is likely to worsen with the impending recession.

CONCLUSION

The demand for gum arabic remained high overall despite the fact that transport costs soared as a result of the economic crisis. The prices remained high on the global market, following the food crisis.

Between 2007 and 2008, the major African gum-producing countries continued to supply the global market, and the major importer countries in particular. However, a recent analysis of the import markets reveals the emergence of other African gum producing

Similarly, it has been previously demonstrated that household priorities are modified when income decreases. This phenomenon is likely to lead to a decreased demand for African tourist sites, leading to major losses for African countries whose revenues rely heavily on the tourism sector.

However, apart from these potentially negative outcomes, the financial crisis also provides new opportunities for African economies. African financial markets, for one, are external to the financial jumble that has engulfed the world since August 2007. Hence, investors who have become wary of US/European financial and stock markets may turn towards Africa and invest in projects with promising profitability.

Yet, this financial crisis and the two previous crises (food and energy) could also allow African economies to chart new paths for the future. They could improve food security and self-sufficiency by promoting the cultivation of agricultural products. Hence, increasing the mechanization of agriculture, building socioeconomic infrastructure and remodeling their financial systems through proper regulatory legislation are all possible options.

Based on this analysis, in 2009, the gum arabic market may shrink and in so doing reduce global demand. Some basic agricultural products are able to benefit from such a break by focusing on local consumption even though this is generally low. This option is not viable for gum arabic, at least not in the near future. The only hope lies with emerging markets which as was indicated in the previous report are exhibiting tremendous growth—with China, India and other South American countries in the lead.

and exporting countries. The surfacing of these small African producer countries is a challenge for the major producer countries which desire to fully supply import markets—which to date are continuously expanding as emerging countries like China and Brazil join the list.

External statistical trade data pertaining to African producer and exporter countries is generally absent or erroneous, which represents another major challenge.

Consequently, it is impossible to make trustworthy projections on consumer markets. Statistical data for these countries can be improved, in collaboration with their partners. This would bring clarity to the gum arabic trade, which represents enormous potential for several countries.

The lack of reliable statistical data on actual production does not also provide the clarity and certainty required by investors. This situation only fuels arguments from manufacturers of rival products that the

supply of gum arabic to manufacturers is unpredictable.

Global rates for gum arabic have not increased dramatically since 2004 despite an increasingly greater demand. In the absence of a regulatory stock within major gum-producing countries like Sudan, one may attribute these stable rates to an increase in the levels of production from other African producer countries—even though there are no reliable, available data to confirm this.

Fairs and Exhibitions

	<i>Month</i>	<i>Date</i>	<i>Exhibition</i>	<i>Venue</i>	<i>Website</i>
2008	June	15 - 16	Health ingredients South America Summit 2009	Sao Paulo, Brazil	http://www.hijapan.info/en/
		23-25	Fi Asia-China, Hi China and Ni China 2009,	Shanghai, China	http://asiachina2008.fi-events.com
	September	9-11	Food Ingredients Asia, 2009	Bangkok, Thailand	http://asia2008.fi-events.com/
	October	14-16	Health Ingredients Japan 2009	Tokyo, Japan	http://www.hijapan.info/en/
		23-24	Food Ingredients India 2009	Mumbai, India	http://india2008.fi-events.com/
	November	17-19	Food Ingredients Europe 2009	Frankfurt, Germany	http://europe2009.fi-events.com/

These events are the venue of most economic actors associated with gum arabic, including food applications generally outweigh the technical or pharmaceutical applications.

ANNEXES

Abbreviations

CNI: Colloïdes Naturels International
FAO: Food and Agriculture Organization
FDA: Food and Drug Administration
GOANA: Grande Offensive Agricole pour la Nourriture et l'Abondance (Agricultural Initiative for Food Security and Abundance)
GRAS: Generally Recognized As Safe
ITC: International Trade Centre
JECFA: Joint FAO/WHO Expert Committee on Food Additives
Kg: Kilogram
UK: United Kingdom
USA: United States of America
USD/T: US Dollar per Ton
USD/Kg: US Dollar per Kilogram
Q1: First quarter
Q2: Second quarter
Q3: Third quarter
Q4: Fourth quarter
WHO: World Health Organization
€ Euro

Useful Address

AIPG, Association for International Promotion of Gums

E-mail: aipg@wgawga-hh.de - Site: www.treegums.org

AIDGUM, Association Internationale pour le Développement des Gommés Naturelles 129, Chemin de Croisset BP 4151 76723 ROUEN CEDEX
Tél.: + 33 232 831 818 Fax: + 33 232 831 919

NGARA, Natural Gums and Resins in Africa

Nairobi, Kenya

Tel: +254 720 811 411 Fax: +254 20 4444 841

E-mail: EnricoCasadei@NGARA.org - Site: www.NGARA.org

Exporters

This list, not limited to exporters, is drawn from various sources, like the list published in July 2003 by the AIPG or as members of NGARA.

NIGÉRIA

DANSA FOOD, Processing Co. Ltd.

Industrial Estate lot 2 - KANO

Tel.: + 234 64 31 41 42

E-mail: dansafood@yohoo.com

GACON Ltd.

1st Floor 8 Market Street P.O. Box 50134 Falomo Ikoyi – LAGOS
Tel: + 234 1 266 54 50 Fax: + 234 1 266 78 01
E-mail: gacon@linkserve.com

VICTORIA AGRO EXPORTS Ltd.

270 Ozumba Mbadiwe street – Victoria Island – LAGOS
Tel: + 234 1 262 13 24 Fax: + 234 1 61 84 51
E-mail: il786@aol.com

SUDAN**THE GUM ARABIC COMPANY**

P.O. Box 857 KHARTOUM
Tel: + 249 11 46 10 61 Fax: + 249 11 47 13 36
E-mail: gmanager@gum-arab.com

THE KHARTOUM GUM ARABIC PROCESSING Co. Ltd.

P.O. Box 12034 KHARTOUM
Tel: + 249 11 78 56 66 Fax: + 249 11 77 46 32
E-mail: gapc@sudanmail.net

CHAD**ABHS Aboul-Hassanein**

B.P. 3061 N'DJAMENA
Tel: + 235 51 00 76 Fax: + 235 51 06 86
E-mail: abhs@intnet.td

SANIMEX

B.P. 492 N'DJAMENA
Tel.: + 235 51 49 69 Fax: + 235 51 40 40
E-mail: sanimex@intnet.td

SCCL

B.P. 1110 N'DJAMENA
Tel.: + 235 51 79 61 Fax: + 235 51 06 86
E-mail: sccl@intnet.td or djoakibou@hotmail.com

SETEX Acacia

B.P. 744 N'DJAMENA
Tel.: + 235 51 29 07 Fax: + 235 51 59 97
E-mail: Boukharydoudou@wanadoo.fr

SODEC

B.P. 877 N'DJAMENA
Tel.: + 235 51 29 26 Fax: + 235 51 79 27
E-mail: sodec.tchad@intnet.td

KENYA**SADQA HAQ**

Tel. +254 723 972 442; Email - sadqa@africaonline.co.ke

LERAPO BATULO

Tel. +254 721 306 211

PAULINE LEMALASIA

Tel. +254 +254 727 672 308

OSMAN AMBIA

Tel. +254 720 969 074

MALI**ISSA KEITA**

Immeuble Alpha Gamby, BP; 2361,
Tel.: + 223 76 31 55 23/ + 223 76 84 70 15
E.mail: Keitaissafr@yahoo.fr
Bamako

MODIBO TALLA

Bagadadji, Rue 513,
Tel.: + 223 20 21 22 16/ + 223 66 22 25 55
E.mail: dibotalla@yahoo.fr
Bamako

MAMADOU GUEYE

Niaréla, face carré des martyrs
Tel.: + 223 76 31 99 14
Bamako

BOUYA KAGNASSY

Badalabougou Sema, BP: 2361
Tel.: + 223 76 13 69 28
Bamako

SITAPHA KOUMA

Niaréla TSF, BP: 2361
Tel.: + 223 76 43 41 53
Bamako

LASSINA BALLO

Niaréla, Rue 319, Porte 318, BP: 2361
Tel.: + 223 76 49 63 34
Bamako

Importers

This list, not limited to importers, is drawn from various sources, as the last "Market Brief the JIU or the list published in July 2003 by the AIPG.

France**ALLAND & ROBERT**

9, rue de Saintonge - 75003 PARIS
Tel.: + 33 144 592 130 Fax: + 33 142 725 438 Telex: 210963 F
E-mail: f.alland@allandetrobert.fr

C.N.I., COLLOIDES NATURELS INTERNATIONAL

129, chemin de Croisset BP 4151 - 76723 ROUEN Cedex
Tel.: + 33 232 831 818 Fax: + 33 232 831 919 Telex: 180921 F
E-mail: gdondain@cniworld.com

EMIGA

Zone Industrielle Avon, Lot 152 - 13120 GARDANNE
Tel.: + 33 442 512 828 Fax: + 33 442 512 533 Telex: 400547 F
E-mail: EMIGA.FR@wanadoo.fr

SPINDAL – AEB group

Zone Industrielle 3/5 rue Ampère - 77220 GRETZ-ARMAINVILLIERS
Tel.: + 33 164 078 000 Fax: + 33 164 075 920
E-mail: spindal.sec.france@wanadoo.fr

VALMAR

Zone Industrielle de Saint Mitre - 13400 AUBAGNE
Tel.: + 33 442 849 292 Fax: + 33 442 841 079
E-mail: valmarsa@aol.com

UNITED KINGDOM**AGRISALES LIMITED – AGRIPRODUCT group**

Royal Oak House - 45A Porchester road - LONDON W2 5DP
Tel.: + 44 207 221 1275 Fax: + 44 207 792 9014

ARTHUR BRANWELL & Co LIMITED

Bonte House, 58-62 High Street - EPPING, ESSEX CM16 4AE
Tel.: + 44 1 992 577 333 Fax: + 44 1 992 561 138 Telex: 817158 BRANWL G
E-mail: Richardkenny@branwell.com

RED CARNATION GUMS LIMITED

Unit 11 Westmayne Industrial Park - Bramston way, Laindon, Essex, SS15 6TP
Tel.: + 44 1 268 412 020 Fax: + 44 1 268 410 040 Telex: 99238 EMULS G
E-mail: office@redgums.com

A.F. SUTER and Co Ltd

Thames House – 18 Park Street – LONDON SE1 9EQ
Tel.: + 44 207 403 6555 Fax: + 44 207 378 8582
E-mail: afsuter@afsuter.com

TOYOTA TSUSHO UK Ltd.

140 London wall, LONDON EC2Y 5DN
Tel.: + 44 2 077 762 778 Fax: + 44 2 077 762 795
E-mail: gkhan@toyota-tsusho-uk.com

UNITED STATES OF AMERICA**AEP Colloids Inc.**

393 Church Street – P.O. Box 3425 SARATOGA SPRINGS, NY 12866
Tel.: + 1 518 584 4105 Fax: + 1 518 580 8577
E-mail: astrouse@aepcolloids.com

ISC Importers Service Corporation

233 Suydam Avenue – JERSEY CITY, NJ 07304-3399
Tel.: + 1 201 332 6970 Fax: + 1 201 332 4152
E-mail: iscgums@iscgums.com

PAUL THOMAS & Co INC

119 Headquarters Plaza - MORRISTOWN, NJ 07960
Tel.: + 1 973 984 0900 Fax: + 1 973 984 5666 Telex: 219805 SPGM UR
E-mail: info@plthomas.com

TIC GUMS INC

4609-T Richlynn Drive P.O. Box 369 - BELCAMP, MD 21017-0369
Tel.: + 1 410 273 7300 Fax: + 1 410 273 6469; Site: www.ticgums.com

GERMANY

Willy BENECKE GmbH

Hoverstrasse 41 - 20539 HAMBURG
Tel.: + 49 407 804 440 Fax: + 49 40 780 44 433
E-mail: thauser@willy-benecke.com

Johannes BASSEN GmbH

Kaiser-Wilhelmstasse 115 – 20355 HAMBURG
Tel.: + 49 40 355 47 913 Fax: + 49 40 355 47 918
E-mail: johannes.bassen@t-online.de

C.E. ROEPER GmbH

Hans Duncker strasse 13 - 21035 HAMBURG
Tel.: + 49 40 734 10 317 Fax: + 49 40 734 10 381 Telex: 217811
E-mail: CGerrens@roeper.de

Ernst H. SINGELMANN GmbH

Hopfensack 20 – 20457 HAMBURG
Tel.: + 49 40 350 257 Fax: + 49 40 331 642
E-mail: U.Singelmann@t-online.de

Alfred WOLFF GmbH

Sudanhaus – Grosse Backerstasse 13 – P.O. Box 106620 20044 HAMBURG
Tel.: + 49 40 376 76 121 Fax: + 49 40 376 76 100 Telex: 211778
E-mail: hwolf@alwolf.de

BELGIUM

CLADIC Belgium N.V.

Terlochtweg 1 – 2620 HEMISKSEM
Tel.: + 32 3 870 48 11 Fax: + 32 3 870 48 99
E-mail: am@caldic.be

INDIA

DRYTECH

B-16 Ginkunz Industrial Estate – Off Mahakali Caves road – Andheri East MUMBAI 400093
Tel.: + 91 22 268 753 61 Fax: + 91 22 268 752 21
E-mail: drytech@bom8.vsnl.net.in

IRELAND

KERRY Ingredients

3 Eldred terrace – Douglas road - CORK
Tel.: + 353 214 313 172
E-mail: brian.lynch@kerry.ie

ISRAEL

FRUTAROM Industries Ltd.

P.O. Box 10067 – HAIFA
Tel.: + 972 846 2442 Fax: + 972 872 2517
E-mail: info@frutarom.com

ITALY

RATHGEB Rose-Marie

Viale Belisario 20145 MILANO
Tel.: + 39 024 813 424 Fax: + 39 024 819 5518 ; E-mail: rathgeb@tiscalinet.it

JAPAN

SAN-EI YAKUHIN BOEKI K.K.

c/o Morii Bldg 4-10 Awajimachi 1 – Chome Chuo-Ku OSAKA

Tel.: + 81 662 028 524 Fax: + 81 662 027 204

E-mail: emorii@oak.ocn.ne.jp

References and Information Sources

- **ITC (Geneva) website:** <http://www.intracen.org>
- **Third NGARA publication series**, September 2005;
- **British Journal of Nutrition**, December 2008, Volume 100, Issue 6, Pages 1269-1275, (“Gum arabic establishes prebiotic functionality in healthy human volunteers in a dose- dependent manner”).
- **Food Navigator:** <http://www.foodnavigator-usa.com>
- **Nutra Ingredients:** (<http://www.nutraingredients.com>)



International
Trade
Centre



Street address
International Trade Centre
54-56 Rue de Montbrillant
1202 Geneva, Switzerland

P: +41 22 730 0111
F: +41 22 733 4439
E: itcreg@intracen.org
www.intracen.org

Postal address
International Trade Centre
Palais des Nations
1211 Geneva 10, Switzerland