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Table 8--Material codes, code descriptions, and the value of agriculturally derived materials (other than wood and paper products) used in manufacturing in 1992

Code	Description	Value 1,000 dollars
010014	All other fibers (silk, jute, reused wool, waste, etc.)	28,000
011903	Broomcorn	9,100
013101	Raw cotton fibers	3,140,700
019101	Agricultural products (crude), including flowers, grains, seeds, herbs, etc.	705,500
020001	Raw wool, mohair, and other animal fibers (scoured weight)	220,200
021401	Raw wool fibers	d
083100	Natural rubber	40,100
083111	Natural dry rubber	608,900
083113	Natural latex rubber (dry solids content)	313,100
190015	Other fibrous materials, including rags, straw, and bagasse	65,600
190019	Cotton waste	20,100
190047	Cotton linters and cotton waste	12,100
190048	Cotton felt filling materials, purchased, premade	18,100
200101	Processed food and kindred products, including lactose, meat-packing-plant products, yeast, etc.	146,300
201191	Hides, skins, and pelts	1,236,000
204609	Starch	524,900
204610	Starch and dextrin	23,900
207001	Animal and vegetable oils	80,300
207011	Vegetable oil	67,000
207020	Fats, oils, greases, and tallow	430,600
207431	Cotton linters (net weight)	72,100
207619	Vegetable oils	50,900
207711	Grease and inedible tallow	164,200
220010	Yarns and textiles made of cotton, wool, silk, and manmade fibers	35,800
220234	Cotton fabrics	68,800
220305	All other fabrics (except manmade), primary backing	5,100
221101	Cotton broadwoven fabrics (piece goods)	1,015,100
221161	Woven cotton upholstery fabrics, excluding ticking	253,400
228102	Cotton yarns	368,400
228110	Carded cotton yarn	1,024,700
228120	Combed cotton yarn	421,300
228151	Wool yarn	15,500
228301	Spun wool and chiefly wool yarns	29,500
229911	Wool felt	6,700
229961	Jute secondary backing	80,000
229963	Wool tops	90,000
249941	Cork products	53,900
284421	Perfume oil mixtures and blends	610,200
289921	Fatty acids	217,100
289943	Gelatin (pharmaceutical grade) and gelatin capsules	51,200
289951	Essential oils, natural	95,300
311100	Finished leather	465,200
311102	Finished upper leather	142,400
311107	Other finished leather	39,200
311108	All other finished leather	16,900
311111	Finished upper leather	724,800
311112	Finished soling leather	189,900
399991	Dressed hair (including bristle and horsehair)	16,300
999823	Wool nolls and waste	8,500
Total agriculturally derived materials other than wood and paper products		14,022,900

d = Data withheld to avoid disclosing figures for individual companies.

Source: 1992 Census of Manufactures, Bureau of the Census, May 1996.

Table 9—Material codes, code descriptions, and the value of wood and paper products used in manufacturing in 1992

Code	Description	Value 1,000 dollars
081111	Stumpage cost (cost of timber, excluding land, cut and consumed at same establishment)	3,517,200
190005	Wastepaper, all types	121,900
190006	Mixed wastepaper, except plant's own broke paper	230,000
190007	Mechanical news wastepaper, except plant's own broke paper	194,800
190008	Fly ash	800
190009	High-grade pulp substitutes wastepaper, except plant's own broke paper	276,300
190010	High-grade deinking wastepaper, except plant's own broke paper	245,700
190072	Other mechanical wastepaper, except plant's own broke paper	60,000
190073	Corrugated wastepaper, including kraft, except plant's own broke paper	711,800
240001	Lumber and wood products, except furniture	41,600
240090	Other lumber and wood products, except furniture	11,400
240099	Other wood products (except lumber)	11,300
241101	Spruce and true fir pulpwood bolts and logs	241,800
241102	Hemlock pulpwood bolts and logs	189,100
241104	Southern pine pulpwood bolts and logs	2,068,000
241108	Southern mixed hardwood pulpwood bolts and logs	745,500
241109	Poles, piling, and other round or hewn wood products treated in the same establishment	216,300
241111	Hardwood logs, bolts, and unsliced flitches	1,268,000
241112	Softwood logs, bolts, and unsliced flitches	7,015,300
241113	Logs, bolts, and unsliced flitches	90,300
241135	Other softwood pulpwood bolts and logs, including Douglas fir and Jack pine	253,600
241137	Other hardwood pulpwood bolts and logs	368,300
242011	Chips, slabs, edgings, shavings, sawdust, and other wood waste	22,900
242012	Softwood pulpwood wood chips, slabs, cores, sawdust, bark, and other mill residues	2,224,400
242013	Hardwood pulpwood wood chips, slabs, cores, sawdust, bark, and other mill residues	861,000
242016	Chips, slabs, edgings, sawdust, and other wood waste, except planer shavings	174,500
242017	Planer shavings	139,700
242101	Rough and dressed lumber	354,400
242103	Dressed lumber	941,500
242110	Hardwood rough lumber	1,764,200
242111	Hardwood lumber, rough and dressed	816,400
242117	Hardwood dressed lumber	498,600
242121	Softwood rough lumber	2,219,000
242123	Softwood lumber, rough and dressed	171,900
242128	Softwood dressed lumber	1,560,200
242170	Softwood cut stock, including window and cabinet parts	542,500
242600	Hardwood dimension and parts, including wood furniture frames	411,700
242620	Hardwood dimension and parts, excluding furniture frames	619,000
242628	Hardwood dimension and parts, including furniture frames	55,600
242661	Furniture frames, wood	464,500
243001	Veneer and plywood	127,800
243011	Millwork, wood (including wood doors, window sash, moldings, and cabinets)	58,300
243056	Plywood	208,000
243103	Wood doors and door units	17,300
243105	Wood millwork, including molding, doors, and windows	67,500
243401	Kitchen cabinets, wood	81,100
243510	Hardwood plywood	542,900
243530	Hardwood veneer	189,900
243540	Hardwood veneer	501,100
243601	Softwood plywood	205,800
243640	Softwood veneer	463,800
244021	Wood boxes, pallets, skids, and containers	92,200
244022	Wooden containers, complete (including combination wood and paperboard)	36,200
249300	Reconstituted wood products, including particleboard, oriented-strand board, medium density fiberboard, and hardboard	88,100
249310	Particleboard (wood)	929,100
249322	Oriented-strand board (OSB) and waferboard	64,300
249330	Medium density fiberboard (MDF)	246,100
249340	Hardboard (wood fiberboard)	287,000

Continued--

Table 9—Material codes, code descriptions, and the value of wood and paper products used in manufacturing in 1992—continued

Code	Description	Value 1,000 dollars
249951	Wood brush handles and backs	30,000
249991	Wood parts, including handles	47,400
251003	Household-type furniture, including tables, sofas, beds, mattresses, etc.	33,000
251011	Cabinets (wood, metal, and plastics)	510,400
260001	Paper and paperboard products, including paperboard boxes, containers, and corrugated paperboard	384,900
260002	Other paper products	21,500
260003	Paper and paperboard, except boxes and containers	17,221,100
260004	Paper and paperboard products (except paperboard boxes, containers, corrugated paperboard, and photographic base papers)	195,600
260012	Paper and paperboard containers, including shipping containers, setup and folding cartons, etc.	566,600
260050	Paper and paperboard products (including album covers, sleeves, etc.)	33,800
260051	Paper and paperboard containers	410,700
260070	Paper and paperboard products, except paperboard boxes, containers, and corrugated paperboard	878,400
260080	Other paper and paperboard products	296,800
260091	Paper and paperboard containers, including shipping sacks and other paper packaging supplies	1,918,100
261102	Woodpulp produced at affiliated or associated mills at other locations	975,200
261104	Woodpulp (purchased market wood pulp)	2,539,100
261105	Woodpulp (air-dry basis)	654,700
261151	Linter pulp	33,300
262100	Paper, all types except light sensitive (including newsprint, book, bond, cover, and coated)	40,600
262101	All other paper, except light sensitive	43,900
262104	Paper (cellulosic wadding)	15,300
262106	Purchased (market) paper	42,600
262108	Paper	6,797,000
262111	Newsprint	186,700
262112	Newsprint	981,800
262113	Newsprint, 30-pound basis weight	3,202,200
262115	Newspaper, other basis weight	629,500
262121	Uncoated paper in sheets	1,269,600
262122	Uncoated paper in rolls	2,530,300
262123	Coated paper in sheets	1,569,000
262124	Coated paper in rolls	2,664,700
262131	Coated paper	1,611,900
262140	Uncoated paper	2,271,000
262163	Carbonless paper	603,300
262164	Carbonizing tissue stock for conversion into one-time carbon paper	16,500
262175	Photographic base papers	308,200
262188	Glassine film	19,300
262190	Building paper and board	59,700
262195	Filter paper	211,100
263105	Paperboard (including news, chip, pasted, tablet, check, binders' board), except for shipping	133,100
263112	Paperboard liners	109,000
264926	Paper (cellulosic wadding)	47,200
265001	Paperboard containers, boxes, and corrugated paperboard	7,709,400
265020	Paper and paperboard boxes and fiber cans, tubes and drums	87,400
265522	Fiber cans, bottles with combinations of fiber and other materials (foil, plastics, etc.) with metal ends	16,500
267000	Bags, except textile, including shipping sacks, multiwall bags, and polyethylene liners	30,500
267004	Other converted paper and paperboard products	38,800
267420	Paper shipping sacks and multiwall bags	58,400
267700	Purchased envelopes	15,900
286101	Wood rosin, turpentine, and other wood chemicals, including tall oil	71,500
286102	Tall oil and rosin	72,800
286104	Wood rosin, turpentine, and other wood chemicals	28,100
286556	Pitch	33,500
289956	Rosin sizing	133,100
	Total wood and paper products	96,337,500

Source: 1992 Census of Manufactures, Bureau of the Census, May 1996.

Table 10--Material codes, code descriptions, and the value of materials partially derived from agricultural sources used in manufacturing in 1992

Code	Description	Value 1,000 dollars
190046	Loose-fill insulating materials (mineral fiber, cellulose fiber, and other)	28,600
190049	Insulators, all types, except cotton felt, purchased premade	50,500
190054	Vinyl and paper overlays	86,800
220011	Cloth and nonwoven fabrics for hardbound book covers	61,500
220090	Other textile mill products	d
220100	Textile fabrics	397,700
220101	Cotton and manmade fiber fabrics, broadwoven and narrow woven	178,600
220110	Broadwoven fabrics	287,800
220123	Cotton, wool, manmade fiber fabrics, etc.	131,600
220125	Uncoated broadwoven fabrics for upholstery	387,800
220127	Other broadwoven fabrics (piece goods)	904,700
220129	Broadwoven fabrics (piece goods)	8,242,100
220170	Broadwoven fabrics	265,600
220190	Fabrics, except tire fabrics (including cotton, nylon, polyester, and rayon)	181,700
220200	Woven upholstery fabrics (cotton, nylon, polyester, rayon, etc.), excluding ticking	42,600
220211	Broadwoven fabrics	2,802,400
220308	All other secondary backing (including scrim, solid vinyl, etc.)	47,400
220390	Fabrics, all types	39,000
221141	Ticking (mattress)	186,400
222101	Rayon and acetate broadwoven fabrics (piece goods)	134,300
222103	Other woven upholstery fabrics (rayon, nylon, polyester, etc.), excluding ticking	560,800
224110	Woven narrow tape and webbing	2,100
224111	Narrow fabrics (12 inches or less in width)	902,900
225078	Knit fabrics	5,435,800
227001	Floor coverings, textile	105,600
227002	Carpeting	566,600
228011	All other yarns	512,400
228015	Yarn, all fibers	986,600
228101	Spun yarn, all fibers	2,457,700
228130	Spun rayon and acetate yarn	2,000
228147	All other spun yarns	35,800
229503	Plastics coated, impregnated, or laminated fabrics	531,900
229506	Plastics coated fabrics and shade cloth	92,700
229507	Coated or impregnated woven and nonwoven fabrics, except rubberized	24,200
229508	Coated or laminated fabrics, including vinyl coated	933,900
229710	Nonwoven fabrics	955,100
229801	Cordage	d
229908	Paddings, battings, and fillings, except rubber and plastics foam	137,800
230001	Garments purchased to be printed and resold	347,700
235311	Hat bodies	71,700
239101	Curtains and draperies	39,200
239401	Canvas products	22,300
239621	Automotive trimmings, textile (panels, headliners, etc.)	3,364,600
239901	Seat covers, seat belts, and shoulder harnesses	954,600
267101	Packaging paper and plastics film, coated and laminated	4,000
267102	Packaging paper and plastics film, coated, laminated, printed, etc.	371,100
267231	Pressure-sensitive base stock, self-adhesive, including paper, film, foil, etc.	799,700
270011	Labels, coupons, instructions, and other printed material	424,700
280000	Industrial organic and inorganic chemicals, including acids and alcohols, but excluding fatty acids	14,500
280010	Additives (fire retardants, water repellents, softeners, and antistatics, etc.)	46,400
280012	Other additives, including soaps and detergents	590,400
280021	Tanning materials, dressings, dyes, and finishing agents	281,500
282305	Rayon and acetate staple and tow	355,400
282407	All other filament yarns, except glass	284,700
282412	Filament rayon and acetate yarns	6,600
283011	Blood derivatives and extenders	566,600
283301	Vitamins, natural and synthetic, in bulk, for human and veterinary use	482,700
283302	Vitamins, natural and synthetic, in bulk, for animal feeds	104,200
283306	All other bulk medicinal and botanical uncompounded drugs, except antibiotics and vitamins	4,488,100
283318	Antibiotics, in bulk, for human and veterinary use	1,856,400
283319	Antibiotics, in bulk, for animal feeds	77,900
284141	Glycerin (100 percent)	8,400
284301	Surfactants	62,600
284303	Bulk surface active intermediates (active weight)	339,500
284305	Bulk surface active agents primarily for detergent purposes (active weight), except intermediates	341,500

Continued—

Table 10--Material codes, code descriptions, and the value of materials partially derived from agricultural sources used in manufacturing in 1992

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Code	Description	Value
		1,000 dollars
284306	Other bulk surface active agents (emulsifiers, wetting agents, penetrants, etc.) (active weight), except intermediates	98,300
284307	Bulk surface active agents other than sulfonated oils and fats	170,600
285100	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied products	21,400
285101	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products	3,830,900
285110	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied products	318,200
286081	Other synthetic organic chemicals (Includes acrylonitrile and cellulose acetate)	2,005,600
286099	Other synthetic organic chemicals, not elsewhere classified	3,142,700
286902	Synthetic organic chemicals, except prepared photographic chemicals	141,300
286903	Refrigerant gases and other synthetic organic chemicals	146,000
286906	Other synthetic organic chemicals, including halogenated hydrocarbons	780,800
286907	Alcohol solvents (butyl, ethyl, isopropyl, etc.)	99,200
286920	Alcohols, except ethyl (100-percent basis)	188,900
286931	Perfume materials (synthetic organic)	92,700
286935	Plasticizers	148,300
286952	Alcohol, ethyl (pure and denatured)	272,700
286955	Alcohols	101,400
289100	Adhesives and sealants	126,900
289101	Glues and adhesives	2,268,900
289102	Glues and adhesives, including synthetic resin adhesives	38,200
289147	Adhesives and binders (resins)	103,100
289216	High explosives, including PETN, TNT, azides, and fulminates	14,000
289300	Printing ink	103,200
289301	Printing inks (complete formulations)	2,450,100
289305	Other printing inks, including gravure, flexographic, and screen process	24,300
289311	Letterpress printing inks, including news	33,700
289323	Lithographic (offset) printing inks	114,900
300099	All other rubber and miscellaneous plastics products	33,700
300115	Plastics and natural or synthetic rubber cut stock and findings	58,300
301100	Tires and inner tubes	271,000
301101	Pneumatic tires and inner tubes	2,823,800
301102	Pneumatic tires	145,200
305201	Rubber and plastics hose and belting	845,100
305202	Hydraulic and pneumatic hose (without fittings), rubber and plastics inner tube type, wire or textile reinforced	105,900
305204	Other rubber and plastics hose and belting	6,800
306001	Fabricated rubber products, except gaskets	35,300
306002	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets	31,100
306902	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets	977,100
306903	Reclaimed rubber, excluding "mud" and crumb or ground scrap	32,100
306990	Rubber compounds or mixtures	d
306991	Rubber compounds and mixtures purchased (dry rubber solids content)	609,300
306999	All other fabricated rubber products	158,300
3069E1	Bare rubber thread	51,500
308602	Foam or high-density rubber cushion secondary backing	13,700
313108	Leather and other material cut stock and findings	107,000
356503	Purchased adhesive devices (hot melt and cold glue) for incorporation into complete finished products	10,400
356921	Fluid power filters (hydraulic and pneumatic)	361,500
375115	Seats (saddles), bicycle	28,700
386101	Light-sensitive films and papers	536,900
386155	Light-sensitive films	173,600
386166	Light-sensitive papers (including photographic paper and diffusion transfer paper)	36,400
395523	One-time carbon paper	55,100
399951	Lamp shades	29,800
999825	New and used rags, clips, etc.	24,100
	Total partially agriculturally derived materials	69,406,000

d = Data withheld to avoid disclosing figures for individual companies.

Source: 1992 Census of Manufactures, Bureau of the Census, May 1996.

Table 11--Material codes, code descriptions, and the value of some raw materials used in manufacturing in 1992 that potentially could come from agricultural and forestry products

Code	Description	Value 1,000 dollars
190089	Other fluid power products (hydraulic and pneumatic)	470,000
190090	Fluid power products	630,400
286002	Other solvents	149,500
286030	Industrial organic and synthetic organic chemicals, including plasticizers (except synthetic dyes, pigments, and toners)	1,690,000
286905	Oxygenated solvents	58,500
286965	Glycols (ethylene, propylene, etc.) (100-percent basis)	413,400
286971	Ketone and ester solvents (methyl ethyl ketone, ethyl acetate, etc.)	176,400
290003	Lubricating and cutting oils	7,800
Total potentially agriculturally derived materials		3,596,000

Source: 1992 Census of Manufactures, Bureau of the Census, May 1996.

Table 12--Flaxseed: Acreage planted, harvested, yield, production, and value, United States, 1988-97

Year	Planted	Harvested	Yield	Production	Value
	--1,000 acres--		Bushels per acre	1,000 bushels	\$1,000
1988	275	226	7.1	1,615	12,200
1989	195	163	7.5	1,215	8,724
1990	260	253	15.1	3,812	20,280
1991	356	342	18.1	6,200	21,845
1992	171	165	19.9	3,288	13,543
1993	206	191	18.2	3,480	14,848
1994	178	171	17.1	2,922	13,590
1995	165	147	15.0	2,211	11,475
1996 1/	96	92	17.4	1,602	10,009
1997 2/	197	189	17.5	3,310	N.A.

N.A. = Not available.

1/ Preliminary. 2/ Forecast.

Table 13--Linseed oil, supply and disappearance, United States, 1988/89-1997/98

Year beginning June 1	Supply			Disappearance			Ending stocks
	Beginning stocks	Production	Total	Exports	Domestic	Total	
--Million pounds--							
1988/89	41	170	211	12	151	163	48
1989/90	48	165	213	12	164	176	37
1990/91	37	176	213	6	167	173	40
1991/92	40	182	222	12	170	182	40
1992/93	40	172	212	8	150	158	54
1993/94	54	174	228	7	159	166	63
1994/95	63	172	237	24	169	192	45
1995/96	45	180	228	23	155	178	50
1996/97 1/	50	180	230	25	155	180	50
1997/98 2/	50	181	231	20	161	181	50

N.A. = Not available.

1/ Preliminary. 2/ Forecast.

Table 14—Linseed meal, supply and disappearance, United States, 1988/89-1997/98

Year beginning June 1	Supply				Disappearance			Ending stocks
	Beginning stocks	Production	Imports	Total	Exports	Domestic	Total	
--1,000 short tons--								
1988/89	3	156	11	170	63	102	165	5
1989/90	5	153	9	167	23	139	162	5
1990/91	5	162	3	170	41	124	165	5
1991/92	5	167	0	172	40	127	167	5
1992/93	5	159	2	166	55	106	161	5
1993/94	5	160	2	167	49	113	162	5
1994/95	5	158	5	168	58	105	163	5
1995/96	5	167	4	176	56	115	171	5
1996/97 1/	5	167	1	173	53	115	168	5
1997/98 2/	5	167	1	173	52	116	168	5

1/ Preliminary. 2/ Forecast.

Table 15—Industrial rapeseed, supply, disappearance, and price, United States, 1988/89-1997/98

Year beginning June 1	Supply				Disappearance			Ending stocks	Price Min- neapolis Cents/lb.
	Beginning stocks	Production	Imports	Total	Exports 1/	Domestic	Total		
--Million pounds--									
1988/89	1,107	15,822	0	16,930	0	16,188	16,188	741	11.1
1989/90	741	19,143	0	19,885	0	19,003	19,003	882	10.5
1990/91	882	22,717	0	23,599	0	22,319	22,319	1,279	10.3
1991/92	1,279	16,146	0	17,425	0	17,158	17,158	267	10.1
1992/93	267	14,455	0	14,722	0	14,522	14,522	200	10.0
1993/94	200	7,442	0	7,642	0	7,592	7,592	50	10.2
1994/95	50	12,596	0	12,646	0	12,609	12,609	37	10.3
1995/96	37	3,012	0	3,049	0	2,935	2,935	114	12.0
1996/97 2/	114	3,234	0	3,348	0	3,317	3,317	31	12.7
1997/98 3/	31	1,920	0	1,951	0	1,922	1,922	29	9.9

1/ Trade data do not distinguish between industrial and edible (canola) exports; therefore all exports were allocated to canola. 2/ Preliminary. 3/ Forecast.

Table 16—Industrial rapeseed oil, supply, disappearance, and price, United States, 1988/89-1997/98

Year beginning June 1	Supply				Disappearance			Ending stocks	Price Min- neapolis Cents/lb.
	Beginning stocks	Production	Imports	Total	Exports 1/	Domestic	Total		
--Million pounds--									
1988/89	2,522	6,858	35,274	44,654	0	40,188	40,188	4,465	25.6
1989/90	4,465	8,184	29,407	42,057	0	37,851	37,851	4,206	27.8
1990/91	4,206	6,960	20,406	31,571	0	28,414	28,414	3,157	24.5
1991/92	3,157	5,705	8,737	17,599	0	15,839	15,839	1,760	22.6
1992/93	1,760	3,707	11,076	16,543	0	14,889	14,889	1,654	24.4
1993/94	1,654	4,140	6,581	12,375	0	11,138	11,138	1,238	29.0
1994/95	1,238	2,346	10,864	14,448	0	13,003	13,003	1,445	29.7
1995/96	1,445	1,201	9,403	12,049	0	10,844	10,844	1,205	28.3
1996/97 2/	1,205	894	10,153	12,252	0	11,027	11,027	1,225	26.8
1997/98 3/	1,225	821	10,903	12,949	0	11,654	11,654	1,295	26.0

1/ Trade data do not distinguish between industrial and edible (canola) exports; therefore all exports were allocated to canola. 2/ Preliminary. 3/ Forecast.

Table 17—Industrial rapeseed meal, supply, disappearance, and price, United States, 1988/89-1997/98

Year beginning June 1	Supply				Disappearance			Ending stocks	Price Minneapolis
	Beginning stocks	Production	Imports	Total	Exports	Domestic	Total		
--Million pounds--									
1988/89	212	10,738	0	10,951	0	10,736	10,736	215	160
1989/90	215	12,815	0	13,030	0	12,773	12,773	256	135
1990/91	256	10,897	0	11,153	0	10,935	10,935	218	132
1991/92	218	8,933	0	9,151	0	9,017	9,017	134	137
1992/93	134	5,805	0	5,939	0	5,852	5,852	87	141
1993/94	87	6,483	0	6,570	0	6,472	6,472	97	140
1994/95	97	3,674	0	3,771	0	3,716	3,716	55	118
1995/96	55	1,881	0	1,936	0	1,908	1,908	28	171
1996/97 1/	28	1,400	0	1,429	0	1,408	1,408	21	192
1997/98 2/	21	1,286	0	1,307	0	1,288	1,288	19	147

1/ Preliminary. 2/ Forecast.

Table 18—Total fats and oils consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	19,426.7	13,542.0	5,884.7	744.5	180.3	2,079.3	202.3	115.8	2,074.1	488.4
1989/90	20,036.0	14,382.7	5,653.3	792.0	89.5	2,143.5	222.4	157.1	1,944.7	304.1
1991	20,332.1	14,613.0	5,719.1	832.9	106.8	1,974.0	182.6	101.7	2,234.7	286.4
1992	20,751.7	14,847.3	5,904.4	738.8	123.8	2,176.5	165.5	109.4	2,041.2	549.3
1993	21,590.4	15,744.7	5,845.7	748.5	125.2	2,199.5	170.2	116.0	1,897.6	588.7
1994	22,058.7	15,373.8	6,684.9	770.0	115.1	2,272.5	240.7	219.3	2,306.2	761.1
1995	21,157.4	15,056.3	6,101.1	593.8	102.8	2,340.9	210.7	141.9	1,963.6	747.4
1996	20,847.1	14,828.9	6,018.2	468.9	86.6	2,429.5	206.1	124.5	1,920.7	781.9

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 19—Castor oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	59.2	0.0	59.2	d	4.8	0.0	4.5	6.2	0.0	43.2
1989/90	51.4	0.0	51.4	d	5.9	0.0	4.0	5.7	0.0	d
1991	46.0	0.0	46.0	d	5.9	0.0	4.0	d	0.0	31.7
1992	41.3	0.0	41.3	d	d	0.0	3.3	3.5	0.0	28.4
1993	54.2	0.0	54.2	d	d	0.0	3.5	2.8	0.0	37.8
1994	61.9	0.0	61.9	d	d	0.0	1.9	2.4	0.0	41.0
1995	62.6	0.0	62.6	d	d	0.0	1.2	2.7	0.0	40.4
1996	59.6	0.0	59.6	d	d	0.0	1.3	2.0	0.0	45.8

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 20—Coconut oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	688.8	211.2	477.6	130.6	1.4	d	14.6	d	121.9	206.6
1989/90	525.2	160.6	364.6	156.9	2.1	0.0	9.7	4.0	134.6	57.3
1991	815.6	153.0	662.6	158.0	d	d	2.4	d	426.7	72.8
1992	875.4	176.3	699.1	121.7	d	0.0	3.2	d	d	d
1993	936.3	218.0	718.3	132.0	d	0.0	3.1	d	d	d
1994	969.2	227.1	742.1	146.1	d	0.0	2.3	d	d	d
1995	676.1	252.2	625.9	92.3	d	0.0	2.3	0.0	d	d
1996	639.5	191.2	448.3	81.8	d	0.0	2.6	d	d	d

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 21—Inedible tallow consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	3,086.7	0.0	3,086.7	374.9	0.0	1,925.4	0.0	70.3	680.0	36.1
1989/90	3,219.0	0.0	3,219.0	398.4	0.0	1,982.9	0.0	109.0	684.0	44.7
1991	2,949.3	0.0	2,949.3	391.5	0.0	1,748.4	0.0	59.6	700.9	48.9
1992	3,050.1	0.0	3,050.1	334.4	0.0	1,954.4	0.0	63.2	659.0	39.1
1993	3,018.2	0.0	3,018.2	299.6	0.0	1,994.7	0.0	71.5	615.1	37.3
1994	3,189.9	0.0	3,189.9	300.8	0.0	2,101.9	0.0	81.8	634.0	71.4
1995	3,222.8	0.0	3,222.8	263.9	0.0	2,166.5	0.0	89.7	656.9	45.8
1996	3,288.7	0.0	3,288.7	245.2	0.0	2,252.8	0.0	89.2	629.4	72.1

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 22—Lard consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	389.9	324.5	65.4	0.0	0.0	d	0.0	d	d	d
1989/90	369.3	303.8	65.5	d	0.0	d	0.0	9.1	d	d
1991	393.1	313.8	79.3	0.0	0.0	d	0.0	5.7	d	4.1
1992	479.7	345.0	134.6	0.0	0.0	d	0.0	10.9	d	13.5
1993	473.3	324.6	149.7	0.0	0.0	d	0.0	8.6	d	28.7
1994	451.9	324.7	127.2	0.0	0.0	0.0	0.0	8.9	0.0	118.3
1995	488.7	364.3	124.4	0.0	0.0	0.0	0.0	27.2	0.0	97.2
1996	447.9	309.7	138.2	0.0	0.0	0.0	0.0	16.9	0.0	121.3

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 23—Unseed oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	154.9	0.0	154.9	0.0	101.6	0.0	23.1	d	d	28.2
1989/90	110.5	0.0	110.5	0.0	30.3	d	52.5	d	d	23.8
1991	95.8	0.0	95.8	0.0	40.7	0.0	41.6	d	d	12.7
1992	154.4	0.0	154.4	0.0	69.0	0.0	31.3	d	d	d
1993	125.8	0.0	125.8	0.0	66.9	0.0	25.4	d	d	d
1994	124.3	0.0	124.3	0.0	33.0	0.0	50.9	d	d	40.4
1995	112.8	0.0	112.8	0.0	30.2	0.0	51.4	0.0	0.0	31.2
1996	98.6	0.0	98.6	0.0	18.3	0.0	47.4	0.0	d	d

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 24—Rapeseed oil consumption, with inedible by category, United States, 1989/90-96 1/

Year 2/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 3/	Fatty acids	Other products
--Million pounds--										
1989/90	d	265.0	d	0.0	d	d	d	d	d	d
1991	d	285.1	d	0.0	0.0	d	0.0	d	d	d
1992	d	360.5	d	0.0	0.0	d	0.0	d	d	d
1993	d	362.5	d	0.0	0.0	0.0	0.0	d	d	d
1994	d	446.3	d	0.0	0.0	0.0	0.0	d	d	d
1995	d	315.8	d	0.0	0.0	0.0	0.0	0.0	0.0	d
1996	d	317.9	d	0.0	0.0	0.0	0.0	0.0	d	0.0

d = Data withheld to avoid disclosing figures for individual companies.

1/ Includes both canola and industrial rapeseed. 2/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991.

3/ Includes similar oils.

Source: Bureau of Census.

Table 25—Soybean oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	9,917.6	9,635.8	281.8	1.5	34.9	d	123.7	d	d	68.2
1989/90	10,808.3	10,536.7	271.6	d	38.2	d	112.4	d	d	52.4
1991	11,267.7	10,966.7	301.0	d	49.2	d	104.7	d	d	40.4
1992	11,471.6	11,168.7	302.8	d	43.5	22.3	94.0	5.9	d	69.8
1993	12,495.6	12,200.9	294.7	d	38.7	23.7	98.1	5.8	d	65.8
1994	12,474.1	12,157.8	316.3	d	47.6	d	119.6	d	d	91.9
1995	12,354.0	12,049.3	304.7	d	47.0	d	122.4	0.0	d	99.6
1996	12,322.3	12,017.1	305.2	d	50.5	d	121.1	0.0	d	98.0

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 26—Tall oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	1,234.3	0.0	1,234.3	8.3	31.8	0.0	18.0	8.1	1,157.3	10.8
1989/90	1,024.7	0.0	1,024.7	8.4	7.4	0.0	21.7	7.1	969.9	10.2
1991	940.0	0.0	940.0	3.5	5.4	0.0	11.6	4.0	906.5	9.0
1992	883.5	0.0	883.5	d	d	0.0	19.4	7.0	841.8	11.4
1993	891.8	0.0	891.8	d	d	0.0	23.0	6.3	806.9	d
1994	1,362.5	0.0	1,362.5	d	d	0.0	48.4	6.1	1,025.0	d
1995	1,357.7	0.0	1,357.7	d	d	0.0	16.0	7.9	908.5	d
1996	1,179.4	0.0	1,179.4	d	d	0.0	18.6	6.6	930.3	d

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 27—Tung oil consumption, with inedible by category, United States, 1988/89-96

Year 1/	Total consumption	Total edible	Total inedible	Soap	Paint or varnish	Feed	Resins and plastics	Lubricants 2/	Fatty acids	Other products
--Million pounds--										
1988/89	7.7	0.0	7.7	0.0	3.5	0.0	1.8	0.0	0.0	2.4
1989/90	8.9	0.0	8.9	0.0	2.7	0.0	3.8	0.0	0.0	2.4
1991	6.4	0.0	6.4	0.0	d	d	2.9	0.0	0.0	1.6
1992	7.3	0.0	41.3	d	d	0.0	3.3	3.5	0.0	28.4
1993	11.2	0.0	11.2	d	1.0	0.0	8.6	0.0	0.0	1.6
1994	9.3	0.0	9.3	d	1.2	0.0	6.6	2.4	0.0	1.5
1995	20.2	0.0	20.2	0.0	d	0.0	d	0.0	0.0	12.1
1996	21.3	0.0	21.3	0.0	2.6	0.0	d	0.0	0.0	d

d = Data withheld to avoid disclosing figures for individual companies.

1/ Crop year runs from October 1 to September 30. Annual totals reported on a calendar year basis beginning in 1991. 2/ Includes similar oils.

Source: Bureau of Census.

Table 28--Castor oil prices, raw No. 1, tanks, Brazilian, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	39.30	36.00	36.75	37.00	37.00	36.50	35.50	35.00	35.00	35.40	35.00	37.50
1992	37.50	37.50	37.50	36.00	34.50	34.50	34.50	34.50	34.00	34.00	34.00	34.00
1993	34.00	32.00	32.00	32.00	37.00	37.00	37.00	37.00	38.50	44.00	44.00	44.00
1994	44.00	41.75	41.00	41.00	46.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
1995	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
1996	43.50	41.50	41.50	41.50	41.50	41.50	41.50	41.50	41.50	41.50	41.50	41.50
1997	41.50	41.50	41.50	41.50	41.50	41.50	41.50					

Source: Chemical Marketing Reporter.

Table 29--Coconut oil prices, crude, tanks, f.o.b. New York, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	20.22	20.31	20.50	19.38	19.69	21.69	26.19	25.63	25.63	28.50	31.50	32.38
1992	39.33	36.00	34.57	34.75	33.56	32.13	29.63	27.31	27.88	26.94	27.00	25.50
1993	24.94	24.33	23.65	23.25	24.13	24.95	25.35	25.61	24.44	23.88	25.62	33.06
1994	30.30	30.94	29.56	30.19	29.45	30.25	29.56	30.35	30.63	30.60	34.19	33.69
1995	32.50	32.00	31.13	31.00	30.50	35.00	37.90	35.63	35.00	36.00	37.88	33.69
1996	35.80	36.63	36.75	38.75	39.50	42.25	41.80	42.80	47.20	48.00	49.50	50.00
1997	44.20	44.00	42.88	42.50	42.50	35.00						

Source: Chemical Marketing Reporter.

Table 30--Flaxseed, average price received by farmers, United States, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/bushel --												
1991	5.12	4.80	4.90	4.66	4.33	3.98	3.91	3.69	3.55	3.40	3.31	3.46
1992	3.39	3.43	3.52	3.53	3.61	3.67	3.70	3.71	4.12	4.09	4.10	4.21
1993	4.12	4.47	4.54	4.41	4.35	4.44	4.29	3.80	4.25	4.09	4.05	4.18
1994	4.38	4.61	4.64	4.60	4.43	4.25	4.28	4.52	4.54	4.49	4.51	4.71
1995	4.75	4.94	5.15	5.10	4.93	4.25	5.10	4.52	5.11	5.20	5.13	5.03
1996	5.20	5.18	5.28	5.40	6.03	6.06	6.19	5.91	5.89	6.51	6.50	6.68
1997	6.42	6.30	6.66	6.59	6.50	6.27						

Source: USDA, National Agricultural Statistical Service.

Table 31--Industrial rapeseed oil prices, refined, tanks, New York, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25
1992	82.25	82.25	82.25	82.25	82.25	82.25	82.25	82.25	67.25	62.25	62.25	62.25
1993	62.25	62.25	62.25	62.25	55.88	53.75	53.75	53.75	53.75	53.75	53.75	53.75
1994	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75	53.75
1995	53.75	53.75	53.75	53.75	53.15	50.75	50.75	50.75	50.75	50.75	50.75	50.75
1996	50.75	50.75	50.75	50.75	50.75	50.75	50.75	50.75	50.75	60.56	90.00	90.00
1997	90.00	90.00	90.00	90.00	90.00	90.00						

Source: Chemical Marketing Reporter.

Table 32--Inedible tallow prices, Chicago, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	14.53	12.91	13.63	13.57	12.25	12.36	12.96	14.00	13.50	13.68	13.08	12.50
1992	12.25	12.63	12.68	13.25	13.75	13.98	14.75	15.42	15.25	15.73	16.75	13.52
1993	15.36	14.69	15.24	15.94	15.00	15.11	14.95	14.58	14.54	14.68	14.50	14.94
1994	15.00	15.00	15.22	19.00	15.25	15.63	16.67	18.64	19.50	19.78	20.38	22.48
1995	21.75	18.86	18.00	17.75	17.50	17.89	19.61	19.81	19.53	19.46	19.75	20.08
1996	19.45	17.00	17.03	17.54	19.37	19.50	20.98	22.40	25.98	21.05	19.65	21.63
1997	23.40	22.88	19.35	17.39	18.09	19.64						

Source: Grain and Feed Marketing News.

Table 33—Jojoba oil prices, 1 metric ton or more, f.o.b. Arizona, 1991-97 1/

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
1991	10.89	10.89	10.89	10.89	10.89	10.89	10.89	10.89	9.53	7.03	7.03	7.03
1992	7.03	7.03	7.03	7.03	7.03	7.03	7.03	6.12	6.12	5.45	5.45	5.45
1993	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	4.55	4.55	4.55	4.55
1994	4.55	4.55	4.55	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	3.85
1995	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	4.75	4.75	4.75	4.75
1996	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
1997	3.75	3.75	3.75	3.75	3.75	3.75	3.75					

1/ Price quotes are the low end of a range.

Source: Chemical Marketing Reporter.

Table 34—Linseed oil prices, tanks, Minneapolis, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	36.00	36.00	36.00	36.00	36.50	36.00	36.00	36.00	36.00	30.00	30.00	30.00
1992	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	32.00	32.00	32.00	32.00
1993	32.00	32.00	32.00	32.00	32.00	28.50	32.00	32.00	32.00	32.00	32.00	32.00
1994	32.00	32.00	32.00	32.00	32.00	32.00	30.31	32.00	32.00	33.50	35.00	35.00
1995	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.50	37.00	37.00	37.00	37.00
1996	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.20	37.50	37.00	33.95	32.19
1997	36.00	36.00	36.00	36.00	36.00	36.00	36.00					

Source: Grain and Feed Marketing News.

Table 35—Linseed meal prices, bulk, 34-percent protein, Minneapolis, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/ton --												
1991	131.00	131.25	120.00	121.00	126.25	134.25	133.00	131.25	116.25	128.00	113.75	127.80
1992	122.00	124.00	115.00	117.50	120.00	125.00	123.50	126.25	131.00	141.25	152.50	137.40
1993	136.70	142.50	135.40	125.50	125.00	123.20	133.75	150.00	148.75	147.50	161.80	140.00
1994	140.00	130.00	126.00	125.00	125.00	111.40	114.90	111.60	N.A.	122.50	110.00	95.60
1995	82.40	85.25	90.00	94.40	85.00	85.00	92.50	95.00	112.50	131.00	151.67	143.75
1996	142.00	143.75	155.00	174.00	176.25	178.75	174.00	170.00	167.50	167.50	168.30	170.00
1997	165.00	156.25	163.30	168.00	188.30	171.25						

N.A. = Not available.

Source: Grain and Feed Marketing News.

Table 36—Soybean oil prices, crude, tanks, f.o.b. Decatur, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	21.56	21.66	22.21	21.50	20.23	19.65	19.05	20.23	20.46	19.57	18.78	18.99
1992	18.77	18.88	19.74	19.00	20.15	20.71	18.82	17.87	18.28	18.36	20.10	20.52
1993	21.23	20.72	21.00	21.24	21.15	21.30	24.13	23.46	20.93	23.61	22.98	24.22
1994	29.91	28.85	29.03	27.94	29.48	29.43	27.20	25.02	24.87	24.73	24.75	24.75
1995	29.04	28.15	28.33	26.30	26.00	26.78	27.60	26.56	26.26	26.56	25.48	24.76
1996	23.69	23.65	23.60	25.82	26.54	23.81	24.16	24.03	24.01	22.06	21.99	21.72
1997	22.57	22.60	22.79	23.31	23.85	23.14						

Source: The Wall Street Journal.

Table 37—Tung oil prices, imported, f.o.b. New York, 1991-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Cents/pound --												
1991	70.00	63.00	61.50	63.00	63.00	61.50	61.00	61.00	61.00	61.00	61.00	70.00
1992	70.00	70.00	70.00	76.00	82.00	130.00	130.00	130.00	132.00	131.50	130.00	130.00
1993	130.00	130.00	130.00	130.00	117.00	130.00	130.00	130.00	107.50	100.00	94.75	93.00
1994	93.00	79.25	78.00	78.00	78.00	78.00	78.00	78.00	78.00	74.40	60.00	60.00
1995	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	48.00
1996	60.00	60.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00
1997	74.00	92.00	92.00	92.00	103.00	103.00						

Source: Chemical Marketing Reporter.

Table 38—Cedarwood oil prices, drums or cans, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Chinese												
1993	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
1994	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
1995	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
1996	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78
1997	1.78	1.78	1.00	0.95	0.95	0.95	0.95					
Texas												
1993	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
1994	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.70
1995	3.70	3.70	3.70	3.70	3.70	3.70	3.70	4.15	4.15	4.15	4.15	4.15
1996	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
1997	4.15	4.15	4.15	4.15	4.15	4.15	4.15					
Virginia												
1993	5.80	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1994	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1995	6.50	6.70	6.70	6.70	6.70	6.90	6.90	6.90	6.90	6.90	6.90	6.90
1996	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90
1997	6.90	6.90	6.90	6.90	6.90	6.90	6.90					

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 39—Citronella oil prices, drums, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Java 1/												
1993	2.53	2.53	2.53	2.53	2.53	3.10	3.10	3.10	3.10	3.60	3.80	4.00
1994	4.00	4.30	4.30	4.15	4.15	4.15	4.15	4.75	4.75	5.00	5.50	6.00
1995	6.00	7.90	8.43	8.43	8.43	8.60	8.60	7.00	6.75	6.00	6.00	6.00
1996	5.00	4.85	4.85	4.13	4.13	4.00	4.00	3.60	3.60	3.60	3.60	3.60
1997	3.10	3.10	3.10	3.10	3.10	3.30	3.30					
Chinese												
1993	2.20	2.25	2.35	2.35	2.35	3.13	3.13	3.13	3.13	3.25	3.50	4.00
1994	4.00	4.20	4.20	4.05	4.05	4.05	4.05	4.40	4.40	5.00	5.40	6.10
1995	7.00	7.90	8.35	8.35	8.35	8.60	8.60	7.90	6.80	6.30	5.90	5.90
1996	5.90	5.50	5.50	4.60	4.30	4.15	4.00	3.60	3.60	3.60	3.60	3.60
1997	3.20	2.90	2.90	2.90	2.90	2.90	2.90					

N.A. = Not available. 1/ Beginning August 1995, Sri Lanka, ordinary.

Source: Chemical Marketing Reporter.

Table 40—Eucalyptus oil prices, Chinese, 80 percent, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
1993	2.88	2.88	2.88	2.88	2.88	2.63	2.63	2.63	2.63	2.63	2.63	2.63
1994	2.63	2.63	2.63	1.90	1.90	1.90	1.90	2.00	2.00	2.00	2.00	2.15
1995	2.38	2.50	2.50	2.80	3.00	3.20	3.20	3.20	2.90	2.90	2.90	2.90
1996	3.00	2.90	2.90	2.70	2.50	2.50	2.50	2.50	2.30	2.30	2.30	2.30
1997	2.40	2.40	2.40	2.40	2.40	2.40	2.25					

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 41—Grapefruit oil prices, drums, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Florida												
1993	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1994	6.00	6.00	6.00	6.75	6.75	6.75	7.50	8.25	8.25	8.25	8.25	8.25
1995	8.25	8.25	8.25	11.25	11.25	11.25	11.25	11.25	15.75	15.75	15.75	17.00
1996	17.00	17.00	17.00	17.00	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50
1997	15.25	14.00	14.00	14.00	14.00	12.00	12.00					
Israel												
1993	N.A.	N.A.	N.A.	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
1994	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
1995	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	13.50
1996	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
1997	13.50	13.50	13.50	13.50	13.50	13.50	13.50					

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 42--Lemon oil prices, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Argentinean												
1993	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25
1994	10.25	11.00	11.00	11.00	11.00	11.00	11.50	11.50	11.50	11.50	11.50	12.25
1995	12.25	12.25	12.25	12.25	12.25	12.25	12.25	12.65	12.65	12.65	12.65	12.65
1996	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65
1997	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65	12.65
California, U.S. Pharmacopeta, drums												
1993	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	9.50
1994	9.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
1995	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	9.00
1996	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.75	9.75	9.75
1997	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75
Italian												
1993	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
1994	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
1995	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	15.00
1996	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
1997	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 43--Lime oil prices, distilled, Mexican, drums, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
1993	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25
1994	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.75	10.75	10.75	10.75	10.75
1995	10.75	10.75	10.75	10.75	10.75	10.75	12.00	13.50	13.50	13.50	13.50	13.50
1996	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
1997	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 44--d-Limonene prices, drums, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
1993	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
1994	0.78	0.78	0.78	0.83	0.83	0.83	0.83	0.83	0.83	1.05	2.00	2.00
1995	2.00	2.00	2.35	2.35	3.00	3.00	3.00	2.50	2.50	2.50	2.50	2.35
1996	2.10	1.80	1.80	1.50	1.40	1.30	1.25	0.95	0.95	0.80	0.80	0.80
1997	0.65	0.62	0.65	0.65	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 45--Menthol prices, natural, Chinese, drums, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
1993	6.35	5.68	5.68	5.10	5.10	5.10	5.10	5.10	5.10	5.00	5.00	5.00
1994	5.00	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	9.50	11.50	12.00
1995	12.00	12.50	11.00	9.75	9.75	9.00	9.00	9.00	9.80	10.63	12.00	12.00
1996	12.00	12.00	12.75	13.00	13.00	13.00	13.00	15.50	17.00	19.00	19.00	19.00
1997	19.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 46—Orange oil prices, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
California, distilled, cans, f.o.b. plant												
1993	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1994	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.00	2.00
1995	2.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.88
1996	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.00	1.50	1.50	1.50
1997	1.50	1.50	1.50	1.50	1.50	1.50	1.50					
Florida, drums 1/												
1993	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
1994	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.10	2.00	2.00
1995	2.00	2.25	2.50	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
1996	2.38	2.13	2.13	1.85	1.70	1.70	1.80	1.05	1.00	0.90	0.90	0.90
1997	0.80	0.80	0.68	0.68	0.68	0.65	0.65					
Brazilian 2/												
1993	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
1994	0.75	0.75	0.75	0.78	0.78	0.78	0.78	0.78	0.78	1.10	2.00	2.00
1995	2.00	2.40	2.40	2.55	2.70	2.70	2.70	2.43	2.63	2.63	2.63	2.63
1996	2.25	2.00	2.00	1.60	1.45	1.45	1.40	1.10	1.00	0.90	0.90	0.90
1997	0.80	0.72	0.75	0.75	0.75	0.75	0.75					

N.A. = Not available.

1/ Florida, midseason, drums beginning in February 1994. 2/ Pera Brazil, drums, f.o.b. plant beginning in February 1994.

Source: Chemical Marketing Reporter.

Table 47—Peppermint oil prices, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Midwest U.S.												
1993	13.35	13.35	13.35	13.35	13.35	13.35	13.35	13.35	13.35	13.50	13.50	13.50
1994	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
1995	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
1996	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
1997	13.50	13.50	13.50	13.50	13.50	13.50	13.50					
Yakima U.S.												
1993	12.30	12.30	12.30	12.30	12.30	12.30	12.30	12.30	12.30	15.00	15.00	15.00
1994	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
1995	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
1996	13.00	13.00	13.00	13.00	13.00	12.50	15.00	15.00	15.00	15.00	15.00	15.00
1997	15.00	15.00	15.00	15.00	15.00	15.00	15.00					
Synthetic, drums, f.o.b. works												
1993	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	10.00	10.00	10.00	10.00
1994	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
1995	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
1996	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
1997	10.00	10.00	10.00	10.00	10.00	10.00	10.00					

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 48—Spearment oil prices, 1993-97

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-- Dollars/pound --												
Far West, native												
1993	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	11.00	11.00	11.00
1994	11.00	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50
1995	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50
1996	13.70	13.70	13.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70
1997	14.70	14.70	14.70	14.70	14.70	14.70	14.70					
Far West, Scotch												
1993	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	12.50	12.50	12.50
1994	12.50	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
1995	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
1996	16.50	16.50	16.50	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
1997	19.00	19.00	19.00	19.00	19.00	19.00	19.00					
Chinese, 80 percent												
1993	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
1994	7.50	7.50	7.50	7.50	7.50	5.75	5.75	5.75	5.75	5.75	5.50	6.00
1995	6.00	6.70	6.70	6.70	7.00	7.00	7.00	7.50	8.50	8.50	9.25	9.25
1996	9.25	9.25	9.25	9.25	9.25	9.25	10.15	11.60	13.70	13.10	13.10	13.10
1997	14.50	14.50	14.50	14.50	14.50	14.50	15.20					

N.A. = Not available.

Source: Chemical Marketing Reporter.

Table 49—Selected prices for biobased chemicals and derivatives, 1991-97 1/

Item	Unit	Average annual price 2/						
		1991	1992	1993	1994	1995	1996	1997 3/
Starches, sugars, and gums								
Arabic gum, National Formulary, powdered, barrels	Dollars/pound	1.85	2.67	3.44	4.00	4.00	1.25	1.00
Denatured alcohol, ethyl (ethanol), CD18, CD19, tanks, delivered east	Dollars/gallon	2.08	2.02	2.02	2.26	2.46	2.68	2.70
Dextrin, corn, canary dark, paper bags, carload, works	Cents/pound	32.00	32.00	32.00	32.00	32.00	32.00	32.00
Dextrose, hydrated, commercial, bags, carload, delivered New York	Cents/pound	25.50	25.50	25.50	25.50	25.50	25.50	25.50
Furfural, tanks, f.o.b. plant	Cents/pound	79.00	79.00	79.00	79.00	79.00	79.00	79.00
Guar gum, Industrial, high viscosity, bags, carload, f.o.b. shipping point	Cents/pound	35.00	35.00	35.00	39.92	53.33	77.50	85.00
Karaya gum, No. 1, powdered, drums	Dollars/pound	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Locust bean gum, powdered, bags	Dollars/pound	4.75	4.75	4.63	4.71	10.00	16.00	16.00
Pectin, high methoxyl	Dollars/pound	3.30	4.03	4.75	4.75	4.67	4.50	4.50
Sorbitol, U.S. Pharmacopela, regular, 70-percent aqueous, drums, carload, f.o.b. shipping point	Cents/pound	33.29	33.00	33.00	33.00	33.00	26.25	32.57
Sucrose acetate isobutyrate, 90-percent, drums, truckload, delivered	Dollars/pound	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Sucrose octa-acetate, denaturing grade, 100-pound drums, f.o.b. works	Dollars/kilogram	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Tragacanth gum, No. 1, ribbons, 100-pound drums	Dollars/pound	36.00	36.00	36.83	41.00	41.00	41.00	41.00
Xanthan gum, food grade, 100-pound drums, f.o.b. works	Dollars/pound	5.65	5.65	5.74	6.20	6.20	6.20	6.20
Fats, oils, and waxes								
Beeswax, refined, bleached, white bricks, 100-pound cartons	Dollars/pound	3.10	3.12	3.35	3.33	3.31	3.28	2.40
Butyl stearate, technical, tanks, f.o.b. works	Cents/pound	55.00	55.00	54.75	54.00	54.00	54.00	54.00
Capryl alcohol, secondary, 98-percent, tanks, f.o.b. works	Cents/pound	48.00	48.00	48.00	66.33	68.00	68.00	68.00
Caprylic acid, commercial, pure, tanks	Dollars/pound	0.83	0.91	1.02	1.02	1.02	1.04	1.29
Carnauba wax, Parnahyba, No. 1, yellow, bags, ton lots	Dollars/pound	2.88	3.23	3.50	3.50	4.88	4.25	4.25
Glycerine, natural, refined, U.S. Pharmacopela, 99.7-percent, tanks, delivered	Dollars/pound	0.64	0.57	0.64	1.01	1.08	1.00	0.94
Lecithin, unbleached, bulk, less carload, works	Cents/pound	29.00	28.00	25.75	25.00	25.00	25.00	25.00
Magnesium lauryl sulfate, tanks, f.o.b.	Cents/pound	43.00	43.00	47.75	57.25	57.25	57.25	57.25
Magnesium stearate, bulk	Dollars/pound	1.16	1.16	1.20	1.20	1.20	1.20	1.20
Menhaden oil, bulk, Gulf ports	Cents/pound	13.13	15.83	16.54	16.50	16.50	16.50	16.50
Myristic acid, commercial, pure, truckload 4/	Dollars/pound	0.67	1.10	1.25	1.17	1.15	4/	0.85
Oleic acid, double distilled (white), tanks	Cents/pound	54.00	54.00	60.42	61.00	61.00	61.00	61.00
Sebacic acid, chemically pure, bags, carload, works	Dollars/pound	2.05	2.05	2.05	2.05	2.05	2.05	2.05
Sodium lauryl sulfate, 30-percent, drums, truckload, f.o.b. works	Cents/pound	43.00	43.00	47.75	57.25	57.25	57.25	57.25
Tallow fatty acids, technical, tanks, delivered	Cents/pound	24.88	23.50	23.50	23.50	23.50	23.50	23.50
Animal products								
Casein, acid precipitated, ground, 30-mesh, edible, imported, truckload, c.i.f.	Dollars/pound	2.50	2.52	2.55	2.55	2.55	2.55	2.55
Gelatin, edible, 100 AOAC test, drums, less truckload, delivered	Dollars/pound	1.54	1.68	1.70	1.70	1.70	2.08	2.60
Glue, bone, extracted, green, 85 jellygrams, bags, carload	Cents/pound	95.00	94.00	89.00	89.00	89.00	89.00	89.00
Lanolin, anhydrous, pharmaceutical, 400-pound drums, works	Dollars/pound	1.00	1.25	1.25	1.25	1.25	1.25	1.25
Forest products								
a-Pinene prices, technical grade 5/	Dollars/pound	0.43	0.43	0.53	0.60	0.60	5/	2.50
b-Pinene 6/	Dollars/pound	0.55	0.55	6/	1.14	1.14	1.86	2.90
Cellulose acetate, powdered, bags, truckload, delivered east	Dollars/pound	1.62	1.94	2.12	2.12	2.12	2.12	2.12
Tall oil, crude, Southeast, tanks, freight equalled	Dollars/ton	159.17	150.83	119.17	121.25	156.67	155.00	150.00
Turpentine prices, crude sulfate, tanks, f.o.b. Southeast	Dollars/gallon	1.36	0.88	0.68	0.50	0.63	1.12	1.36

See next page for footnotes and definitions.

1/ Spot and/or list prices from the Chemical Marketing Reporter for selected chemicals and related materials on a New York or other indicated basis. These prices do not represent bid, asked, or actual transaction prices. Variations from these prices may occur for differences in quantity, quality, and location. 2/ Some prices are from the low end of range. 3/ January to July. 4/ The unit of quantity changed from bags to bulk in December 1996. 5/ Price changed from technical grade to 99-percent perfume and flavor grade in September 1996. 6/ Price changed from technical grade to 97-percent perfume and flavor grade in October 1993.

Chemical definitions:

Arabic gum is a dried, water-soluble exudate from the stems of *Acacia senegal* and related species that is used in pharmaceuticals, adhesives, inks, textile printing, cosmetics, and confectionery and food products.

Denatured ethyl alcohol is made by yeast fermentation of carbohydrates or by hydrolysis of ethylene for solvents, cosmetics, and as an oxygenated gasoline additive.

Dextrin is obtained by heating acidified dry starch for adhesives and paper products.

Dextrose is obtained from cornstarch hydrolysis for use in foods and as a fermentation substrate.

Furfural is obtained by steam distillation of acidified plant materials for polymers and foundry binders.

Guar gum is a water-dispersible hydrocolloid from the seeds of the guar plant that is used in foods and industrial applications such as oil-well fracturing fluids.

Karaya gum is a hydrophilic polysaccharide from Indian trees of the genus *Sterculia* for use in pharmaceuticals, textile coatings, ice cream and other food products, and adhesives.

Locust bean gum is a polysaccharide plant mucilage from seeds of *Ceratonia siliqua* used in cosmetics, textiles sizings and finishes, and drilling fluids, and in foods as a stabilizer, thickener, and emulsifier.

Pectin is obtained from citrus fruit rinds for use in jellies, foods, cosmetics, and drugs.

Sorbitol is obtained by hydrogenation of glucose for foods, cosmetics, and polyester polymers.

Sucrose acetate isobutyrate is made by controlled esterification of sucrose with acetic and isobutyric anhydrides for hot-melt coating formulations and extrudable plastics.

Sucrose octa-acetate is used as a plasticizer for cellulose esters and plastics, and in adhesive and coating compounds.

Tragacanth gum is polysaccharides from *Astragalus* bushes for use in pharmaceutical emulsions, adhesives, leather dressing, textile printing and sizing, dyes, and printing inks.

Xanthan gum is a synthetic, water-soluble polymer made by fermentation of carbohydrates for use in drilling fluids, ore floatation, foods, and pharmaceuticals.

Beeswax is a byproduct of honey production used for cosmetics and candles.

Butyl stearate is obtained by alcoholysis of stearin or esterification of stearic acid with butanol for use in polishes, special lubricants, and coatings and as a plasticizer and emollient in cosmetics and pharmaceuticals.

Capryl alcohol is obtained by distilling sodium ricinoleate, a castor oil derivative, with an excess of sodium hydroxide for solvents, plasticizers, wetting agents, and petroleum additives.

Caprylic acid is a fatty acid obtained from coconut oil for use in synthesizing dyes, drugs, perfumes, antiseptics, and fungicides.

Carnauba wax is a hard commercial wax obtained from leaves of *Copernicia cerifera* for shoe, furniture, and floor polishes; leather finishes; varnishes; electric-insulating compounds; and carbon paper.

Glycerine is a byproduct of splitting or saponification of fats and oils, or made by petrochemical synthesis for cosmetics, food, drugs, and polyurethane polymers.

Lecithin is a byproduct of soy oil extraction used as an emulsifying agent and antioxidant in foods.

Magnesium lauryl sulfate is a surfactant derived from fatty acids for use in plastics, plasticizers, textile applications, and consumer end-product manufacturing.

Magnesium stearate is a surfactant made from tropical oil fatty acids and inorganic materials for use in lubricant, adhesive, and detergent manufacturing.

Menhaden oil is obtained from menhaden fish for soaps, rubber compounding, printing inks, animal feed, and leather-dressing lubricants.

Myristic acid is obtained by fractional distillation of coconut and other vegetable oils for soaps, cosmetics, and synthesis of esters for flavors and perfumes.

Oleic acid is obtained by fractional crystallization from mixed fatty acids for candles, soaps, and synthesis of other surfactants.

Sebacic acid is made by high-temperature cleavage of castor oil for use as an intermediate chemical in the manufacture of polymers and plasticizers.

Sodium lauryl sulfate is synthesized from fatty acids for use in toothpaste and as a food additive and wetting agent for textiles.

Tallow fatty acids are made from splitting tallow for direct use as lubricants or in greases, and for separation into pure fatty acids.

Casein is a coagulated and dried milk protein for adhesives and plastics.

Gelatin is water extracted from bones and hides for photographic emulsions and food.

Glue (bone) is obtained by steam treatment and water extraction of bones for glue and mineral flotation processes.

Lanolin is extracted from wool for cosmetics, leather dressing, and lubricants.

a-Pinene and b-Pinene are chemical intermediates fractionated from turpentine that are converted to pine oil (a-Pinene), terpene resins (b-Pinene), and specialty chemicals.

Cellulose acetate is made by reacting cellulose from wood with acetic acid for rayon textiles and cigarette filters.

Tall oil (crude) is a byproduct of paper production (chemical pulping) that is refined into rosin and fatty acids.

Turpentine (crude sulfate) is obtained by steam distillation of pine gum recovered from pulping softwoods (for paper production), which is used for a- and b-pinene.

Table 50—U.S. imports of nonwood fibers, yarns, twine, and cordage, 1992-97

	Unit	1992	1993	1994	1995	1996	Jan-May 1997
Flax, raw or processed, not spun	Metric tons	48,166	47,030	55,059	66,092	81,182	36,818
Jute, raw or processed, not spun	Metric tons	6,246	7,326	7,026	5,876	4,218	730
Flax yarn	Kilograms	690,248	888,656	1,113,918	1,185,977	723,521	445,099
Jute yarn	Kilograms	5,380,531	5,046,250	4,312,393	7,888,502	6,970,594	2,872,173
Abaca, twine, and cordage	Kilograms	5,623,279	6,930,999	7,652,898	6,268,102	5,579,141	2,385,826
Jute, twine, and cordage	Kilograms	6,623,013	7,606,930	15,403,623	11,957,283	5,504,137	1,886,477
Sisal, twine, and cordage	Kilograms	73,056,843	71,595,465	78,704,800	84,234,676	57,740,754	50,553,881

Source: Department of Commerce, Bureau of the Census.

Table 51—U.S. exports of nonwood fibers, yarns, twine, and cordage, 1992-97

Item	Unit	1992	1993	1994	1995	1996	Jan-May 1997
Flax, raw or processed, not spun	Metric tons	3,687	121	92	302	174	49
Jute, raw or processed, not spun	Metric tons	1,534	1,202	2,353	2,554	1,386	323
Flax yarn	Kilograms	209,218	363,084	112,330	44,078	106,928	15,521
Jute yarn	Kilograms	591,864	575,383	236,225	101,924	122,841	63,490
Jute, twine, and cordage	Kilograms	305,873	297,794	462,136	530,599	537,077	240,886
Sisal, twine, and cordage	Kilograms	1,366,504	1,150,473	519,285	928,515	1,153,697	436,397

Source: Department of Commerce, Bureau of the Census.

Table 52—U.S. imports of selected vegetable oils, 1992-97

Item	Unit	1992	1993	1994	1995	1996	Jan-May 1997
Castor oil, crude and refined	Metric tons	34,018	42,214	44,094	44,093	39,938	12,509
Coconut oil, crude and refined	Metric tons	501,466	443,496	441,332	490,650	423,189	227,035
Linseed oil, crude and refined	Metric tons	351	159	426	1,729	2,699	1,111
Jojoba oil and its fractions	Metric tons	235	142	198	332	289	91
Tung oil and its fractions	Metric tons	4,995	4,272	5,404	4,427	3,943	2,924

Source: Department of Commerce, Bureau of the Census.

Table 53—U.S. exports of selected vegetable oils, 1992-97

Item	Unit	1992	1993	1994	1995	1996	Jan-May 1997
Coconut oil, crude and refined	Metric tons	9,448	6,364	8,494	9,089	3,987	2,157
Linseed oil, crude and refined	Metric tons	3,940	3,804	5,402	15,422	14,892	18,130
Jojoba oil and its fractions	Metric tons	209	351	287	151	149	65
Tung oil and its fractions	Metric tons	329	297	176	516	1,190	1,080

Source: Department of Commerce, Bureau of the Census.