

Farm Machinery and Lawn and Garden Equipment

1998

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Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1997 Manufacturing Profiles, issued August 1999.

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NOTE

Data are now published on the new North American Industry Classification System (NAICS) basis and therefore are not always comparable to the old Standard Industrial Classification

(SIC) code. For further information on NAICS, see www.census.gov/epcd/www/naics.html.

SUMMARY OF FINDINGS

During 1998, factory shipments of farm machinery and equipment, including parts and attachments, produced by original equipment manufacturers (OEM), totaled \$14,024.1 million, little change from 1997 shipments of \$14,013.1 million. Shipments of farm dairy machines, sprayers, dusters, elevators, and farm blowers, and parts totaled \$998.1 million, an increase of 18 percent over the 1997 total of \$816.6 million. The value of shipments for harvesting machinery decreased 5 percent, from \$3,259.4 in 1997 to \$3,094.4 in 1998. Haying machinery increased 6 percent, from \$794.8 in 1997 to \$848.0 in 1998.

The value of shipments for commercial turf and ground equipment, including parts, was \$1,355.2 million in 1998, a 9-percent increase over the \$1,238.8 million reported for 1997.

The value of shipments of consumer lawn, garden, and snow equipment, including parts and attachments, was \$6,186.4 million in 1998, a 3-percent increase over the \$5,994.5 million in 1997.

Current
Industrial
Reports

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Brian Appert, 301-457-4748.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-457-4673.

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Table 1. Value of Shipments of Farm Machinery and Lawn and Garden Equipment by Type of Equipment: 1992 to 1998
[Value in millions of dollars]

Product description 1/	1998	1997	1996	1995	1994	1993	1992
Farm dairy machines, sprayers, dusters, elevators, and farm blowers	998.1	816.6	839.2	764.7	709.0	591.1	469.9
Planting, seeding, and fertilizing machinery.....	1,087.2	1,154.6	862.3	852.9	949.1	804.6	634.1
Harvesting machinery.....	3,094.4	3,259.4	2,966.8	2,666.8	2,201.4	2,036.9	1,863.7
Haying machinery.....	848.0	794.8	670.3	729.4	748.6	622.5	558.2
Plows, harrows, rollers, pulverizers, cultivators, and weeders	632.2	696.3	542.0	512.5	480.4	404.4	380.8
Commercial turf and grounds care equipment	1,355.2	1,238.8	1,118.5	1,120.3	1,022.0	880.8	781.8
Consumer nonriding lawn, garden, and snow equipment	2,909.6	3,051.6	2,957.0	3,095.0	3,003.0	2,408.8	2,133.2
Consumer riding lawn, garden, and snow equipment	3,276.8	2,942.9	2,861.0	2,874.3	2,747.6	2,394.5	2,118.6

1/Each type of farm machinery, commercial turf and grounds care equipment, and lawn and garden equipment includes parts and attachments.

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
333111	Farm machinery and equipment, including parts and attachments	(NA)	(X)	14,024,082	(X)	14,013,089
3331111	Wheel tractors (except contractors' off-highway wheel tractors, garden tractors, turf tractors, and motor tillers) and attachments	19	(X)	3,674,744	(X)	3,701,496
	Wheel tractors, farm-type (PTO hp)	(NA)	(D)	(D)	(D)	(D)
3331111001	2-wheel drive, including front wheel assist types	7	(D)	(D)	(D)	(D)
3331111006	4-wheel drive, including tractors with equal size tires, front and rear	5	(D)	(D)	(D)	(D)
3331111011	Attachments for wheel tractors, farm-type	12	(X)	39,061	(X)	42,388
333111C116	Parts for wheel tractors, farm-type	15	(X)	336,849	(X)	r/ 353,460
3331113	Farm dairy machines, sprayers, dusters, elevators, and farm blowers	(NA)	(X)	860,965	(X)	699,164
3331113 pt.	Farm dairy machines and equipment	16	(X)	110,514	(X)	109,018
	Mechanical installations:					
3331113001	Milking machines, complete, suspended and floor-type bucket, single and double units	3	(D)	(D)	(D)	(D)
3331113004	Pipeline milking units, complete, including claws, shells, inflations, air tubes, with or without pulsator	5	(D)	(D)	(D)	(D)
	Other farm dairy machines and equipment	13	a/ 27,508	44,768	28,342	r/ 44,472
	Attachments for farm dairy machines and equipment	6	(X)	(D)	(X)	(D)
	Parts for farm dairy machines and equipment, replacement units only.....	9	(X)	23,787	(X)	27,371
3331113 pt.	Sprayers and dusters	69	(X)	683,590	(X)	519,771
	Power sprayers, field and row crop types only:					
3331113016	Self-propelled	16	b/ 5,364	460,826	4,355	306,775
3331113021	Tractor mounted	29	b/ 7,005	a/ 16,637	a/ 8,766	b/ 18,127
	Other than tractor mounted:					
3331113024	Power take-off driven, piston pump type	11	b/ 688	b/ 4,237	837	5,359
3331113028	Nonpiston pump type	18	c/ 3,139	a/ 11,637	a/ 3,362	11,440
3331113032	Other power sprayers, over 4 g.p.m.	9	c/ 343	b/ 2,095	a/ 497	3,165
	Power sprayers, other than row crop and field types, over 4 g.p.m.:					
3331113036	Power take-off driven	8	a/ 594	4,055	a/ 773	3,855
3331113041	Engine-driven.....	14	a/ 3,780	6,594	c/ 4,129	c/r/ 6,121
3331113044	Air carried type power sprayers (field, row crop, and orchard types)	6	b/ 580	b/ 6,232	740	a/ 7,475
3331113048	Foggers and mist sprayers portable.....	5	(D)	(D)	b/ 10,286	b/ 3,167
3331113052	Hand-pulled and garden-type ,4 g.p.m. and under	13	c/ 61,875	c/ 7,995	61,493	r/ 9,607
	Sprayers, agricultural hand:					
3331113056	Under 1 gallon.....	4	(D)	(D)	692,658	3,698
	1 gallon and over:					
3331113061	Compressed air or gas	6	7,647,565	110,895	6,591,679	106,160
331113064	Other, including knapsack, hose end and flame sprayers and sprayer pumps	9	11,943,788	16,990	9,229,689	14,732
3331113068	Dusters, power, hand, all types	5	83,842	3,159	82,996	1,066

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998				1997			
			Quantity		Value		Quantity		Value	
3331113072	All other sprayers	9	(X)	a/	3,369	(X)	a/r/	3,056		
3331113076	Attachments for sprayers and dusters	19	(X)	a/	17,888	(X)	a/	15,968		
333111C223	Parts for sprayers and dusters, replacement units only.....	44	(X)	a/	105,351	(X)		79,791		
3331113 pt.	Farm elevators and blowers	33	(X)		66,861	(X)		70,375		
	Farm elevators, portable:									
3331113081	Single and double chain	10	2,178		4,433	a/	1,855	c/	3,881	
3331113088	Auger type	11	12,189		25,007		14,215		27,391	
	Other farm portable and stationary augers and elevators	11	53,919	b/	20,244		48,250	b/	25,082	
3331113092	Other farm blowers, including forage blowers, combination grain and forage blowers	6	b/	1,459	a/	6,401	988		3,906	
	Attachments for farm elevators and blowers	11	(X)	a/	10,776	(X)	c/	10,115		
	Parts for farm elevators and for grain and forage blowers, replacement units only	20	(X)	b/	7,992	(X)	b/	10,272		
3331117	Planting, seeding, and fertilizing machinery	121	(X)		971,822	(X)		1,022,686		
3331117001	Corn planters, corn and cotton planters, and lister plant pull-type and mounted (total rows mounted).....	10	(D)		(D)	(D)		(D)		
3331117008	Grain drills (fixed frame), all types	13	8,758		152,492	10,551		185,648		
3331117011	Transplanters (pull-type or mounted) and broadcast seeders (end-gate, mounted and drawn)	9	b/	12,058	10,285	12,339		8,619		
	Fertilizer distributors (pull-type or mounted):									
3331117018	Dry, including lime spreaders.....	34	a/	8,519	33,187	a/	5,504		39,652	
3331117021	Liquid and anhydrous ammonia.....	16	b/	7,787	24,121	c/	9,401		36,752	
3331117028	Manure spreaders, rear discharge.....	13		3,065	20,420		4,186		30,540	
3331117031	Manure spreaders, side discharge.....	8		2,786	30,590	r/	2,740	r/	28,612	
3331117038	Manure pumps, liquid.....	9		1,310	5,292	r/	1,321	r/	4,848	
3331117041	Front and rear tractor mounted loaders (farm-type), manure and general utility (except beet and sugar cane loaders)	13		44,705	123,009	r/	41,072	r/	120,982	
3331117048	Row crop unit planters (quantity in rows)	8	(D)		(D)	55,442		45,424		
3331117051	Other planting, seeding, and fertilizing machinery.....	27	a/	21,298	a/	234,948	(D)	(D)		
3331117058	Attachments for planting, seeding, and fertilizing machinery	28	(X)		84,461	(X)		59,445		
333111C229	Parts for planting, seeding, and fertilizing machinery, replacement units only	66	(X)		115,395	(X)		131,878		
3331119	Harvesting machinery.....	78	(X)		2,873,409	(X)		2,950,283		
3331119001	Combines (harvester-threshers), grain-types only (self-propelled and pull-type)	10	(D)		(D)	(D)		(D)		
3331119011	Small grain header for combines, all sizes	8	(D)		(D)	(D)		(D)		
3331119021	Corn heads, all sizes	7	(D)		(D)	7,625		166,675		
3331119031	Other grain-type combines	2	(D)		(D)	(D)		(D)		
	Field forage harvesters:									
3331119041	Shear bar, self-propelled type and pull-type (basic machines)	4	1,581		28,483	1,629		28,501		
3331119051	Attachments for shear bar type forage harvester	4	(X)		7,653	(X)		(D)		
3331119061	Flail-type (horizontal knives or vertical free-swinging knives or hammers), including discharge spouts	3	b/	161	b/	1,551	(D)	(D)		
3331119071	Other harvesting machinery, including potato diggers, cane harvesting equipment, and picker-shellers	50	a/	5,272	a/	353,729	a/	6,223	a/	402,994
3331119081	Attachments for harvesting machinery, including platform and seeder, reel, straw spreaders, load levelers, weed stripper, grate unit, knife grinders, and stalk walkers	28	(X)		107,038	(X)		114,677		

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
333111C22A	Parts for harvesting machinery, replacement units only	57	(X)	221,029	(X)	309,160
333111A	Haying machinery	41	(X)	753,563	(X)	664,717
333111A001	Mowers, cutter bar type, including drum and disk	8	5,120	26,751	4,077	20,043
333111A011	Mower-conditioners and windrowers with conditioner auger and draper-type (pull-type and self-propelled)	7	14,974	228,722	14,458	196,189
333111A021	Rakes, side delivery, cylinder type, and finger wheel type	12	8,620	35,537	9,044	34,065
333111A031	Hay balers, hay stackers, (field type), hay bale loaders, bale throwing attachments	17	23,646	405,355	22,565	363,849
333111A041	Other haying machinery	15	(D)	(D)	(D)	(D)
333111A051	Other attachments for haying machinery (stripper, bale chute and knife attachments)	8	(X)	(D)	(X)	(D)
333111C22C	Parts for haying machinery, replacement units only	24	(X)	94,479	(X)	130,035
333111E	Plows, harrows, rollers, pulverizers, cultivators, and weeders	(NA)	(X)	520,060	(X)	573,918
333111E pt.	Plows (primary tillage equipment)	66	(X)	159,372	(X)	171,596
333111E001	Subsoilers, deep tillage	25	5,184	38,104	4,650	35,205
333111E009	Terracing and ditching plows	10	b/ 442	977	b/ 577	b/ 1,190
	Chisel plows, deep tillage (chisel or sweep type):					
333111E011	Pull-type	12	1,263	14,969	1,590	23,171
333111E019	Mounted	10	1,016	7,221	a/ 953	2,778
333111E021	Other plows (except snow plows)	15	4,609	52,956	5,670	63,702
333111E059	Middlebusters and disc bedders	15	3,841	4,967	3,465	4,129
333111E031	Attachments for plows (coulters, jointers, root cutters subsoilers, fertilizer distributors, etc.), excluding lister planting attachments	21	(X)	29,813	(X)	30,807
333111E039	Plowshares (quantity in thousands of pounds)	7	c/ 11,629,787	10,365	c/ 12,499,605	10,614
333111C22E	Parts for plows (except plowshares), replacement units only	22	(X)	32,830	(X)	34,615
333111E pt.	Harrows, rollers, pulverizers and similar equipment (secondary tillage)	90	(X)	221,037	(X)	222,905
333111E041	Spike-tooth harrow sections and spring-tooth and tine-tooth harrow sections	21	22,915	a/ 17,203	a/ 25,491	16,563
333111E049	Disc harrows, single, tandem, and offset	26	a/ 11,655	96,619	11,679	91,683
333111E051	Combination tillage equipment, roller/harrows, disc or coulters/field cultivators, disc or coulters/spring tooth	28	a/ 14,844	56,475	16,922	r/ 55,277
333111E058	Blade terracers or scrapers (farm-size)	35	a/ 50,487	a/ 22,814	a/ 58,130	26,677
333111E061	Land levelers	8	1,525	3,423	1,968	3,020
333111E069	Other harrows, rollers, pulverizers, and similar equipment	25	5,885	18,044	8,832	24,024
333111E071	Attachments for harrows, rollers, pulverizers, and similar equipment	16	(X)	6,459	(X)	5,661
333111C22G	Parts for harrows, rollers, pulverizers, and similar equipment, replacement units only	41	(X)	a/ 36,453	(X)	36,664
333111E pt.	Cultivators and weeders	50	(X)	139,651	(X)	179,417
333111E079	Corn and cotton type cultivators, shank and sweep type (front and rear mounted)	19	6,461	20,764	r/ 8,187	r/ 37,240
333111E081	Rotary cultivators, ground and power driven	9	2,218	6,318	2,090	5,834
333111E089	Field cultivators	15	a/ 5,482	a/ 67,575	6,856	85,807
333111E091	Other cultivators and weeders, including tool bars (basic units)	17	4,329	9,635	r/ 4,569	r/ 10,642

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
333111E099	Attachments for cultivators and weeders (front mounting frame, disc weeders, rear section, and drawbars)	23	(X)	35,359	(X)	39,894
333111C22J	Parts for cultivators and weeders, replacement units only	31	(X)	42,820	(X)	51,106
333111G	All other farm machinery and equipment (except parts)	(NA)	(X)	1,720,625	(X)	1,711,340
333111G pt.	Stalk shredders and cutters or rotary mowers (PTO)	40		114,965		196,159
333111G002	Flail type (without spout)	14	b/	1,992	b/	13,390
333111G004	Horizontal blade type: 66 inches cutting width and under	28	a/	62,982	a/	44,279
333111G006	Over 66 inches up to 100 inches cutting width	24	a/	36,905	b/	54,275
333111G008	Over 100 inches cutting width	14	b/	13,086	b/	84,215
333111C22L	Parts for stalk shredders, and cutters or rotary mowers (PTO), replacement units only	25	(X)	33,722	(X)	37,164
333111G pt.	Machines for preparing crops for market or for use	78	(X)	264,320	(X)	324,608
333111G012	Feed grinders and crushers, power	9		1,460	a/	29,497
333111G014	Feed mixers, farm-size, stationary and portable	18		3,269		49,514
333111G016	Combination grinder-mixers	7	(D)	(D)	a/	8,032
333111G018	Dryers (grain, hay, and seed): Heated air crop dryers	16		8,328		107,717
333111G022	Crop drying fans (over 15,000 c.f.m. at approximately 1-inch pressure)	10	(D)	(D)	r/	12,079
333111G024	Other machines for preparing crops for market or for use	35		22,317		110,201
333111G026	Attachments for machines for preparing crops for market or for use	15	(X)	6,730	(X)	7,568
333111C22N	Parts for machines for preparing crops for market or for use, replacement units only	43	(X)	29,959	(X)	32,575
333111G pt.	Farm poultry equipment	43	(X)	318,476	(X)	213,384
333111G028	Incubators (quantity represents egg capacity in thousands)	10	(D)	(D)	(D)	(D)
333111G032	Brooders, floor and hanging (gas, electric, oil, coal, wood and battery)	12		150,294		19,072
333111G034	Nests and cages	10		3,575,351	a/	44,938
333111G036	Poultry feeders (trough, hanging, and mechanical) and waterers (except turkey feeders and waterers)	16	c/	12,813,470	c/	57,533
333111G038	Other farm poultry equipment, including turkey waterers, mechanized egg graders and egg washers	20	(D)	(D)	(D)	(D)
333111G042	Attachments for farm poultry equipment.....	12	(X)	12,056	(X)	13,700
333111C22P	Parts for farm poultry equipment, replacement units only.....	16	(X)	15,122	(X)	15,139
333111G pt.	Hog equipment	47	(X)	211,538	(X)	159,822
333111G044	Feeding equipment	23		120,812	a/	33,273
333111G046	Handling equipment	11		841,001	a/	71,396
333111G048	Watering equipment	19		539,142		8,238
333111G052	Other hog equipment	24		901,580		45,234
333111G054	Attachments for hog equipment	11	(X)	1,223	(X)	1,681
333111C22T	Parts for hog equipment, replacement units only	17	(X)	3,191	(X)	3,898
333111G pt.	Other barn and barnyard equipment	94	(X)	149,333	(X)	168,246
333111G056	Silo and grain bin unloaders, forage and grain, including sealed storage unloaders (farm-type)	14		41,258		27,084

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[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
	Cattle and dairy barn equipment:					
333111G058	Feeding equipment	34	112,958 a/	27,118 r/	108,363	31,962
333111G062	Handling equipment	32 c/	1,108,818 b/	41,851 c/	1,063,887 b/r/	40,632
333111G064	Water equipment	26	216,431	19,859 r/	270,367 r/	23,039
333111G068	Other barn and barnyard equipment	39	319,534	32,852 r/	449,071 r/	39,833
	Attachments for barn and barnyard equipment	14	(X) a/	6,118	(X)	5,696
333111C22U	Parts for barn and barnyard equipment, replacement units only	29	(X) a/	24,110	(X)	27,686
333111G pt.	Farm wagons, and other farm transportation equipment	78	(X)	191,383	(X)	199,296
333111G072	Wagons (chassis only) and trailer gears, excluding motor trucks, 4-wheel.....	33	14,321	29,149 a/	17,440	32,745
	Boxes and racks for mounting on wagons and trailer gears:					
333111G074	Manual unloading or dump	11	1,521	11,498	1,658	10,243
333111G076	Gravity unloading, grain-type only	11 b/	5,678 b/	19,713 b/r/	7,586 b/	24,830
333111G078	Power unloading	17 b/	5,915 b/	54,374 b/	7,106 b/	58,149
333111G082	Boxes with integral running gear, grain-and forage-types	13	4,828	31,949 r/	4,501 r/	30,394
333111G084	Other farm transportation equipment	19	8,343	42,622 a/	8,438 r/	40,635
333111G086	Attachments for farm transportation equipment	14	(X) b/	2,078	(X) b/r/	2,300
333111C232	Parts for farm transportation equipment, including operator cabs for farm tractors	38	(X)	100,271	(X)	98,244
333111G pt.	Irrigation systems	18	(X)	376,247	(X)	449,825
333111G088	Self-propelled irrigation systems, center-pivot (quantity is in ten-tower equivalents)	8	10,099	340,614	11,809	406,763
333111G092	All other systems using 100-foot flexible hose feeder line and over	10 c/	4,471	35,633 c/	5,705 a/	43,062
333111C22V	Parts for irrigation systems, replacement units only.....	8	(X)	70,326	(X)	71,663
333111J	Commercial turf and grounds care equipment, including parts and attachments	(NA)	(X)	1,355,208	(X)	1,238,764
333111J pt.	Commercial turf and grounds mowing equipment	48	(X)	1,099,497	(X)	983,468
333111J001	Powered nonriding mowers	18	84,865	123,548	90,977	125,540
333111J006	Riding reel-type turf mowers, including greens mowers	9	15,974	234,436	15,862	203,753
333111J011	Riding rotary turf mowers	22	72,834	507,630	58,087	422,534
333111J016	Gang rotary cutting units, reel and rotary, individual sections	7	(D)	(D)	(D)	(D)
333111J021	Flail mower cutting units, including gang	5	(D)	(D)	(D)	(D)
333111J026	Other mowing equipment	7	16,793 a/	27,646 a/	11,048 a/	23,366
333111J031	Parts for commercial turf and grounds mowing equipment	32	(X)	101,340	(X)	99,885
333111J036	Attachments for commercial turf and grounds mowing equipment	21	(X)	32,601	(X)	33,957
333111J pt.	Other commercial turf and grounds care equipment	52	(X)	255,711	(X)	255,296
333111J041	Sod cutters and sod harvesters	3	(D)	(D)	3,484	12,377
333111J046	Seeders, spreaders, and top dresser attachments	7	(D)	(D)	60,208 a/	15,516
333111J051	Aerators, spikers, and pluggers	15 a/	9,509 b/	26,746 a/	9,778 b/	28,279
333111J056	Dethatchers	10 b/	5,115	3,802 c/	5,293 b/	4,066
333111J061	Power brooms, blowers, vacuums, and sweepers	11	17,314	21,116 b/	24,292	22,984
333111J066	Irrigation systems (except agricultural and residential)	4	464,206 b/	26,972	570,519	24,221

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1998		1997	
			Quantity	Value	Quantity	Value
333111J071	Other commercial turf and grounds care equipment, including trap rakes, transport trailers and turf tractors and trucks	27	a/ 22,657	c/ 92,550	c/ 54,276	96,028
333111J076	Parts for other commercial turf and ground care equipment	24	(X)	18,298	(X)	16,512
333111J081	Attachments for other commercial turf and ground care equipment	16	(X)	38,201	(X)	35,313
333112	Lawn and garden equipment	(NA)	(X)	6,186,411	(X)	5,994,487
3331121 pt.	Consumer nonriding lawn, garden, and snow equipment	48	23,129,967	2,656,508	24,511,254	2,823,177
	Lawnmowers:					
	Push-type: reel (powered and non-powered) rotary - gas powered	18	3,987,762	530,824	3,916,368	565,018
3331121006	Rotary, self-propelled, gas-powered	19	2,423,179	611,847	2,201,758	577,067
3331121021	Electric, all types, including battery-powered	5	132,411	34,950	r/ 129,217	r/ 33,376
3331121026	Rotary garden motor tillers	12	488,316	185,468	492,028	176,056
3331121031	2-wheel tractors walking type (except rotary tillers)	2	(D)	(D)	(D)	(D)
	Snow throwers (snow blowers) (except attachment-type):					
3331121036	Single stage	7	247,967	65,867	383,834	103,955
3331121041	Dual stage	10	370,815	221,476	512,795	340,397
	Powered lawn edgers/trimmers:					
3331121046	Fixed blade	16	866,977	118,728	533,675	66,349
3331121051	Other than fixed blades	11	7,742,869	512,639	9,078,746	561,336
3331121056	Shredders and shredder-grinders	9	(D)	(D)	(D)	(D)
3331121061	Yard vacuums and blowers	13	3,134,594	219,637	2,878,922	202,172
3331121066	Other consumer nonriding lawn, garden, and snow equipment	17	3,662,232	a/ 112,659	a/ 4,313,662	a/ 158,802
3331123 pt.	Consumer riding lawn, garden, and snow equipment	23	1,841,641	2,630,694	1,760,819	2,413,623
	Lawn tractors and riding mowers, front engine:					
3331123001	Under 10.0 hp (under 7.5 kW)	2	(D)	(D)	(D)	(D)
3331123011	10.0 hp and over (7.5 kW and over)	9	1,512,936	1,800,915	1,449,664	1,602,655
	Lawn tractors and riding mowers, rear engine:					
3331123021	Under 10.0 hp (under 7.5 kW)	7	(D)	(D)	(D)	(D)
3331123031	10.0 hp and over (7.5 kW and over)	16	81,508	134,037	86,786	132,442
	Garden tractors:					
3331123041	Under 16.0 hp (under 12.0 kW)	6	4,373	12,172	5,530	15,943
3331123051	16.0 hp to 19.9 hp (12.0 kW to 14.9 kW)	6	76,992	199,285	93,528	303,567
3331123061	20.0 hp and over (15.0 kW and over)	9	74,701	374,532	47,078	245,929
3331123071	Other consumer riding lawn, garden, and snow equipment	2	(D)	(D)	(D)	(D)
3331127 pt.	Parts and attachments for consumer lawn, garden, and snow equipment	(NA)	(X)	899,209	(X)	757,687
	Nonriding:					
3331127001	Parts	32	(X)	151,606	(X)	133,071
3331127011	Attachments	17	(X)	101,478	(X)	95,348
	Riding:					
	Parts:					
3331127021	For tractors and riding mowers	23	(X)	297,623	(X)	r/ 249,590
3331127031	For other equipment	7	(X)	c/ 10,659	(X)	c/ 8,325
	Attachments:					
3331127041	Rotary mower decks	14	(X)	a/ 107,258	(X)	a/ 87,394
3331127051	Rotary tiller attachments	10	(X)	b/ 12,533	(X)	a/ 10,312
3331127061	Blades, dozer	10	(X)	24,284	(X)	18,865
3331127071	Snow throwers	7	(X)	(D)	(X)	(D)
3331127081	Carts and wagons	10	(X)	(D)	(X)	(D)
3331127091	All other attachments	28	(X)	143,389	(X)	109,282

D Withheld to avoid disclosing data for individual companies. NA Not available. pt. Part. r/Revised by 5 percent or more from previously published data. X Not applicable.

Note: The percent of estimation of each item is indicated as follows: a/10 to 25 percent of the item is estimated. b/25 to 50 percent of the item is estimated. c/Over 50 percent of item is estimated.

Table 3. Shipments, Exports, and Imports of Farm Machinery and Equipment: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product description	Manufacturers' shipments		Exports of domestic merchandise 1/		Imports for consumption 2/		Apparent consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1998								
Farm-type wheel tractors	(D)	(D)	49,854	1,205,472	109,571	1,536,870	(D)	(D)
Sprayers and dusters (except aerial types)	(X)	665,702	(NA)	31,030	(NA)	19,643	(NA)	654,315
Planting machinery and fertilizer distributors, pull-type or mounted	(X)	887,361	21,962	118,533	197,101	65,167	(NA)	833,995
Disc harrows	11,655	96,619	1,760	10,158	53,235	35,417	63,130	121,878
Other harrows, rollers, pulverizers, and similar equipment	95,656	117,959	13,050	7,492	13,267	7,516	95,873	117,983
Combines	(D)	(D)	6,842	550,935	1,193	59,631	(D)	(D)
Other harvesting machines	(D)	(D)	3,780	77,451	7,567	40,384	(D)	(D)
Field forage harvesters	1,742	30,034	1,428	21,491	525	44,236	839	52,779
Hay mowers, mower-conditioners, and windrowers	172,070	464,801	18,949	49,910	33,642	76,474	186,763	491,365
Other haymaking machines	(X)	61,382	2,589	47,661	17,732	14,527	(NA)	28,248
Balers, including pickup balers	23,646	405,355	5,826	80,937	3,750	23,353	21,570	347,771
Other plows	(X)	119,194	3,515	13,123	4,330	4,414	(NA)	110,485
Cultivators and weederers	18,490	104,292	28,299	27,022	132,535	53,836	122,726	131,106
Machinery for preparing animal feed	5,460	85,329	5,798	44,327	25,717	15,068	25,379	56,070
Other machines for preparing crops for market or for use	41,444	172,261	4,582	26,769	13,259	1,608	50,121	147,100
Farm poultry incubators and brooders	(D)	(D)	27,535	26,881	150,431	8,908	(D)	(D)
Nests and cages (poultry equipment)	(X)	74,727	98,108	71,954	116,377	12,973	(NA)	(NA)
Self-propelled irrigation systems, center-pivot	10,099	340,614	1,789	10,982	73	121	8,383	329,753
All other self-propelled irrigation systems using 100 feet flexible hose feeder line and over	4,471	35,633	(NA)	174,115	(NA)	21,660	(NA)	(NA)
Farm wagons and other farm transportation equipment	40,606	189,305	-	-	49,698	7,079	90,304	196,384
Riding turf mowers and flail and gang mowers	129,984	814,362	16,543	64,138	13,515	4,577	126,956	754,801
Snowblowers (snowthrowers)	618,782	287,343	47,660	25,528	19,477	17,264	590,599	279,079
Powered lawn and hedge trimmers	8,609,846	631,367	1,437,184	101,572	2,768,761	134,589	9,941,423	664,384
1997								
Farm-type wheel tractors	(D)	(D)	53,118	1,217,018	97,457	1,447,917	(D)	(D)
Sprayers and dusters (except aerial types)	(X)	503,803	(NA)	150,656	(NA)	28,420	(NA)	381,567
Planting machinery and fertilizer distributors, pull-type or mounted	(X) r/	963,241	23,566	125,578	148,081	72,839	(NA)	910,502
Disc harrows	11,679	91,683	3,579	18,639	63,599	35,029	71,699	108,073
Other harrows, rollers, pulverizers, and similar equipment	111,343	125,561	9,445	9,021	17,787	6,948	119,685	123,488
Combines	(D)	(D)	9,038	717,799	1,301	43,115	(D)	(D)
Other harvesting machines	(D)	(D)	3,323	89,580	11,849	44,336	(D)	(D)
Field forage harvesters	1,764	29,653	1,354	19,265	451	33,072	861	43,460
Hay mowers, mower-conditioners, and windrowers	172,563	412,391	17,702	48,479	36,191	73,901	191,052	437,813
Other haymaking machines	(X)	57,898	2,447	39,333	19,767	17,330	(NA)	35,895
Balers, including pickup balers	22,565	363,849	5,495	78,158	3,529	19,645	20,599	305,336
Other plows	(X)	130,175	3,498	16,638	5,091	8,807	(NA)	122,344
Cultivators and weederers	21,702	139,523	51,773	35,231	50,768	58,781	20,697	163,073
Machinery for preparing animal feed	5,577	87,043	6,398	54,488	21,168	11,376	20,347	43,931
Other machines for preparing crops for market or for use	52,223	229,997	7,673	30,281	11,694	4,718	56,244	204,434
Farm poultry incubators and brooders	(D)	(D)	30,427	23,006	146,201	7,682	(D)	(D)

Continued

Table 3. Shipments, Exports, and Imports of Farm Machinery and Equipment: 1998 and 1997
[Quantity in units. Value in thousands of dollars]

Product description	Manufacturers' shipments		Exports of domestic merchandise 1/		Imports for consumption 2/		Apparent consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Nests and cages (poultry equipment)	(X)	44,938	241,283	89,036	37,810	12,383	(NA)	(NA)
Self-propelled irrigation systems, center-pivot	11,809	406,763	1,811	49,017	351	430	10,349	358,176
All other self-propelled irrigation systems using 100 feet flexible hose feeder line and over	5,705	43,062	(NA)	192,159	(NA)	16,996	(NA)	(NA)
Farm wagons and other farm transportation equipment	46,729	196,996	-	-	42,804	5,927	89,533	202,923
Riding turf mowers and flail and gang mowers	123,336	700,720	21,491	65,170	5,519	2,374	107,364	637,924
Snowblowers (snowthrowers)	896,629	444,352	57,068	36,936	33,686	25,575	873,247	432,991
Powered lawn and hedge trimmers	9,612,421	627,685	130,295	96,909	2,204,042	110,035	11,686,168	640,811

- Represents zero. D Withheld to avoid disclosing data for individual companies. NA Not available.
r/Revised by 5 percent or more from previously published data. X Not applicable.

1/Source: Census Bureau report, EM 545, U.S. Exports.

2/Source: Census Bureau report, IM 145, U.S. Imports for Consumption.

Note: For comparison of North American Industry Classification System-based product codes, Schedule B export numbers, and HTSUSA import numbers, see Table 4.

Table 4. Comparison of North American Industry Classification System-Based Product Codes With Schedule B Export Numbers, and HTSUSA Import Numbers: 1998

Product code	Product description	Export number 1/	Import number 2/
3331111001	Farm-type wheel tractors	8701.90.1005	8701.90.1005
3331111006		8701.90.1010	8701.90.1010
3331123041		8701.90.1015	8701.90.1015
3331123051		8701.90.1030	8701.90.1030
3331123061		8701.90.1035	8701.90.1035
		8701.90.1040	8701.90.1040
		8701.90.1045	8701.90.1045
		8701.90.1050	8701.90.1050
		8701.90.1055	8701.90.1055
		8701.90.1060	8701.90.1060
		8701.90.1065	8701.90.1065
		8701.90.1070	8701.90.1070
3331113016	Sprayers and dusters (except aerial types)	8424.81.1000	8424.81.1000
3331113021		8424.81.9030	8424.81.9040
3331113024			8424.81.9090
3331113028			
3331113036			
3331113032			
3331113041			
3331113044			
3331113048			
3331113052			
3331113056			
3331113061			
3331113064			
3331113068			
3331113072			
3331117001	Planting machinery.....	8432.30.0010	8432.30.0010
3331117008		8432.30.0090	8432.30.0090
3331117011			
3331117048			
3331117018	Fertilizer distributors pull-type or mounted	8432.40.0000	8432.40.0000
3331117021			
3331117028			
3331117031			
3331117038			
3331117041			
3331117051			
333111E041	Other harrows, rollers, pulverizers, and similar equipment	8432.29.0090	8432.29.0090
333111E051			
333111E058			
333111E061			
333111E069			

Table 4. Comparison of North American Industry Classification System-Based Product Codes With Schedule B Export Numbers, and HTSUSA Import Numbers: 1998

Product code	Product description	Export number 1/	Import number 2/
333111E049	Disc harrows	8432.21.0000	8432.21.0000
3331119001	Combines	8433.51.0010	8433.51.0010
		8433.51.0090	8433.51.0090
3331119011	Other harvesting machines	8433.52.0000	8433.52.0000
3331119021		8433.59.0090	8433.59.0090
3331119031		8433.53.0000	8433.53.0000
3331119071			
3331119041	Field forage harvesters	8433.59.0010	8433.59.0010
3331119061			
333111A001	Hay mowers, mower-conditioners and		
333111A011	windrowers	8433.20.0020	8433.20.0020
333111G002		8433.20.0040	8433.20.0040
333111G004		8433.20.0060	8433.20.0060
333111G006			
333111G008			
333111A001	Other haymaking machinery	8433.30.0000	8433.30.0000
333111A041			
333111A031	Balers, including pickup balers	8433.40.0000	8433.40.0000
333111E001	Other plows	8432.10.0040	8432.10.0040
333111E009		8432.10.0060	8432.10.0060
333111E011			
333111E019			
333111E021			
333111E059			
333111E079	Cultivators and weeders	8432.29.0040	8432.29.0040
333111E081		8432.29.0060	8432.29.0060
333111E089		8432.29.0080	8432.29.0080
333111E091			
333111G012	Machinery for preparing animal feed	8436.10.0000	8436.10.0000
333111G014			
333111G016			
333111G024	Other machines for preparing crops for		
333111G018	market or for use	8419.31.0000	8419.31.0000
333111G022		8436.80.0060	8436.80.0060
333111G028	Farm poultry incubators and brooders	8436.21.0000	8436.21.0000
333111G032			

Continued

Table 4. Comparison of North American Industry Classification System-Based Product Codes With Schedule B Export Numbers, and HTSUSA Import Numbers: 1998

Product code	Product description	Export number 1/	Import number 2/
333111G034	Nests and cages (poultry equipment)	8436.29.0000 8433.60.0000	8436.29.0000 8433.60.0000
333111G088	Self-propelled irrigation systems, center-pivot	8424.81.9010	8424.81.9010
333111G092	All other self-propelled irrigation systems using 100 feet flexible hose feeder line and over	8424.81.9020	8424.81.9020
333111G072 333111G074 333111G076 333111G078 333111G082 333111G084	Farm wagons and other farm transportation equipment	8716.80.1000	8716.80.1000
333111J001 333111J026	Other commercial and turf grounds mowers	8433.19.0040 8433.19.0050	8433.19.0040 8433.19.0050
333111J006 333111J011 333111J016	Riding turf mowers	8433.19.0010 8433.19.0030	8433.19.0010 8433.19.0030
333111J021	Flail and gang mowers	8433.19.0020	8433.19.0020
3331121036 3331121041	Snowblowers (snowthrowers)	8430.20.0060	8430.20.0060
3331121046 3331121051	Powered lawn and hedge trimmers	8467.89.5030 8508.80.0070	8467.89.5030 8508.80.0070

1/Source: 1998 edition, Harmonized System-Based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated, (1998).