

Farm Machinery and Lawn and Garden Equipment

1999

Issued September 2000
REVISED March 2001

MA333A(99)-1

(Formerly Series No. MA35A)

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 1999, factory shipments of farm machinery and equipment, including parts and attachments, produced by original equipment manufacturers (OEM), totaled \$10,073.7 million, a 28-percent decrease from 1998 shipments of \$14,027.3 million. Shipments of farm dairy machines, sprayers, dusters, elevators, and farm blowers, and parts totaled \$804.1 million, a decrease of 19 percent over the 1998 total of \$993.6 million. The value of shipments for harvesting machinery and parts decreased 53 percent, from \$3,095.6 in 1998 to \$1,468.6 in 1999. Haying machinery and parts decreased 25 percent, from \$848.0 in 1998 to \$636.9 in 1999.

The value of shipments for commercial turf and ground equipment, including parts, was \$1,638.4 million in 1999, a 20-percent increase over the \$1,361.6 million reported for 1998.

The value of shipments of consumer lawn, garden, and snow equipment, including parts and attachments, was \$6,733.9 million in 1999, an 8-percent increase over the \$6,255.9 million in 1998.

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: 1999 to 1993
 [Value in millions of dollars]

Product description 1/	1999	1998	1997	1996	1995	1994	1993
Farm dairy machines, sprayers, dusters, elevators, and farm blowers	804.8	r/ 993.6	816.6	839.2	764.7	709.0	591.1
Planting, seeding, and fertilizing machinery.....	767.8	1,091.1	1,154.6	862.3	852.9	949.1	804.6
Harvesting machinery.....	1,468.6	3,095.6	3,259.4	2,966.8	2,666.8	2,201.4	2,036.9
Haying machinery.....	636.9	848.0	794.8	670.3	729.4	748.6	622.5
Plows, harrows, rollers, pulverizers, cultivators, and weeders	437.3	631.2	696.3	542.0	512.5	480.4	404.4
Commercial turf and grounds care equipment	1,638.4	1,361.6	1,238.8	1,118.5	1,120.3	1,022.0	880.8
Consumer nonriding lawn, garden, and snow equipment	3,349.3	2,979.1	3,051.6	2,957.0	3,095.0	3,003.0	2,408.8
Consumer riding lawn, garden, and snow equipment	3,384.7	3,276.8	2,942.9	2,861.0	2,874.3	2,747.6	2,394.5

r/Revised by 5 percent or more from previously published data.

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: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
333111	Farm machinery and equipment, including parts and attachments	(NA)	(X)	10,073,656	(X)	14,027,251
3331111	Wheel tractors (except contractors' off-highway wheel tractors, garden tractors, turf tractors, and motor tillers) and attachments	20	(X)	2,351,023	(X)	3,674,744
	Wheel tractors, farm-type (PTO hp)	(NA)	(D)	(D)	(D)	(D)
3331111001	2-wheel drive, including front wheel assist types	8	(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	13	(X)	34,126	(X)	39,061
333111C116	Parts for wheel tractors, farm-type	13	(X)	251,780	(X)	336,849
3331113	Farm dairy machines, sprayers, dusters, elevators, and farm blowers	(NA)	(X)	675,977	(X)	856,510
3331113 pt.	Farm dairy machines and equipment	14	(X)	143,636	(X)	110,513
	Mechanical installations:					
3331113001	Milking machines, complete, suspended and floor-type bucket, single and double units	4	(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	12 a/	26,703	50,500	a/ 27,508	44,767
	Attachments for farm dairy machines and equipment	6	(X)	(D)	(X)	(D)
	Parts for farm dairy machines and equipment, replacement units only.....	9	(X) a/	38,265	(X) a/	23,787
3331113 pt.	Sprayers and dusters	69	(X)	475,749	(X)	679,136
	Power sprayers, field and row crop types only:					
3331113016	Self-propelled	16 b/	3,231 a/	272,513	b/ 5,364	460,826
3331113021	Tractor mounted	26 a/	6,939 a/	12,749	a/ 7,483 a/	16,793
	Other than tractor mounted:					
3331113024	Power take-off driven, piston pump type	11 b/	884	4,995	b/ 696 b/	4,237
3331113028	Nonpiston pump type	16	2,663 a/	8,192 r/ a/	3,337	11,776
3331113032	Other power sprayers, over 4 g.p.m.	8 c/	256 a/	1,932	c/ 343 b/	2,095
	Power sprayers, other than row crop and field types, over 4 g.p.m.:					
3331113036	Power take-off driven	7	537	4,191	a/ 594	4,055
3331113041	Engine-driven.....	12	1,090	5,353	r/ 1,358	6,588
3331113044	Air carried type power sprayers (field, row crop, and orchard types)	7 b/	551 b/	7,021	b/ 580 b/	6,232
3331113048	Foggers and mist sprayers portable.....	5	(D)	(D)	(D)	(D)
3331113052	Hand-pulled and garden-type, 4 g.p.m. and under	12	85,745	12,044	r/ 72,190 r/	9,757
	Sprayers, agricultural hand:					
3331113056	Under 1 gallon.....	4	(D)	(D)	(D)	(D)
	1 gallon and over:					
3331113061	Compressed air or gas	6	9,546,085	99,319	7,647,565	110,895
3331113064	Other, including knapsack, hose end and flame sprayers and sprayer pumps	9	5,752,557	20,187	11,943,231	16,945
3331113068	Dusters, power, hand, all types	5	92,101	1,282	83,842 r/	1,313
3331113072	All other sprayers	11	(X) a/	3,290	(X) a/	3,369
3331113076	Attachments for sprayers and dusters	19	(X) b/	17,247	(X) a/	17,900
333111C223	Parts for sprayers and dusters, replacement units only.....	40	(X) a/	83,654	(X) a/	105,351

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
3331113 pt.	Farm elevators and blowers	31	(X)	56,592	(X)	66,861
	Farm elevators, portable:					
3331113081	Single and double chain	8 a/	2,185 c/	4,236	2,178	4,433
3331113088	Auger type	12 a/	8,574	18,260	12,189	25,007
	Other farm portable and stationary augers and elevators	10 c/	46,545 b/	19,192	53,919 b/	20,244
3331113092	Other farm blowers, including forage blowers, combination grain and forage blowers	6 c/	1,038 b/	5,408	b/ 1,459 a/	6,401
	Attachments for farm elevators and blowers	11	(X) a/	9,496	(X) a/	10,776
	Parts for farm elevators and for grain and forage blowers, replacement units only	19	(X) b/	6,890	(X) b/	7,992
3331117	Planting, seeding, and fertilizing machinery	121	(X)	653,579	(X)	975,722
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	12	5,689	102,067	8,758	152,492
3331117011	Transplanters (pull-type or mounted) and broadcast seeders (end-gate, mounted and drawn)	8 b/	9,800	7,624	b/ 12,058	10,285
	Fertilizer distributors (pull-type or mounted):					
3331117018	Dry, including lime spreaders.....	30 a/	14,440 b/	27,705	a/ 8,519	33,187
3331117021	Liquid and anhydrous ammonia.....	17 c/	5,165 b/	18,547	b/ 7,787	24,121
3331117028	Manure spreaders, rear discharge.....	13	2,948 a/	20,094	3,065	20,420
3331117031	Manure spreaders, side discharge.....	7	2,678	29,465	2,786	30,590
3331117038	Manure pumps, liquid.....	10	1,088	4,995	1,310	5,292
3331117041	Front and rear tractor mounted loaders (farm-type), manure and general utility (except beet and sugar cane loaders)	14 a/	38,510 a/	114,330	r/ 41,705	123,009
3331117048	Row crop unit planters (quantity in rows)	8	(D)	(D)	(D)	(D)
3331117051	Other planting, seeding, and fertilizing machinery.....	29	(D)	(D)	(D)	(D)
3331117058	Attachments for planting, seeding, and fertilizing machinery	27	(X) a/	38,944	(X)	84,461
333111C229	Parts for planting, seeding, and fertilizing machinery, replacement units only	68	(X)	114,205	(X)	115,395
3331119	Harvesting machinery.....	75	(X)	1,301,743	(X)	2,884,959
3331119001	Combines (harvester-threshers), grain-types only (self-propelled and pull-type)	9	(D)	(D)	(D)	(D)
3331119011	Small grain header for combines, all sizes	7	(D)	(D)	(D)	(D)
3331119021	Corn heads, all sizes	6	(D)	(D)	(D)	(D)
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 b/	1,130 b/	22,907	1,581	28,483
3331119051	Attachments for shear bar type forage harvester	4	(X)	(D)	(X)	(D)
3331119061	Flail-type (horizontal knives or vertical free-swinging knives or hammers), including discharge spouts	2	(D)	(D)	(D)	(D)
3331119071	Other harvesting machinery, including potato diggers, cane harvesting equipment, and picker-shellers	51 a/	4,282 a/	251,001	r/ a/ 5,608 a/	365,279
3331119081	Attachments for harvesting machinery, including platform and seeder, reel, straw spreaders, load levelers, weed stripper, grate unit, knife grinders, and stalk walkers	25	(X)	66,623	(X)	107,038
333111C22A	Parts for harvesting machinery, replacement units only	53	(X)	166,886	(X)	210,643

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
333111A	Haying machinery	39	(X)	543,426	(X)	753,563
333111A001	Mowers, cutter bar type, including drum and disk	8	3,174	18,165	5,120	26,751
333111A011	Mower-conditioners and windrowers with conditioner auger and draper-type (pull-type and self-propelled)	7	12,082	176,322	14,974	228,722
333111A021	Rakes, side delivery, cylinder type, and finger wheel type	10	a/ 7,384	a/ 34,329	8,620	35,537
333111A031	Hay balers, hay stackers, (field type), hay bale loaders, bale throwing attachments	18	15,928	271,284	23,646	405,355
333111A041	Other haying machinery	14	(D)	(D)	(D)	(D)
333111A051	Other attachments for haying machinery (stripper, bale chute and knife attachments)	9	(X)	(D)	(X)	(D)
333111C22C	Parts for haying machinery, replacement units only	22	(X)	93,461	(X)	94,479
333111E	Plows, harrows, rollers, pulverizers, cultivators, and weeders	(NA)	(X)	339,735	(X)	519,114
333111E pt.	Plows (primary tillage equipment)	66	(X)	115,276	(X)	159,372
333111E001	Subsoilers, deep tillage	26	c/ 3,649	c/ 26,737	5,186	38,104
333111E009	Terracing and ditching plows	9	c/ 293	b/ 653	b/ 442	b/ 977
	Chisel plows, deep tillage (chisel or sweep type):					
333111E011	Pull-type	15	(D)	(D)	1,263	14,969
333111E019	Mounted	12	(D)	(D)	1,016	7,221
333111E021	Other plows (except snow plows)	16	3,111	23,503	4,664	52,956
333111E059	Middlebusters and disc bedders	15	3,988	3,333	3,842	4,967
333111E031	Attachments for plows (coulters, jointers, root cutters subsoilers, fertilizer distributors, etc.), excluding lister planting attachments	20	(X) b/	35,673	(X)	29,813
333111E039	Plowshares (quantity in thousands of pounds)	8	b/ 8,781,455	9,121	c/ 11,629,787	10,365
333111C22E	Parts for plows (except plowshares), replacement units only	22	(X)	29,670	(X)	32,830
333111E pt.	Harrows, rollers, pulverizers and similar equipment (secondary tillage)	89	(X)	154,274	(X)	220,091
333111E041	Spike-tooth harrow sections and spring-tooth and tine-tooth harrow sections	21	c/ 20,502	b/ 14,577	23,105	a/ 17,203
333111E049	Disc harrows, single, tandem, and offset	25	11,293	56,813	a/ 11,655	96,619
333111E051	Combination tillage equipment, roller/harrows, disc or coulter/field cultivators, disc or coulter/spring tooth	27	9,325	34,418	14,844	56,475
333111E058	Blade terracers or scrapers (farm-size)	36	b/ 59,113	a/ 23,862	b/ 50,560	a/ 21,802
333111E061	Land levelers	8	a/ 1,418	c/ 2,830	1,525	3,423
333111E069	Other harrows, rollers, pulverizers, and similar equipment	22	b/ 4,401	15,057	r/ b/ 6,347	18,110
333111E071	Attachments for harrows, rollers, pulverizers, and similar equipment	15	(X)	6,717	(X)	6,459
333111C22G	Parts for harrows, rollers, pulverizers, and similar equipment, replacement units only	36	(X)	30,176	(X) a/	36,453
333111E pt.	Cultivators and weeders	48	(X)	70,185	(X)	139,651
333111E079	Corn and cotton type cultivators, shank and sweep type (front and rear mounted)	19	2,097	11,180	6,462	20,764
333111E081	Rotary cultivators, ground and power driven	9	2,897	a/ 6,850	2,218	6,318
333111E089	Field cultivators	16	a/ 2,720	a/ 27,367	a/ 5,482	a/ 67,575
333111E091	Other cultivators and weeders including tool bars (basic units)	20	a/ 2,553	a/ 4,118	r/ a/ 4,936	9,635

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
333111E099	Attachments for cultivators and weeders (front mounting frame, disc weeders, rear section, and drawbars)	23	(X) a/	20,670	(X)	35,359
333111C22J	Parts for cultivators and weeders, replacement units only	29	(X)	37,715	(X)	42,820
333111G	All other farm machinery and equipment (except parts)	(NA)	(X)	1,459,796	(X)	1,717,747
333111G pt.	Stalk shredders and cutters or rotary mowers (PTO)	42	(X)	191,150	(X)	209,328
333111G002	Flail type (without spout)	14 b/	1,531 a/	10,924	b/ 1,992 b/	12,958
	Horizontal blade type:					
333111G004	66 inches cutting width and under	28 b/	75,216 a/	50,297	r/ a/ 66,590 a/	49,821
333111G006	Over 66 inches up to 100 inches cutting width	24 b/	39,948 a/	53,618	a/ 37,907 a/	53,711
333111G008	Over 100 inches cutting width	14 a/	10,953 b/	76,311	b/ 13,212 b/	92,838
333111C22L	Parts for stalk shredders, and cutters or rotary mowers (PTO), replacement units only	26	(X) a/	32,744	(X) a/	33,722
333111G pt.	Machines for preparing crops for market or for use	74	(X)	229,811	(X)	259,901
333111G012	Feed grinders and crushers, power	11	1,921	18,067	r/ 1,652 r/	21,108
333111G014	Feed mixers, farm-size, stationary and portable	18 a/	3,045 a/	53,180	3,269	51,608
333111G016	Combination grinder-mixers	5	(D)	(D)	(D)	(D)
	Dryers (grain, hay, and seed):					
333111G018	Heated air crop dryers	16 a/	6,070	41,074	8,328	69,068
333111G022	Crop drying fans (over 15,000 c.f.m. at approximately 1-inch pressure)	10	(D)	(D)	(D)	(D)
333111G024	Other machines for preparing crops for market or for use	40	20,209 a/	94,746	22,819	93,921
333111G026	Attachments for machines for preparing crops for market or for use	16	(X)	4,701	(X)	6,730
333111C22N	Parts for machines for preparing crops for market or for use, replacement units only	40	(X)	28,897	(X)	29,962
333111G pt.	Farm poultry equipment	40	(X)	309,066	(X)	316,439
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)	11	165,433	24,708	150,294	21,542
333111G034	Nests and cages	10 c/	3,608,468 b/	70,115	c/ 3,575,351 a/	74,727
333111G036	Poultry feeders (trough, hanging, and mechanical) and waterers (except turkey feeders and waterers)	14 c/	9,009,213 a/	70,380	c/ 12,813,470	99,662
333111G038	Other farm poultry equipment, including turkey waterers, mechanized egg graders and egg washers	19	(D)	(D)	(D)	(D)
333111G042	Attachments for farm poultry equipment.....	12	(X)	11,964	(X)	12,056
333111C22P	Parts for farm poultry equipment, replacement units only.....	17	(X) a/	17,981	(X)	15,122
333111G pt.	Hog equipment	47	(X)	99,817	(X)	215,116
333111G044	Feeding equipment	26 c/	81,799 c/	26,254	r/ a/ 149,450	54,586
333111G046	Handling equipment	14 c/	386,996 c/	30,795	r/ b/ 1,019,428 a/	81,313
333111G048	Watering equipment	20 a/	424,403 b/	3,930	543,629	5,025
333111G052	Other hog equipment	25 b/	505,656 b/	37,970	943,868 r/	72,969
333111G054	Attachments for hog equipment	11	(X)	868	(X)	1,223
333111C22T	Parts for hog equipment, replacement units only	16	(X) c/	1,914	(X)	3,191

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity (X)	Value	Quantity (X)	Value
333111G pt.	Other barn and barnyard equipment	91		157,140		149,333
333111G056	Silo and grain bin unloaders, forage and grain, including sealed storage unloaders (farm-type)	15	36,135	21,365	41,436	21,535
	Cattle and dairy barn equipment:					
333111G058	Feeding equipment	35	116,007 b/	25,916	113,013 a/	27,118
333111G062	Handling equipment	35 c/	1,208,416 c/	41,512 r/ c/	1,170,643 b/	41,851
333111G064	Water equipment	25	244,206	23,160	216,431	19,859
333111G068	Other barn and barnyard equipment	43 b/	372,610 b/	39,134	331,970 a/	32,852
333111G068	Attachments for barn and barnyard equipment	16	(X) a/	6,053	(X) a/	6,118
333111C22U	Parts for barn and barnyard equipment, replacement units only	31	(X) a/	29,574	(X) a/	24,110
333111G pt.	Farm wagons, and other farm transportation equipment	73	(X)	147,440	(X)	191,383
333111G072	Wagons (chassis only) and trailer gears, excluding motor trucks, 4-wheel.....	34 b/	14,298 b/	29,541	14,321	29,149
	Boxes and racks for mounting on wagons and trailer gears:					
333111G074	Manual unloading or dump	10	1,664	9,164	1,521	11,498
333111G076	Gravity unloading, grain-type only	9	5,805	9,691	b/ 5,678 b/	19,713
333111G078	Power unloading	16 a/	3,670 a/	31,450	b/ 5,960 b/	54,374
333111G082	Boxes with integral running gear, grain- and forage-types	14	3,710	22,655	4,828	31,949
333111G084	Other farm transportation equipment	19 a/	8,554 b/	43,671	8,348	42,622
333111G086	Attachments for farm transportation equipment	12	(X) a/	1,268	(X) b/	2,078
333111C232	Parts for farm transportation equipment, including operator cabs for farm tractors	37	(X)	75,610	(X)	100,271
333111G pt.	Irrigation systems	16	(X)	325,372	(X)	376,247
333111G088	Self-propelled irrigation systems, center-pivot (quantity is in ten-tower equivalents)	7 a/	8,617	286,478	10,099	340,614
333111G092	All other systems using 100-foot flexible hose feeder line and over	10 c/	4,806	38,894	c/ 4,472	35,633
333111C22V	Parts for irrigation systems, replacement units only.....	7	(X) b/	70,513	(X)	70,326
333111J	Commercial turf and grounds care equipment, including parts and attachments	(NA)	(X)	1,638,442	(X)	1,361,589
333111J pt.	Commercial turf and grounds mowing equipment	50	(X)	1,347,412	(X)	1,105,878
333111J001	Powered nonriding mowers	19	81,399	118,172	84,865	123,548
333111J006	Riding reel-type turf mowers, including greens mowers	8 b/	20,663 b/	311,657	15,974	234,436
333111J011	Riding rotary turf mowers	22	97,734 a/	641,511	72,834	507,630
333111J016	Gang rotary cutting units, reel and rotary, individual sections	7	(D)	(D)	(D)	(D)
333111J021	Flail mower cutting units, including gang	6	(D)	(D)	(D)	(D)
333111J026	Other mowing equipment	8 b/	16,944 a/	35,100	16,793 a/	27,646
333111J031	Parts for commercial turf and grounds mowing equipment	34	(X) a/	118,396	(X) r/	107,721
333111J036	Attachments for commercial turf and grounds mowing equipment	20	(X)	39,987	(X)	32,601
333111J pt.	Other commercial turf and grounds care equipment	51	(X)	291,030	(X)	255,711
333111J041	Sod cutters and sod harvesters	4	(D)	(D)	(D)	(D)
333111J046	Seeders, spreaders, and top dresser attachments	9	(D)	(D)	(D)	(D)
333111J051	Aerators, spikers, and pluggers	15	11,546	28,750	a/ 9,509	26,746

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999			1998		
			Quantity	Value		Quantity	Value	
333111J056	Dethatchers	10	6,372	4,917	b/	5,115	b/	3,802
333111J061	Power brooms, blowers, vacuums, and sweepers	14	19,381	23,915		17,453		21,116
333111J066	Irrigation systems (except agricultural and residential)	3	(D)	(D)	r/ c/	644,723	b/	26,972
333111J071	Other commercial turf and grounds care equipment, including trap rakes, transport trailers and turf tractors and trucks	28	b/ 22,115	a/ 126,149	a/	22,657	c/	92,550
333111J076	Parts for other commercial turf and ground care equipment	21	(X) a/	17,547		(X)		18,298
333111J081	Attachments for other commercial turf and ground care equipment	17	(X)	42,844		(X)		38,201
333112	Lawn and garden equipment	(NA)	(X)	6,733,937		(X)		6,255,902
3331121 pt.	Consumer nonriding lawn, garden, and snow equipment	49	(X)	3,110,807		(X)		2,726,009
	Lawnmowers:							
	Push-type: reel (powered and non-powered) rotary-gas powered	18	a/ 3,134,646	a/ 560,204		3,987,584		530,749
3331121006	Rotary, self-propelled, gas-powered	20	a/ 2,260,503	a/ 674,748		2,462,345		631,667
3331121021	Electric, all types, including battery-powered	5	(D)	(D)		132,411		34,950
3331121026	Rotary garden motor tillers	13	b/ 506,968	a/ 186,071		489,339		185,468
3331121031	2-wheel tractors walking type (except rotary tillers)	2	(D)	(D)		(D)		(D)
	Snow throwers (snow blowers) (except attachment-type):							
3331121036	Single stage	8	b/ 402,551	a/ 170,203		247,967		65,867
3331121041	Dual stage	10	b/ 383,559	b/ 276,884		370,815		221,476
	Powered lawn edgers/trimmers:							
3331121046	Fixed blade	15	a/ 1,041,104	b/ 185,928		866,977		118,715
3331121051	Other than fixed blades	10	8,922,325	523,821		7,742,869	r/	563,309
3331121056	Shredders and shredder-grinders	8	(D)	(D)		(D)		(D)
3331121061	Yard vacuums and blowers	12	3,021,319	221,401		3,121,334		218,736
3331121066	Other consumer nonriding lawn, garden, and snow equipment	16	c/ 5,126,177	c/ 192,865		3,662,232	a/	112,659
3331123 pt.	Consumer riding lawn, garden, and snow equipment	24	(X)	2,659,776		(X)		2,630,694
	Lawn tractors and riding mowers, front engine:							
3331123001	Under 10.0 hp (under 7.5 kW)	1	(D)	(D)		(D)		(D)
3331123011	10.0 hp and over (7.5 kW and over)	9	a/ 1,432,509	1,879,571		1,512,936		1,800,915
	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)	17	a/ 94,922	180,295		81,508		134,037
	Garden tractors:							
3331123041	Under 16.0 hp (under 12.0 kW)	6	c/ 7,982	26,957		4,373		12,172
3331123051	16.0 hp to 19.9 hp (12.0 kW to 14.9 kW)	6	52,917	163,351		76,992		199,285
3331123061	20.0 hp and over (15.0 kW and over)	10	70,924	337,786		75,160		374,532
3331123071	Other consumer riding lawn, garden, and snow equipment	4	(D)	(D)		(D)		(D)
3331127 pt.	Parts and attachments for consumer lawn, garden, and snow equipment	(NA)	(X)	963,354		(X)		899,199
	Nonriding:							
3331127001	Parts	31	(X) a/	134,052		(X)		151,596
3331127011	Attachments	17	(X)	104,419		(X)		101,478
	Riding:							
	Parts:							
3331127021	For tractors and riding mowers	24	(X)	348,770		(X)		297,623
3331127031	For other equipment	8	(X) c/	9,645		(X) c/		10,659

Continued

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 1999 and 1998
 [Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1999		1998	
			Quantity	Value	Quantity	Value
Attachments:						
3331127041	Rotary mower decks	14	(X) a/	133,849	(X) a/	107,258
3331127051	Rotary tiller attachments	10	(X) b/	12,913	(X) b/	12,533
3331127061	Blades, dozer	10	(X)	28,846	(X)	24,284
3331127071	Snow throwers	8	(X)	(D)	(X)	(D)
3331127081	Carts and wagons	11	(X)	(D)	(X)	(D)
3331127091	All other attachments	27	(X) a/	135,676	(X)	143,389

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/26 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: 1999 and 1998
 [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
1999								
Farm-type wheel tractors	(D)	(D)	33,321	743,336	96,892	1,179,618	(D)	(D)
Sprayers and dusters (except aerial types)	(X)	297,734	(NA)	41,829	(NA)	22,415	(NA)	278,320
Planting machinery and fertilizer distributors, pull-type or mounted	(X)	614,635	18,682	61,996	230,532	39,396	(NA)	592,035
Disc harrows	11,293	56,813	800	5,221	72,685	3,987	83,178	55,579
Other harrows, rollers, pulverizers, and similar equipment	278,776	90,744	3,000	5,701	18,152	8,116	293,928	93,159
Combines	(D)	(D)	4,124	289,281	2,651	88,542	(D)	(D)
Other harvesting machines	(D)	(D)	3,295	64,209	5,360	40,643	(D)	(D)
Field forage harvesters	(D)	(D)	1,107	13,247	2,139	34,900	(D)	(D)
Hay mowers, mower-conditioners, and windrowers	142,904	385,637	21,208	49,049	40,482	80,546	162,178	417,134
Other haymaking machines	(X)	404,400	2,056	39,832	8,386	15,012	(NA)	379,580
Balers, including pickup balers	15,928	271,284	3,829	57,799	2,057	12,939	14,156	226,424
Other plows	(X)	70,482	3,518	15,380	2,695	2,433	(NA)	57,535
Cultivators and weeders	10,267	49,515	23,337	19,763	156,742	35,969	143,672	65,721
Machinery for preparing animal feed	5,764	80,035	4,515	31,566	484,919	24,143	486,168	72,612
Other machines for preparing crops for market or for use	37,080	145,075	3,035	29,744	19,208	4,889	53,253	120,220
Farm poultry incubators and brooders	(D)	(D)	13,553	19,832	73,264	5,575	(D)	(D)
Nests and cages (poultry equipment)	(X)	70,115	91,409	63,216	92,106	16,027	(NA)	(NA)
Self-propelled irrigation systems, center-pivot	8,617	286,478	1,601	35,483	64	226	7,080	251,219
All other self-propelled irrigation systems using 100 feet flexible hose feeder line and over	4,806	38,894	(NA)	179,447	(NA)	20,077	(NA)	(NA)
Farm wagons and other farm transportation equipment	37,701	146,172	-	-	72,065	10,053	109,766	156,225
Riding turf mowers and flail and gang mowers	162,191	1,035,757	20,173	70,871	11,168	5,002	153,186	969,888
Snowblowers (snowthrowers)	786,110	447,087	74,080	41,818	20,840	13,771	732,870	419,040
Powered lawn and hedge trimmers	9,963,429	709,749	1,293,708	85,895	3,529,503	181,283	12,199,224	805,137
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) r/	761,270	(NA)	31,030	(NA)	19,643	(NA)	749,883
Planting machinery and fertilizer distributors, pull-type or mounted	(X) r/	924,448	21,962	118,533	197,101	65,167	(NA)	871,082
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	96,381	117,013	13,050	7,492	13,267	7,516	96,598	117,037
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	(D)	(D)	1,428	21,491	525	44,236	(D)	(D)
Hay mowers, mower-conditioners, and windrowers	139,795	464,801	18,949	49,910	33,642	76,474	154,488	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 weeders	19,098	104,292	28,299	27,022	132,535	53,836	123,334	131,106
Machinery for preparing animal feed	5,652 r/	80,739	5,798	44,327	25,717	15,068	25,571	51,480

Continued

Table 3. Shipments, Exports, and Imports of Farm Machinery and Equipment: 1999 and 1998
 [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
Other machines for preparing crops for market or for use	41,946	172,432	4,582	26,769	13,259	1,608	50,623	147,271
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	4,472	35,633	(NA)	174,115	(NA)	21,660	(NA)	(NA)
Farm wagons and other farm transportation equipment	40,656	189,305	-	-	49,698	7,079	90,354	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 r/	682,024	1,437,184	101,572	2,768,761	134,589	9,941,423	715,041

- 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: 1999

Product code	Product description	Export number 1/	Import number 2/
3331111001, 006, 3331123041, 051, 061	Farm-type wheel tractors	8701.90.1005 8701.90.1010 8701.90.1015 8701.90.1030 8701.90.1035 8701.90.1040 8701.90.1045 8701.90.1050 8701.90.1055 8701.90.1060 8701.90.1065 8701.90.1070	8701.90.1005 8701.90.1010 8701.90.1015 8701.90.1030 8701.90.1035 8701.90.1040 8701.90.1045 8701.90.1050 8701.90.1055 8701.90.1060 8701.90.1065 8701.90.1070
3331113016, 021, 024, 028, 032, 036, 041, 044, 048, 052, 056, 061, 064, 068, 072	Sprayers and dusters (except aerial types)	8424.81.1000 8424.81.9030	8424.81.1000 8424.81.9040 8424.81.9090
3331117001, 008, 011, 048	Planting machinery.....	8432.30.0010 8432.30.0090	8432.30.0010 8432.30.0090
3331117018, 021, 028, 031, 038, 041, 051	Fertilizer distributors pull-type or mounted	8432.40.0000	8432.40.0000
333111E041, 051, 058, 061, 069	Other harrows, rollers, pulverizers, and similar equipment	8432.29.0090	8432.29.0090
333111E049	Disc harrows	8432.21.0000	8432.21.0000
3331119001	Combines	8433.51.0010 8433.51.0090	8433.51.0010 8433.51.0090
3331119011, 021, 031, 071	Other harvesting machines	8433.52.0000 8433.59.0090 8433.53.0000	8433.52.0000 8433.59.0090 8433.53.0000

Continued

Table 4. Comparison of North American Industry Classification System-Based Product Codes with Schedule B Export Numbers, and HTSUSA Import Numbers: 1999

Product code	Product description	Export number 1/	Import number 2/
3331119041, 061	Field forage harvesters	8433.59.0010	8433.59.0010
333111A001, 011, 333111G002, 004, 006, 008,	Hay mowers, mower-conditioners and windrowers	8433.20.0020 8433.20.0040 8433.20.0060	8433.20.0020 8433.20.0040 8433.20.0060
333111A021, 041	Other haymaking machinery	8433.30.0000	8433.30.0000
333111A031	Balers, including pickup balers	8433.40.0000	8433.40.0000
333111E001, 009, 011, 019, 021, 059	Other plows	8432.10.0040 8432.10.0060	8432.10.0040 8432.10.0060
333111E079, 081, 089, 091	Cultivators and weeders	8432.29.0040 8432.29.0060 8432.29.0080	8432.29.0040 8432.29.0060 8432.29.0080
333111G012, 014, 016	Machinery for preparing animal feed	8436.10.0000	8436.10.0000
333111G024, 018, 022	Other machines for preparing crops for market or for use	8419.31.0000 8436.80.0060	8419.31.0000 8436.80.0060
333111G028, 032	Farm poultry incubators and brooders	8436.21.0000	8436.21.0000
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-foot flexible hose feeder line and over	8424.81.9020	8424.81.9020

Continued

Table 4. Comparison of North American Industry Classification System-Based Product Codes with Schedule B Export Numbers, and HTSUSA Import Numbers: 1999

Product code	Product description	Export number 1/	Import number 2/
333111G072, 074, 076, 078, 082, 084	Farm wagons and other farm transportation equipment	8716.80.1000	8716.80.1000
333111J001, 026	Other commercial and turf grounds mowers	8433.19.0040 8433.19.0050	8433.19.0040 8433.19.0050
333111J006, 011, 016	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, 041	Snowblowers (snowthrowers)	8430.20.0060	8430.20.0060
3331121046, 051	Powered lawn and hedge trimmers	8467.89.5030 8508.80.0070	8467.89.5030 8508.80.0070

1/Source: 1999 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, (1999).