Farm Machinery and Lawn and Garden Equipment: 2003

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SUMMARY OF FINDINGS

During 2003, factory shipments of farm machinery and equipment, including parts and attachments, produced by original equipment manufacturers (OEM), totaled \$12,846.6 million, a 6-percent increase from the 2002 shipments of \$12,392.8 million. Shipments of farm dairy machines, sprayers, dusters, elevators, farm blowers, and

parts totaled \$734.6 million, a 1-percent decrease from the 2002 total of \$742.1 million. The value of shipments for planting, seeding, and fertilizing machinery for 2003 was \$897.6 million, up 5 percent from the 2002 value of \$851.4 million. The value of shipments for harvesting machinery and parts are relatively the same, from \$1,613.5 million in 2002 to \$1,625.1 million in 2003. Haying machinery and parts increased 28 percent, from \$1,172.4 million in 2002 to \$1,496.4 million in 2003.

The value of shipments for commerical turf and grounds care equipment, including parts, was \$1,836.3 million in 2003, an 8-percent increase from the \$1,697.2 million reported for 2002.

The value of shipments for consumer lawn, garden, and snow equipment, including parts and attachments, was \$6,715.6 million in 2003, compared to \$5,939.3 million in 2002.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Vance Davis, 301-763-4790.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

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Table 1. Value of Shipments of Farm Machinery and Lawn and Garden Equipment by Type of Equipment: 1998 to 2003

[Value in millions of dollars]

Product description	2003	2002	2001	2000	1999	1998
Farm dairy machines, sprayers, dusters,						
elevators, and farm blowers 1/	734.6	742.1	745.8	877.4	816.8	993.6
Planting, seeding, and fertilizing						
machinery 1/	897.6	851.4	1,015.7	897.9	752.4	1,091.1
Harvesting machinery 1/	1,613.5	1,625.1	2,092.9	1,765.7	1,553.1	3,095.6
Haying machinery 1/	1,496.4	1,172.4	814.2	705.3	638.6	848.0
Plows, harrows, rollers, pulverizers,						
cultivators, and weeders 1/	403.2	425.8	519.8	501.0	464.7	631.2
Commercial turf and grounds care						
equipment 2/	1,836.3	1,697.2	1,691.3	2,239.1	1,656.8	1,361.6
Consumer nonriding lawn, garden,						
and snow equipment 3/	2,918.1	2,609.1	2,740.1	2,766.8	3,082.5	2,979.1
Consumer riding lawn, garden, and	•	,	,	•	•	•
snow equipment 3/	3,797.5	3,330.2	2,973.9	3,446.0	3,388.9	3,276.8

^{1/}A "Parts" category and a 7-digit product class total from Table 2 have been summed to derive the product group totals.

^{2/}The 7-digit product class total from Table 2 already includes the "Parts and attachments" from this product group.

^{3/}The "Part and attachments" categories for lawn and garden equipment have been added to the 7-digit product class total from Table 2.

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

[Qualitity III u	intes. Value in thousands of donars	No.		2(003			20	02	
Product code	Product description	of cos.		Quantity		Value		Quantity	-	Value
333111	Farm machinery and equipment, including parts and attachments	(NA)		(X)		12,846,554		(X)		12,392,824
3331111	Wheel tractors (except contractors' off-highway wheel tractors, garden tractors, turf tractors, and motor tillers) and attachments	(NA)		(X)		(D)		(X)		(D)
	Wheel tractors, farm-type (PTO hp)	(NA)		(X)		(D)		(X)		(D)
3331111101	2-wheel drive, including front wheel assist types	5		(D)		(D)		(D)		(D)
3331111106 3331111111	4-wheel drive, including tractors with, equal size tires, front and rear			(D) (X)		(D) 69,785		(D) (X)		(D) 74,730
333111C116	Parts for wheel tractors, farm-type			(X) (X)		(D)		(X) (X)		(D)
3331113	Farm dairy machines, sprayers, dusters, elevators, and farm blowers	(NA)		(X)		664,400		(X)		657,103
3331113 pt.	Farm dairy machines and equipment	14		(X)		99,084		(X)	a/	112,758
3331113101	Milking machines, complete, suspended and floor-type bucket, single and double units	4		(D)		(D)		(D)		(D)
3331113104	Pipeline milking units, complete, including claws, shells, inflations, air tubes, with			, ,		, ,				, ,
	or without pulsatorOther farm dairy machines and equipment Attachments for farm dairy machines and			(D) (X)	a/	(D) 43,671		22,685 (X)	a/	18,638 51,616
	equipment	4		(X)		(D)		(X)		(D)
	replacement units only	8		(X)		(D)		(X)		58,172
3331113 pt.	Sprayers and dustersPower sprayers, field and row crop types only:			(X)		565,316		(X)		510,130
3331113116 3331113121	Self-propelled Tractor mounted		a/	3,036 6,764	b/	339,360 17,098	a/	2,614 8,984		301,445 19,321
3331113124 3331113128	Other than tractor mounted: Power take-off driven, piston pump type Nonpiston pump type		a/ b/	534 1,102	b/	2,143 4,372	a/r/ a/	752 881	r/ a/	3,154 4,292
3331113132	Other power sprayers, over 4 g.p.m		Б/	(X)	Б/	(D)	u,	(X)	uy	(D)
3331113136 3331113141	Power take-off driven Engine-driven		b/ b/	256 926	b/ b/	2,185 4,330	a/	263 904	r/	2,458 4,194
3331113144	Air carried type power sprayers (field, row crop, and orchard types)		-,	590	c/	4,104	,	533	c/	3,870
3331113148 3331113152	Foggers and mist sprayers portable Hand-pulled and garden-type,4 g.p.m. and			(D)		(D)		(D)		(D)
	under Sprayers, agricultural hand:			(D)		(D)		113,156		(D)
3331113156	Under 1 gallon 1 gallon and over:			766,046		3,422		774,597		3,835
3331113161 3331113164	Compressed air or gasOther, including knapsack, hose end and flame sprayers and sprayer pumps			7,921,905		122,482		7,529,525		104,456
3331113168 3331113172	Dusters, power, hand, all types All other sprayers	6	b/	(X) (D) (X)	a/ a/	18,470 631 749		(X) (D) (X)		19,167 782 818
3331113176 3331112223	Attachments for sprayers and dusters			(X) (X)	α/	15,283		(X) (X)		12,229
3331116223	units only	53		(X)		33,095		(X)		25,253
3331113 pt.	Farm elevators and blowers Farm elevators, portable:	(NA)		(X)		(D)		(X)		34,215
3331113181 3331113188	Single and double chain		c/ c/	3,566 5,925	c/ b/	6,823 11,394	b/	3,658 5,216		6,935 10,920
3331113192	other farm portable and stationary augers and elevators Other farm blowers, including forage blowers, combination grain and forage	8		(X)	b/	9,456		(X)	a/	13,303
	blowers	6 1		(X) (X)	b/	1,801 (D)		(X) (X)		2,055 34,215

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

[Qualitity III u	ints. Value in thousands of donars									
		No.		20	003			20	002	
Product code	Product description	of cos.		Quantity		Value		Quantity		Value
couc		cos.		Qualitity		value		Qualitity		value
	Parts for farm elevators and for grain and			~~	,			(7.1)		
	forage blowers, replacement units only	. 1		(X)	a/	1,122		(X)		1,595
3331117	Planting, seeding, and fertilizing machinery	(NA)		(X)	a/	856,444		(X)		802,702
3331117101	Corn planters, corn and cotton planters, and	(/		(/	,	,		()		,
	lister plant pull-type and mounted (total rows									
3331117108	mounted)Grain drills (fixed frame), all types			(D)		(D)		(D)		(D)
3331117111	Transplanters (pull-type or mounted) and	,		45,280		179,503		48,299		174,228
3331117111	broadcast seeders (end-gate, mounted and									
	drawn)	. 12	a/	16,927	a/	88,935	a/	6,271	a/	89,311
3331117118	Fertilizer distributors (pull-type or mounted):	. 7	c/	7,111	b/	1 220	c/	7 6 4 6		4,942
3331117110	Dry, including lime spreaders Liquid and anhydrous ammonia		c/ a/	8,708	D/	4,328 40,607	c/ a/	7,646 9,087	a/	39,572
3331117128	Manure spreaders, rear discharge		u,	5,149		19,250	ω,	5,407	ω,	18,317
3331117131	Manure spreaders, side discharge		a/	5,928	a/	33,277		6,512		37,929
3331117138	Manure pumps, liquid	3	b/	1,482	a/	19,947	a/	2,238		29,093
3331117141	Front and rear tractor mounted loaders (farm- type), manure and general utility (except beet									
	and sugar cane loaders)	. 7		(D)		(D)	b/	966	b/r/	5,042
3331117148	Row crop unit planters (quantity in rows)			54,501		125,226	r/	50,551	r/	110,957
3331117151	Other planting, seeding, and fertilizing									
2221117150	machinery	. 10		(X)	a/	44,125		(X)		54,965
3331117158	Attachments for planting, seeding, and fertilizing machinery	. 10		(X)	a/	15.716		(X)	r/	12,950
333111C229	Parts for planting, seeding, and fertilizing	. 10		(21)	u,	13,710		(21)	1/	12,330
	machinery, replacement units only	26		(X)		41,145		(X)		48,673
				(T.)				(7.1)	,	
3331119 3331119101	Harvesting machinery	(NA)		(X)		1,537,522		(X)	a/	1,541,756
3331119101	only (self-propelled and pull-type)	10		(D)		(D)		(D)		(D)
3331119111	Small grain header for combines, all sizes			(D)		(D)		(D)		(D)
3331119121	Corn heads, all sizes			8,471		129,137		9,921		138,291
3331119131	Other grain-type combines	. 2		(X)		(D)		(X)		(D)
3331119141	Field forage harvesters: Shear bar, self-propelled type and pull-type									
3331113141	(basic machines)	3		111		6,292		112		6,331
3331119151	Attachments for shear bar type forage									
2221110161	harvester	. 1		(X)		(D)		(X)		(D)
3331119161	Flail-type (horizontal knives or vertical free- swinging knives or hammers), including									
	discharge spouts	3	b/	20,074	c/	1,399		30,461		1,423
3331119171	Other harvesting machinery, including potato		,	,,,,,	-,	,		,		, -
	diggers, cane harvesting equipment, and			(T.)				(T.)		
3331119181	picker-shellers Attachments for harvesting machinery, including	45		(X)		1,355		(X)		751
3331119161	platform and seeder, reel, straw spreaders,									
	load levelers, weed stripper, grate unit, knife									
2221116221	grinders, and stalk walkers	22		(X)		3,615		(X)		3,681
333111C22A	Parts for harvesting machinery, replacement units only	. 52		(X)		75,983		(X)		83,325
	units only	. 32		(A)		73,963		(Λ)		63,323
333111A	Haying machinery	(NA)		(X)		1,324,572		(X)	r/	1,015,272
333111A101	Mowers, cutter bar type, including drum and									
2221114111	disk	8		(D)		(D)		2,799		274,850
333111A111	Mower-conditioners and windrowers with conditioner auger and draper-type (pull-type									
	and self-propelled)	8		19,457		313,337		14,740		228,511
333111A121	Rakes, side delivery, cylinder type, and finger									
2221114121	wheel type	11		9,005	a/	39,766		9,812	r/	42,593
333111A131	Hay balers, hay stackers, (field type), hay bale loaders, bale throwing attachments	10		(D)		(D)	r/	15,467	r/	271,935
333111A141	Other haying machinery			(X)	c/	134,265	1/	(X)	1/	(D)
333111A151	Other attachments for haying machinery (stripper,									
2221116226	bale chute and knife attachments)	10		(X)		(D)		(X)		(D)
333111C22C	Parts for haying machinery, replacement units only	24		(X)	a/	171,787		(X)	r/	157,136
	0.11 y	. 4		(A)	α/	111,101		(A)	1/	131,130
333111E	Plows, harrows, rollers, pulverizers, cultivators, and									
	weeders	(NA)		(X)		361,963		(X)		381,611

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

[Quantity in u	nits. value in thousands of dollars									
		No.		20	003			20	002	
Product code	Product description	of cos.		Quantity		Value		Quantity		Value
333111E pt.	Plows (primary tillage equipment)	(NA)		(X)	a/	87,951		(X)		94,277
333111E101	Subsoilers, deep tillage		a/	1,324,572	a/	171,787		651,018		157,136
333111E109	Terracing and ditching plows	. 10	a/	3,990	a/	33,585		4,141		34,806
	Chisel plows, deep tillage (chisel or sweep									
2221115111	type):			451				450		1 007
333111E111	Pull-type Mounted		b/	451 1,032	c/	1,317 17,225		456 1,038		1,297
333111E119 333111E121	Other plows (except snow plows)		D/	(X)	۲/	1,979		1,036 (X)		17,822 2,197
333111E159	Middlebusters and disc bedders			2,047		8,852		2,737		11,595
333111E131	Attachments for plows (coulters, jointers,	. 15		2,01.		0,002		2,7.57		11,555
	root cutters subsoilers, fertilizer distributors,									
	etc.), excluding lister planting attachments			(X)		2,990		(X)		2,713
333111E139	Plowshares (quantity in thousands of pounds)	6	c/	3,262	c/	18,441	b/r/	2,898	r/	20,008
333111C22E	Parts for plows (except plowshares, replacement units only)	. 19		(X)	b/	3,290		(X)	 /	2.654
	units only)	. 19		(A)	D/	3,290		(A)	r/	3,654
333111E pt.	Harrows, rollers, pulverizers and similar									
	equipment (secondary tillage)	(NA)		(X)	b/	185,717		(X)		184,822
333111E141	Spike-tooth harrow sections and spring-tooth			050 444		0.4.750		000 700		00 500
333111E149	and tine-tooth harrow sections Disc harrows, single, tandem, and offset		b/	856,444 16,014	a/	94,758 7,199		802,702 16,946		99,569 8,241
333111E149 333111E151	Combination tillage equipment, roller/	17	D/	10,014	a/	7,199		10,940		0,241
5551112151	harrows, disc or coulter/field cultivators,									
	disc or coulter/spring tooth	20	c/	12,638		76,130		12,825		75,733
333111E158	Blade terracers or scrapers (farm-size)		b/	5,201	b/	27,276	r/	5,576	r/	27,881
333111E161	Land levelers	32		41,657	a/	26,170		37,239		22,487
333111E169	Other harrows, rollers, pulverizers, and similar equipment	. 10		(X)		9,925		(X)		9,178
333111E171	Attachments for harrows, rollers, pulverizers,	. 10		(A)		9,923		(A)		9,176
3031112171	and similar equipment	. 16		(X)		6,161		(X)		6,900
333111C22G	Parts for harrows, rollers, pulverizers, and									
	similar equipment, replacement units only	. 37		(X)	b/	11,841		(X)	r/	12,232
222111E nt	Cultivators and wooders	(NIA)		(V)	2/	99 205		(V)		102 512
333111E pt. 333111E179	Cultivators and weeders	(NA)		(X)	a/	88,295		(X)		102,512
3331111173	sweep type (front and rear mounted)	16	c/	87,951	b/	30,579	c/r/	94,277	a/r/	27,488
333111E181	Rotary cultivators, ground and power driven		c/	864	c/	4,615	r/	1,051	r/	5,508
333111E189	Field cultivators	14	a/	3,400		7,321	r/	3,252		7,067
333111E191	Other cultivators and weeders, including tool	17		(1/)	- /	45 677		(V)	- /	F4 422
333111E199	bars (basic units) Attachments for cultivators and weeders	. 17		(X)	a/	45,677		(X)	a/	54,422
3331112133	(front mounting frame, disc weeders, rear									
	section, and drawbars)	. 21		(X)	b/	2,563		(X)		3,565
333111C22J	Parts for cultivators and weeders, replacement									
	units only	27		(X)	b/	26,109		(X)	r/	28,332
333111G	All other farm machinery and equipment (except									
5551110	parts)	(NA)		(X)		1,967,301		(X)		1,846,670
	T,	,		. ,		,,		. ,		,,
333111G pt.	Stalk shredders and cutters or rotary mowers	20		(11)		010 510		(11)		001.100
333111G102	(PTO) Flail type (without spout)		a/	(X) 1,961	b/ b/	219,512	2/2/	(X) 1,846	h /r /	231,130 11,893
333111G102	Horizontal blade type:	. 13	a/	1,901	D/	13,439	a/r/	1,640	D/1/	11,693
333111G104	66 inches cutting width and under	. 24	b/	83,045	b/	49,132		80,386		46,169
333111G106	Over 66 inches up to 100 inches cutting									
	width		b/	52,950	b/	66,466	,	52,319	,	68,674
333111G108	Over 100 inches cutting widthParts for stalk shredders, and cutters or rotary	. 16	a/	11,486	a/	90,475	r/	13,742	r/	104,394
333111C22L	mowers (PTO), replacement units only	. 27		(X)	b/	32,980		(X)		34,112
	monero (170), replacement unito om, minim			(-2)	۵,	32,300		(-1)		51,112
333111G pt.	Machines for preparing crops for market or for									
2221116112	use			(X)	a/	198,264		(X)	a/	197,925
333111G112 333111G114	Feed grinders and crushers, power Feed mixers, farm-size, stationary and	. 12		(D)		(D)		(D)		(D)
5551110114	portable	. 16		1,038		42,818		1,131		39,370
333111G116	Combination grinder-mixers			(D)		(D)		(D)		(D)
333111G117	Cotton ginning machinery	(NA)		-		-		-		-
2221116110	Dryers (grain, hay, and seed):	1.4	h/	A 1 A 7	· /	20 521	h /= /	2 442	2/4/	21 157
333111G118 333111G122	Heated air crop dryers Crop drying fans (over 15,000 c.f.m. at	14	b/	4,147	a/	29,531	b/r/	3,443	a/r/	21,157
2001110122	approximately 1-inch pressure)	. 7		6,767	a/	5,669	r/	6,786	r/	5,725
	· · · · ·			-	,	•	•		•	•

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

		No.		20	003			20	02	
Product code	Product description	of cos.		Quantity		Value		Quantity		Value
333111G124	Other machines for preparing crops for market or for use	33		(X)	a/	56,798		(X)		62,371
333111G126	Attachments for machines for preparing crops for market or for use			(X)	.,	7,395		(X)	r/	7,680
333111C22N	Parts for machines for preparing crops for market or for use, replacement units only	38		(X)	a/	37,099		(X)	a/	37,878
333111G pt.	Farm poultry equipment	(NA)		(X)	a/	276,052		(X)	r/	273,675
333111G128 333111G132	Incubators, quantity represents egg capacity in thousands	8	c/	44,681,588	b/	22,998		45,619,334		44,523
333111G132 333111G134	Brooders, floor and hanging (gas, electric, oil, coal, wood and battery) Nests and cages		a/	584,419 (D)	b/	39,399 (D)	r/ a/r/	287,425 1,506,022	r/	35,617 24,184
333111G136	Poultry feeders (trough, hanging, and mechanical) and waterers (except turkey			. ,		, ,				
333111G138	feeders and waterers)Other farm poultry equipment, including turkey waterers, mechanized egg graders,	12		6,233,985		64,212	a/r/	5,881,405	r/	62,303
333111G142	and egg washers Attachments for farm poultry equipment			(X) (X)	a/	112,713 7,408		(X) (X)	r/	98,685 8,363
333111C22P	Parts for farm poultry equipment, replacement units only	15		(X)		(D)		(X)		16,983
333111G pt. 333111G144 333111G146 333111G148	Hog equipment Feeding equipment Handling equipment Watering equipment	24 13 17	a/ a/ a/	(X) 66,091 393,538 354,014	a/	101,090 15,072 25,838 4,244	a/r/ a/	(X) 147,728 484,109 386,374		121,471 48,933 35,582 3,382
333111G152 333111G154 333111C22T	Other hog equipment Attachments for hog equipment Parts for hog equipment, replacement units	10		(X) (X)		54,937 999		(X) (X)		32,206 1,368
	only	15		(X)		(D)		(X)		(D)
333111G pt. 333111G156	Other barn and barnyard equipment Silo and grain bin unloaders, forage and grain, including sealed storage unloaders (farm-	(NA)		(X)	a/	339,851		(X)		218,568
	type) Cattle and dairy barn equipment:			(D)		(D)	c/	3,811		22,241
333111G158 333111G162	Feeding equipment Handling equipment			100,368 785,899	a/ a/	51,948 45,575		93,140 786,350	b/	49,306 50,974
333111G164	Water equipment			429,131	b/	41,245		412,210		43,199
333111G166 333111G168	Other barn and barnyard equipment			(X) (X)		20,426 36,543		(X) (X)		22,343 30,505
333111C22U	Parts for barn and barnyard equipment, replacement units only			(X)		(D)		(X)		15,884
333111G pt.	Farm wagons, and other farm transportation									
333111G172	equipment Wagons (chassis only) and trailer gears,		,	(X)	a/	130,960		(X)		126,269
	excluding motor trucks, 4-wheel Boxes and racks for mounting on wagons and trailer gears:	30	a/	15,631	a/	33,603		16,927		35,808
333111G174	Manual unloading or dump	6		1,814		7,030		1,035		3,688
333111G176 333111G178	Gravity unloading, grain-type only Power unloading			5,089 2,418		6,317 25,301		5,270 2,486		6,590 24,866
333111G182	Boxes with integral running gear, grain- and forage-types			3,215		26,695	r/	3,156	r/	23,553
333111G184 333111G186	Other farm transportation equipment Attachments for farm transportation			(X)	a/	30,601	,	(X)	·	30,007
333111C232	equipment Parts for farm transportation equipment,			(X)		(D)		(X)		1,757
2221	including operator cabs for farm tractors			(X)		(D)		(X)	, .	(D)
333111G pt. 333111G188	Irrigation systems Self-propelled irrigation systems, center-pivot			(X)		701,572		(X)	b/	677,632
333111G192	(quantity is in ten-tower equivalents) All other systems using 100-foot flexible hose feeder line and over			21,177 (X)		619,313 (D)		20,584 (X)	a/	593,482 (D)
333111C22V	Parts for irrigation systems, replacement units only			(X) (X)		701,572		(X) (X)		677,632

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

[Qualitity III u	ints. value in thousands of donars			_						
Product	Product description	No. of		20	003			20	02	
code	Trouble description	cos.		Quantity		Value		Quantity		Value
333111J	Commercial turf and grounds care equipment,									
3	including parts and attachments	(NA)		(X)		1,836,325		(X)		1,697,187
333111J pt.	Commercial turf and grounds mowing equipment	(NA)		(X)		1,512,763		(X)		1,387,773
333111J101	Powered nonriding mowers			70,873		119,798		76,646		124,826
333111J106	Riding reel-type turf mowers, including greens mowers	. 5		(D)		(D)		(D)		(D)
333111J111	Riding rotary turf mowers			127,230		858,158		106,940		738,210
333111J116	Gang rotary cutting units, reel and rotary,	0		45.150		75.007		(D)		75.224
333111J121	individual sectionsFlail mower cutting units, including gang			45,152 701		75,387 6,846		(D) 705		75,324 7,516
333111J126	Other mowing equipment			(X)		(D)		(X)	r/	46,389
333111J131	Parts for commercial turf and grounds mowing equipment	. 34		(X)		152,304		(X)		149,652
333111J136	Attachments for commercial turf and	. 34		(A)		132,304		(A)		149,032
-	grounds mowing equipment	21		(X)		65,764		(X)		65,076
333111J pt.	Other commercial turf and grounds care									
-	equipment			(X)		323,562		(X)		309,414
333111J141	Sod cutters and sod harvesters			(D)	1. /	(D)		(D)		(D)
333111J146	Seeders, spreaders, and top dresser attachments		h /	677,599 13.931	b/	24,484		805,899		25,031
333111J151 333111J156	Aerators, spikers, and pluggers Dethatchers		b/	69,325	b/	25,486 12,370		12,559 58,506	r/	21,569 18,390
333111J161	Power brooms, blowers, vacuums, and	12		09,323		12,370		36,300	1/	16,390
	sweepers	15		18,330		30,738		15,023		25,032
333111J166	Irrigation systems (except agricultural and residential)	. 2		(D)		(D)		(D)		(D)
333111J171	Other commercial turf and grounds care	. 2		(D)		(D)		(D)		(D)
3	equipment, including trap rakes, transport									
	trailers and turf tractors and trucks	23		(X)	b/	141,317		(X)		136,215
333111J176	Parts for other commercial turf and grounds	25		(X)	2 /	32,695		(X)		28,636
333111J181	care equipment Attachments for other commercial turf and	. 23		(A)	a/	32,093		(A)		28,030
5	and grounds care equipment	19		(X)	a/	40,779		(X)		39,066
333112	Lawn and garden equipment	(NA)		(X)		6,715,549		(X)		5,939,249
2221121										
3331121 pt.	Consumer nonriding lawn, garden, and snow equipment	(NA)		(X)		2,739,515		(X)	r/	2,463,312
	Lawnmowers:	(1411)		(21)		2,733,313		(21)	-/	2,103,312
3331121104	Push-type: reel (powered and nonpowered)									
	rotary-gas powered			3,755,788		520,155		3,485,743		517,874
3331121106	Rotary, self-propelled, gas-powered			2,104,733		524,391		1,863,613		443,412
3331121121 3331121126	Electric, all types, including battery-powered Rotary garden motor tillers			(D) 541,413		(D) 144,456	r/	(D) 466,985		(D) 121,041
3331121131	2-wheel tractors walking type (except rotary			341,413		144,450	1/	400,303		121,041
	tillers)	3		(D)		(D)		482		(D)
	Snow throwers (snow blowers) (except attach-									
3331121136	ment-type): Single stage	. 7		382,805		125,985		309,044		96,917
3331121141	Dual stage			519,126		314,663		320,753		197,958
	Powered lawn edgers/trimmers:	-		,				0=0,100		,
3331121146	Fixed blade	11		1,219,895		213,079	r/	1,275,595	r/	234,085
3331121151	Other than fixed blades			6,029,821		419,714		5,570,696		388,579
3331121156	Shredders and shredder-grinders			192,403		54,283	r/	158,873	r/	47,818
3331121161	Yard vacuums and blowers	7		2,310,401		239,303	r/	3,024,476	r/	292,532
3331121166	Other consumer nonriding lawn, garden, and snow equipment	16		(X)		103,857		(X)		77,289
	snow equipment	10		(21)		103,037		(21)		77,203
3331123 pt.	Consumer riding lawn, garden, and snow							(5.0)		
	equipment Lawn tractors and riding mowers, front engine:	(NA)		(X)	a/	3,044,714		(X)		2,711,818
3331123101	Under 10.0 hp (under 7.5 kW)	3		(D)		(D)		(D)		(D)
3331123111	10.0 hp and over (7.5 kW and over)			1,692,098		2,010,688		1,458,934		1,817,567
	Lawn tractors and riding mowers, rear engine:									
3331123121	Under 10.0 hp (under 7.5 kW)			(D)		(D)		(D)		(D)
3331123131	10.0 hp and over (7.5 kW and over)	14		123,862		193,964		83,332		129,499
3331123141	Garden tractors: Under 16.0 hp (under 12.0 kW)	6		(D)		(D)		(D)		(D)
3331123151	16.0 hp to 19.9 hp (12.0 kW to 14.9 kW)			(D)		(D)		(D)		(D)
333113161	20.0 hp and over (15.0 kW and over)			192,882		501,724		124,963		277,501

Table 2. Manufacturers' Shipments of Farm Machinery and Lawn and Garden Equipment by Type: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

		No.	20	003		2002	
Product code	Product description	of cos.	Quantity		Value	Quantity	Value
3331123171	Other consumer riding lawn, garden, and snow equipment	6	(X)	a/	36,020	(X) b/r/	35,827
3331127 pt.	Parts and attachments for consumer lawn,						
•	garden, and snow equipment	(NA)	(X)		931,320	(X) r/	764,119
3331127101	Parts	33	(X)		131,151	(X)	109,584
3331127111	Attachments		(X)		47,400	(X)	36,157
	Riding:						
	Parts:						
3331127121	For tractors and riding mowers	22	(X)		406,907	(X)	338,858
3331127131	For other equipment	7	(X)	a/	6,712	(X) a/	6,197
	Attachments:						
3331127141	Rotary mower decks	9	(X)		95,676	(X)	55,430
3331127151	Rotary tiller attachments	10	(X)		6,833	(X)	6,778
3331127161	Blades, dozer		(X)	a/	28,819	(X)	24,982
3331127171	Snow throwers	9	(X)		29,654	(X)	24,457
3331127181	Carts and wagons	13	(X)	a/	38,701	(X) r/	34,315
3331127191	All other attachments		(X)		139,467	(X)	127,361

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

Note: 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 this item is estimated. c/Over 50 percent of item is estimated.

Table 3. Shipments, Exports, and Imports of Farm Machinery and Equipment: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

Product description		icturers' nents	-	rts of estic idise 1/	-	orts for nption 2/	Appa consun	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
2003	,		,				,	
Farm-type wheel tractors Sprayers and dusters (except aerial	(D)	(D)	22,125	814,123	163,612	1,749,987	(D)	(D)
types) Planting machinery and fertilizer	(X)	550,033	(X)	51,849	(X)	24,363	(X)	522,547
distributers, pull-type or mounted Disc harrows	(X) 12,638	815,299 76,130	19,447 948	92,161 4,417	84,943 39,200	70,875 1,580	(NA) 50,890	794,013 73,293
Other harrows, rollers, pulverizers, and similar equipment	72,561	97,746	4,239	5,117	53,605	16,923	121,927	109,552
Combines	(D)	(D)	4,190	395,386	4,509	36,349	(D)	(D)
Other harvesting machines	14,554	484,534	2,729	60,191	4,918	44,997	16,743	469,340
Field forage harvestersHay mowers, mower-conditioners	914	21,429	1,007	12,173	2,065	60,463	1,972	69,719
and windrowers	174,019	891,935	16,666	43,190	63,705	137,181	221,058	985,926
Other haymaking machines	(X)	(D)	1,532	23,895	12,896	35.505	(NA)	(D)
Balers, including pickup balers	21,128	410,481	9,799	149,092	8,771	36,144	20,100	297,533
Other plows	(X)	66,220	4,956	10,306	19,582	4,589	(NA)	60,503
Cultivators and weeders Machinery for preparing animal	11,608	62,186	12,974	14,129	149,638	49,940	148,272	97,997
feedOther machines for preparing	(D)	(D)	4,424	34,640	79,795	34,900	(D)	(D)
crops for market or for use Farm poultry incubators and	(D)	(D)	3,572	21,043	46,071	5,453	(D)	(D)
brooders Nests and cages (poultry equipment)	(X) (X)	62,397 29,322	14,879 84,844	9,353 55,617	88,606 110,696	1,598 18,463	(NA) (NA)	54,642 (7,832)
Self-propelled irrigation systems, center-pivot	21,177	619,313	1,609	34,961	107	704	19,675	585,056
All other self-propelled irrigation								
systems using 100 feet flexible hose feeder line and over	(D)	(D)	(X)	185,581	(X)	44,881	(X)	(D)
Farm wagons and other farm transportation equipment	33,047	129,547	-	-	274,056	15,618	12,123	145,165
Riding turf mowers and flail and gang mowers	(D)	(D)	22077	60.027	11 694	F 70F	(D)	(D)
Snowblowers (snowthrowers)	(D) 901,931	(D) 440,648	23877 65,553	69,037 42,096	11,684 136,391	5,785 54,204	(D) 972.769	(D) 452,756
Powered lawn and hedge trimmers	,	632,793	550,113	52,117	1,447,059	97,601	8,146,662	678,277
2002	, ,,	,	,	- ,	, ,,,,,,,	,,,,,,	-, -,	,
From the color lands	/ - -:	<i>(</i> −)	20.0=0	000 500	104000	1 517 500	(-)	(-)
Farm-type wheel tractors Sprayers and dusters (except aerial	(D)	(D)	30,858	869,590	,	1,517,500	(D)	(D)
types) Planting machinery and fertilizer	(X)	497,901	(X)	45,640	(X)	32,620	(X)	484,881
distributers, pull-type or mounted	(X)	754,029	16,342	87,704	162,849	66,659	(NA)	732,984
Disc harrows	12,825	75,733	1,151	8,962	73,818	1,591	85,492	68,362
Other harrows, rollers, pulverizers, and similar equipment	70,146	96,857	3,734	5,337	5,420	13,304	71,832	104,824
Combines	70,146 (D)	90,857 (D)	3,734 3,742	315,251	2,135	75,468	71,832 (D)	104,824 (D)
Other harvesting machines	16,156	501,496	2,396	34,338	11,268	52,436	25,028	519,594
Field forage harvesters	1,274	31,212	1,062	12,401	1,175	29,053	1,387	47,864
Hay mowers, mower-conditioners and windrowers	165,832	459,641	17,892	50,776	45,693	108,507	193,633	517,372
Other haymaking machines	(X)	(D)	1,507	19,522	12,931	26,719	(NA)	(D)
Balers, including pickup balers	15,467	(D) 271,935	7,421	99,421	6,794	37,245	14,840	(D) 209,759
Other plows	(X)	70,615	4,773	8,143	134,294	6,458	(NA)	68,930
Cultivators and weeders	13,247	74,180	9,745	13,429	151,162	38,265	154,664	99,016

Table 3. Shipments, Exports, and Imports of Farm Machinery and Equipment: 2003 and 2002 [Quantity in units. Value in thousands of dollars]

Product description		icturers' nents	Expor dom merchan	estic		rts for aption 2/	Apparent consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Machinery for preparing animal feed	(D)	(D)	5,118	31,506	47,797	36,935	(D)	(D)
Other machines for preparing				•		•		
crops for market or for use	(D)	(D)	3,271	23,743	26,601	4,985	(D)	(D)
brooders		80,140	27,130	13,793	118,618	2,603	(NA)	68,950
Nests and cages (poultry equipment) Self-propelled irrigation systems,	(X)	24,184	59,100	47,997	112,095	10,155	(NA)	(13,658)
center-pivot	20,584	593,482	2,136	42,122	72	315	18,520	551,675
All other self-propelled irrigation systems using 100 feet flexible								
hose feeder line and overFarm wagons and other farm	(D)	(D)	(X)	189,955	(X)	25,259	(X)	(D)
transportation equipment Riding turf mowers and flail and	34,541	124,512	-	-	192,028	12,123	12,123	136,635
gang mowers	(D)	(D)	16483	69,456	8,110	2,703	(D)	(D)
Snowblowers (snowthrowers)	629,797	294,875	54,072	31,746	74,016	26,151	649,741	289,280
Powered lawn and hedge trimmers	6,846,291	622,664	464,843	39,560	2,351,550	147,931	8,732,998	731,035

⁻ 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 (NAICS)-based product codes, Schedule B export codes, and HTSUSA import codes, see Table 4.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2003

Product code	Product description	Export code 1/	Import code 2/
3331111101, 106, 3331123141, 151, 161	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 8701.90.1065	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
3331113116, 121, 124, 128, 132, 136, 141, 144, 148, 152, 156, 161, 164, 168, 172	Sprayers and dusters (except aerial types)	8424.81.1000 8424.81.9030	8424.81.1000 8424.81.9040 8424.81.9090
3331117101, 108, 111, 148	Planting machinery	8432.30.0010 8432.30.0090	8432.30.0010 8432.30.0090
3331117118, 121, 128, 131, 138, 141, 151	Fertilizer distributors pull-type or mounted	8432.40.0000	8432.40.0000
333111E141, 151,158, 161,169	Other harrows, rollers, pulverizers, and similar equipment	8432.29.0090	8432.29.0090
333111E149	Disc harrows	8432.21.0000	8432.21.0000
3331119101	Combines	8433.51.0010 8433.51.0090	8433.51.0010 8433.51.0090
3331119111, 121, 131, 171	Other harvesting machines	8433.52.0000 8433.59.0090 8433.53.0000	8433.52.0000 8433.59.0090 8433.53.0000
3331119141, 161	Field forage harvesters	8433.59.0010	8433.59.0010

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2003

Product code	Product description	Export code 1/	Import code 2/
333111A101, 111, 333111G102, 104, 106, 108	Hay mowers, mower-conditioners and windrowers	8433.20.0020 8433.20.0040 8433.20.0060	8433.20.0020 8433.20.0040 8433.20.0060
333111A121, 141	Other haymaking machinery	8433.30.0000	8433.30.0000
333111A131	Balers, including pickup balers	8433.40.0000	8433.40.0000
333111E101, 109, 111, 119, 121, 159	Other plows	8432.10.0040 8432.10.0060	8432.10.0040 8432.10.0060
333111E179, 181, 189, 191	Cultivators and weeders	8432.29.0040 8432.29.0060 8432.29.0080	8432.29.0040 8432.29.0060 8432.29.0080
333111G112, 114, 116	Machinery for preparing animal feed	8436.10.0000	8436.10.0000
333111G124, 118, 122	Other machines for preparing crops for market or for use	8419.31.0000 8436.80.0060	8419.31.0000 8436.80.0060
333111G128, 132	Farm poultry incubators and brooders	8436.21.0000	8436.21.0000
333111G134	Nests and cages (poultry equipment)	8436.29.0000 8433.60.0000	8436.29.0000 8433.60.0000
333111G188	Self-propelled irrigation systems, center-pivot	8424.81.9010	8424.81.9010
333111G192	All other self-propelled irrigation systems using 100 feet flexible hose feeder line and over	8424.81.9020	8424.81.9020
333111G172, 174, 176, 178, 182, 184	Farm wagons and other farm transportation equipment	8716.80.1000	8716.80.1000
333111J101, 126	Other commercial and turf grounds mowers	8433.19.0040 8433.19.0050	8433.19.0040 8433.19.0050

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2003

Product code	Product description	Export code 1/	Import code 2/
333111J106, 111, 116	Riding turf mowers	8433.19.0010 8433.19.0030	8433.19.0010 8433.19.0030
333111J121	Flail and gang mowers	8433.19.0020	8433.19.0020
3331121136, 141	Snowblowers (snowthrowers)	8430.20.0060	8430.20.0060
3331121146, 151	Powered lawn and hedge trimmers	8467.89.5030	8467.89.5030

1/Source: 2003 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, (2003).

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on farm machinery and equipment have been collected by the Census Bureau since 1920; data on lawn and garden equipment since 1978. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.