

# AGRICULTURAL MACHINERY

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2009



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# AGRICULTURAL MACHINERY INDUSTRY IN TURKEY

## Production

Turkey is one of the few countries of the world which are self-sufficient in food. At present Turkey is the largest producer and exporter of agricultural products in the Near East and North Africa. In fact, Turkey has traditionally been described as the world's food storehouse by many analysts. Such a huge agricultural sector has resulted in a strong agricultural machinery sector in Turkey.

According to the 2008 figures 24.7% of Turkey's population is engaged in agriculture and livestock production. About 7.5% of total income in Turkey is obtained from agriculture.

The agricultural machinery sector is expected to further develop with the development and completion of the Southeastern Anatolia Project (GAP) which takes a new start in 2008. The project area covers 9 provinces in the Euphrates-Tigris basins and Upper Mesopotamia plains (Adıyaman, Batman, Diyarbakır, Gaziantep, Kilis, Mardin, Siirt, Şanlıurfa and Şırnak). The GAP Project is a comprehensive group of projects which includes construction of dams, hydroelectric power plants and irrigation systems as well as providing developments in agricultural infrastructure, transportation, industry, education, health and in other sectors. The basic development objective of the GAP is to transform Southeastern Anatolia into an "Export Centre based on Agriculture". One of the ultimate objectives of the project is to widen the irrigation schemes in an area extending over 1.7 million hectares (At present, total irrigated area in GAP region is 225 thousand hectares). Consequently, there will be substantial changes in crop pattern and output. Agriculture based industrial development will capitalize on such products as soybeans, peanuts, corn and sunflowers which have not been grown much prior to irrigation as well as oil seeds and fodder crops. Due to these developments, the agricultural machinery industry is expected to increase its capacity, quality and product range and become a primary branch of the Turkish machinery sector.

The agricultural machinery production industry is a branch of the industrial sector, which produces investment goods. All of the agricultural machinery and almost all of the tractors manufactured in the sector are used in agricultural production activities (a very small percentage of tractors are used in other activities, mostly in the construction sector). These products, which are also called "Agricultural Mechanization Tools/Devices", are very important agricultural inputs which increase the efficiency of employment in agricultural production, decrease costs and support product quality and productivity by ensuring the use of modern production technologies and by having agricultural operations done on time and in accordance with agrotechnical demand.

At present the following products are in the product range of the Turkish agricultural machinery industry: Farm tractors, engined single-axe hoes, engined mower machines, soil preparing/earth moving and seed bed preparing machinery and equipment, seed drilling, sowing, seeding, transplanting machinery and equipment, manuring machines, plant protection and irrigation/sprinkling tools and equipment, harvesting/reaping machines, threshing, drying, throwing, cleaning, classifying, processing etc. machinery, machinery and equipment for animal products, other machinery and equipment for field and garden agricultural production.

The agricultural machinery industry has two main categories: tractors and agricultural machinery. The agricultural machinery industry is comprised of about 1000 manufacturers

countrywide. About 225 manufacturers organized under the Turkish Association of Agricultural Machinery and Equipment Manufacturers - TARMAKBİR. Companies manufacturing agricultural machinery and equipment except tractors are mostly small and medium size companies. The sector employs about 15,000 workers.

## Exports

The Turkish agricultural machinery industry largely meets domestic demand and exports the surplus. Exports in the sector have an increasing trend. The value of agricultural machinery and spare parts and agricultural tractors exports reached US\$ 391 million in 2008.

Quality is another aim of the sector, together with exports, and it surely supports exports. Agricultural machinery manufacturers are aware of the importance of ISO series total quality certificates. Most of the manufacturers are conducting programs for these certificates. At the beginning of 2002, it became obligatory to fulfill CE Mark requirements in order to sell products in the Turkish domestic market.

### *Total Exports of Turkish Agricultural Machinery Sector (US\$ 1,000)*

	2005	2006	2007	2008
Agricultural Machinery	66.220	83.177	116.944	163.634
Tractors	127.830	152.083	166.882	227.424
TOTAL	194.050	235.260	283.826	391.058

*Source: Undersecretariat of Foreign Trade*

### *Turkey's Exports of Agricultural Machinery (US\$ 1,000)*

		2004	2005	2006	2007	2008
8208.40	Knives and blades for agricultural, horticultural or forestry machines	301	210	189	204	314
8424.81	Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids or powders for agriculture or horticulture	2.542	4.509	5.353	5.307	6.839
8432.10	Ploughs	2.686	4.432	10.004	8.316	10.332
8432.21	Disc harrows	749	1.403	1.543	1.990	2.037
8432.29	Scarifiers, cultivators, weeders and hoes	7.097	4.997	5.160	11.106	10.387
8432.30	Seeders, planters and transplanters	6.760	3.096	6.265	12.700	13.918
8432.40	Manure spreaders and fertiliser distributors	709	1.083	916	1.904	1.942
8432.80	Rollers, stone-removers and other soil preparation or cultivation machinery	779	1.548	1.868	3.268	3.021
8432.90	Parts for rollers and other soil preparation or cultivation machinery	2.555	2.116	2.914	6.561	10.799
8433.11	Mowers, powered, lawn, with horizontal cutting device	302	300	664	748	510
8433.19	Mowers, powered, lawn, nes.	37	115	362	462	401
8433.20	Mowers for hay etc. including cutter bars for tractor mounting	1.599	2.534	3.047	5.607	7.720
8433.30	Hay tedders and rakes and other haymaking machinery	509	708	1.429	2.535	1.992

8433.40	Straw or fodder balers, including pick-up balers	997	1.078	794	437	714
8433.51	Combine harvester-threshers	138	191	431	455	1.120
8433.52	Threshing machinery nes.	3.749	3.448	4.011	6.068	7.982
8433.53	Root or tuber harvesting machines	210	113	1.037	159	390
8433.59	Harvesting machinery nes.	3.912	2.705	3.735	3.920	5.103
8433.60	Machines for cleaning, sorting or grading eggs, fruit or other produce	263	1.064	774	656	1.581
8433.90	Parts of harvesting, threshing and other agricultural and mowing machinery	2.939	4.368	5.514	8.554	24.213
8434.10	Milking machines	3.355	6.050	6.990	5.894	12.223
8434.20	Dairy machinery	1.036	1.788	5.490	2.771	6.293
8434.90	Parts of milking machines and dairy machinery	487	2.102	1.662	1.755	2.467
8436.10	Machinery for preparing animal feeding stuffs	1.339	4.587	3.456	5.498	5.223
8436.21	Poultry incubators and brooders	52	127	272	259	415
8436.29	Poultry-keeping machinery, nes.	3.758	8.351	6.957	11.771	15.581
8436.80	Agricultural, horticultural, forestry, bee-keeping mach. nes. inc. germination plant	274	454	446	2.476	800
8436.91	Parts of poultry-keeping machinery	383	918	607	1.394	2.274
8436.99	Parts of agricultural, horticultural, forestry, bee-keeping mach. nes. inc. parts of germination plant	778	1.824	1.289	4.164	7.045
	TOTAL	50.295	66.220	83.177	116.944	163.634

Source: Undersecretariat of Foreign Trade

The main products exported are: tractors, parts and components of harvesting, threshing machines, other thresher machines, other harrow, cultivator etc machines, machines for cleaning grains, leguminous etc., machines for preparing feeds, sprayers/mistblowers, combine harvesters, other poultry machines, ploughs, parts and components of other field, garden, forestry, bee keeping machines, milking machines, fertilizer spreaders, other dairy machines, other harvesting machines.

Turkish agricultural machinery industry products are exported to a wide range of countries in the world. Major export markets are France, Bulgaria, Morocco, Sudan and Italy in agricultural machinery; the USA, Morocco, South Africa, Mexico and Australia in tractors.

*Exports of Agricultural Machinery by Countries (US\$ 1,000)*

	2005	2006	2007	2008
France	7.300	7.818	14.181	19.033
Bulgaria	5.344	5.577	8.859	14.748
Morocco	2.766	3.441	4.657	12.655
Sudan	1.922	6.571	6.313	12.159
Italy	2.587	3.985	5.708	11.772
Azerbaijan	4.989	4.403	5.110	9.334
Uzbekistan	440	7.376	1.770	7.004
Iran	2.890	4.831	8.076	6.918
Romania	4.935	7.851	3.135	6.634
Russian Federation	2.664	1.514	5.085	5.240
Greece	2.735	2.821	3.056	4.889
Iraq	1.582	1.181	2.620	3.445

Georgia	277	1.761	2.421	2.886
Saudi Arabia	603	896	1.956	2.728
United Arab Emirates	605	34	637	2.657
Serbia	0	512	835	2.513
Netherlands	277	425	1.282	2.422
Other countries	24.304	22.178	41.244	36.599
TOTAL	66.220	83.177	116.944	163.634

*Source: Undersecretariat of Foreign Trade*

*Exports of Agricultural Tractors by Countries (US\$ 1,000)*

	2005	2006	2007	2008
USA	47.176	38.896	35.792	105.304
Morocco	914	15.787	25.317	20.633
Rep. of South Africa	3.145	7.950	16.366	12.244
Mexico	2.478	5.033	5.904	8.961
Australia	15.101	7.952	8.421	8.241
Chile	0	1.959	2.983	5.553
Malaysia	503	1.837	3.205	4.374
Iraq	719	832	3.104	4.228
Italy	2.275	2.538	2.044	4.165
Argentina	264	0	603	3.734
Angola	299	447	1.114	3.425
Romania	4.828	3.600	4.501	2.726
Costa Rica	385	623	1.231	2.326
Thailand	1.394	1.966	-	2.275
Ecuador	425	681	704	2.031
Other countries	47.922	61.981	55.592	37.203
TOTAL	127.830	152.083	166.882	227.424

*Source: Undersecretariat of Foreign Trade*

The major trade fairs related to the agriculture and agricultural machinery industry which will be held in Turkey in 2009 are as follows (those fairs are organized annually):

- Agrodays - Agriculture Fair  
April 2009, Mersin
- Animalia – International Cattle Breeding Fair  
June 2009, Istanbul
- Agrotec 2009 - International Agriculture Technologies Fair  
August 2009, Ankara

- BurTarım - Bursa Agriculture, Stockbreeding, Poultry, Seed Raising, Saplings and Dairy Industry Fair  
October 2009, Bursa
- Adana Agriculture - Agriculture, Stockbreeding, Poultry and Dairy Industry Fair  
November 2009, Adana
- Growtech Eurasia - International Horticulture, Agriculture, Floriculture and Technologies Fair  
December 2009, Antalya
- AGROEURASIA - Istanbul Agriculture, Stock Breeding, Seed Raising, Saplings, Poultry and Dairy Industry Fair  
December 2009, Istanbul