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Planting Seeds

EU-27 Planting Seeds Situation

2009

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Report Highlights:
The EU is a net exporter of planting seeds. Both imports and exports have increased over the past three marketing years reaching $700 million and $1.4 billion, respectively, in 2007/08. Higher imports of grain and grass seeds were triggered by the termination of the compulsory set-aside which spurred increased demand for seeds for commercial crop production. In 2007, the U.S. maintained a positive trade balance with the EU in planting seeds, showing a significant jump in oilseed, grass and grain seed exports. With a 35 percent market share, the U.S. was the EU's primary supplier for all seed categories, except grains and sugarbeets. On the other hand, U.S. exports of corn, soybean and cotton seeds to the EU are significantly lower than in the late nineties due to unfavorable market conditions for genetically-engineered products (even at very low levels of presence).

Includes PSD Changes: No
Includes Trade Matrix: No
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DISCLAIMER

The numbers in this report are not official USDA numbers, but they result from a collaborative effort by FAS EU offices and industry sources to consolidate data pertaining to the EU.

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Acronyms used in this report as follows:
CAP: Common Agricultural Policy
ESA: European Seeds Agency
GE: Genetically Engineered
GNIS: French Seed Organization
GTA: Global Trade Atlas
ISF: International Seed Federation
SFP: Single Farm Payments
MS: Member State

Executive Summary

In MY 2007/08 (July/June), the value of the EU seed market reached $8.33 billion, second only to the U.S. seed market ($8.5 billion). Higher EU import demand for grain and grass seeds, triggered by the termination of the compulsory set-aside, was outstripped by higher exports of vegetables, sugarbeet and grain seeds, giving the EU an overall planting seed trade surplus of $700 million in MY 2007/08.

With a 35 percent market share in MY 2007/08, the U.S. maintained an overall positive trade balance with the EU in planting seeds and was its primary source for all seed categories, except grains and sugarbeets. Chile and China were other significant EU seed suppliers.

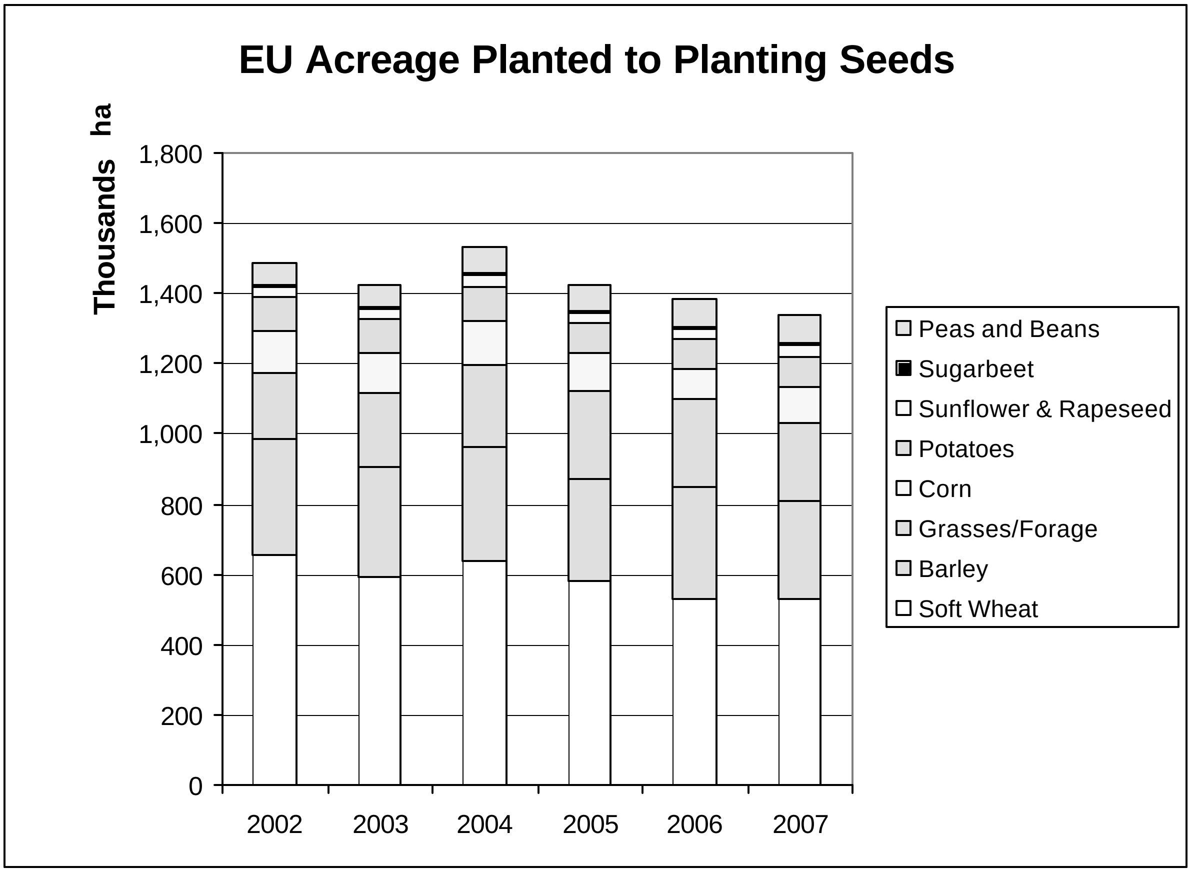
Overall U.S. exports to the EU of corn, soybean and cotton seeds (commonly genetically-engineered seeds) have declined over the last decade. This deterioration is due to unfavorable marketing conditions in some Member States, including inconsistent limitations on adventitious biotech presence (AP) in conventional seeds, GE-free zones, national bans, and other legislative restrictions including varied planting requirements. Nevertheless, some European farmers, noting the yield benefits and cost savings of GE crops, are expected to increase the area devoted to genetically-engineered corn to approximately 110,000 ha in 2009 (mainly Spain, the Czech Republic, Portugal, Slovakia and Germany), compared to an estimated 95,000 ha in 2008.

The EU Environment Council recently asked the European Commission to adopt appropriate AP thresholds as soon as possible. This would harmonize EU policy on AP and could affect trade depending upon the threshold level adopted.

Production

EU production - General

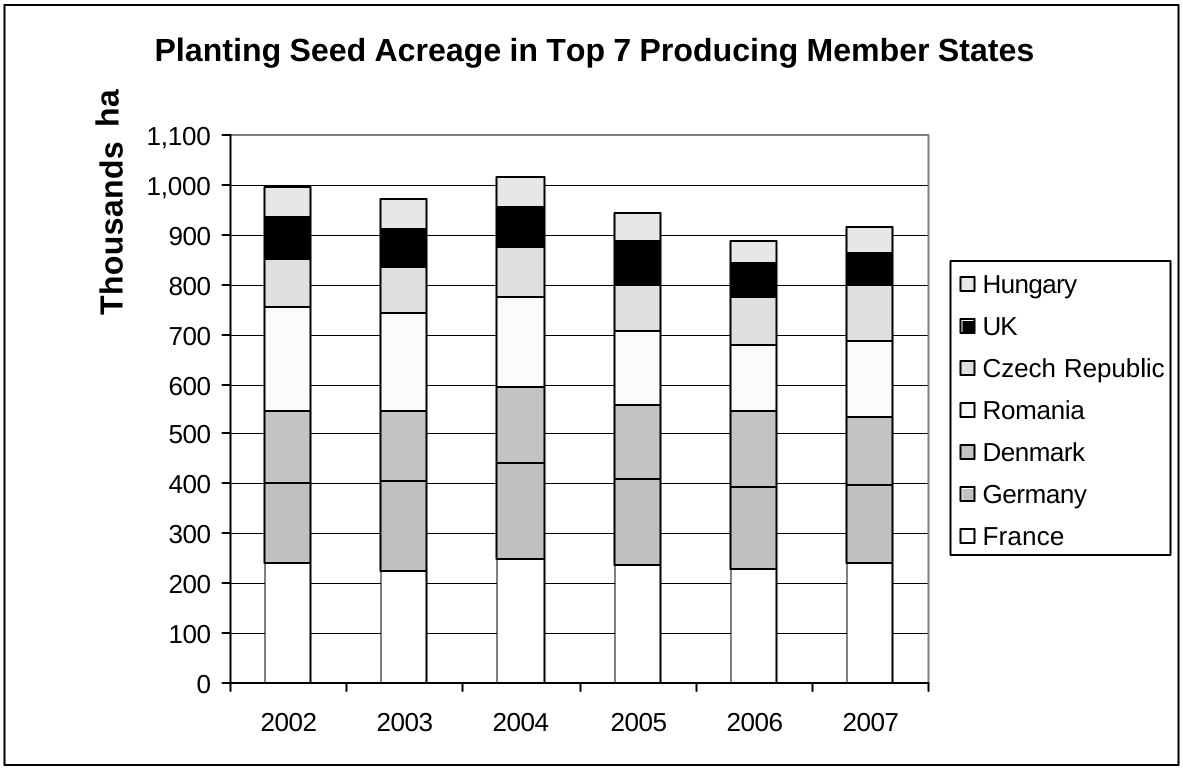
The EU seed market, valued at $8.33 billion[1], represents 26 percent of the world market ranking slightly behind the U.S. ($8.5 billion). Primary EU seed production area in 2007 was soft wheat seeds (420,000 ha), followed by barley seeds (290,000 ha), grasses/forage seeds (220,000 ha), and corn seeds (120,000 ha). France, Germany, Denmark, Romania and the Czech Republic are the main producers.[2] (see Annex I, tables 1 and 2).



Source: GNIS (Groupe National Interprofessionnel des Semences)

EU area for soft wheat seed production has declined overall since 2002, despite increased domestic demand, across many of the prime Member State (MS) producers, such as France, Germany, the UK, Hungary and Romania (see Annex I, Table 2). Higher yields from improvements in seed technology have generated equivalent crop quantities on less acreage, proving particularly beneficial to Eastern European producers.

[1] According to the International Seed Federation (http://www.worldseed.org) June 2008.
[2] The European Seeds Association (ESA - http://www.euroseeds.org/) and the Groupe National Interprofessionnel des Semences organization (GNIS).



Source: GNIS

Below is a sketch of the major components of the EU seed market:

Grains and Corn: Wheat harvest and stocks were abnormally low in 2007 but a robust 2008 harvest increased seed stocks. Higher corn area in some MS, but lower yields, have resulted in lower corn seed stock for 2009.

Oilseeds: Germany and France are the largest EU rapeseed seed producers; France and Romania the largest sunflower seed producers.

Forage: Ryegrass and fescue dominate forage seed production. In 2008, overall forage production declined and, combined with a short 2007 harvest, left a tight forage seed market. In 2006, Denmark was the largest producer of forage seeds with 41 percent of the market, followed by the Netherlands, Germany and France.

Grasses: Total grass seed area fell in MY 2007/08 following the termination of the compulsory set-aside, which was often planted to grasses, and high world wheat prices which increased wheat area at the expense of grasses.

Sugarbeets: France and Italy each produce 45 percent of EU sugarbeet seeds which are grown in southern Europe for cultivation primarily in northern Europe.

Vegetables: Vegetable seeds are a key component of the EU seed industry with varied commodity production among the MS. For example, France specializes in carrot, onion, and spinach seed production. Note: Consolidated data for vegetable seed production is unavailable.

Current Issues

Better Regulation: The EU Commission is expected to propose new regulatory measures for the seed sector during the first half of 2009 under a program to cut bureaucratic red tape, improve the quality of regulation, and design better laws for consumers and business alike. For more details, please see: http://ec.europa.eu/governance/better_regulation/index_en.htm

Certified Seeds vs Farm Saved Seeds: While most seed varieties are certified, some EU grain farmers continue using farm-saved seeds (FSS). According to the European Seed Association (ESA) 2004 statistics (most recent available), FSS were planted in the EU as follows:

EU Farm Saved Seed Area (2004)			
	Area (million ha)	% FSS	Area FSS (million ha)
Winter Wheat	17.8	54	9.7
Winter Barley	6.2	56	3.4
Durum Wheat	3.3	1	0.03
Total Grains	44	53	23.5

Source: The European Seeds Association (ESA - http://www.euroseeds.org/)

According to the ESA, the percentage of FSS planted for winter wheat and winter barley has increased since 2002. The low percentage for durum may be related to a specific durum subsidy in some MS which requires the use of certified seeds.

In 2008, certified seed demand is projected to rise as farmers sold their harvest rather than save seeds last year due to high grain prices. Czech farmers average annually around 68 percent utilization of certified winter wheat seeds and almost the same amount (66 percent) for spring barley. German farmers average around 55 percent of certified seed use in grain production.

Trade

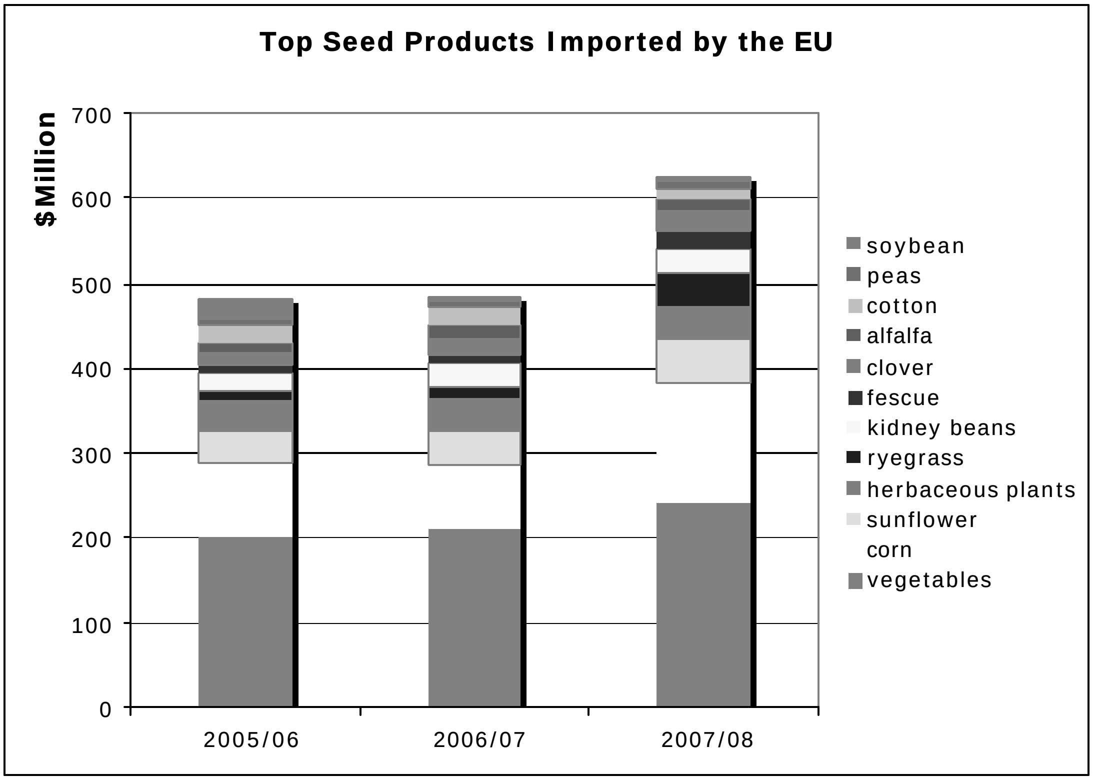
General Situation

The EU is a dynamic market for seed trade. Strong growth in exports ($1.4 billion) of vegetable, sugarbeet and grain seeds surpassed higher imports ($700 million) of grain and grass seeds giving the EU a trade surplus of $700 million for MY 2007/08.

Total Seed Imports

In 2007/08, the EU imported primarily vegetable, grain and forage seeds, with 33 percent, 20 percent and 12 percent market share, respectively. With a 35 percent market share, the U.S. was the EU's primary seed source for all categories, except grains and sugarbeets (see Annex II, table 1). Other suppliers included Chile (14 percent, mainly for grain and vegetable seeds) and China (8 percent, mainly for vegetable seeds) (see Annex II table 2).

Within the categories listed above, the EU imported: vegetables seeds (33 percent); corn seeds (20 percent); sunflower seeds (7 percent); herbaceous plant seeds (5 percent); ryegrass seeds (5 percent); and kidney bean seeds (4 percent).



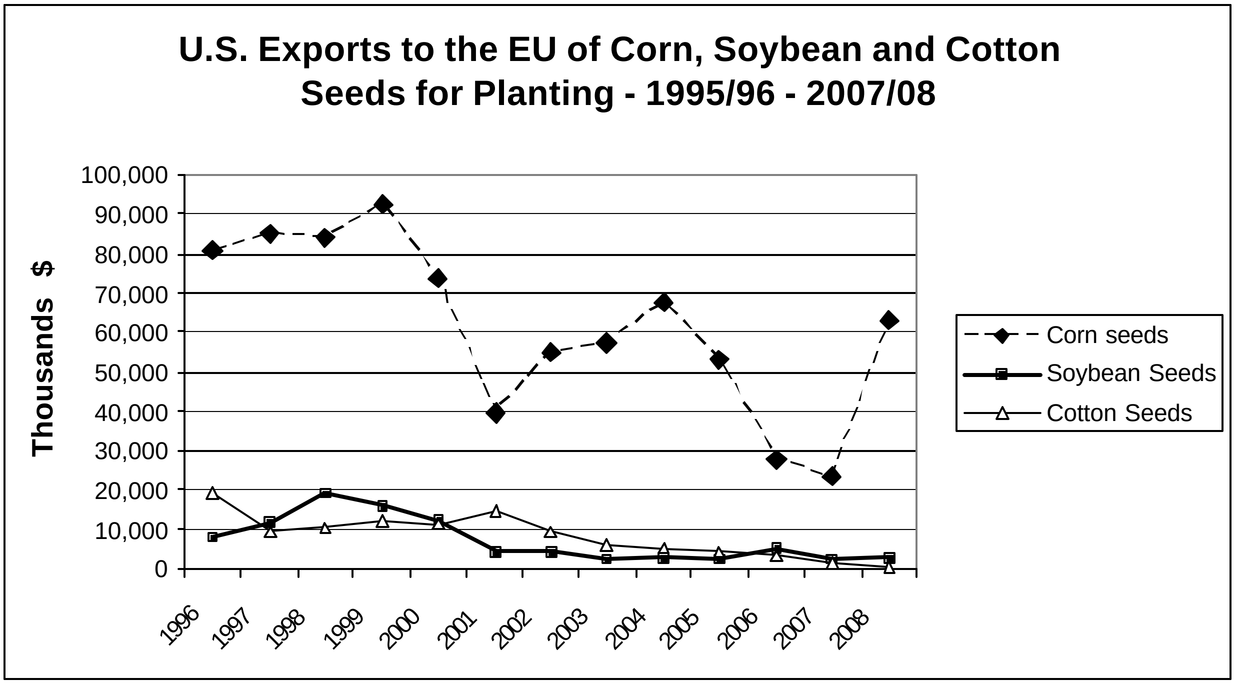
Source: Global Trade Atlas (GTA)

In 2007/08, EU vegetable seed imports continued an upward trend: corn seed import demand rose due to reduced supplies following a low EU harvest.

The loss of a significant Romanian biotech soybean market following its EU accession in 2007 caused a drop in soybean seed imports (biotech soybeans are not approved for cultivation in the EU). Romanian soybean seed demand is expected to partially recovery in 2008 as Romanian farmers resuming planting conventional soybeans.

U.S. Exports to the EU: U.S. corn, soybean and cotton seed (commonly genetically engineered) exports have declined over the past ten years. For example, from 1995/96 to 2007/08, cotton seed exports dwindled from $18 million to $520,000; soybean seed exports from approximately $10 million to $2 million; corn seed exports from $80 million to $25 million. This trade erosion stems from the fact that only one biotech corn event is currently approved for cultivation in the EU, strong resistance to biotechnology and tight restrictions on adventitious presence of genetically-engineered seed in conventional seed by most MS.

In the following graph, however, U.S. corn seed exports to the EU more than doubled to $60 million in 2007/08 due to several factors: a reduced domestic supply after a French national ban on Mon810 corn production (a primary corn seed producer) in 2008; higher demand from increased genetically-engineered corn acreage in some Member States; and increased transshipments of GE seeds to Ukraine.



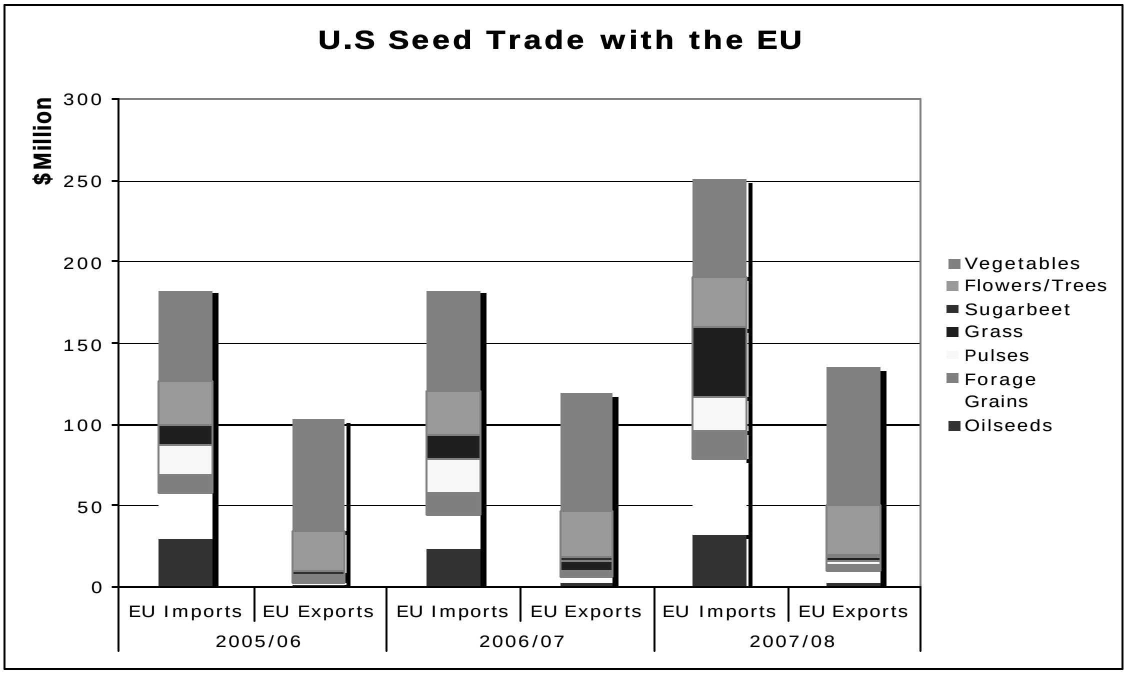
Source: Global Trade Atlas (GTA)

Total EU Exports

Russia is the most important overall export market for EU seeds, comprising 17 percent of the EU's seed exports in 2007/08, followed by the Ukraine and the United States (10 percent each) and Turkey (8 percent) (see Annex III table 2).

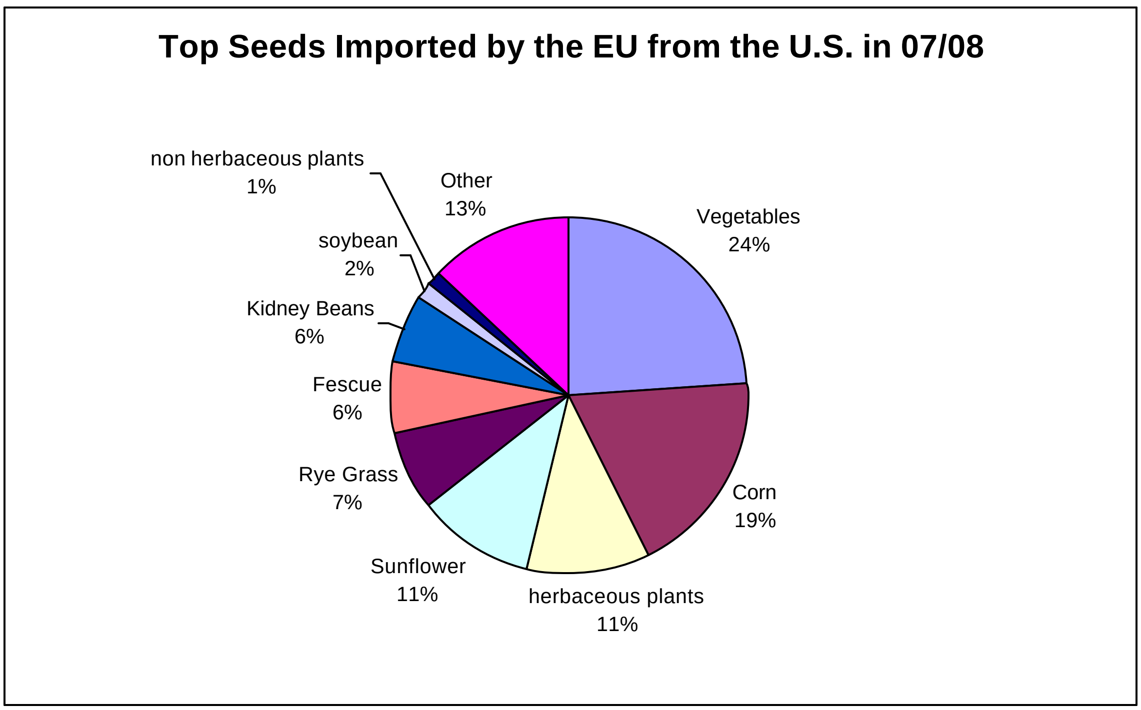
In MY 2007/08, vegetable seeds (48 percent of total exports by value) dominated the EU export landscape, followed by sugarbeet and grain seeds (15 percent each) (see Annex III table 1). Principal markets for vegetable seeds were the United States, South Africa and Turkey.

EU Imports from the United States: The United States has historically maintained a positive trade balance with the EU in planting seeds. In 2007/08, EU imports from the United States jumped considerably on higher oilseed, grass and grain seed exports to $250 million. The primary seed categories in 2007/08, by value, of EU imports from the United States were vegetable, grain, grass, oilseed and flower and tree seeds.



Source: Global Trade Atlas (GTA)

The major seeds imported by the EU from the United States in 2007/08 were vegetables, corn, herbaceous plant and sunflower seeds.



Source: Global Trade Atlas (GTA)

U.S. Products in Member State Markets

Main U.S. Seeds in Member States			
Member States	**Products**	**Import value in MY 07/08 from the U.S. and total (million $)**	**Comments**
Austria	Corn Seeds	U.S: 2.4 Total: 31.3	Austrian imports of corn seeds increased significantly from $170,000 in 2006/07, as a large part of imports were re-exported to EU-27 MS and to the Ukraine. U.S. corn seed imports are primarily simple hybrid seeds which are used as parental seeds for Austrian field propagation.
Benelux	Corn seeds	U.S: Almost zero (0.2 in 2006/07) Total: 115 (84 in 2006/07)	U.S. corn seed exports fell dramatically in 2000 due to restrictions on GE varieties. From 2001 to 2007, Benelux imports of U.S. planting seeds rose from about $35 million to about $51 million, and have nearly returned to pre-2000 levels.
	Vegetable seeds	U.S: 33 Total: 245	Planting seed exports to the Netherlands are expected to remain stable for the next three to five years. Most of the vegetable seed production of Dutch companies (reportedly 95%) is produced outside the Netherlands. Vegetable seeds produced in the Netherlands largely consist of breeder's seeds used for seed production. The United States is an important destination for these breeder's seeds. The reproduced seeds are exported to the Netherlands for treatment, sampling and quality inspection and mostly re-exported to their final destination.
	Grass seeds	U.S: 14 Total: 64	
	Flower and Tree Seeds	U.S: 11 Total: 45	
Bulgaria	Corn seeds	U.S: 0.03 Total: 15	About 30% of U.S. corn seeds are produced in the U.S. and imported via a different MS. The remaining 70% are produced in the EU from U.S. genetics, and then shipped to Bulgaria**.**
	Sunflower seeds	U.S: 0.1 Total:25	90% of U.S. sunflower seeds are produced in the U.S. and imported to Bulgaria via Hungary, Romania, France and/or other MS. The remaining 10% of U.S. sunflower seeds are produced in the EU and in Turkey from U.S. genetics, and shipped to Bulgaria.
	Alfalfa seeds	U.S: 0.1 Total:2	Alfalfa and other forage plant seeds are a new trend related to the development of the dairy industry and further growth is expected in 2008.

Czech Republic	Corn (including GE seeds)	U.S: no direct imports Total: 23	U.S. corn seed imports are primarily simple hybrid seeds, reaching annually over 27 percent of total imports of U.S. seeds. In 2008, the Czech Republic was the second largest grower of Bt corn after Spain in Europe. Most of the MON810 seeds in the Czech Republic came from France until the French ban in 2008. Other origins for MON810 are Romania, Spain and the U.S.
	Sunflower seeds	U.S: no direct imports Total: 2	
	Grass seeds	U.S: 0.7 Total: 6	
	Flower and Tree Seeds	U.S: 0.1 Total: 2	
Denmark	Corn seeds	U.S: direct imports residual Total: 31	Almost half of Danish seed imports are registered as imports from the Netherlands, and may come from other countries.
	Grass Seeds	U.S: 2 Total: 15	
Finland	Grass seeds	U.S:0.4 Total: 7.4	Export opportunities are limited as major U.S. planting seeds, such as corn, soybeans and sorghum, are not grown in Finland.
France	Corn seeds	U.S: 30.9 Total: 143	France is a major point of entry for seed imports to Europe, including the United States. Imported seeds are often sorted, treated and packaged in France before being re-exported to other EU Member States.
	Sunflower seeds	U.S: 14.1 Total: 32	
	Vegetable seeds	U.S: 6.2 Total: 103	
	Grass seeds	U.S: 4 Total: 43.8	Most of grass seeds imported by France from the U.S. consist of fescue ($2.6 million in 07/08) and ryegrass ($1.2 million in 07/08)
	Kidney beans	U.S: 2.2 Total: 11.3	
	Flowers and tree seeds	U.S: 1.8 Total: 12.8	The bulk of French imports of U.S. flower and tree seeds are herbaceous plant seeds.
Germany	Grass seeds	U.S: 1.6 Total: 63	Kentucky blue grass (for golf courses and sports grounds) is the main category of grass seeds imported by Germany from the U.S. (almost $1 million in 07/08), followed by rye grass seeds ($450,000).
	Vegetable seeds	U.S: 0.4 Total: 71.5	Niche market
	Herbaceous plant seeds	U.S: 4.8 Total:19.4	
	Single hybrid corn seeds	U.S: 1.4 Total: 200	Single hybrid corn seed shipments to Germany vary considerably with no clear trend. 2008 imports are projected to equal 2004 levels. Biotechnology limits marketing opportunities for U.S. corn seeds in Germany.

Greece	Cotton seeds	U.S: 0.4 Total: 11.6	The sharp decline in certified cotton seed sales followed the partial decoupling of cotton payments, which lowered some Greek cotton farmers' interest (see also GR7007). Imports of U.S. seeds are direct from the U.S. or through EU MS and Turkey where they are produced under license.
	Corn seeds	U.S: 0.8 Total: 42	
	Durum wheat seeds	U.S: 11 Total: 36	Data includes total durum wheat (for cultivation and not for cultivation) since there is no specific HS code for durum wheat seeds for planting.
	Alfalfa seeds	U.S: 0.9 Total: 2.2	Since 2006, forage seed demand has been growing.
	Vegetable seeds	U.S: 0.7 Total: 24.8	Mainly tomato seeds. Vegetable seed demand is growing.
	Grass seeds	U.S: 0.3 Total: 2	Mainly fescue and blue grass seeds. Grass seed demand is showing an upward trend.
Hungary	Corn seeds	U.S: 2.6 Total: 52.2	U.S. varieties dominate both the commercial production and seed propagation for corn and sunflower seeds. The value (and particularly the volume) of direct U.S. exports of these parental line seeds is limited. A significant amount of breeding material of U.S. firms is imported from American companies in other (mainly EU) countries.
	Sunflower seed	U.S: 1.7 Total: 17	
Italy	Vegetable crops	U.S:10 Total: 144	
	Forage crops	U.S: 3.6 Total: 39.3	
	Grass seeds	U.S: 9.6 Total: 35.7	Mainly rye grass ($5 million) and fescue ($3.7 million).
	Kidney bean seeds	U.S: 4.3 Total: 9.6	
	Herbaceous plant (flowers) seeds	U.S: 1.8 Total: 7.7	
	Corn seeds	U.S: 1.7 Total: 85.6	Imports showing signs of a partial recovery in 2007 and in 2008 for corn and soybean seeds. Currently, leading seed companies ship seeds from other MS (mainly France, Austria and Hungary) rather than directly from the U.S.
	Soybean seeds	U.S: 2.9 Total: 6.7	
Poland	Grass seeds	U.S: 0.8 Total:8.8	Imports of planting seeds from the United States are expected to increase from $384,000 in 2007 to over $2 million in 2008 mostly from higher imports of forage and grass seeds. Within grass seeds, most of the increase is for imports of fescue, Kentucky blue grass and ryegrass seeds.

	Forage seeds	U.S: 0.5 Total: 12.7	
	Flower seeds	U.S: 0.1 Total 4.8	
	Vegetables	U.S: 0.05 Total: 48.7	
Portugal	Forage seeds	U.S: 0.8 Total: 3.3	Direct imports from the U.S. are mainly forage and grass seeds.
	Grass seeds	U.S: 0.4 Total: 5.6	Upward import trend, particularly for fescue seeds.
	Corn seeds	U.S: 0.5 Total: 23.3	2008 imports of U.S. seeds are trending upward, particularly corn, and are mainly conventional seeds. GE corn seeds are usually shipped to Portugal from Spain.
Slovakia	Corn (including GE seeds)	U.S: no direct imports Total: 25	2008 marks the third year that Slovakia has grown Bt corn. Most of the MON810 seeds in Slovakia came from France until the French ban in 2008. Other origins for MON810 are Romania, Spain and the U.S.
	Oilseeds	U.S: no direct imports Total: 5.6	
	Grass seeds	U.S: no direct imports Total: 0.7	
	Flower and tree seeds	U.S: 0.2 Total: 1.4	Mainly herbaceous plants
Spain	Vegetable seeds	U.S: 3.9 Total: 200.9	
	Corn seeds	U.S: 7 Total:79.4	Includes GE corn as Spain is the largest EU producer of GE corn. Imports of GE corn seeds mainly come from the United States (80-90%) and the rest from countries such as Chile and South Africa.
	Grass seeds	U.S: 6.5 Total: 16.1	Mainly ryegrass and fescue.
Sweden	Pea seeds	U.S: 0.4 Total: 0.8	Export opportunities are limited because major U.S. planting seed commodities (such as corn) are not grown in Sweden.
United Kingdom	Flower and tree seeds	U.S: 9.4 Total: 32.8	Flower seeds are the principal import from the U.S. Seeds are sold to nurseries as well as to the many UK royal and national trust gardens.
	Vegetable seeds	U.S: 3.1 Total: 74.9	Vegetable seed imports are rising rapidly as there is an increasing trend in the UK to grow your own vegetables.
	Grass seeds	U.S: 2.2 Total: 31.4 Fescue - $0.5 million from U.S. annually, total imports $8 million	Mainly rye grass ($1.3 million in 2007/08) for use on domestic and public lawns (imports have steadily increased over the last five years), Kentucky blue grass ($0.4 million) and fescue seeds ($0.5 million).
	Forage plant seeds	U.S: 0.7 Total: 22	Total forage seed imports have been steadily growing in the last 5 years, mainly due to growth in the pet industry.

Sources: FAS Posts and Global Trade Atlas (GTA)

Policy Issues

Biotechnology

For the past several years, yield benefits and cost savings of GE crops have made them attractive to some EU farmers, and the production of these crops (currently only one corn event) continues to expand in certain Member States. Despite consumer resistance, regulatory restrictions and a lack of political support, the area devoted to GE corn is expected to increase to approximately 110,000 ha in 2009 (mainly Spain, the Czech Republic, Portugal, Slovakia and Germany). For more details on the EU biotech regulatory framework, research, production and consumption, please see annual EU-27 report E48137 (http://www.fas.usda.gov/gainfiles/200811/146306614.doc).

GE Product Approval

Europe's regulatory framework for biotechnology was established with the adoption of Council Directive 90/220/EEC "on the deliberate release into the environment of genetically modified organisms" and Council Directive 90/219./EEC "on the contained use of genetically modified micro-organisms." The framework was significantly revised by Council Directive 2001/18/EC to strengthen existing rules on the deliberate release of genetically engineered products into the environment. Directive 2001/18/EC is implemented in each EU Member State through national legislation. It sets out procedural guidelines for experimental field trials (Part B Authorization) and commercial introduction to the market (Part C Authorization). Updated versions of the EU register of authorized GE products are available at the following site: http://ec.europa.eu/food/dyna/gm_register/index_en.cfm

Asynchronous Authorization

Due to the lag in GE authorizations in the EU relative to the other countries, the number of GE products approved in third countries which are not authorized in the EU is growing. The EU sets a zero tolerance import level on unauthorized GE varieties. Consequently, the growing number of non-EU authorized GE varieties subject to a zero import tolerance is impacting the EU seed market. Importers fear that an adventitious presence of unauthorized biotech seeds in conventional seed shipments reduced the quantity of imported seeds. At the same time, this concern prevents European seed companies and farmers from accessing the maximum range of seeds available worldwide.

Biotech Tolerance Threshold

Because no thresholds are set in the EU for adventitious presence (AP) of biotech events, some Member States have imposed their own while the majority maintain a strict zero tolerance. This clearly results in a situation of uncertainty both as regards EU cultivation and imports into the EU (the seed industry has been seeking to set threshold levels for AP in conventional seeds since 1999. Despite several reviews by the European Commission and several studies by scientific committees, and also the Joint Research Center, and DG SANCO, the Commission has failed to reach consensus on a level.) Most recently, on December 4th, 2008, the EU Environment Council adopted conclusions on biotechnology which recognized the importance of the European labeling thresholds for seeds (reaffirming the need for labeling thresholds for the adventitious presence of authorized GE varieties in conventional seeds), and invited the Commission to adopt appropriate thresholds as soon as possible taking into account the most recent scientific observations.

Coexistence Measures and Marketing Bans

Virtually all Member States have transcribed EU Directive 2001/18 and implemented regulations on traceability and labeling. Most MS have set up national coexistence frameworks for organic, biotech, and conventional crops (Belgium, Czech Republic, Germany, Hungary, Portugal, Romania, Slovakia) or are currently preparing coexistence rules (France, Spain, the United Kingdom). Some MS maintain national bans on GE crops (Austria, France, Greece, Hungary, Italy, and Poland).

GE-Free Zones

Article 19 of the Directive 2001/18 addresses the market release authorization of GE products and includes the possibility of establishing biotech-free regions. A number of MS have already declared GE-free regions. On December 4th, the EU Environment Council determined that MS may not ban biotech production in sensitive areas without scientific justification provided to EU authorities. The EU Commission will be the final arbiter on the legality of any GE-free zone based on the European Food Safety Agency's review and recommendation.

MS Approaches to GE Seed Cultivation

Biotech Status	Member State	Approach to Biotech Seed Cultivation
No GE Seed Cultivation	**Austria**	Austria is against genetically engineered (GE) crops and all Austrian provinces are members of the "European Network of GMO-Free Regions." National ordinances effectively prevent planting EU approved GE crops. Zones restricting the use of GE seeds exist in all nine provinces.
	Bulgaria	In 2004, Bulgaria passed a biotech law which de facto prohibited cultivation of GE events.
	Finland	There is no commercial production of biotech crops in Finland due to the absence of appropriate climatic conditions for cultivation of GE varieties.
	Greece	Greek legislation prevents the commercial production of GE crops.
	Ireland	It is unlikely that cultivation of and field trials for GE crops will be allowed in the near future given the current government's goal of a GE-free Ireland.
	Italy	A de facto moratorium on GE crop cultivation persists in Italy due to a lack of coexistence legislation from regional governing authorities. Italy recently approved the resumption of biotech field trials after a 10 year hiatus.
	Poland	The Polish government supports a "GE-free" policy. The government banned the sale and registration of GE seeds in mid-2006. Cultivation, but not the sale of seeds, is still possible.
	Slovenia	There is neither commercial production nor GE field trials in Slovenia. This may change if the Act on Co-existence of GE Plants with Other Agricultural Plants is adopted in the future.
	Sweden	There is no commercial production of GE crops in Sweden. Several seed companies in Sweden have, however, developed GE varieties, including herbicide tolerant rapeseed, herbicide tolerant sugarbeet and high starch potatoes.

	UK	There is no commercial cultivation of GE crops in the UK due to unsuitable growing conditions for those products currently approved for cultivation within the EU. The UK government is working to achieve greater security for crop trials (there are currently potato trials), and to find solutions to coexistence among groups of regional farmers to pave the way for the possibility of commercial cultivation in the future.
No GE Seed Cultivation but Coexistence Regulations	**Benelux**	The Netherlands and the Belgian regions (Flanders and Wallonia) recently implemented coexistence regulations which could inhibit the cultivation of GE events, particularly in the Walloon Region. In Belgium, the Flemish sector is generally more supportive of the introduction of GE products, relative to the agricultural sector in Wallonia.
	Denmark	Denmark does not currently grow GE crops but is a strong proponent of common EU regulations on coexistence having passed their coexistence legislation in 2004. GE corn varieties, and possibly genetically engineered potatoes, may be the first to attract producer interest.
	France	France banned cultivation of GE corn MON810 in January, 2008 pending additional domestic GE legislation and European review. Coexistence legislation passed in 2008 awaits implementing decrees.
	Hungary	Hungary maintains a moratorium on the commercial production of GE corn MON810. The Hungarian Parliament approved coexistence regulation for GE crops in December 2006. Unfortunately, the extreme requirements of the legislation have resulted in a “de facto” prohibition of commercial production of GE plant varieties.
GE Seed Cultivation, Coexistence Rules in Place	**Czech Republic**	Czech farmers have grown Bt corn since 2005 and the Czech Republic is the second largest producer of biotech corn in the EU. The Czech Republic’s coexistence rules require isolation distances and notifications to the Ministry of Agriculture and the Ministry of Environment.
	Germany	Commercial cultivation of biotech corn MON810 has gradually increased. To date, Germany has only established coexistence requirements for GE corn production.
	Portugal	Commercial production of GE corn started in 2005. The current coexistence decree effectively restricts GE seed use in most corn growing districts because the prevalence of small properties makes it difficult, if not impossible, to meet the isolation zone requirements.
	Romania	Cultivation of biotech soybeans was discontinued in 2007 when Romania acceded to the EU. In 2008, Romanian farmers planted biotech corn for commercial purposes. Coexistence regulations are in place.
	Slovakia	Slovakia has fully implemented all EU regulations on GE events. The decree administering coexistence came into force in February 2007.
	Spain	The Government of Spain is supportive of Bt corn cultivation. Debate continues on a Spanish coexistence decree, the first draft of which was made public in 2004.

Source: FAS Posts

Variety Approval and Intellectual Property Rights
EU Member States maintain a national catalogue of approved seed varieties that can be freely marketed in their country. The European Commission consolidates the national

catalogues into common catalogues for agricultural plant and vegetable species. For more information about the national and common catalogues go to: http://ec.europa.eu/food/plant/propagation/catalogues/index_en.htm

The EU provides intellectual property rights for protection of plant varieties through the national plant breeder rights and the Community Plant Variety Right (CPVR). The European Patent Convention (EPC) of October 1973 excludes patents for plant varieties. The Community Plant Variety Office (CPVO) in Angers (France) manages the system for the protection of plant variety rights in the EU (see website: http://www.cpvo.europa.eu). For more information about intellectual property rights in the EU go to: http://ec.europa.eu/food/plant/propertyrights/index_en.htm

The EU is a member of the International Union for the Protection of New Varieties of Plants (UPOV) treaty. In 1994, EU regulation 2100/94/EC was adopted to implement UPOV 1991 in the EU member states. For more information go to: http://www.upov.int/index.html
The UPOV 1991 Act allows farmers to sow farm-saved agricultural seeds of protected varieties on their farm upon payment of an annual royalty to the breeder.

Plant and Seed Health and Certification
Seed Directives:

The principle EC Directives setting minimum quality standards on the marketing of agricultural and vegetable seeds in the EU are:

Marketing of:	Council Directive
Cereal seed	66/402/EEC
Seed of oil and fiber plants	2002/57/EC
Fodder plant seed	66/401/EEC
Beet seed	2002/54/EC
Vegetable seed	2002/55/EC
Vegetable propagating material, other than seed	92/33/EEC
Fruit plant propagating material	92/34/EEC
Propagating material of ornamental plants	98/56/EC
Forest reproductive material	99/105/EC

EC regulations and health measures for seeds and seedlings can be downloaded from: http://eur-lex.europa.eu/en/repert/035040.htm. More background information about the EC legislation can be found at: http://ec.europa.eu/food/plant/propagation/index_en.htm

If technical amendments and updates of the Seed Directives are necessary, the EC is assisted by Member States in adopting measures through the Standing Committee on Seeds and Propagating Material for Agriculture, Horticulture and Forestry. For more information visit the website at: http://ec.europa.eu/food/fs/rc/scsp/index_en.html.

Phytosanitary Directive:

Directive 2000/29/EC contains provisions concerning compulsory plant health checks for certain plants coming from third countries to protect against the introduction of organisms harmful to EU plants or plant products. More information about the Directive 2000/29/EC can be found at: http://ec.europa.eu/food/plant/organisms/index_en.htm

According Directive 2000/29/EC, imported plant products, including seeds and other propagation material, must be accompanied by a phytosanitary certificate, issued by the

National Plant Protection Organization of the exporting country. More information about the importation of plant products can be found at: http://ec.europa.eu/food/plant/organisms/imports/index_en.htm

Marketing

Principal EU Seed Contacts for U.S. exporters:

Member State	Organizations	
	Government	Industry
EU	- European Seed Certification Agencies Association (ESCAA): http://www.escaa.org - Community Plant Variety Office: http://www.cpvo.eu.int	European Seed Association http://www.euroseeds.org
Austria	Seed Register and Seed Testing The Federal Office of Food Safety: http://www.ages.at	Austrian Seed Association http://www.saatgut-austria.at
Netherlands	-The Dutch Council for Plant Varieties -The Netherlands Inspection Service for Agriculture (NAK) www.nak.nl -Flower Bulb Inspection Service (BKD) -Quality Control Bureau for Vegetables and Fruits (KCB) -The Plant Protection Service (PD)	- Keygene: www.keygene.nl - TTI Green Genetics: www.groenegenetica.nl - Plantum NL: www.plantum.nl
Belgium	-Flemish Agency for Agriculture and Fisheries, Product Quality Department: www.vlaanderen.be -Walloon Directive General for Agriculture, Natural Resources and Environment, Product Quality Department: www.agriculture.wallonie.be	Semzabel (Belgian Seed Trade Association)
Czech Republic	Central Institute for Supervising and Testing in Agriculture (UKZUZ) Division of Seed and Planting Materials: www.ukzuz.cz	The Czech Seed Trade Association: www.cmssa.cz
Denmark		- Danish Seed Council: http://www.brancheudvalgetforfroe.dk - Danish Seed Breeders Association :http://froeportalen.dk - DLF Trifolium: Http://www.dlf.dk
Finland	Finnish Food Safety Authority Evira: www.evira.fi	Finnish Seed Trade Association Tel: +358-3777 5000
France	Study and Control Group for Varieties and Seeds: http://www.geves.fr	- French Seed Industry Interprofessional Organization: http://www.gnis.fr/ - Corn seeds: http://www.seproma.fr - Oilseed seeds: oleosem - Grain seeds: http://www.afsa.asso.fr - Forage seeds: http://www.afpf-asso.org/index.php
Greece	National Agricultural Research	Hellenic Association of Seed Producers &

	Foundation (NAGREF) Cereals, Cotton & Vegetable Seeds Research Institutes: ok31944@otenet.gr, dir.ci@nagref.gr	Traders (EEPES): info@eepes.gr
Germany	National Seeds Register: www.bundessortenamt.de	German Plant Breeders Association: www.bpd-online.de
Hungary	Central Agricultural Office, Crop Production and Horticultural Directorate: http://www.ommi.hu	Hungarian Seed Association: http://www.vszt.hu
Italy	ENSE, Official Seed Certifying Agency: www.ense.it	AIS, Seed Trade Association: www.sementi.it
Slovakia	Central Controlling and Testing Institute in Agriculture (UKSUP): www.uksup.sk	- Slovak Association of Breeders and Seedmen e-mail: hordeum@sleziak.sk e-mail: sssa@mail.t-com.sk - Slovak Association of Seed Traders and Breeders: http://www.sssa.sk
Spain	- Ministry of the Environment and Rural and Marine Affairs (MARM): Spanish Plant Variety Office:http://www.mapa.es/es/agricultura/pags/semillas/introduccion.htm - National Seeds Register: http://www.mapa.es/es/agricultura/pags/semillas/registro_productores.htm	APROSE (Seed Producers Association) http://www.aprose.es
Sweden	Swedish Seed Growers Association Tel: +46 (44) 245385	Swedish Seed Trade Association: www.svuf.se
UK	Certifying Authorities: Scottish Government - Scotland Defra - England and Wales DARD - Northern Ireland	

Sources: FAS Posts

Previous related reports prepared by FAS EU Posts:

Country	Report Number	Title	Date
EU	E48137	Annual Biotechnology Report	11/28/2008
Austria	AU7007	Austria Fails to Win EU Support For Biotech Corn Ban	12/18/2007
Czech Republic	EZ7008	Biotech Conference in Prague	12/10/2007
	EZ8000	Moving Ahead, Slowly but Surely	12/4/2008
France	FR8008	GOF Action on Biotech – One Year Overview	06/06/2008
Germany	GM8044	"Without Genetech" Labeled Foods in the German Retail	09/30/2008
	GM7042	Biotech Traces in German Rapeseed Seeds	09/07/2007
	GM8033	Biotechnology Outreach Program for Germany	08/18/2008
	GM7052	Biotech Outreach Programs to Germany	11/05/2007
	GM8003	Without Biotech Food Label Standard	01/22/2008
	GM8006	German Bundestag Passed Amendment of Biotech Law	01/31/2008
	GM8014	German Genetech Law Finalized	03/05/2008
	GM8022	German Argumentation Paper	05/07/2008
Italy	IT8031	Attack on the "Anti-Cancer" Tomatoes	11/5/2008
Poland	PL8032	Poland's Framework Position on GMO's – They Say No, Again	12/1/2008
	PL8029	Introduction of Feed Ban Extended – GM Cultivation Law	12/3/2008
	PL8026	Poland Publishes New Draft Law on Cultivation	08/27/2008
	PL8020	Biotechnology Feed Ban Consequences for Pork and Poultry	06/19/2008
	PL8003	EU Overturns Polish Anti-GM laws	02/15/2008
Portugal	PO7011	Biotech Update	12/18/2007
	PO7007	Biotech Update	09/13/2007
Romania	RO8011	Romanian Parliament Declines The Initiative on Biotech Labeling	07/14/2008
	RO8002	Initiative on Biotech Labeling Rejected by Senate	03/10/2008
Spain	SP7030	Biotech Update	12/18/2007
Sweden	SW8009	Annual Report	09/12/2008
UK	UK8019	Purple Tomatoes – Biotech Gets Colorful	12/4/2008
	UK8011	UK Minister Reopens Biotech Debate	06/25/2008

To find these reports online, please visit the USDA/FAS website at:
http://www.fas.usda.gov/scriptsw/AttacheRep/default.asp

Annexes

Annex I –EU-27 Seed Production

Table 1 - Main Seeds Produced in the EU in 2007			
Seeds	Acreage in production (in 1,000 ha)	Top Producers	
		Member States	Acreage (in 1,000 ha)
Soft Wheat	420	France	82
		Germany	60
		Czech Republic	45
		UK	36
		Hungary	32
Barley	290	Germany	40
		France	35
		Denmark	33
		Czech Republic	30
		UK	25
Grasses/Forage	220	Denmark	75
		Germany	32
		France	22
		Netherlands	20
		Czech Republic	16
Corn	120	France	54
		Hungary	25
		Romania	15
Potatoes	113	Netherlands	36
		Germany	16
		UK	15
		France	15
		Poland	7
Sunflower seed	30	France	9
		Spain	6
		Romania	6
		Hungary	3
Rapeseed	20	France	8
		Germany	6
		Poland	1
		Hungary	1
Sugarbeet	8	France	4.5
		Italy	3.5

Source: European Seeds Association (ESA)

Table 2 – 2002-2007 Seed Production Trends (in thousand ha)

Seeds	Member States	2002	2003	2004	2005	2006	2007
Soft Wheat	France	96	80	87	84	80	80
	Germany	62	73	76	66	63	59
	Czech Republic	43	41	44	39	40	47
	UK	43	38	42	44	37	33
	Hungary	55	51	50	43	29	32
	Romania	161	155	135	117	100	116
	TOTAL	**654**	**595**	**636**	**578**	**528**	**528**
Barley	France	41	37	38	36	36	36
	Denmark	42	35	38	38	37	33
	Czech Republic	29	30	28	24	26	29
	UK	32	30	30	35	25	24
	Denmark	42	35	38	38	37	33
	Germany	46	51	53	43	41	40
	TOTAL	**330**	**312**	**328**	**294**	**321**	**280**
Grasses/Forage	Denmark	67	79	84	84	87	74
	Germany	27	28	33	35	34	29
	France	17	20	23	26	24	22
	Netherlands	18	22	25	28	26	20
	Czech Republic	12	10	14	16	18	21
	TOTAL	**192**	**210**	**233**	**247**	**252**	**224**
Corn	France	49	50	56	49	40	47
	Hungary	30	27	28	25	19	22
	Romania	16	16	16	10	9	12
	TOTAL	**117**	**115**	**126**	**108**	**85**	**100**
Potatoes	Netherlands	36	37	38	37	34	36
	Germany	17	17	19	16	16	16
	France	14	14	15	14	14	14
	Poland	7	6	6	5	5	6
	TOTAL	**99**	**95**	**97**	**86**	**84**	**86**
Sunflower seed	Romania	5	6	7	6	6	4
	Hungary	1	2	3	3	3	3
	France	4	5	6	7	9	9
	TOTAL	**11**	**14**	**19**	**20**	**28**	**20**
Rapeseed	Germany	4	5	6	5	6	6
	France	3	4	4	4	4	8
	Poland	1	2	2	1	1	1
	Hungary	1	1	2	1	1	1
	TOTAL	**15**	**17**	**21**	**17**	**17**	**23**
Sugarbeet	Italy	2	4	4	3	3	4
	France	3	4	5	3	3	5
	TOTAL	**5**	**8**	**9**	**6**	**7**	**9**

Source: French Seeds Organization (GNIS)
Note: total data is an estimation as full MS data was not available for this report.

Annex II – EU Seed Imports

Table 1 - Major Seed Categories Imported by the EU-27 (in thousand $)				
Seeds	**Top Suppliers**	**2005/06**	**2006/07**	**2007/08**
Vegetables	U.S.	54818	61820	60432
	Israel	25593	35039	41707
	China	34833	35716	39060
	Chile	23385	22630	23774
	New Zealand	15953	10437	19071
	Others	46018	46278	56795
	Total	**200600**	**211920**	**240839**
Grains	Chile	34733	22980	58744
	U.S.	27795	22075	46903
	Turkey	9286	15516	12097
	Others	16350	12977	25767
	Total	**88164**	**73548**	**143511**
Forage	U.S.	10941	13153	16835
	New Zealand	12455	12347	14380
	Canada	7734	15199	14272
	Australia	22971	17685	13233
	China	3359	6282	8117
	Others	9551	11816	20877
	Total	**67011**	**76482**	**87714**
Oilseeds	U.S.	29686	22756	32182
	Turkey	22033	26560	20284
	Chile	4347	6864	6822
	Serbia	2111	2651	2283
	Others	25492	8701	9859
	Total	**83669**	**67532**	**71430**
Grasses	U.S.	12399	14590	42760
	Canada	9245	5902	13082
	New Zealand	5344	5522	12105
	Others	1149	1288	3152
	Total	**28137**	**27302**	**71099**
Flowers & Trees	U.S.	27563	26968	31636
	Japan	8338	5972	5844
	Chile	3653	3618	5167
	China	2278	2261	4127
	Others	15825	17302	18685
	Total	**57657**	**56121**	**65459**
Pulses	U.S.	18782	20877	20732
	Tanzania	3060	5564	4697
	Chile	4365	5853	4445

	New Zealand	1387	2232	3842
	China	1468	2030	3590
	Others	1305	556	1178
	Total	**30367**	**37112**	**38484**
Beet	Morocco	101	131	1245
	Russia	4	1784	938
	Japan	0	536	691
	Turkey	0	64	457
	Others	750	670	649
	Total	**855**	**3185**	**3980**
Grand Total		**556460**	**553202**	**722516**

Source: Global Trade Atlas (GTA)

Table 2 - EU's Seeds Top Suppliers (in thousand $)

		2005/06	2006/07	2007/08
U.S.	Grains	27795	22075	46903
	Grasses	12399	14590	42760
	Vegetables	54818	61820	60432
	Flowers & Trees	27563	26968	31636
	Beet	71	132	99
	Oilseeds	29686	22756	32182
	Forage	10941	13153	16835
	Pulses	18782	20877	20732
	Total	**182055**	**182371**	**251579**
Chile	Grains	34733	22980	58744
	Grasses	11		
	Vegetables	23385	22630	23774
	Flowers & Trees	3653	3618	5167
	Beet	512	355	422
	Oilseeds	4347	6864	6822
	Forage	4062	3733	4296
	Pulses	4365	5853	4445
	Total	**75068**	**66033**	**103670**
China	Grains	5	6	26
	Grasses	8	259	381
	Vegetables	34833	35716	39060
	Flowers & Trees	2278	2261	4127
	Beet			
	Oilseeds	364	188	1279
	Forage	3359	6282	8117
	Pulses	1468	2030	3590
	Total	**42315**	**46742**	**56580**
New Zealand	Grains			
	Grasses	5344	5522	12105
	Vegetables	15953	10437	19071
	Flowers & Trees	813	642	670

	Beet			
	Oilseeds	141	73	15
	Forage	12455	12347	14380
	Pulses	1387	2232	3842
	Total	**36093**	**31253**	**50083**
Turkey	Grains	9286	15516	12097
	Grasses	0	0	0
	Vegetables	3616	4606	4085
	Flowers & Trees	1630	1684	1754
	Beet	0	64	457
	Oilseeds	22033	26560	20284
	Forage	794	181	574
	Pulses	165	31	221
	Total	**37524**	**48642**	**39472**
Canada	Grains	1352	1004	4374
	Grasses	9245	5902	13082
	Vegetables	0	0	0
	Flowers & Trees	261	668	197
	Beet	0	0	0
	Oilseeds	565	792	1006
	Forage	7734	15199	14272
	Pulses	15	27	157
	Total	**19172**	**23592**	**33088**
Others	Grains	14993	11967	21367
	Grasses	1130	1029	2771
	Vegetables	67995	76711	94417
	Flowers & Trees	21459	20280	21908
	Beet	272	2634	3002
	Oilseeds	26533	10299	9842
	Forage	27666	25587	29240
	Pulses	4185	6062	5497
	Total	**164233**	**154569**	**188044**
Total	Grains	88164	73548	143511
	Grasses	28137	27302	71099
	Vegetables	200600	211920	240839
	Flowers & Trees	57657	56121	65459
	Beet	855	3185	3980
	Oilseeds	83669	67532	71430
	Forage	67011	76482	87714
	Pulses	30367	37112	38484
	Total	**556460**	**553202**	**722516**

Source: Global Trade Atlas (GTA)

Annex III – EU-27 Seed Exports

Table 1 - Major Seed Categories Exported by the EU-27 (in thousand $)				
Seeds	**Top Markets**	**2005/06**	**2006/07**	**2007/08**
Vegetables	U.S.	68028	71839	86022
	South Africa	6608	23589	73729
	Turkey	30317	34899	59042
	Russia	20713	30551	41057
	Morocco	13192	16977	25130
	Others	256403	280894	391890
	Total	**395261**	**458749**	**676870**
Sugarbeet	Russia	42787	69865	76170
	Turkey	1498	4473	16436
	Egypt	5594	10612	14064
	Others	81126	101902	106033
	Total	**131005**	**186852**	**212703**
Grains	Ukraine	22833	34465	70424
	Russia	19189	38413	55458
	Belarus	3915	8499	14788
	Turkey	3371	3906	14293
	Switzerland	8838	8790	11185
	Others	19331	34767	45616
	Total	**77477**	**128840**	**211764**
Oilseeds	Russia	14910	21806	40365
	Ukraine	9773	16197	34595
	Moldova	2876	4160	4308
	Turkey	2121	2234	3766
	Serbia	1859	1990	3381
	Others	6771	10007	10156
	Total	**38310**	**56394**	**96571**
Forage	Russia	8186	10465	19047
	Belarus	3519	4838	7209
	Switzerland	4087	4518	6376
	Others	30400	34321	38295
	Total	**46192**	**54142**	**70927**
Flowers & Trees	U.S.	25032	29148	30241
	Russia	3893	5138	5234
	Japan	4200	3811	3876
	Australia	2670	2626	3679
	Switzerland	1702	2187	2103
	Others	15103	16842	19671
	Total	**52600**	**59752**	**64804**
Grasses	Switzerland	6007	7660	9668

	Turkey	2908	4651	6401
	Norway	2547	2745	4605
	U.S.	1765	5750	2211
	Russia	1121	1332	1664
	Others	7208	9445	13623
	Total	**21556**	**31583**	**38172**
Pulses	Russia	780	882	3408
	Algeria	4056	2361	2957
	Switzerland	1351	1833	2616
	Serbia	1653	1408	2451
	Morocco	1388	1637	2277
	Others	9449	10586	15409
	Total	**18677**	**18707**	**29118**
Grand Total		**781078**	**995019**	**1400929**

Source: Global Trade Atlas (GTA)

Table 2 - EU Seeds Top Export Markets (in thousand $)				
		2005/06	2006/07	2007/08
Russia	Grains	19189	38413	55458
	Grasses	1121	1332	1664
	Vegetables	20713	30552	41057
	Flowers & Trees	3893	5138	5834
	Beet	42787	69866	76170
	Oilseeds	14910	21806	40365
	Forage	8186	10465	19047
	Pulses	780	992	3408
	Total	**111579**	**178564**	**243003**
Ukraine	Grains	22833	34465	70424
	Grasses	298	253	704
	Vegetables	11684	14343	19174
	Flowers & Trees	280	768	1122
	Beet	3479	9609	6078
	Oilseeds	9773	16197	34595
	Forage	2020	2600	4279
	Pulses	1062	837	1392
	Total	**51429**	**79072**	**137768**
U.S	Grains	1070	4054	7890
	Grasses	1765	5750	2211
	Vegetables	68028	71839	86022
	Flowers & Trees	25032	29148	30241
	Beet	1745	2779	1590
	Oilseeds	965	2101	1641
	Forage	3170	3197	4001
	Pulses	364	296	1805
	Total	**102139**	**119164**	**135401**
Turkey	Grains	3371	3906	14293

	Grasses	2908	4651	6401
	Vegetables	30317	34899	59042
	Flowers & Trees	895	1170	1416
	Beet	1498	4473	16437
	Oilseeds	2121	2234	3766
	Forage	8292	10677	6074
	Pulses	1062	837	1392
	Total	**49402**	**62010**	**107429**
South Africa	Grains	6	9	261
	Grasses	352	930	1205
	Vegetables	6608	23589	73729
	Flowers & Trees	1362	1200	1513
	Beet	54	8	34
	Oilseeds	51	175	91
	Forage	274	121	490
	Pulses	255	283	493
	Total	**8962**	**26315**	**77816**
Switzerland	Grains	8838	8790	11185
	Grasses	6007	7660	9668
	Vegetables	7222	8994	11187
	Flowers & Trees	1702	2187	2103
	Beet	4961	5900	7181
	Oilseeds	1212	1579	1123
	Forage	4087	4519	6376
	Pulses	1351	1833	2616
	Total	**35380**	**41462**	**51439**
Morocco	Grains	3065	4649	6166
	Grasses	173	509	397
	Vegetables	13192	16977	25130
	Flowers & Trees			
	Beet	6929	4185	8298
	Oilseeds			
	Forage	427	1356	983
	Pulses	1388	1637	2277
	Total	**25174**	**29313**	**43251**
Others	Grains	19105	34554	46087
	Grasses	8932	10498	15922
	Vegetables	237497	257556	361529
	Flowers & Trees	19436	20141	22575
	Beet	69552	90032	96915
	Oilseeds	9278	12302	14990
	Forage	19736	21207	29677
	Pulses	12415	11992	15735
	Total	397013	459119	604822
Total	Grains	77477	128840	211764
	Grasses	21556	31583	38172
	Vegetables	395261	458749	676870

	Flowers & Trees	52600	59752	64804
	Beet	131005	186852	212703
	Oilseeds	38310	56394	96571
	Forage	46192	54142	70927
	Pulses	18677	18707	29118
	Total	**781078**	**995019**	**1400929**

Source: Global Trade Atlas (GTA)