




Top 10 Global Seed Companies - 2000

 Company	1999 Seed Sales (US) Millions
1. DuPont (Pioneer) USA	\$1,850
2. Pharmacia (Monsanto) USA	\$1,700
3. Syngenta (Novartis) Switzerland	\$ 947
4. Groupe Limagrain (France)	\$700
5. Grupo Pulsar (Semini) Mexico	\$531
6. Advanta (AstraZeneca and Cosun) UK and Netherlands	\$416
7. Sakata (Japan)	\$396
8. KWS AG (Germany)	\$355
9. Dow (+ Cargill North America) USA	\$350 <i>estimate</i>
10. Delta & Pine Land (USA)	\$301

The top 10 seed companies control approximately 31% of the \$24.7 billion commercial seed market worldwide.

Notes: Advanta was not part of the deal when Novartis and AstraZeneca merged their agrochemical and seed divisions.

AgriBiotech (previously on RAFI's top 10 list) filed for bankruptcy in January 2000. The company has since sold off its turf and forage seed business.

Dow acquired Cargill's US and Canadian hybrid seed business in September 2000. Dow's estimated annual seed revenues are \$350-\$400 million, including Mycogen.



The Seed Giants –Who Owns Whom?

December, 2000

Parent Company	Subsidiaries	Comment
Advanta (UK) see AstraZeneca		
AgrEvo (German) see Aventis		
Agribiotech, Inc. (USA) <i>out-of-business</i>	<ul style="list-style-type: none"> ▪ Peterson Seed Co. ▪ Geo. W. Hill & Co. ▪ Fine Lawn Research, Inc. ▪ Willamette Seed Co. ▪ Kinder Seed Inc. ▪ Olsen-Fennell ▪ W-L Research ▪ Burlingham ▪ Germain's ▪ Clark Seeds ▪ Lofts Seed ▪ Great Western ▪ Green Seed ▪ Sunbelt ▪ Budd ▪ Sexauer ▪ Halsey Seed Co. ▪ Seed Mart Inc. ▪ Arnold-Thomas ▪ Beachley-Hardy ▪ Seed Resource Inc. ▪ Hobart Seed ▪ Sphar Seed ▪ Scott Seed Co. ▪ Seed Corp. of America ▪ Seed Resource ▪ Seedbiotics ▪ LaCrosse Seed Corp. ▪ Azjac Performance Seed ▪ Ohio Seed Co. ▪ Van Dyke Seed Co. ▪ Kinder Seed, Inc. ▪ J&M Seed Co. ▪ Oseco, Inc. ▪ Allied Seed Co. ▪ Willamette Seed Co. 	<p>The company's goal was to achieve 45% market share in forage and turfgrass by the year 2000. The company completed 34 acquisitions since January, 1995. With 1998 annual revenues of \$370 million, Agribiotech ranked 8th largest seed company in the world in 1999. The company had no seed-related interests prior to December, 1994.</p> <p>Filed bankruptcy in January, 2000.</p> <p>In May 2000 AgriBiotech sold all of its turfgrass seed assets and Specialty Division to Kenneth R. Budd and J.R. Simplot Co.</p> <p>In June, 2000 Agribiotech sold its forage seed assets to Research Seeds Inc. Other forage seed interests were sold to Pickseed, Allied Seed, and Dairyland Seed.</p>

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
Anheuser-Busch (USA)	<ul style="list-style-type: none"> ▪ Busch Agricultural Resources 	Major US brewery and food corporation.
AstraZeneca (Sweden and UK)	Advanta <ul style="list-style-type: none"> • AgriPro • VanderHave • Garst • Gutwein • ICI Seeds • Interstate Payco • Olds Seed • Michigan State Seeds • Advanta Seed West • Shamrock Seed • Zenco • Mogen • Sharpes International 	<p>In 1999 Zeneca Group and Astra A.B. became AstraZeneca. Advanta is the 6th largest seed company in the world, with 1999 annual sales of US \$416 million. Advanta was <i>not</i> part of the deal when AstraZeneca and Novartis combined their agrochemical and seed units to become Syngenta.</p> <p>Garst Seed Company, along with AgriPro Seeds, AgriPro Wheat, Interstate Seed Company and PSA Genetics all remain as members of the Advanta group of companies and marketing brands. AstraZeneca will retain the 50% holding in Advanta, but Advanta will not be a shareholder in the new company Syngenta.</p> <p>Garst (largest member of Advanta) acquires Gutwein Seed 1/2000.</p>
Aventis (Germany) (Hoechst + Rhone Poulenc) <p style="text-align: center;"><i>for sale</i></p>	<ul style="list-style-type: none"> • AgrEvo • Plant Genetic Systems • Nunhems • Sunseeds • Cannon Roth • Pioneer Vegetable Genetics • Dessert Seed • Castle Seed • Keystone Seed • AgrEvo Cotton Seed Intl. (Australia) • Sementes Ribeiral (Brazil) • Mitla Pesquisa Agricola (Brazil) • Sementes Fartura (Brazil) • Granja 4 Irmaos (Brazil) 	<p>AgrEvo was formerly owned by Hoechst and Schering. In 1999, Hoechst and Rhone Poulenc merged to form Aventis. Nunhems is #4 ranking vegetable seed company in the world. Aventis had 1999 seed revenues of \$288 million.</p> <p>In November 2000 Aventis announced that it will divest its agribusiness division (seeds and agrochemicals).</p>
Ball Horticultural. (USA)	<ul style="list-style-type: none"> • Pan American Seeds • Ball Seeds • ColorLink • Seed Technology • Linda Vista (Costa Rica) • Vegmo Plant (Netherlands) 	
Barenbrug Holding B.V. (The Netherlands)	<ul style="list-style-type: none"> ▪ Barenbrug Belgium ▪ Barenbrug China RO ▪ Barenbrug France ▪ Barenbrug Holland BV ▪ Barenbrug Luxembourg ▪ Barenbrug Polska ▪ Barenbrug South East ▪ Barenbrug UK 	Barenbrug had 1999/2000 revenues of approximately \$145 million. The company is privately-held. Specializes in turf and forage seed crops.

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
	<ul style="list-style-type: none"> ▪ Barenbrug USA ▪ Garfield Williamson; called Barenbrug North East ▪ Barenbrug Production ▪ Heritage Seeds Pty ▪ Modern Forage Systems Inc ▪ New Zealand Agriseeds ▪ Palaversich y Cia (Argentina) 	
BASF (Germany) (see separate listing for Svalöf Weibull)	<ul style="list-style-type: none"> ▪ Svalöf Weibull-40% (Sweden) ▪ SunGene (Germany) ▪ Metanomics 	In 1998 BASF acquired a 40% stake in Svalöf Weibull (Sweden) and founded plant biotech breeding companies Metanomics and SunGene in Germany.
Bayer (Germany) (Germany)	<ul style="list-style-type: none"> ▪ Gustafson (50% stake in seed treatment business) 	Bayer's Crop Protection Business Group acquires 50% stake in the seed treatment business of Gustafson (USA).
Cargill – see Monsanto and Dow (USA)	<ul style="list-style-type: none"> ▪ InterMountain Canola ▪ Goertzen Seed Research 	In 1998, Monsanto acquired Cargill's international seed business. In September 1998 AgrEvo (Aventis) announced that it would acquire Cargill's North American seed business for \$650 million. AgrEvo abruptly cancelled the deal when Pioneer Hi-Bred accused Cargill of misappropriating Pioneer germplasm. In Sept. 2000 Dow purchased Cargill Hybrid Seeds (US and Canada).
Cebeco-Handelsraad (The Netherlands)	<ul style="list-style-type: none"> ▪ Cebeco Saaten GMBH ▪ Cebeco Seeds S.R.O. ▪ Cebeco-Verneuil GMBH & Co. KG ▪ Cebeco Zaden B.V. ▪ International Seeds, Inc. ▪ La Maison Des Gazons S.A. ▪ N.V. Zaden Van Engelen S.A. ▪ Oliver Seeds Ltd. ▪ Proco Sem S.A. ▪ Seed Innovations Ltd. ▪ Wiboltt Fro A/S 	Cebeco Agricultural Seeds Group is a subsidiary of Cebeco-Handelsraad. 1997 seed revenues: \$225 million US
Central Garden & Pet (USA)	<ul style="list-style-type: none"> ▪ Pennington Seeds ▪ Seeds West ▪ Bio-Plus ▪ Mid-South Seeds 	Central Garden & Pet is a major seller of lawn and garden supplies in the USA, with sales of approximately \$830 million. Pennington Seeds and seed subsidiaries are recent acquisitions.
ConAgra (USA)	<ul style="list-style-type: none"> ▪ United AgriProducts ▪ Helm Bean & Seed 	ConAgra is one of the world's largest food corporations.
Delta & Pine Land (USA)	<ul style="list-style-type: none"> • Delta & Pine Land • Ellis Brothers Seed • Arizona Processing • Mississippi Seed Co. • Hartz Cotton • Sure Grow Seeds • CDM Mandiy 	World's largest cotton seed company, 1999 revenues of \$301 million.

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
Dow (USA)	<p>Mycogen</p> <ul style="list-style-type: none"> • Agrigenetics • Cargill Hybrid Seeds • United Agriseeds • Morgan Seeds (Argentina) • Kelten & Lynks • Delta & Pine Land (corn & sorghum only) • Dinamilho Carol Productos (Brazil) • Hibridos Colorado Ltda. (Brazil) • FT Biogenetica de Milho (Brazil) • Phytogen (w/J.G. Boswell) • Empresa Brasileira de Sementes (Brazil) 	<p>Mycogen and its subsidiaries had 1997 seed revenues of \$162 million. Mycogen has 35% stake in Verneuil, French seed co. with sales of approx. \$80 million. In Sept., 1998 Dow takes a 10% stake in Illinois Foundation Seeds (Champaign, IL), a corn germplasm and seed company. Illinois Foundation Seeds will hold a 16.4% stake in a company being set up by Dow called Advanced AgriTraits. Dow buys Cargill Hybrid Seeds (US and Canada) in Sept. 2000. With the addition of Cargill, Dow has estimated annual seed revenues of \$350-400 million.</p>
DuPont (USA)	<ul style="list-style-type: none"> ▪ Pioneer Hi-Bred Intl.. Operates on every crop producing continent. Markets hybrid maize in nearly 100 countries worldwide (also sorghum, sunflower, soybean, alfalfa, canola, wheat). ▪ Hybrinvoa, S.A., France (hybrid wheat subsidiary) ▪ Dois Marcos (Brazil) 	<p>In early 1999 DuPont paid \$7.7 billion to acquire the rest of Pioneer Hi-Bred Intl. DuPont is now the world's largest seed company, with seed revenues in excess of \$1.8 billion.</p>
George Ball Jr. (USA)	<ul style="list-style-type: none"> • W. Atlee Burpee 	<p>George Ball Jr. was spun off from Ball Horticultural and became separate company. Heronswood Nursery Ltd. merges with W. Atlee Burpee & Co. (July, 2000)</p>
Golden Harvest (USA)		<p>Approximately \$75 million annual seed revenues, primarily maize and soybeans.</p>
Goldkist (USA)	<ul style="list-style-type: none"> • Agratech 	<p>Goldkist is a major poultry integrator in the US.</p>
Goldsmith Seeds (USA)	<ul style="list-style-type: none"> • Resource Seeds 	<p>Largest flower seed business in the US.</p>
Grupo Pulsar (Mexico)	<ul style="list-style-type: none"> • Seminis Inc. • Royal Sluis • Petoseed • Asgrow-Bruinisma • Incotec International • Genecorp • Bionova • DNA Plant Technology • FreshWorld • Nath Sluis (India) • Hungnong Seed Co. (S. Korea) • ChoongAng Seed Co. (S. Korea) • Barham Seed Inc. 	<p>Grupo Pulsar is the Mexican mega-conglomerate that owns Savia and its California-based subsidiary, Seminis. In March, 1999 Empresas La Moderna merged with Seguros Comercial America. The new company is called Savia. With 1999 annual sales of approximately \$531 million, Seminis is the world's 5th largest seed company. Seminis is the largest producer of fruit & vegetable seed, with approximately 20% of world market.</p>

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
Muse, Tate & Furst, Inc./ Emergent Genetics (USA)	<ul style="list-style-type: none"> ▪ Stoneville Pedigreed (US) ▪ L. Daehnfeldt (Netherlands) ▪ Indusem (Chile) ▪ Mahendra (India) ▪ Produsem, S.A (Argentina) 	Hicks, Muse, Tate & Furst is an investment firm established in 1989; Emergent Genetics, Inc., is based in Boulder, Colorado.
J.R. Simplot Co. (USA)	<ul style="list-style-type: none"> • Jacklin Seed Co. • Medalist America Turfgrass • JacklinGolf • Turf Partners • Garden West • Geo. W. Hill • Las Vegas Fertilizer 	Simplot is privately-held agribusiness company with annual sales of \$2.8 billion. In May, 2000 Kenneth R. Budd and J.R. Simplot co. acquired all of Agribiotech's turfgrass seed assets and Specialty Division for \$65 million.
KWS SAAT AG (Germany)	<ul style="list-style-type: none"> ▪ Agrar Consulting GMBH (Germany) ▪ Betamag Vetomag KFT (Hungary) ▪ Betaseed Inc. (USA) ▪ Cambridge Plant Breeders Twyford Ltd (UK) ▪ Great Lakes Hybrids Inc (USA) ▪ Interagrarkooperation GMBH (Germany) ▪ Intersaat AG (Germany) ▪ KWS Austria Saatzucht Gesellschaft MBH (Austria) ▪ KWS Benelux BV (Netherlands) ▪ KWS Chile Ltda (Chile) ▪ KWS France SARL (France) ▪ KWS Italia SPA (Italy) ▪ KWS Polska SPZOO (Poland) ▪ KWS Seeds Inc (USA) ▪ KWS Semena SRO (Slovakia) ▪ KWS Semences SARL (France) ▪ Lochow-Petkus France SARL (France) ▪ Lochow-Petkus GmbH (Germany) ▪ Lochow-Petkus Polska SPZOO (Poland) ▪ Mod Management Organisation Und Datenverarbeitung Consulting GMBH (Germany) ▪ Pan Tohum Islah Ve Uretim AS (Turkey) ▪ Peragis Saatzucht Und Handels-Gesellschaft MBH (Germany) ▪ Planta Angewandte Pflanzengenetik Und Biotechnologie GMBH (Germany) ▪ Ragis Kartoffelzucht Und Handels-Gesellschaft MBH (Germany) ▪ Razes Hybrides SARL (France) 	<p>KWS seed revenues (1997/98) were US \$370 million. It is 7th ranking seed company in the world, AgrEvo (Aventis) has 12% stake in KWS.</p> <p>In January 2000 KWS & Limagrain merge their corn and soybean activities in North America (Great Lakes Hybrids and Limagrain Genetics).</p>

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
	<ul style="list-style-type: none"> ▪ Saka-Ragis Pflanzenzucht GBR (Germany) ▪ Semena AG (Switzerland) ▪ Semillas Seleccionadas De Remolacha SA (Spain) ▪ Societe Des Mais Europeens SARL (France) 	
<p>Landec (USA)</p>	<ul style="list-style-type: none"> ▪ Intellicoat ▪ Fielder's Choice 	
<p>Limagrain (France)</p>	<ul style="list-style-type: none"> ▪ Akin (USA) ▪ Akin Callahan (USA) ▪ Auvergne Creations (France) ▪ Belloy (France) ▪ Biocem (France) ▪ Biocem Lab. De Biologie Moleculaire (France) ▪ Biocem Lab. De technologies des semences (France) ▪ Biogemma (France) ▪ Biogemma les Cezeaux (France) ▪ Biogemma Toulouse (France) ▪ Biotechnical/LG Seeds (USA) ▪ Ble Or (France) ▪ Cave St. Verny (France) ▪ Clause (UK) ▪ Clause Semences (France) ▪ Cooperative Limagrain (France) ▪ Elidia (France) ▪ Ferry Morse (USA) ▪ Force Limagrain (France) ▪ GBC Jacquet (France) ▪ Groupe Limagrain Holding (France) ▪ Harris Moran (USA) ▪ Jacquet Belgique (Belgium) ▪ Jacquet Cereales Technologies (France) ▪ King Agro (Canada) ▪ Limagrain Canada Seeds (Canada) ▪ Limagrain Genetics Grandes Cultures (France) ▪ Limagrain Genetics Research (USA) ▪ M.C. Technologies (France) ▪ Maicentre (France) ▪ Mais Angevin (France) ▪ Meristem Therapeutics (France) ▪ Mu Laboratoire (France) ▪ Nickerson Biocem (UK) ▪ Nickerson International Research GIE (France) ▪ Nickerson S.A. (France) ▪ Nickerson Seeds (UK) ▪ Nickerson Zwaan Ltd. (UK) 	<p>Limagrain is a French cooperative; the 4th largest seed company in the world and the world's largest vegetable seed company. The company's 1998/99 seed revenues were \$972 million. In November, 1999 Limagrain Genetics, Land O'Lakes and FFR Cooperative announce the formation of SOYGENETICS, LLC, a new soybean research company dedicated to the development of elite soybean varieties.</p> <p>In January 2000, KWS and Limagrain merge their corn and soybean activities in the US (Great Lakes Hybrids + Limagrain Genetics).</p> <p>Vilmorin Clause & Cie. & D.L.F. (Denmark) form 50/50 joint venture – Top Green (France)</p> <p>Vilmorin Clause acquires 40% of Kyowa, Japanese seed company (August, 2000).</p>

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
	<ul style="list-style-type: none"> ▪ Oxadis (France) ▪ Pain Jacquet (France) ▪ Progalim (France) ▪ Sapa/Dafa Associes (France) ▪ Selia (France) ▪ Semillas Limagrain de Chile (Chile) ▪ Suttons (UK) ▪ Tezier (France) ▪ ULICE (France) ▪ Valgrain (France) ▪ Vilmorin (France) ▪ Vilmorin (USA) ▪ Vilmorin & Cie (France) ▪ Alliance Semillas (Chile) 	
M&M-Mars, Inc.	<ul style="list-style-type: none"> • Seeds of Change 	Food giant acquires small, organic seed company in New Mexico.
Marubeni (Japan)	<ul style="list-style-type: none"> • Helena Chemical Co. • Hyperformer Seeds 	
Monsanto (USA) <i>(see Pharmacia)</i>		Monsanto (now Pharmacia) is the 2nd largest seed corporation in the world, with 1999 seed revenues estimated at \$1.7 billion.
Novartis (Switzerland) <i>see Syngenta</i>	<ul style="list-style-type: none"> • Northup King • Rogers NK Seed • Rogers Seed Co. • Sluis & Groot (S&G) • Funk Seeds Intl. • Vaughn Seeds • Gallatin Valley • Hilleshog • Sturdy Grow Hybrids • Agritrading (Italy) • American Sunmelon (US) ▪ Wilson Seeds (50% stake; co-owned w/ Land O'Lake) ▪ Eridania Beghin-Say (France) ▪ Agra (Italy) ▪ Agrosem (France) ▪ Koipesol Semillas (Spain) 	Swiss giants Sandoz and Ciba-Geigy merged in 1996 creating Novartis. With 1999 sales of (US) \$947 million, Novartis is the world's third largest seed company. <i>See Syngenta</i>
Pharmacia (Monsanto)	<ul style="list-style-type: none"> • Asgrow (soybean & corn) • Holden's Foundation • Jacob Hartz • Hybritech • Calgene • Agracetus • Plant Genetics Inc. • Ameri-Can Pedigreed • Monsoy (Brazil) • First Line Seeds (Canada) • Plant Breeding Intl. (UK) • Forage Genetics Inc. (collaborative agreement) • Agrocere (Brazil) ▪ Cargill's intl. seed division 	Monsanto merged with Pharmacia & Upjohn in February 2000. Monsanto is a wholly-owned subsidiary of Pharmacia. Although Monsanto has since been spun-off as a separate business, Pharmacia retains ownership of about 86% of the company. Monsanto is the 2nd largest seed corporation in the world, with 1999 seed revenues estimated at \$1.7 billion.

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
Monsanto (cont'd.)	<ul style="list-style-type: none"> ▪ Dekalb Genetics (USA) • Custom Farm Seed • Sensako (South Africa) 	
Pickseed Group (Canada)	<ul style="list-style-type: none"> • Pickseed Canada Inc. • Mapleseed Inc.(Canada) • Pickseed West, Inc. (US) • Robert's Seed Co. (US) • AgriBiotech Canada • Oseco • Rothwell Seeds 	
Research Seeds	<ul style="list-style-type: none"> ▪ W-L Research ▪ Forage Genetics Intl. ▪ Germain's ▪ Peterson Seed 	
Sakata Seed Corp. (Japan)	<ul style="list-style-type: none"> ▪ Agroflora SA (Brasil) ▪ Chung Won Seed Co. Ltrd. (Korea) ▪ Sakata Centroamerica SA (Costa Rica) ▪ Sakata de Mexico, SA ▪ Sakata Seed do Brasil Ltda ▪ Sakata Seed Chile SA ▪ Sakata Seed Europe BV (Holland) ▪ Sakata Seed France SARL ▪ Sakata Seed Iberica SL (Spain) ▪ Sakata Seed NZ Ltd (New Zealand) ▪ Sakata Siam Seed Co. Ltd. (Thailand) ▪ Samuel Yates (UK) 	1999 annual sales (US) \$396 million.
Svalof Weibull AB (Sweden) (see BASF)	<ul style="list-style-type: none"> ▪ DNA Landmarks Inc. (Canada) ▪ Newfield Seeds Co. Ltd. (Canada) ▪ Plantevolution AB (Sweden) ▪ Riding Valley Agro Ltd. (Canada) ▪ Saatzzucht Hadanersleben GmbH (Germany) ▪ Semundo Italia s.r.l. (Italy) ▪ Semundo Ltd. (UK) ▪ Semundo Saatzzucht GmbH (Germany) ▪ Sursem S.A. (Argentina) ▪ Svalof Weibull Seed Ltd. (Canada) ▪ Svalof Weibull B.V. (NL) ▪ Svalof Weibull Havefro A/S (Denmark) ▪ Svalof Weibull Semillas S.L. (Spain) ▪ Svalof Weibull Semundo S.A.R.L. (France) ▪ Svalof Weibull SIA (Latvia) ▪ Svalof Weibull Torv (Sweden) ▪ Svalof Weibull Tradgard AB (Sweden) ▪ Svenska Cereallaboratoriet AB (Sweden) Wheat City Seeds Ltd. (Canada) 	In 1998, German chemical corporation, BASF acquired 40% of Svalof Weibull.

RAFI's Seed Company Chart – December, 2000

Parent Company	Subsidiaries	Comment
Syngenta (Switzerland)	<ul style="list-style-type: none"> • Northup King • Rogers NK Seed • Rogers Seed Co. • Sluis & Groot (S&G) • Funk Seeds Intl. • Vaughn Seeds • Gallatin Valley • Hilleshog • Sturdy Grow Hybrids • Agritrading (Italy) • American Sunmelon (US) ▪ Wilson Seeds (50% stake; co-owned w/ Land O'Lake) ▪ Eridania Beghin-Say (France) ▪ Agra (Italy) ▪ Agrosem (France) ▪ Koipesol Semillas (Spain) 	<p>In December 1999 Novartis and Anglo-Swedish AstraZeneca announced plans to each spin off their agricultural chemical businesses, then merge them into a company with estimated annual revenue of nearly \$8 billion and a market value of about \$12 billion. The deal does not include AstraZeneca's 50% share in Advanta.</p> <p>Syngenta will rank first globally in agrochemicals and third in seeds.</p>
Takii & Co. (Japan)	<ul style="list-style-type: none"> • Pickseed Canada Inc. • Mapleseed Inc.(Canada) • Pickseed West, Inc. (US) • Robert's Seed Co. (US) 	<p>Privately-held. Annual sales are about \$220 million of which about \$160 million are vegetable seeds and the rest flowers.</p>

Is Something Missing?

RAFI attempts to monitor and update seed industry mergers and acquisitions on a regular basis. Given the pace of industry consolidation, we may be missing some important transactions, especially in the South. If you find that information is missing on RAFI's seed industry chart, or if something should be changed, kindly notify Hope Shand: hope@rafi.org

Note: In our calculations on global market share, RAFI puts the value of the commercial seed trade at (US) \$24.7 billion. ASSINSEL (International Association of Plant Breeders for the Protection of Plant Varieties) estimates the value of the commercial market for "seed and planting material" at \$24.7 billion for 44 countries, and the total commercial world market at US \$30 billion. RAFI opts for the more conservative figure of \$24.7 billion because of the ambiguity in the term "seed and planting material."

For more information on seed statistics from ASSINSEL, go to:

<http://www.worldseed.org/~assinsel/stat.htm>

* * *

RAFI is an international civil society organization based in Canada. We invite our readers to use and distribute this information, we ask only that RAFI is credited as the source. For more information about RAFI and our publications, see:

<http://www.rafi.org>