

## GENESIS SEEDS LTD- COMPANY PROFILE

**The Company:** Genesis Seeds Ltd. is one of the world's largest producers of certified organic vegetable, herb and flower seed with customers in over 30 countries. The company is based in Israel, where all research, development and production takes place. As one of only a few global suppliers of certified organic seed, Genesis' sales have increased almost six-fold since 2000. The increasing variety of organic seed available to the commercial grower is expanding the industry significantly. With the increased availability more organic produce will be grown from organic seed. Management believes that this change in the application of the organic rules plus the continued growth in the organic produce market worldwide creates a substantial growth opportunity for Genesis. Another driver of revenue growth is the purchase of the company's seeds by conventional growers (over 50% of sales in 2007/2008). As a result of its excellent growing conditions in the high-Negev, Genesis' seeds are generally hardier, vigor and disease free than the equivalent conventional seed. These characteristics are valued by commercial growers seeking high quality seed at a competitive price. With rapidly growing demand from both conventional and organic growers, large seed companies like Hazera cooperates strategically with Genesis Seeds in the production and marketing of organic and conventional seeds.

**The Opportunity:** Genesis believes that it is a unique opportunity to capture market share as commercial growers of organic produce switch to using organic seeds and as major commercial seed companies would like produce organic seeds from their propriety varieties. To fully profit from this opportunity, Genesis needs additional capital for more marketing and research. The major focus of the company has been research and production, to expand its range of products and to develop techniques to lower seed production costs. To date, Genesis' seeds have all the genetics and infrastructure to accelerate fast growth if there will be an equivalent support in sales and marketing.

**Differentiated, high margined products:** The largest (by revenue) end user of Genesis' seed is the commercial grower of vegetables, flowers, & Herbs. These growers prefer hybrid seed or very high quality open pollinated seed that has been selected to produce both a high yield and a consistent product under a wide variety of growing conditions. Seed is a small percentage (usually about 2%) of the cost of growing produce so quality is more important than price in a grower's seed selection. High quality seed can command gross margins averaging 60%. As a result, the company has increased the number of hybrids for commercial sale to over 40 varieties in 2008 and more new varieties are in its pipeline. **Hybrid seed** comes from two different parent lines so each hybrid is unique to the company that bred it and it cannot be replicated by others (unless they are granted access to the parent lines).

High value, **open pollinated seed** varieties have similarly increased, as evidenced by the wide variety of seeds now offered in the Genesis catalog (monthly available on the company's web site [www.genesisseeds.com](http://www.genesisseeds.com)). Open pollinated seed can be reproduced but Genesis' production methods and quality control help to ensure a qualitative difference between Genesis' seeds and any seed that might be retained by the grower. Thus, the company's products have the equivalent of patent protection.

**Sustainably produced seed:** Having been developed following sustainable agricultural protocols at one of the Genesis' two research stations in the Negev and Galilee, Genesis offers a wide selection of seed varieties. By utilizing the latest in water and soil conservation technology, Genesis converted land that had been dormant for over 1,000 years into 20 acres of highly productive crop land. As a leader in eco-friendly production and a company that implements rigorous standards in its operations, Genesis has Green Label, EMS ISO 14001 and QMS ISO 9001:2000 certifications.

The company's organic certifications are recognized in both Europe and in North America (see the "About Us" section of the company's web site [www.genesisseeds.com](http://www.genesisseeds.com) for letters of certification).

**Leveraging research through partnerships:** Genesis' research stations are in the Negev and in Galilee (for cool weather crops). Seed breeding is done at the research stations and under research contracts with the Volcani Institute (part of the Israeli Department of Agriculture) and Hebrew University. Through its research contracts, the company has access to the extensive germ plasm or seed lines of its research partners. This helps to accelerate the development of new seed varieties. In the U.S., Genesis is a participant in the Vegetable Breeding Institute at Cornell University.

**Collaborations with other seed companies for new products and distribution:** It can take a seed company four or more years to breed a new variety in commercial quantities. For organic seed, a more rapid means of bringing new hybrids to market is to convert a conventional hybrid into a certified organic version of the same hybrid. This requires an agreement with another seed company to access the appropriate parent lines of the F1. Three of the world's largest specialty seed companies like Harris Moran, Hazera and Seminis, have given Genesis some parental lines for the production of organic hybrids. Genesis either pays a royalty on the sale of the resulting organic hybrid or sells the organic seed back to the parent company. These recently formed collaborations demonstrate the growing interest in organic seed on the part of conventional seed companies. The collaborations also validate the quality of Genesis' seeds and the seed world's regard for the reliability and technical expertise within Genesis. The first tomato seeds converted by Genesis from a conventional to an organic hybrid under such an arrangement exceeded expectations in both quality and quantity. This may result in a significant expansion of the program. Growing seed for other seed companies is a line of business that Genesis could grow rapidly in 2009 and beyond.

**Land and production techniques form barriers to entry:** With the exception of one or two European companies, the major conventional seed companies prefer to buy from, and partner with, Genesis rather than set up their own certified organic operations. This is because organic production requires organic farmland and extensive technical knowledge to produce seed cost effectively. To convert farmland to organic production requires that it be chemical free for at least three years. This is a significant barrier to entry for seed companies in North America or Europe. Genesis has been in organic production for over twelve years and already has over 400 acres of land available for its seed production. The company also benefits from the wide range of micro-climates and many soil types in Israel. This allows Genesis to produce seed adapted to a wide variety of conditions and, in some instances, to grow two crops rather than just one a year.

The company has a network of growers skilled in organic production and its own technical staff to support its growers. Genesis has invested in state-of-the-art harvesting equipment, seed processing and controlled atmosphere storage. These investments and its continuous investment in R & D are driving down the cost of production so that Genesis' seed can be as efficient and priced competitively with conventional high quality seed without eroding the company's own profit margin.

**Rapidly growing organic market:** The organic sector of the food industry has experienced double digit growth each year for the past twenty years. In 2006, global retail food sales were \$36.7 billion and are projected to reach \$67.1 billion in 2011<sup>1</sup>. The major consuming markets are North America and Western Europe. In the U.S., the Organic Trade Association estimated the organic market to be approximately \$17.7 billion in sales in 2006. Mintel's consumer research shows 52% of shoppers buy some organic items and the large South Eastern supermarket chain Publix recently opened a stand alone organic food store. Produce is considered the "gateway" segment of the industry as consumers usually try it first. It is estimated that about 40% of organic sales are of produce. For many consumers, organic food, especially produce, milk and meat, are essential not luxury items. For other consumers concerned about their carbon footprint, sustainably grown produce from local farmers or their own gardens is increasingly part of their diet. These factors may help insulate organic seed sales from the economic downturn.

IFOAM estimates that 75 million acres globally are certified for organic production with the largest acreage being in Australia, followed by China and then the U.S.<sup>2</sup> In the U.S., the USDA reports that cropland devoted to certified organic production of vegetables doubled from 1997 to 2005 and that organic vegetables now account for almost 5% of commercial land growing vegetables. For some vegetables, such as tomatoes, the increase in production area has been almost threefold. The size of the herb market is not reported but USDA estimates that acreage devoted to herbs in the U.S. is about 5% of the acreage used for vegetables. With the major retailers, such as Wal-Mart and Target, now selling organic produce, supply is one of the obstacles to increased consumer consumption.

**The Organic Seed Market:** Supply of high quality, organic seed has been a challenge for organic growers and until recently organic certifiers have had to provide exemptions to growers when organic seed was not available. Now, both the U.S. and Europe have registries where growers can find the appropriate seed. If the variety is in the registry then the grower must use it, eliminating many of the exemptions of the past. This is a significant change for the organic seed industry and should drive the sales growth of companies like Genesis Seeds.

**Competition:** Very few organic seed companies produce the wide range of organic seed that Genesis does or have the ability to produce high quality seed in commercial quantities. Two divisions and one subsidiary of European vegetable seed companies sell organic seed but this seed is only an organic version of a conventional seed.

In the U.S., management believes that only two other companies are selling significant quantities of hybrid and high quality certified organic seed. These companies are both

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<sup>1</sup> Organic Monitor press release, 11/15/06

<sup>2</sup> From an IFOAM (International Federation of Organic Agriculture Movements) press release 2/22/08

Customers of Genesis Seeds as neither company grows all its own seed. The more rigorous enforcement of organic regulations will benefit all these companies as it will enlarge the organic seed market. As a supplier to other organic seed companies, management believes that Genesis may benefit the most from the market expansion.

**Stable customer base:** Genesis sells its seed to other seed companies and seed wholesalers but it does not sell directly to the consumer. Initially, its seed went into small packets to be sold into the retail market. In 2008 more than 50% of the seeds were exported to the US, 20% to west European countries, 20% in Israel and 10% in different countries like Australia and South America. Most of the seeds have been sold to professional seed companies. The top 10 customers accounted for about 60% of the company's revenue but no one customer dominates sales. The largest customer is a subsidiary of a major U.S. food company. Although the majority of Genesis' top customers are in North America, Israel, Europe and Australia are also represented in the list. Most of these customers have bought repeatedly seed from Genesis for several years so represent a core of business that can be grown, and added to, each year.

**In 2008 the company has no uncollected invoices and no claim on seed quality.** Without a sales and marketing staff, Genesis has grown sales by reputation and by representation at trade shows. The company is also started using exclusive distribution agents to sell its seed in key countries, with a guaranteed minimum level of sales; these agency agreements are an effective way to grow sales in certain markets.

**Genesis advantages:**

- The only seed company with a wide range of high quality, certified organic vegetable, herb and flower seeds for the commercial grower.
- Efficient and modern infrastructure for research, production, and logistics.
- Excellent environment for production processing and storing of seeds.
- An extensive portfolio of products that include over 40 commercially desirable hybrids.
- R & D investment that has created a pipeline, which, with some additional investment, could deliver faster new products each year.
- Sustainable agricultural techniques that allow the company to grow organic seed that is cost competitive with high quality conventional seed.
- Collaborations with three of the largest conventional specialty seed companies that are expanding Genesis' product line and validating the quality of the seed Genesis produces.
- A network of growers skilled in sustainable agriculture and access to certified organic land. This will allow Genesis to continue to scale up its seed production to meet the needs of commercial growers.
- Its location in Israel where the company can draw from extensive seed libraries for product development (through its research contracts), can work with companies developing high tech solutions for agricultural challenges (such as water conservation), has a labor force skilled in organic production and has easy access to external markets.
- Experienced and dedicated staff, with well acknowledged expertise in R&D as well as the ability to successfully scale up production to commercial quantities.

Management believes that additional investment in Genesis will allow the company to take full advantage of the growing consumer demand for organic products and for products that are grown with respect for the environment. As the organic seed market grows, it is likely that one of the large conventional seed companies will consider buying its way into the organic market by purchasing an organic seed company. For further information, please visit the company's web site at [www.genesisseeds.com](http://www.genesisseeds.com)

### **Biographies of the Founders and Principal Owners of Genesis Seeds, Ltd.**

#### ***Dr. Isaac Nir, Co-Founder and President***

Dr. Nir has over 40 years of experience in all aspects of horticulture. Is a graduate of the Hebrew University of Jerusalem with PhD degrees in Botany & Plant Physiology. While teaching and doing research at the Hebrew University, Dr. Nir invented the Aeroponic Growing and Propagation System. Dr. Nir has complementary studied in all practical aspects of growing and propagation techniques in United States, Japan and Holland.

Prior to founding Genesis Seeds with Manny Shemin in 1993, Dr. Nir was manager and owner of a private horticultural consulting company based in Israel.

Dr. Nir was involved in the evaluation and planning of many agricultural projects around the world (Egypt, Spain, India, Colombia, and Costa-Rica, Israel) and worked for a variety of institutions including the World Bank.

Before his private initiatives in 1988, Dr. Nir was Marketing Manager for Agrexco USA, a subsidiary of Agrexco Israel, one of the largest agricultural exporters in the world and the national extension officer for the plant propagation program ministry of agriculture in Israel.

#### ***Mr. Emanuel Shemin, Co-Founder and Board Member (Nov.23.1930 – Jan 28. 2009)***

Mr. Shemin has been in plant based industry for over 50 years. He holds a degree in plant science from Syracuse University. After graduation and military service, he started Shemin Nurseries, the first one-stop wholesale horticultural distribution business in the U.S. This business has now grown to 30 distribution centers across the U.S. Mr. Shemin sold his business to Weyerhaeuser Company in 1986 but remains involved in the company as a member of the Shemin Nurseries board and a special consultant to the president. Mr. Shemin has been actively connected with the State of Israel since 1976, focusing mainly on horticulture. He worked with Dr. Nir to establish the plant propagation industry for export in 1978, the agribusiness course at the Faculty of Agriculture of The Hebrew University, and has supported many educational and research programs on the production and marketing of horticultural products.

In the 1990s he and Dr. Nir saw opportunity in selling high quality organic seed and in growing this seed in previously infertile land in Israel. Genesis Seeds, like Shemin Nurseries, has first mover advantage in its industry.

***Mr. Shai Nir, Co Owner & General Manager***

Mr. Nir joined the company in 1996 after a complementary study in Holland and Germany on all aspects of seed production and processing. Mr. Nir is a world expert in a large assortment of seed production, processing, post harvest, quality control, storage conditions, shipment and international standards for the seed trade.

He holds an academic degree in 'art since ' from Camara-Obscura, Tel-Aviv, Israel.



*Genesis Seeds Ltd.*

*good things grow naturally*