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Geno-Types - 17 July 2000

Earmarked for Extinction? Seminis Eliminates 2,000 Varieties

Summary: Seminis, the world's largest vegetable seed corporation, announced on 28 June that it would eliminate 2,000 varieties – or 25% of its total product line – as a cost-cutting measure. Seed industry consolidation is dramatically narrowing the availability of non-hybrid vegetable varieties and a wealth of seed diversity is being lost forever.

Back in 1980, seed activists and conservationists protested when the European Community amalgamated its member states' National Lists (plant varieties approved by governments for commercial sale) into a "Common Catalogue." When Brussels' bureaucrats proposed a common seed roster, the seed companies obliged by providing a "hit list" of over 1,500 variety "names" they claimed were only national synonyms of other named varieties. The 1,500 "synonyms" became "illegal" by decree. The deletions were not, of course, "synonyms." When the Catalogue was finalized, nearly 1,000 distinct vegetable varieties were wiped out of commercial existence simply because they represented low-profit competition in the form of non-hybrid or non-proprietary varieties.

Today, after decades of consolidation in the seed industry, it is corporate financial officers, not government bureaucrats, who are wiping out genetic diversity at the stroke of a pen.

Seminis – At a Glance

Subsidiary of Mexico-based conglomerate Savia.

1999 seed revenues: US \$531 million

World's largest vegetable seed company

World's fifth ranking seed company.

Controls 40% of US vegetable seed market.

Presence in 120 countries; 70 research stations in 19 countries and production sites in 32 countries.

Seminis, a subsidiary of the Mexican conglomerate Savia, controls nearly one-fifth of the worldwide fruit and vegetable seed market and is the source of approximately 40% of all vegetable seeds sold in the United States. The company built its seed empire by acquiring a dozen or so seed companies – most notably, the garden seed division of Asgrow, Petoseed and Royal Sluis. As a result of its buying binge, Seminis' offerings grew to approximately 8,000 varieties in 60 species of fruits and vegetables. On 28 June 2000 Seminis announced that it would eliminate 2,000 varieties – or 25% of its varieties, as part of a "global restructuring and optimization plan."

No one knows for sure which varieties will be dropped from Seminis' commercial line, but the older, less-profitable open-pollinated varieties will be the first to go. Seed corporations favor hybrids because profit margins are greater, because gardeners and farmers can't save hybrid seed (thus

encouraging repeat customers), and because the newer varieties are more likely to be patented or protected by plant variety protection laws. Thirty years ago, most North American and European seed companies were small, family-owned businesses that specialized in varieties adapted to regional climates, with resistance to local pests and diseases. Today, just 10 companies control 30% of the commercial seed market worldwide. And just 5 vegetable seed companies control 75% of the global vegetable seed market.

Operating on a global scale, it's more economical for transnational seed companies to breed genetically-uniform varieties suited to the needs of commercial agribusiness, rather than the regional needs of small farmers or backyard gardeners. Corporate breeders are more likely to develop varieties that perform adequately over vast geographic areas, rather than breed for local climates, or for resistance to local pests or diseases. Vegetable gardeners are looking for better-tasting, more nutritious varieties, but the corporate breeder is more likely to provide tomatoes with longer shelf-life, or vegetables that can withstand mechanical harvesting and long-distance shipping. And most importantly, the seed corporation wants monopoly control over its varieties – and that means high-tech, patented varieties. Seminis is a leader in the development of genetically engineered vegetables. The company has 79 issued or allowed patents, and is seeking patents related to beans, bean sprouts, broccoli, cauliflower, celery, corn, cucumber, eggplant, endive, leek, lettuce, melon, muskmelon, onion, peas, pumpkin, radish, red cabbage, spinach, squash, sweet pepper, tomato, watermelon, and white cabbage.

Monitoring Erosion: US-based Seed Savers Exchange (SSE, Decorah, Iowa) is the world's largest grassroots network devoted to rescuing garden diversity. SSE concludes that seed industry consolidation and the profit-motivated shift to hybrid varieties is the leading factor behind the disappearance of garden seed varieties in North America.

"It's impossible to predict how much irreplaceable vegetable diversity is earmarked for extinction as a result of corporate cost-cutting and consolidation," says Kent Whealy, Executive Director of Seed Savers Exchange. "The seed varieties deemed obsolete and unprofitable by Seminis are now part of the company's private gene bank, and that rich diversity is lost to the public," adds Whealy.

According to Jodi Smith of Seminis, "Products that are removed from commercial sale will remain available to our plant breeders through our large bank of germplasm, maintaining biodiversity as a key part of our research and development strategy." From Decorah, Iowa, Kent Whealy is doubtful. "That's not our experience," Whealy regrets. "Conserving diversity in *ex situ* gene banks is expensive, especially re-growing older seed samples that are losing germination. If they're into cost-cutting, it won't be long before they jettison these 2,000 varieties."

Seed Savers Exchange has been monitoring the loss of non-hybrid garden diversity in the US and Canada since 1981. SSE's *Garden Seed Inventory* (now in its Fifth Edition) not only provides an inventory of all non-hybrid vegetable seeds available in mail order catalogs, it also serves as an "early warning system" to identify varieties that are about to be dropped from commercial sources, thus allowing seed conservationists to rescue endangered varieties.

The Fifth Edition of the Garden Seed Inventory reveals that of the nearly 5,000 non-hybrid vegetable varieties available in 1981 mail-order catalogs, 88% had been dropped by 1998. From 1984 to 1987, nearly one-quarter of the mail-order seed companies in the US and Canada (54 out of 230) went out of business or were acquired by larger companies. Transnational agrochemical companies went on a buying spree, purchasing small seed companies and replacing their regionally adapted collections with more profitable hybrids and patented varieties. According to SSE, irreplaceable genetic resources were thoughtlessly destroyed by marketing decisions to maximize the short-term profits of corporations.

But there's also encouraging news. The latest *Garden Seed Inventory* reports that 1,899 entirely new non-hybrid varieties were introduced during the last four years, thanks largely to a handful of small, specialized seed companies devoted to promoting vegetable diversity, and a renewed interest by

backyard gardeners and farmers in diverse, non-hybrid vegetables. But SSE warns that the gains in vegetable diversity are fragile. Only 10% of the 225 companies inventoried in the latest *Garden Seed Inventory* account for 56% of the total unique varieties offered.

SSE's inventory is based on companies that sell garden seeds through mail-order catologs. But there's no systematic way to monitor what varieties the largest seed corporations are deleting from their commercial collections, because the corporate giants don't distribute their catalogs to the public.

The Cost of Consolidation: Kent Whealy explains what's at stake when we lose vegetable diversity:

"If our vegetable diversity is allowed to die out, gardeners will become ever more dependent on transnational seed companies and the generic and hybrid and patented varieties that those companies choose to offer. And that means giving up our right to determine the quality of the food our families grow and consume, and also the ability of gardeners and farmers to save their own seeds, which is the reason that much of this incredible diversity exists in the first place." *Garden Seed Inventory: Fifth Edition*, p. 15.

Action Call

Seminis can take immediate steps to prevent "commerciogenic erosion" by making available a list of all discontinued varieties, and by insuring that duplicate samples of its retired vegetable varieties are made available to a network of international gene banks, where they can be held "in trust" for the international community. Under the terms of the 1994 agreement between the Consultative Group on International Agricultural Research and the UN Food and Agriculture Organization, "in trust" germplasm is maintained in the public domain and is off-limits to intellectual property claims. More importantly, the germplasm is made freely available to plant breeders worldwide, enabling a rich genetic legacy to be conserved and utilized for the public good.

"Seminis is proving on a grand scale that ever-increasing corporate consolidation and cost-cutting that only focuses on the bottom line, invariably prevent responsible genetic stewardship. Seminis could win some positive PR, however, by repatriating vegetable seed through public domain gene banks. Just because Seminis owns the varieties shouldn't mean they have the right to allow them to die," concludes Whealy.

RAFI, the Rural Advancement Foundation International, is an international civil society organization headquartered in Canada. RAFI is dedicated to the conservation and sustainable use of biodiversity, and to the socially responsible development of technologies useful to rural societies. RAFI is concerned about the loss of agricultural biodiversity, and the impact of intellectual property on farmers and food security.

To receive more information about the **Seed Savers Exchange**, or to order a copy of the *Garden Seed Inventory*, contact: Seed Savers Exchange, 3076 North Winn Rd., Decorah, Iowa 52101, USA. Tel: (319) 382-5990 Fax: (319) 382-5872 Call to request SSE's free, 64-page color catalog (including membership information) or access SSE on the internet: http://www.seedsavers.org