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## Monsanto's 'Spectre' Dims

Series of Failures Leads to Lay-Off of Almost 10% of Global Work Force

**Has CEO Bob Shapiro, the 'Goldfinger' of biotechnology, suddenly become the 'Man with the Minus Touch' ... or has Monsanto run afoul 007?**

Why has Monsanto's biotech PR blitz crashed and burnt? Why did the Monsanto- American Home Products marriage break up before it was consummated? Why has the EU's pro-Monsanto patent directive been challenged by the Dutch? Why did the world's largest international ag research network ban the Terminator? Did Monsanto get too close to the Terminator's sterility system? Or, as RAFI suspects, did the "Monster" run afoul the redoubtable 007 ?

"Omegalopoly"? Back in 1963, when Monsanto's CEO, Bob Shapiro was still wet behind his corporate ears, Ian Fleming published his latest 007 thriller, *On Her Majesty's Secret Service*. In the 1969 screen version, George Lazenby starred as James Bond, the invincible super-spy. In the adventure, Fleming's hero locks horns with SPECTRE - a powerful and mysterious organization bent on world domination. SPECTRE's scientists are preparing to unleash a new biological weapon that renders seeds and livestock sterile. A predictable bevy of 'farmers' daughters', buxomly-burdened with the obvious side effect of early experimentation with BST (aka bovine growth hormone) are being readied to spread the sterilizer throughout the farmlands of the world. The only way to prevent this assault on humanity's food supply is for the United Nations to ante-up a hefty ransom, or for 007 to spring to the rescue. The project code name is "Dis-Omega" - presumably implying the "end of the line" for world food security.

Sound familiar? While this should serve as a warning against the dangers of late night television, the truth, of course, is that Robert Shapiro didn't invent the Terminator Technology - nor, indeed, did Monsanto. Terminator (still occasionally called TPS - "Technology Protection System" - by its inventors) is the prodigy of a liaison between the US Department of Agriculture and a little-known cotton seed company. Barely two months after the co-inventors announced their patent, however, Monsanto's offer to buy the company was accepted and the happy nuptials only await clearance from the US Government's more-than-amicable anti-combines authorities. So, whether Terminator's inventors were inspired by the late-late show - or just had a bad dream - remains a mystery for James Bond to solve.

Perhaps prophetically at the time of the Monsanto cotton company acquisition, civil society organizations began conjuring up new names for this powerful DNA company. The winner: "Omegalopoly." However, when Monsanto (annual sales of US\$7.5 billion) announced another merger, this time with American Home Products (annual sales of US\$14.2 billion), a US pharmaceutical/pesticides giant, RAFI opted for the new name, "American Home Monster".

*On Her Majesty's Secret Service*: But the SPECTRE image persists. When the British newspaper, *The Guardian*, criticized Monsanto's pro-biotech media campaign in Europe, the editors earned a visit from the company. More surprisingly, when the well-known and widely-quoted British environmental magazine, *The Ecologist*, published a full edition targeting Monsanto and containing articles opposing the Terminator, the magazine's printer of two decades refused to release the edition and had 14,000 copies pulped instead. The printing house refused to discuss its actions with *The Guardian* or anyone else. Not to be threatened, *The Ecologists'* editor, Zac Goldsmith, went to another printer only to find that British distributors refused to accept the controversial edition. Peculiarly, neither the magazine nor its writers have been threatened with libel suits and Monsanto flatly denies having interfered with the publication. Such is the might of Monsanto, Goldsmith suggests, that smaller commercial enterprises are afraid to do anything to incur its wrath. The net effect, of course, will be to make this issue of *The Ecologist* its hottest number in 25 years.

Let the Games Begin: When things couldn't seem to get worse, Monsanto released its long-anticipated "Let the Harvest Begin" campaign on the eve of World Food Day (Oct. 16th). The campaign is in the form of an open letter on Monsanto's website calling upon the world's policymakers to adopt pro-biotechnology policies in order to feed the hungry. Among the 50-odd signatories to the letter is Norman Borlaug, the Nobel Peace Prize Winner and father of the Green Revolution. Borlaug's presence in the campaign is intensely embarrassing for the Consultative Group on International Agricultural Research (CGIAR) which has recently launched its own public awareness campaign, "Future Harvests" and is compiling its own list of endorsements - including Norman Borlaug. The CGIAR is currently debating a recommendation from an external review panel that would have it developing transgenic crops and working much more closely with companies

such as Monsanto. Monsanto's new campaign couldn't be more poorly-timed. The Monsanto move earned an immediate reaction from a broad range of noted agricultural scientists in Africa who attacked the Monsanto message. In Europe, the Gaia Foundation, Action-Aid, and Greenpeace managed to draw more attention to Africa's opposition to the "Harvest" campaign than Monsanto received from its own publicity.

Goldfinger meets Dr. No: The Monsanto that rode so high in the spring and summer, however, was running into deep trouble by autumn. First, from New Zealand to Zimbabwe, a series sometimes broadcast on national television of pro-biotech public information fora showed Monsanto officials under attack for Terminator Technology. Then Greenpeace reported on an unapproved release of Monsanto's transgenic potatoes in Georgia, (Eastern Europe) and the civil society organization Commutech in Zimbabwe, reported a similar incident in that country with Bt cotton. In India, the Minister of Agriculture announced that his country would ban the import of any seed carrying the Terminator. A Brazilian state followed suit and debates over the Terminator erupted from the Philippines to the Irish Parliament. Even Prince Charles weighed in attacking transgenic foods and supporting sustainable agriculture.

But an unexpected blow came from John Sullivan, CEO of American Home Products, when he decided to scrap the marriage with Monsanto. "It was like Goldfinger ran up against Dr. No.," says Pat Mooney, RAFI's executive director. "Whether the sedate AHP found the hyper Monsanto a little too troublesome - or the bigger company grew concerned over Monsanto's financial vulnerability," Mooney opines, "isn't clear. Some observers think the two CEOs, who proposed to jointly manage the merged enterprise just couldn't get along. Monsanto uses tetracycline to activate the Terminator," Mooney says, "but its most abundant bio-promoter is probably testosterone. Meanwhile, AHP relies heavily on Pfizer's Viagra."

From Holland with Love: Then, in October, the Dutch Government, responding to an all-party resolution from the Parliament in The Hague, announced it would challenge the newly-adopted European Patent Directive. The long fought-over directive - largely carved to the image and liking of biotech companies (among whom Monsanto is in the forefront) comes close to the US open-season model of life patenting. The initial industry proposal had been defeated in the European Parliament in 1995 only to rear its head again in 1997. The Netherlands was the only country to vote against the directive in the European Commission. However, Italy has hinted broadly that it will now join Holland in the court challenge and other countries might be tempted to follow. "It's becoming a full-fledged rebellion against SPECTRE," Mooney enthuses.

The Man with the Golden Gun: Both the Terminator and Monsanto are in trouble. "The 'Goldfinger' of biotech," Pat Mooney says, "looks more like the 'Man with the Minus Touch'." Yesterday, Monsanto announced that that it would cut up to 2,500 jobs - almost 10% of its global work force - to raise money to pay for recent acquisitions. "Monsanto has spent more than US\$8 billion buying seed and ag biotech companies since 1996," notes RAFI's research director, Hope Shand, "Its debt load is fierce and its stock took a tumble after the AHP affair" she adds. Prior to that surprise deal, speculation on Wall Street was that DuPont (annual sales of US\$45 billion) would buy Monsanto. Some years ago, DuPont acquired a key patent from Cornell University that allows it to genetically-transform species by literally "shooting" new genes into them. The technique (sometimes called a 'gene gun' or 'bio-blaster') is a real gun that uses gold flakes coated with DNA. The gun is then fired into the target species and cells containing genetic material from the introduced species are captured for further development. DuPont CEO Charles Holiday, can rightly be called 'the Man with the Golden Gun'. "Last year, DuPont began making good on its promise to become a leading life-industry player," Shand reports. "It bought 20% of the world's largest seed company (Pioneer Hi-Bred) and took over Ralston's soy protein division. Their goal is to develop transgenic soybean varieties with genetic traits useful in soy end-products. Soy is one of the most commonly used commodities in processed foods. Now DuPont is divesting itself of Conoco and other non-biological industries worth several billion dollars. Once sold, the company will be cash rich and ready to make a major purchase such as Monsanto." Monsanto may be a relatively cheap buy right now. More significantly, the company has important soybean patents DuPont may want - including a highly-controversial "species" patent that claims the exclusive right to genetically modify soy plants using any germplasm or technique. RAFI has challenged the patent in the European Patent Office but the case has languished since 1994.

Live and Let Die: A letter-writing campaign against the Terminator organized by RAFI at the beginning of October has also shaken confidence in the future of the Terminator. More than 2600 letters sent from 58 countries have gone to Dan Glickman, the US Secretary of Agriculture, demanding that the Terminator be banned. "There is no doubt that Monsanto is in trouble," Pat Mooney agrees. "They've made themselves a target for every fam and environmental organization in the world. They've offended the media. They've overextended themselves and blown some deals. They need money. Now, the world's largest international agricultural research network (CGIAR, see RAFI news release, "International Network Vows Not to Use Terminator", October 23, 1998) that provides the breeding stock for 70% of the Third World's rice and wheat crop has decided not to use the Terminator. Since the avowed market for the technology is cereal crops in the South, this is a serious blow to the commercialization of the Terminator." RAFI's advice to Third World governments where Terminator patents are pending? "Live and let die."

Notes:

Monsanto is an agricultural technology company with extensive interests in seeds and crop chemicals. The company is also engaged in pharmaceuticals. Monsanto's annual sales exceed US\$7.5 billion and it operates in more than 40 countries around the world.

AHP is a leading prescription and non-prescription pharmaceutical and health care companies with major involvement, as well, in animal health care, crop chemicals and agricultural biotechnology. The company operates in 145 countries and has annual sales of US\$14.2 billion.

DuPont is a global research and technology-based company with interests in food and nutrition; health care; agriculture; fashion and apparel; home and construction; electronics; transportation; and (until now) energy. DuPont operates in 70 countries with 98,000 employees. Revenues in 1997 were more than \$45 billion.

RAFI is a not-for-profit international civil society organization based in Winnipeg, Canada with an annual budget of C\$553,000 and five employees. It addresses issues related to the socio-economic impact of new technologies on rural societies.