

MANAGEMENT

Mycogen's Caulder steps down but not out

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For biotechnology watchers, Jerry Caulder's move was all but inevitable. In May, Caulder, the long-time chairman and CEO of Mycogen Corporation (San Diego, CA), surrendered day-to-day control of his company to a new management team shortly after completing a two-year round of acquisitions and alliances, most notably with DowElanco (Midland, MI), designed to give Mycogen enhanced marketing and scientific muscle.

Unlike his counterparts at other biotechnology companies, who have been forced out after forging lucrative alliances with corporate white knights—Calgene's Roger Salquist and Genentech's Kirk Raab come to mind—Caulder stepped down of his own choice. "It's better to leave slightly too early than slightly too late," he says. The shakeup in top management at Mycogen had all the earmarks of careful planning. The first step came in May 1995, when Caulder appointed Carl Eibl, 37, a lawyer who had come to Mycogen in 1992, as president and chief operating officer. Though Eibl will retain his title for now, he will take over all Mycogen operations and is Caulder's logical successor as chief executive officer.

Caulder's replacement as chairman of board, DowElanco vice president Nick Hein, was instrumental in negotiating Mycogen's February 1986 strategic alliance with DowElanco, a joint venture between Dow Chemical Co. and Eli Lilly. With its trove of patents in insect-resistant *Bacillus thuringiensis* (*Bt*) technologies, Mycogen represented a valuable ally for DowElanco in its bid for market share in the race to supplant chemical pesticides with biologically pest-resistant and insect-resistant crop plants, a worldwide market estimated at \$25 billion. DowElanco now owns 55% of Mycogen (current value, \$700 million) and has five seats on its nine-member board.

For his part, Caulder, who remains Mycogen's largest single stockholder, admits to undergoing some "emotional turmoil" before making the decision to step down at Mycogen, where he was brought in as president from Monsanto in 1984. Anticipating his new role under Dow Elanco's corporate umbrella, Caulder says, he knew his entrepreneurial side would inevitably clash with the demands of corporate life. "I do not operate well under bureaucracies," says Caulder. "I knew at some point in time, the two sides would clash."

Caulder's settlement with Mycogen, essentially a buyout of his contract for options to purchase some 700,000 shares of Mycogen stock, plus some \$2.7 million in severance pay, suggests that much of the real financial reward Caulder stands to gain from stepping down are

tied to the company's fortunes.

For now, Caulder is reportedly hanging on to his stock holdings. Not only is he betting that Mycogen's stock will rise, he believes Wall Street analysts have not yet recognized the value of the company's proprietary *Bt* technologies. Caulder will continue as an active director of the company and strategic adviser to Eibl and Hein. Though he is an outspoken critic of patent litigation as a competitive weapon, he will continue to be involved in ongoing courtroom knock-down-drag-out patent battle with Monsanto. Well-connected and well-respected in the agricultural biotechnology industry, Caulder, who is on the board of the Biotechnology Industry Organization (BIO; Washington, DC), is also likely to play an influential role in Mycogen's ambitious strategic plan for the next several years.

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Like many successful biotechnology companies that have sought corporate white knights with success, Mycogen is now at a critical juncture. In the past, the company has posted low profit margins on exponentially growing revenues in order to maintain and build its R&D capabilities to develop new products. That is probably a luxury Mycogen and DowElanco can no longer afford. Company officials have set annual revenue goals for their lucrative seed business, from a projected \$150 million in the fiscal year ending this August to \$500 million by the year 2000. Mycogen and DowElanco strategists believe this will position Mycogen–DowElanco to do battle in the marketplace against Monsanto and Novartis, their giant competitors in the seed business.

In order to achieve that in three short years, Eibl and Hein have embarked on an aggressive acquisition strategy, with the financial backing of DowElanco, to buy up seed companies that will offer Mycogen not only immediate increases in revenues, but also additional biological technologies and germplasm. In addition, new companies will be brought into the Mycogen–DowElanco fold to enhance Mycogen's distribution and marketing network overseas

and in the United States, where it currently has a 5% market share, and to supplement the network DowElanco already has in place.

That, however, is only half the battle. Scientists at Mycogen and elsewhere figure that *Bt* technologies have an effective shelf life of about 10 years. Even with ongoing efforts to slow or manage the development of resistance to *Bt* proteins in pests and insects, eventual resistance is virtually certain. That, and the fact that the clock running on patent protection, means that the major players in transgenic plant seeds have a window of about a decade in which to not only market existing products, as well as those in the pipeline, but also to develop new insecticidal and pesticidal products to replace *Bt* toxins. Pressures to develop a blockbuster new product have already led Monsanto to make such claims for its cholesterol oxydase technology.

Not to be outdone, DowElanco has let Wall Street know that it too has discovered classes of active protein toxins amenable to genetic engineering and available delivery systems that have shown active pesticidal qualities under greenhouse conditions. DowElanco has been extremely secretive about these proteins. But Mycogen scientists and executives, Caulder included, are reportedly prepared to turn over a major portion of Mycogen's research operation to develop commercial applications for these proteins. Mycogen's CellCap delivery system and its patents in plants, they believe, may well provide the keys to commercialization. Hence, the critical importance to both Mycogen and DowElanco of maintaining robust Mycogen research operations.

At best, however, Caulder believes such new products are at least a decade off. For the moment, thanks to a partnership with Pioneer Hi-Bred (Des Moines, IA), new *Bt* products are in the works for corn, sunflower, soybeans, and canola. But the new long-term products still require years of research and testing and will face significant regulatory hurdles. As a farm boy schooled at Southeast Missouri State and the University of Missouri who still oversees the family farm in Gideon, Missouri, Caulder has seen it all before. If anything, he says, his one major misstep at Mycogen was failing to see that transgenic plant technologies would develop faster than he expected. He is not one to let the same mistake happen again.

Caulder is obviously making the success of the Mycogen–DowElanco strategic plan his business, even as he steps into the background. "Caulder has no plans to go quietly into the night in the agriculture business," says Caulder, "He plans to be around for a long time." ///