

Recognition for Innovative Pheromone-Based Pest Prevention Technology

In November 1997, Shin-Etsu received the Japan Chemical Industry Association's Technology Award for an innovative technology that keeps agricultural pests at bay. Called "Pest Prevention Using Pheromones and Realizing Integrated Pest Management (IPM)," the technology is revolutionizing the protection of crops and agricultural products. Agricultural chemicals such as insecticides have until now played the lead role in the prevention of crop destruction by insects. Over the years, though, insects have developed resistance to the chemicals, which are also blamed for toxicity in the environment. This has been accompanied by a decline in the insects' natural enemies. The result has been the emergence of secondary pests. In an unprecedented breakthrough, Shin-Etsu formulated a



Conventional insecticides can harm the environment and upset ecological balances. Not so Shin-Etsu's "Pest Prevention Using Pheromones and Realizing Integrated Pest Management" technology.

synthetic pheromone that is both environmentally benign and economical. With the environmental impact reduced, farmers can grow produce secure in the knowledge that it will be free of even trace elements of agricultural chemicals.

All Japanese SEH Production Sites Now ISO 14001 Certified

As of the end of 1997, all four domestic production facilities of Shin-Etsu Handotai (SEH) received ISO 14001 certification, a new international standard for environmental management. With this achievement, SEH became first among the domestic silicon wafer makers to complete the certification process. The first facility certified was the Shirakawa Plant in January 1997 followed by the Takefu Plant in July and Isobe Plant in November the same year. Later, in December 1997, the Saigata Plant accomplished the same feat.

International interest in environmental management is on the increase.

The Environment

Furthermore, semiconductor makers are making a concerted effort to respond to demands for sophisticated environmental management techniques. SEH has worked hard at following through to fruition a policy initiated in December 1995 aimed at obtaining certification. The company set forth an ambitious target: to establish an Environmental Management System (EMS) at each global production site in line with ISO 14001 guidelines within three years. Only two years were needed to achieve this goal at domestic bases. Outside Japan, S.E.H. Malaysia Sdn. Bhd. completed in February 1998 the final evaluation leading to certification. Within calendar 1998, both Shin-Etsu Handotai America, Inc. and Shin-Etsu Handotai Europe, Ltd. will push forward with their plans for certification. Prospects are thus excellent for the

achievement of the group's three-year goal.

Assistance for Global Environmental Engineering Research

Shin-Etsu has become a sponsor of a chair at the Global Environmental Engineering Laboratory at the University of Tokyo. With its three-year sponsorship, which began in April 1997, the company is supporting the development of technologies to protect the world's environment. The laboratory is aiming to develop an array of technologies in response to global environmental problems. Expectations for technological advances that will play a major role in the 21st century are high. Some of the themes include attempting to develop a comprehensive system to tap the power of solar energy; studying methods to absorb carbon



CO₂ reduction targets were set at the 1997 COP3 meeting in Kyoto. Research in this direction has begun at the Global Environmental Engineering Laboratory of the University of Tokyo, where Shin-Etsu is a sponsor of a chair.

Photo: Kyodo News

dioxide over oceans and land; developing an effective recycling system for natural resources; and development of solar and fuel cells. Last year, all eyes were on the Third Conference of Parties of the United Nations Framework Convention on Climate Change (COP3), held in Kyoto, Japan, as it set targets for the reduction of gases blamed for global warming. In the same vein, the Laboratory is carrying out research for the purpose of reducing, by half, emissions of carbon dioxide gas. The results of its hard work will have a direct effect on the future of all life forms, including humans, and the planet itself. As such, the results will undoubtedly attract considerable attention.



Shin-Etsu Handotai's Shirakawa Plant, Shin-Etsu's first facility to have earned ISO 14001 certification, a new international standard for environmental management.