

"might include scientists, engineers and industrialists" who would be chosen for their "breadth of experience," although the council rejected an amendment which would have stipulated that one member should be "a broadly-based physicist."

The terms of reference to be given to the committee ask it to advise on how CERN's human and material resources "might be developed to operate with maximum cost-effectiveness and value for money at alternative levels of funding by present member states and to assess the consequences for the CERN program and services to member states."

Although no figures were included in the text of the resolution, the British government insisted that a footnote should be added noting its request that the alternative funding levels whose implications are to be examined should include a 25 percent reduction in all members' contributions over the next 5 to 7 years.

Following the publication of the Kendrew report, Britain's Science and Engineering Research Council is already planning to make such a reduction in its own contribution.

The resolution also asks the committee "to assess the possibilities for engaging and enlarging other sources of funds and resources," a reference to the suggestion that CERN should try to increase the support it receives from nonmember states such as Canada, Japan, and the United States. ■

DAVID DICKSON

## Monsanto Opens Files on Genetic Release Test

In an about-face, the Monsanto Company has decided to make public a lot more information about a genetically engineered microbe that it wants to test outdoors as a pesticide. The company wants to analyze bacteria that have been altered to protect corn plants against black cutworm.

Monsanto's decision comes on the heels of community opposition in California to a genetic engineering experiment by another company, Advanced Genetic Sciences (*Science*, 14 February, p. 667). The experiments planned by the two companies would constitute the first field tests of genetically modified organisms, and have generated considerable interest concerning their potential ecological impact and the adequacy of the federal regulatory process to assess the safety of these types of experiments. The Environmental Protection Agency and an outside panel of experts formed by EPA are

still in the midst of reviewing the Monsanto application.

Nearly a year ago, Monsanto sought approval from EPA to conduct its experiment and, in the process, submitted a hefty pile of data concerning the modified bacteria and the test. But when EPA said it wanted to release a bit more information about the experiment, the company adamantly opposed the idea, claiming the information was proprietary. Since then the agency and the company have been at an impasse.

Now Monsanto has agreed to make public virtually all the information it has submitted to the agency. Although Monsanto described the experiment in general at a press conference last year in Washington, DC, its application provides more details. Only a few pages out of 7 inches of documents submitted have been expurgated. The papers include a description of the experimental protocol, information about the genetic stability of the microbe, and the methods and results of toxicity tests conducted on several plant and animal species.

Up until now, all the company has said about the experiment is that scientists have isolated a gene from *Bacillus thuringiensis* that codes for the production of toxin lethal to cutworm. The gene has been spliced into *Pseudomonas fluorescens*, a microbe commonly found on the roots of corn plants. When cutworm attacks corn roots, it eats the bacteria and dies.

In its application, the company describes the genetic engineering methods it used to alter the soil microbes and the technique it used to ensure that the toxin gene is not transferred to another microbial species. Specifically, the company inactivated the transposase to prevent the movement of the transposon, which carries the toxin gene. The company conducted toxicity assays on several species, including fish, aquatic insects, mosquitoes, laboratory mice, earthworms, and quail, and found no untoward effects. About the only information that was struck from the documents concerns the company's method of coating the *P. fluorescens* to the corn seed.

Although the company originally asked to perform the experiment at locations in Texas, Illinois, and Missouri, it now has limited its request to test only at its Missouri farm in St. Charles. The company proposes to plant 26,000 corn seeds on a 1-acre plot.

Monsanto spokesman Gerard Ingenthron said that the company's willingness to disclose information about this experiment does not establish a corporate precedent. "But because this is one of the first experiments of its kind and we were asked by EPA to reconsider, we decided to release the information," he said. Ingenthron said that

the local furor over the experiment by Advanced Genetic Sciences was not a main reason for the company's change of heart. "We would have arrived at the same decision without the AGS situation," he said.

William Schneider of EPA, who is overseeing the review of the application, says he is pleased that Monsanto is willing to release the information. "If we can't show the public how we're conducting our risk assessments [on these kinds of experiments], confidence is not going to be as great," Schneider said.

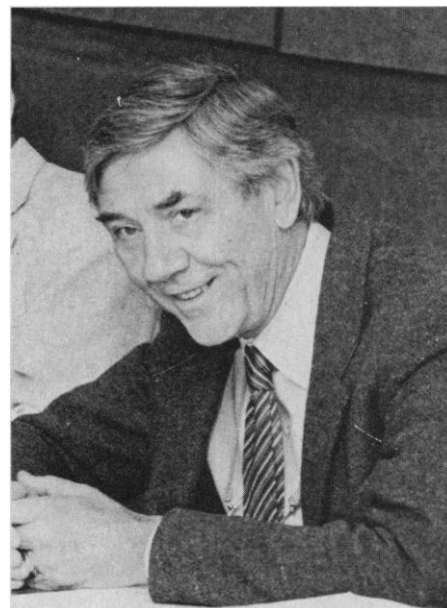
The company documents will be available in microfiche form by 3 March, according to EPA officials.\* The agency is seeking public comment on the application by 21 March.

■ MARJORIE SUN

\*The documents can be read at EPA's docket office or can be obtained in microfiche form by writing EPA's Freedom of Information Office, Office of Pesticide Programs, 401 M St., SW, Washington, DC 20460.

## Comings and Goings

Charles R. Schuster, a psychologist and psychopharmacologist who directs the University of Chicago's Drug Abuse Research Center, has been named the new director of



the National Institute on Drug Abuse. NIDA's intramural research director Jerome Jaffe has been filling the post, which was vacated last year by Herbert Pollin.

Robert G. Niven resigned in January from the directorship of the National Institute on Alcohol Abuse and Alcoholism. Deputy director Loran D. Archer is now acting director.