If Sirica's ruling withstands an appeal—the University of California filed an appeal on 18 May, and the Justice Department is considering doing the same—NIH will almost certainly have to go through the lengthy and probably contentious process of analyzing all the potential consequences of releasing any genetically engineered organisms into the environment before approving any more university experiments in this area. It took NIH over a year to produce its environmental impact statement on the original guidelines, and NIH officials predict it will take them at least 18 months to do another analysis.

Sirica's ruling also sets up a double standard with respect to privately funded experiments. At present, the NIH guidelines apply only to researchers funded by the federal government, but private companies intending to conduct experiments in the environment are submitting their experiments to RAC on a voluntary basis. Sirica said in his decision that RAC can go on approving these private experiments because they are not covered by NEPA, but it must not approve any more federally funded work.

This could lead to a curious situation. At its next meeting on 1 June, RAC is scheduled to consider two experiments proposed by private companies. One, proposed by Cetus, involves a field test of a plant that has been genetically engineered to be disease-resistant. The other, proposed by Advanced Genetic Sciences, is almost identical to Lindow's experiment. This is not surprising because the company has been funding Lindow's research and now wants to test his modified bacteria on several different crops. (Lindow is required to seek RAC approval, even though NIH is not funding the work, because the university receives support from NIH.)

Immediately after Sirica's ruling, NIH officials said they assumed RAC would go ahead with its consideration of the two proposals. But there is speculation that the Justice Department may advise postponing action in view of the ruling.

Rifkin, who confessed to being surprised by Sirica's ruling, says he hopes it will stimulate a broad public debate on the technology. Even some scientists who are appalled that Lindow's experiment has been halted, say they hope the ruling will lead to a broader examination of the issues and a set of principles to guide RAC in considering deliberate release experiments. For example, Peter Raven, director of the Missouri Botanical Garden, says that although he filed an affidavit on NIH's behalf recommending that Lindow's experiment be allowed to proceed, he hopes the decision will focus attention on the ecological questions. "We need to work out our methodologies," he says. (Raven initially backed Rifkin's attempt to halt Lindow's experiment but changed his mind because he now feels it entails no risk.)

One indication of the need for general principles has come from RAC itself. A working group set up to consider environmental testing of genetically engineered plants will report to the 1 June RAC meeting that "the proposals so far submitted for . . . consideration have omitted information that is considered minimal and essential for their approval."

But Rifkin's actions are seen in a much more derogatory light by many scientists. Bernard Davis, for example, accuses him of being a Luddite who does not understand the technology. "He would have opposed the agricultural revolution," if he had been around at the time, scoffs Davis.—**COLIN NORMAN**

Europe to Boost Biotechnology?

London. Science and research ministers from the ten member countries of the European Economic Community (EEC) will be asked next week to endorse a 5-year, $134-million program of joint research, training, and other activities designed to create what the EEC's Commission in Brussels describes as the basis of a "Common Market in Biotechnology."

The explicit aim of the new program, which if approved would last from January 1985 to December 1989 and be jointly funded by the EEC and national governments, is to support a variety of actions that will help the European biotechnology industry to become competitive with those of Japan and the United States. These actions will range from research in key areas of "technical and scientific bottlenecks" which need to be resolved before large-scale applications of biotechnology can be reached, to support for common databases, perhaps jointly financed with the private sector.

In addition, however, the program has a number of political attractions which, its supporters inside and outside the Commission hope, will considerably increase its chances of being adopted. The first of these is that its heavy emphasis on research into the possible agricultural applications of biotechnology—for example, the improvement of high-value crop yields, or the processing of agricultural products—offers political leaders an opportunity to explore ways out of the problems caused by the EEC's current agricultural policies, and in particular its chronic overproduction of certain low-value products.

This aspect is said to have particularly appealed to the French government, which currently holds the presidency of the EEC and is keen to find a solution to the community's broader political problem, as well as to some of its domestic problems caused by the current agricultural policy.

The second attraction of the program is that it is a possible device for harmonizing the regulations of different countries on both biotechnology research and the diffusion of new products. This would be a step toward the creation of a unified European market which many leading biotechnology companies argue is essential for the growth of European industry.

"It is the size and accessibility of the home market which gives the U.S. the edge in biotechnology," Britain's Minister of State for Industry, Kenneth Baker, said in London last week in opening the Biotech 84 conference. "We must aim at lowering the barriers to trade and to aligning regulations between different countries; it is here that the European Commission has an important role to play."

The Commission itself would like to see the new biotechnology program supported as a counterpart to the recent $1.3-billion, 5-year research program into microelectronics (ESPRIT) approved by member states in February. So far, however, the member countries have been reluctant to commit funds of the same order of magnitude, and even approval for the relatively modest program now being proposed could be held up by their current differences on broader political issues.

Similar uncertainty hangs over another proposal to be discussed at next week's meeting, a $285-million, 4-year program of basic research in industrial technology, known as BRITE.—**DAVID DICKSON**