moth and sawfly larvae measured separately). Bees and butterflies will also be assessed. These are all being recorded using standard protocols that are being tested and refined during this year.

Birds are not included in the field study because they range too widely to show real effects when only single fields are being considered, although data on invertebrates and plants will provide measures of resources available to them.

Work in the first season is on a pilot scale to ensure that monitoring is matched to the details of crop management. There will then be three seasons of the summer crops and at least two of the winter crop, at the full scale of around 20 treatment pairs per crop per year. We will select from the pool of available farms using a stratified random procedure; the experimental treatments will be allocated at random within each farm. The GM and control crops will be grown in a split-field or a paired-field plan; work in this first year will confirm which is the more appropriate. There are valid arguments for and against both configurations. In a split field, the two halves of the field will have had similar histories, reducing the variation in biodiversity indicators before treatment. The paired-field design gives less chance of interference between the treatments and is more realistic in terms of the structure of the field boundaries. Both configurations are included in the first-year sites.

The work is being conducted by a UK consortium of the Institute of Terrestrial Ecology, the Institute of Arable Crops Research and the Scottish Crop Research Institute. It is funded by the Department of the Environment, Transport and the Regions, the Ministry of Agriculture, Fisheries and Food, and the Scottish Office.

A steering committee will oversee the progress of the work and ensure the scientific quality and integrity of results. The committee includes independent scientists, including experts from English Nature, RSPB and the Game Conservancy Trust. Many results will not be available until the end of the project in 2002.

The role of scientists is to provide the evidence on which to base a sound risk assessment of the effects of herbicide-tolerant GM crops on biodiversity.

Our evidence will, we trust, provide an important input into a rational debate about the adoption of GM crops.

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Bioethicists must come down to Earth

Sir — You report, without critique, the opinion of Canadian bioethicist Margaret Somerville that "science will need to wait and to help ethics to catch up" (*Nature* **399,** 12; 1999). Any regular reader of your journal is sure to wonder on what planet Somerville has grown up. It is certainly not one on which science or private industry exist, for if it was she would surely know the lunacy of her proposition.

We would be better served if bioethicists were willing and able to work within the realm of the modern, market-oriented world to come up with practical solutions to bioethical problems.

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Barking up the wrong pole

Sir — In a review of Freeman Dyson's book, *The Sun, the Genome and the Internet, Tools of Scientific Revolutions*, the reviewer writes of "such extravagances as bringing back lumps of rock from Mars, when nature has already left us generous supplies of the same material in the form of meteorites, mostly still reposing in the Arctic ice" (*Nature* **398,** 770; 1999). I assume he is in fact referring to the Antarctic blue ice meteorite recovery areas such as Lewis Cliff, Antarctica.

It could be possible to recover more than 100,000 meteorites in the Antarctic over the next couple of decades. In 1986–87, for example, we recovered several hundred meteorites.

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Let's all speak the same language

Sir — In your article on the fifth conference of the African Academy of Science, Ali Mazrui is reported as suggesting that African science is unlikely to develop while English remains the main medium of communication (*Nature* **399,** 12; 1999). I can understand the desire to discuss one's work in one's own language, but I must question how practical it would be in a continent such as Africa where there are many indigenous languages.

There have been several successful pan-African conferences on natural products chemistry, a subject which I think Mazrui would consider valuable, in view of the scope that it offers for examining traditional medical knowledge. I could not help picturing what such a conference would be like if conducted in African languages, with simultaneous translation into Arabic, Amharic, Swahili, Yoruba and Zulu.

Even deciding which to accept as official conference languages might provoke endless disagreement. Possibly, Mazrui's suggestion might be more appropriate in the romantic field of the literary world, rather than in the more practical scientific one. However nice as an idea, I think that the suggestion has little practical relevance.

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German researchers won't be put in the dock

Sir — Your article "Animal rights activists turn the screw" stated that the Deutsche Tierschutzbund [a German animal welfare organization] would "initiate court cases and injunctions against researchers" if animal protection were included in the German constitution (*Nature* **396,** 505; 1998). Contrary to this statement, the Deutsche Tierschutzbund has no intention of doing so.

The proposed change to the constitution aims to reinforce a 1986 amendment to the German animal welfare law that introduced a requirement for licensing procedures for experiments to include an ethical evaluation process. The need for this change arose after the Constitutional Court decided in 1994 that such ethical evaluation is unconstitutional, because freedom of research is embodied in the constitution, but animal welfare is not.

No animal welfare organization had brought a court case against researchers before 1994, so why should this change if the requirement for ethical evaluation is simply reinforced? Animal welfare organizations will find it hard to take scientists to court or to have licences revoked: the licensing procedures will remain confidential, and the decision of the authorities will rest on criteria that are not heard at court.

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