

## Plant breeding

# Genetic diversity threatened

### Washington

The International Board for Plant Genetics Resources (IBPGR) is in a race against time to preserve the diversity of germplasm needed for future plant breeding programmes, but its success is threatened by cutbacks in support for international agricultural research.

"If the work is not done in the next 5-10 years, we're finished", Dr J. Trevor Williams, executive secretary of IBPGR, said here last week. The spread of a few high-yielding varieties of many crops "forces the time-scale", and these new varieties are quickly replacing the diverse traditional varieties which have evolved over thousands of years and which represent the essential raw material for the development of future strains. Wild varieties, too, are threatened by such changes as forest clearing in the tropics.

IBPGR, which is part of the Consultative Group on International Agricultural Research (CGIAR), has since 1974 been sponsoring expeditions to gather samples of wild and traditional varieties of key crops and has coordinated efforts to provide storage facilities to preserve these germplasms. But, as a recent report from the CGIAR secretariat notes, "germplasm activity can be discontinued at short notice and, over the short term, its lack is not immediately missed. Over the longer term, its lack will be serious."

CGIAR's support for 1982 is expected to fall about \$14 million short of even its low-budget option of \$166 million for the year; and given the vulnerability of germplasm activities, IBPGR is "questioning whether

it can continue to fund collecting missions or equipment for germplasm storage", according to the report.

IBPGR has sponsored some 250 missions, which have collected about 100,000 new seed varieties. The board has also helped to coordinate the various national germplasm programmes, and has been particularly active in the generally overlooked area of tropical fruits and vegetables. According to Dr William Brown of Pioneer Hi-Bred, a seed company in Des Moines (Brown is also chairman of two crop advisory committees to IBPGR), the board has also played an important part in providing "insurance" in the germplasm resource system. "A real effort has been made to have them stored in more than one place."

The importance of the germplasm collection and storage activities has been underlined by several recent developments. A new variety of rice developed by CGIAR's International Rice Research Institute in the Philippines, for example, included a wild variety of rice (*Oryza nivara*) in its breeding to confer resistance to a disease known as grassy stunt. This new variety, called IR36, has been adopted with remarkable speed, displacing traditional varieties. Almost 11 million hectares have been planted with IR36, which now accounts for more than 60 per cent of the rice grown in the Philippines, Indonesia and southern Vietnam. And, as Dr Williams pointed out, once the traditional varieties are gone, "there is no way you can get them back".

Stephen Budiansky

## Biotechnology

# More help

More help for British biotechnology is on the way. Last week, Mr Patrick Jenkin, Secretary of State for Industry, announced that his department will spend £16 million in the next three years to promote innovation and awareness in biotechnology among British companies. The scheme, modelled on an earlier scheme that promoted microprocessor technology, should go some way to answering persistent criticism of the British government for failing to provide effective support in this area.

In July, a House of Commons select committee complained that the government had failed to protect university research in biotechnology against the reduction of support from the University Grants Committee (UGC) in 1981. Although UGC had set aside £1.2 million for selected universities to support research in biotechnology, the select committee feared that much of this would be used to make good deficiencies incurred in earlier cuts. (The final allocation of this sum has yet to be announced.)

The new scheme from the Department of Industry is intended to complement UGC and research council support, and will be coordinated by a new biotechnology unit set up at the Laboratory of the Government Chemist. A graded system of grants will help companies to commission strategic studies, feasibility studies and specific problem-solving studies by independent consultants. There will also be cash grants for innovative demonstration plants as well as for research projects funded jointly with industry at selected centres. The department also promises a "general strengthening of the biotechnology infrastructure", which will include support for an information service and culture collections.

Mr Jenkin explained that the government was introducing the measures because potentially commercial biotechnology investments entailed high risk and long lead-times. Another reason may be growing concern that British scientists, frustrated by lack of opportunities for research, are being lured abroad. Other recent publicly supported initiatives include a biotechnology research centre at the University of Leicester, supported jointly by the Science and Engineering Research Council and several industrial companies.

Mr Jenkin maintained that British support for biotechnology now compares favourably with that in other countries, an assessment that has been challenged by opposition Labour MPs: one described the scheme as "no more than a drop in the ocean". The Confederation of British Industry has cautiously welcomed the new plan, although a spokesman said of the £16 million figure, "obviously we would like to see it higher".

Tim Beardsley

## "Creationism" thwarted

### Washington

A Louisiana law requiring the teaching of "creation-science" in public schools was struck down last week in the federal district court. Judge Adrian Duplantier ruled that the law, virtually identical to the Arkansas statute that was overturned last year, infringed upon the authority of the state's Board of Elementary and Secondary Education to set school policy.

In contrast to the Arkansas case, the judge made no finding of fact on the validity of "creationism" as science. "We didn't even deal with the facts", said Burt Neuborne, legal director of the American Civil Liberties Union (ACLU), which brought the suit. "We just said the wrong government agency acted."

Under the Louisiana constitution, the education board has authority to "supervise and control" the public schools; the legislature is charged to "establish and maintain" the schools. The judge ruled that in specifying a

detailed course of study, the legislature overstepped its authority. The board, which was originally named as a defendant in the suit, joined with ACLU in arguing that its prerogatives were being usurped by the law. The board, composed of professional educators, is unlikely to institute a "creation-science" teaching requirement on its own. Louisiana's attorney general, however, immediately announced that the state would appeal the decision to the federal circuit court of appeals.

Neuborne suggested that similar separation-of-powers arguments could be raised under the constitutions of other states that pass "creation-science" laws. Georgia and Alabama may do so next year. "Separation of powers is an incredible mine of judicial resources", Neuborne said — and may also be an inexpensive one to tap. "The Arkansas case cost us \$1.2 million", he said. "This one cost us eight sheets of yellow legal paper."

Stephen Budiansky