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Africa hungry for conventional food as biotech row drags on

Natasha McDowell, London

Famine-relief efforts in drought-stricken southern Africa are this week trapped in the increasingly bitter and polarized global argument over the acceptability of genetically modified (GM) crops.

Most attention has focused on Zimbabwe's decision earlier this month to accept a shipment of GM maize (corn) sent as a gift by the United States only if it was first milled and therefore could not be planted. Previously, it had refused the shipment altogether.

Zambia, Namibia and Mozambique are also to varying degrees resisting the importation of transgenic crops.

But as hundreds of thousands of people face starvation in the coming months, the diverse disputes on food aid reflect a broader impasse between Europe and the United States over the perceived safety of transgenic crops. The aid is usually donated as a gift or in the form of loans or grants to purchase food from the donor country.

Some aid officials accuse international, non-governmental aid organizations of stirring up unfounded concerns in Africa about transgenic foods.

The aid organizations and African government officials counter with the argument that the United States is using this crisis to force African countries to accept transgenic agriculture when they lack the means to independently assess the risks it may pose to the environment and to health.

A. VITALE/GETTY IMAGES

Relief: transgenic food has been welcomed in Malawi despite causing problems in other countries.

Zambia is still in negotiations with the United States about a major loan from Washington tied to the purchase of US-grown GM maize. As is common with much foreign aid, most food aid from the United States comes in the form of loans to buy food from US farmers. Mozambique has an

US calls for early data on transgenic crop safety

Erika Check, Washington

The Bush administration has released a new policy that asks companies to voluntarily report data on the safety of genetically modified (GM) crops while they are still in early-stage field trials.

The policy, released by the White House on 2 August, says that the increasing number of GM crops in field trials "could result in intermittent, low levels of biotechnology-derived genes … occurring in commerce that have not gone through all applicable regulatory reviews".

It says that the US Food and Drug Administration (FDA) should collect information, supplied on a voluntary basis, about the "potential toxicity and allergenicity" of proteins introduced into experimental crops. The data would be collected only if the protein had not previously been assessed in another crop.

The FDA would encourage growers "to consult with the agency about whether the presence in food/feed of such material at low and intermittent levels would raise any potential safety issues", the policy states.

Industry organizations have welcomed the voluntary requirement, saying that their members will comply, and that this will help to reassure countries that import food from the United States.

"It's good for our trading partners and for consumers who are still gaining confidence in this new technology to know it's being looked at in very early stages," says Lisa Dry, a spokeswoman for the Biotechnology Industry Organization.

But environmental groups have attacked the policy. Matt Rand of the National Environmental Trust says that the Bush administration has now acknowledged that experimental GM crops are likely to contaminate other crops, but is not requiring companies to prove that the crops are safe.

"The international community is going to be even more sceptical of US exports than they were before," Rand says.

official policy of accepting only GM-free maize, as has Namibia. But Malawi has accepted free US food without raising any concerns, as have Lesotho and Swaziland.

"People here are following the global debate on GM crops and are concerned that not much is known," says Mwananyanda Lewanika, a biotechnologist at the National Institute for Scientific and Industrial Research in Lusaka, Zambia. "We can't introduce GM technology without a biosafety regulatory framework in place. Until then we would prefer to buy crops from where we know they are GM-free, even if they are more expensive."

The African nations are also concerned that their future chances of exporting their own crops to Europe could be damaged if the GM grain delivered as food aid were replanted and entered the food cycle. Many European food manufacturers refuse to accept GM food, owing to consumers' dislike of the technology. Even fewer are likely to accept it if new rules come into effect that require the labelling of foodstuffs containing GM ingredients (see *Nature* **418,** 114; 2002).

"African countries now face new export hurdles because of regulatory uncertainty in Europe," says Calestous Juma, a development expert at Harvard University. "The issue is not about whether GM crops are safe or not. It is about the urgent need to agree on a predictable and non-discriminatory trading regime for GM products."

US officials claim that they could not give countries GM-free crops even if they wanted to, as US farmers do not routinely segregate GM and non-GM crops, except for the organic market.

Critics of the US aid strategy contend that it exploits the crisis by depriving the African countries of the chance to decide whether or not they want the technology. "Accepting GM technology now could stop these countries getting back on their feet in the long term," says Hannah Crabtree of the UK charity ActionAid.

Some aid officials working in Africa claim that the Zambian government is being encouraged by European aid groups to reject the US loan.

"I think it is absolutely irresponsible unless they put their money where their mouth is and come up with non-GM food," says one aid official, who asked not to be named. "I don't have the nerve, heart or soul to deny, as a precautionary principle, food to people who are hungry right here, right now. It is a debate that only America and Europe can afford because they have food."

The World Food Programme, the United Nations agency responsible for coordinating food aid, has so far received only a quarter of the US$507 million of food aid that it has requested for the region. ■

Future of the NIH may lie in restructuring, committee told

Erika Check, Washington

With next year's budget topping $27 billion, the National Institutes of Health (NIH) has every right to feel flush. But according to two of the agency's former directors, it needs to be restructured in order to spend its new-found wealth wisely.

The case for reorganization was made on 30 July, at the first meeting of a committee appointed by Congress to assess the NIH's structure. Former NIH directors Harold Varmus and Bernadine Healy told the committee, which is being run jointly by the Institute of Medicine and the National Academy of Sciences, that Congress could make the NIH more effective by reorganizing it into clusters.

The NIH was constituted as a single research institute 72 years ago. Today, it consists of 27 separate institutes and centres, each of which receives its own budget from Congress. And the NIH director has only limited direct control over the institutes. Varmus, who held the position from 1993 to 1999, has argued that this decentralized structure wastes resources and stops the director from taking decisive action, such as injecting extra resources into cutting-edge projects.

Varmus and Healy told the meeting that reorganization would allow the NIH to respond to new research needs and eliminate administrative duplication. Varmus suggested that legislators start by creating a National Institute of Brain Disorders, which would incorporate six current institutes, including the National Institute of Mental Health and the National Institute of Neurological Disorders and Stroke. "We have a pretty good opportunity to do an experiment here," he said, arguing that if the new cluster was successful, others could follow.

The House of Representatives subcommittee that funds the NIH requested the study in its 2001 appropriations bill. And although any threat to the institutes' cherished autonomy is likely to be opposed by individual congressmen, advocacy groups and even researchers, the committee was told by congressional staffers that its recommendations could help to overcome such resistance.

NIH

Grand design: originally a single institution, the NIH now consists of 27 institutes and centres.

"You are protected from certain pressures that are on us," said David Bowen, a staff member of the Senate committee that oversees the NIH. "It will be far easier for you to come up with a proposal than it would be to originate it on Capitol Hill," he said.

In addition to looking at the NIH's overall structure, the panel, which is chaired by Harold Shapiro, former president of Princeton University, is being asked to consider a few specific questions. Cheryl Jaeger, a member of the House Energy and Commerce Committee in the House of Representatives, asked the panel to consider whether the Institute on Drug Abuse and the Institute on Alcohol Abuse and Alcoholism could be merged. And Bowen asked the panel to contemplate what should happen to the National Human Genome Research Institute as the Human Genome Project nears completion.

Former congressman John Porter, who used to chair the subcommittee that requested the report, warned panel members to concentrate on changes that are politically realistic. He said a proposal for new clusters is more likely to be implemented if each institute keeps some measure of autonomy.

And current NIH director Elias Zerhouni cautioned the panel to think seriously about whether reorganizing the agency would do any good, when it already functions relatively well.

Others said that the panel, which will report in 2003, must rapidly enlist the support of the health and science advocacy groups that have a stake in the NIH. "They should consult widely, because if the committee does see fit to recommend major changes, then we can be certain that there will be major resistance," said Leon Rosenberg, a molecular biologist at Princeton University who headed a previous panel on how the NIH should set research priorities. ■

R. EDMONDS/AP

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Fresh focus: Bernadine Healy (left) and Harold Varmus advocate reorganizing the NIH.