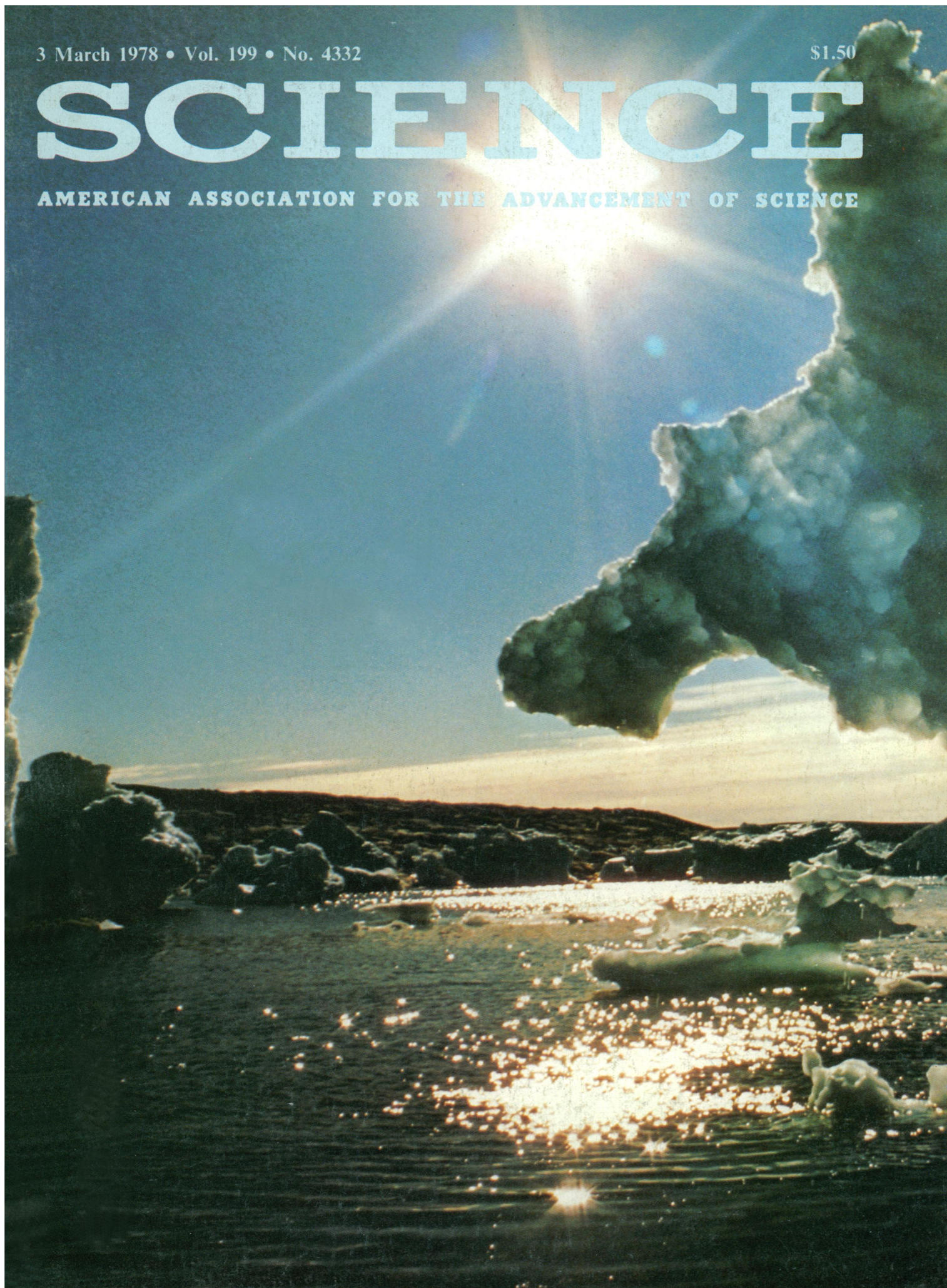


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# SCIENCE

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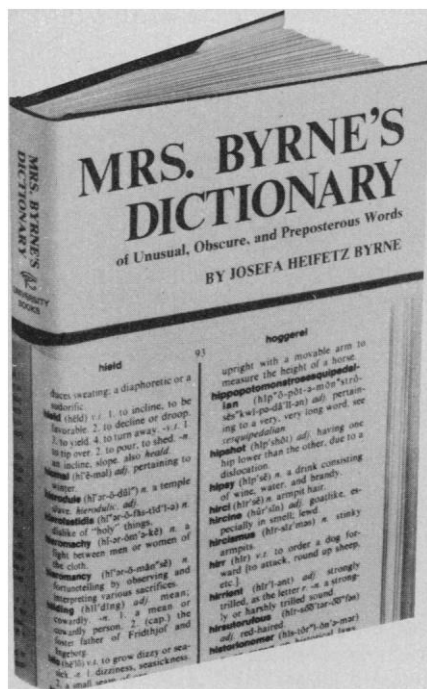


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Ice floe, Canadian Arctic. See page 946.  
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# A New Grants Program in Agriculture

In the fall of 1977 President Carter signed Public Law 95-113, known as the Food and Agriculture Act of 1977. Title XIV of that act authorizes a program of grants for facilities and instrumentation used in agricultural research as well as fellowships to strengthen training and research in the food and agricultural sciences. Among other things, the law also states that federal initiatives are needed in such areas as alternative energy sources, environmental problems, energy conservation, forestry, climate, extension agriculture, animal health, organic wastes, and marketing.

Section 1414 of Title XIV establishes a new program of competitive grants for high-priority agricultural research to be awarded among scientific research workers including those at *all* colleges and universities. Ground-swell support for this program came from Congress, the National Academy of Sciences, and numerous other groups in the scientific community. For fiscal year 1978, \$15 million has been allocated to the program. Decisions to fund the other items in Title XIV mentioned above have not been made for 1979.

Leaders in agriculture view the new grants program as providing an added dimension in agricultural research since it will undoubtedly expand the circle of scientists performing this activity. The Executive budget for fiscal 1979 doubles the funds allocated to the competitive grants program at the expense of several older formula-based research programs. One of the programs affected includes agricultural research at land-grant universities that was initiated by the Hatch Act of 1887. Funding for the latter for fiscal 1979 is \$94 million, compared to \$105 million for 1978, a change of about 10 percent. Many people feel a strong Hatch base is needed in order that the complete spectrum of agriculturally related problems will continue to be addressed. Nevertheless, if this budget is accepted by Congress it will bring more agriculture research dollars under a classical peer review system such as that of the National Science Foundation and expand the number and kinds of institutions in which such research activities are performed.

Because of its limited initial budget, the competitive grants program in 1978 will fund research projects in certain critical aspects of plant sciences and human nutrition. Approximately \$10 million will be allocated to plant sciences and \$5 million to human nutrition. Substantial advances in studies of nitrogen fixation, photosynthesis, biological stress, and plant genetics will probably take time. The fundamental research program in plant sciences is viewed as a means of providing a knowledge base from which systems can be developed that will enable growers to increase productivity—for instance, acquiring the information needed to produce disease-resistant varieties and varieties that do not require pesticide application, or to optimize legume-*Rhizobium* interactions for greater nitrogen fixation.

In the field of human nutrition, there are gaps in our understanding of nutrient requirements, the bioavailability and interrelationships of nutrients, and the nutrient value of foods in the United States. There is also an apparent need to understand the sociobehavioral aspects of human nutrition, and this problem will be addressed in the current program.

The new grants program is just getting under way. Grant proposals will be due at the Competitive Grants Office, U.S. Department of Agriculture, Arlington, Virginia 22209, in April. The peer review method will be used for grant evaluation. Suggestions concerning program policy, personnel, and operation procedures will be welcomed.

The program has been needed, and it should stimulate research that will serve as the basis for agricultural concepts to be used by generations to come. Coupled with the established agricultural research system, it should have a profound influence on agricultural production worldwide.—GARY A. STROBEL\*, *Department of Plant Pathology, Montana State University, Bozeman 59715*

\*On leave at the Science and Education Administration, U.S. Department of Agriculture, Washington, D.C. 20250.

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