109TH CONGRESS
1ST SESSION

S. 767

To establish a Division of Food and Agricultural Science within the National Science Foundation and to authorize funding for the support of fundamental agricultural research of the highest quality, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 12, 2005

Mr. BOND (for himself, Ms. MIKULSKI, Mr. TALENT, Mr. HARKIN, Mr. ROBERTS, and Mr. COLEMAN) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

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A BILL

To establish a Division of Food and Agricultural Science within the National Science Foundation and to authorize funding for the support of fundamental agricultural research of the highest quality, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''National Food and Agricultural Science Act of 2005''.

SEC. 2. DEFINITIONS.

In this Act:

(1) COUNCIL.—The term ''Council'' means the Standing Council of Advisors established under section 4(c).

(2) DIRECTOR.—Except as otherwise provided in this Act, the term ''Director'' means the Director of Food and Agricultural Science.

(3) DIVISION.—The term ''Division'' means the Division of Food and Agricultural Science established under section 4(a).

(4) FOUNDATION.—The term ''Foundation'' means the National Science Foundation.

(5) FUNDAMENTAL AGRICULTURAL RESEARCH; FUNDAMENTAL SCIENCE.—The terms ''fundamental agricultural research'' and ''fundamental science'' mean fundamental research or science that—

(A) advances the frontiers of knowledge so as to lead to practical results or to further scientific discovery; and

(B) has an effect on agriculture, food, nutrition, human health, or another purpose of this Act, as described in section 3(b).

(6) SECRETARY.—The term ''Secretary'' means the Secretary of Agriculture.

(7) UNITED STATES.—The term ''United States'' when used in a geographical sense means

the States, the District of Columbia, the Commonwealth of Puerto Rico, and all territories and possessions of the United States.

SEC. 3. FINDINGS AND PURPOSES.

(a) FINDINGS.—The Agricultural Research, Economics, and Education Task Force established under section 7404 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 3101 note) conducted an exhaustive review of agricultural research in the United States and evaluated the merits of establishing 1 or more national institutes focused on disciplines important to the progress of food and agricultural science. Consistent with the findings and recommendations of the Agricultural Research, Economics, and Education Task Force, Congress finds the following:

(1) Agriculture in the United States faces critical challenges, including an impending crisis in the food, agricultural, and natural resource systems of the United States. Exotic diseases and pests threaten crops and livestock, obesity has reached epidemic proportions, agriculturally-related environmental degradation is a serious problem for the United States and other parts of the world, certain animal diseases threaten human health, and United States

producers of some major crops are no longer the world's lowest cost producers.

(2) In order to meet these critical challenges, it is essential that the Nation ensure that the agricultural innovation that has been so successful in the past continues in the future. Agricultural innovation has resulted in hybrid and higher yielding varieties of basic crops and enhanced the world's food supply by increasing yields on existing acres. Since 1960, the world's population has tripled with no net increase in the amount of land under cultivation. Currently, only 1.5 percent of the population of the United States provides the food and fiber to supply the Nation's needs. Agriculture and agriculture sciences play a major role in maintaining the health and welfare of all people of the United States and in husbanding our land and water, and that role must be expanded.

(3) Fundamental scientific research that leads to understandings of how cells and organisms work is critical to continued innovation in agriculture in the United States. Such future innovations are dependent on fundamental scientific research, and will be enhanced by ideas and technologies from other fields of science and research.

(4) Opportunities to advance fundamental knowledge of benefit to agriculture in the United States have never been greater. Many of these new opportunities are the result of amazing progress in the life sciences over recent decades, attributable in large part to the provision made by the Federal Government through the National Institutes of Health and the National Science Foundation. New technologies and new concepts have speeded advances in the fields of genetics, cell and molecular biology, and proteomics. Much of this scientific knowledge is ready to be mined for agriculture and food sciences, through a sustained, disciplined research effort at an institute dedicated to this research.

(5) Publicly sponsored research is essential to continued agricultural innovation to mitigate or harmonize the long-term effects of agriculture on the environment, to enhance the long-term sustainability of agriculture, and to improve the public health and welfare.

(6) Competitive, peer-reviewed fundamental agricultural research is best suited to promoting the fundamental research from which breakthrough innovations that agriculture and society require will come.

(7) It is in the national interest to dedicate additional funds on a long-term, ongoing basis to an institute dedicated to funding competitive peer-reviewed grant programs that support and promote the highest caliber of fundamental agricultural research.

(8) The Nation's capacity to be competitive internationally in agriculture is threatened by inadequate investment in research.

(9) To be successful over the long term, grant-receiving institutions must be adequately reimbursed for their costs if they are to pursue the necessary agricultural research.

(10) To meet these challenges, address these needs, and provide for vitally needed agricultural innovation, it is in the national interest to provide sufficient Federal funds over the long term to fund a significant program of fundamental agricultural research through an independent institute.

(b) PURPOSES.—The purposes of the Division established under section 4(a) shall be to ensure that the technological superiority of agriculture in the United States effectively serve the people of the United States in the coming decades, and to support and promote fundamental

agricultural research of the highest caliber in order to achieve goals, including the following goals:

(1) Increase the international competitiveness of United States agriculture.

(2) Develop knowledge leading to new foods and practices that improve nutrition and health and reduce obesity.

(3) Create new and more useful food, fiber, health, medicinal, energy, environmental, and industrial products from plants and animals.

(4) Improve food safety and food security by protecting plants and animals in the United States from insects, diseases, and the threat of bioterrorism.

(5) Enhance agricultural sustainability and improve the environment.

(6) Strengthen the economies of the Nation's rural communities.

(7) Decrease United States dependence on foreign sources of petroleum by developing bio-based fuels and materials from plants.

(8) Strengthen national security by improving the agricultural productivity of subsistence farmers in developing countries to combat hunger and the political instability that it produces.

(9) Assist in modernizing and revitalizing the Nation's agricultural research facilities at institutions of higher education, independent non-profit research institutions, and consortia of such institutions, through capital investment.

(10) Achieve such other goals and meet such other needs as determined appropriate by the Foundation, the Director, or the Secretary.

SEC. 4. ESTABLISHMENT OF DIVISION.

(a) ESTABLISHMENT.—There is established within the National Science Foundation a Division of Food and Agricultural Science. The Division shall consist of the Council and be administered by a Director of Food and Agricultural Science.

(b) REPORTING AND CONSULTATION.—The Director shall coordinate the research agenda of the Division after consultation with the Secretary.

(c) STANDING COUNCIL OF ADVISORS.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—There is established in the Division a Standing Council of Advisors composed of 12 highly qualified scientists who are not employed by the Federal Government and 12 stakeholders.

(B) SCIENTISTS.—

(i) APPOINTMENT.—The 12 scientist members of the Council shall be appointed to 4-year staggered terms by the Director of the National Science Foundation, with the consent of the Director of Food and Agricultural Science.

(ii) QUALIFICATIONS.—The persons nominated for appointment as scientist members of the Council shall be—

(I) eminent in the fields of agricultural research, nutrition, science, or related appropriate fields; and

(II) selected for appointment solely on the basis of established records of distinguished service and to provide representation of the views of agricultural research and scientific leaders in all areas of the Nation.

(C) STAKEHOLDERS.—

(i) APPOINTMENT.—The 12 stakeholder members of the Council shall be appointed to 4-year staggered terms by the Secretary, with the consent of the Director.

(ii) QUALIFICATIONS.—The persons nominated for appointment as stakeholder members of the Council shall—

(I) include distinguished members of the public of the United States, including representatives of farm organizations and industry, and persons knowledgeable about the environment, subsistence agriculture, energy, and human health and disease; and

(II) be selected for appointment so as to provide representation of the views of stakeholder leaders in all areas of the Nation.

(2) DUTIES.—The Council shall assist the Director in establishing the Division's research priorities, and in reviewing, judging, and maintaining the relevance of the programs funded by the Division. The Council shall review all proposals approved by the scientific committees of the Division to ensure that the purposes of this Act and the needs of the Nation are being met.

(3) MEETINGS.—

(A) IN GENERAL.—The Council shall hold periodic meetings in order to—

(i) provide an interface between scientists and stakeholders; and

(ii) ensure that the Division is linking national goals with realistic scientific opportunities.

(B) TIMING.—The meetings shall be held at the call of the Director, or at the call of the Secretary, but not less frequently than annually.

SEC. 5. FUNCTIONS OF DIVISION.

(a) COMPETITIVE RESEARCH.—

(1) IN GENERAL.—The Director shall carry out the purposes of this Act by awarding competitive peer-reviewed grants to support and promote the very highest quality of fundamental agricultural research.

(2) GRANT RECIPIENTS.—The Director shall make grants to fund research proposals submitted by—

(A) individual scientists;

(B) single and multi-institutional research centers; and

(C) entities from the private and public sectors, including researchers in the Department of Agriculture, the Foundation, or other Federal agencies.

(b) COMPLEMENTARY RESEARCH.—The research funded by the Division shall—

(1) supplement and enhance, not supplant, the existing research programs of, or funded by, the Department of Agriculture, the Foundation, and the National Institutes of Health; and

(2) seek to make existing research programs more relevant to the United States food and agriculture system, consistent with the purposes of this Act.

(c) GRANT-AWARDING ONLY.—The Division's sole duty shall be to award grants. The Division may not conduct fundamental agricultural research or fundamental science, or operate any laboratories or pilot plants.

(d) PROCEDURES.—The Director shall establish procedures for the peer review, awarding, and administration of grants under this Act, consistent with sound management and the findings and purposes described in section 3.

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