

**(2) In-kind support**

Non-Federal matching funds described in paragraph (1) may include in-kind support.

**(3) Waiver**

The Secretary may waive the matching funds requirement under paragraph (1) with respect to a research project if the Secretary determines that—

(A) the results of the project are of a particular benefit to a specific agricultural commodity, but those results are likely to be applicable to agricultural commodities generally; or

(B)(i) the project—

(I) involves a minor commodity; and  
(II) deals with scientifically important research; and

(ii) the recipient is unable to satisfy the matching funds requirement.

**(g) Authorization of appropriations**

There is authorized to be appropriated to carry out this section \$40,000,000 for each of fiscal years 2019 through 2023.

(Pub. L. 101-624, title XVI, §1671, Nov. 28, 1990, 104 Stat. 3769; Pub. L. 104-66, title I, §1011(s), Dec. 21, 1995, 109 Stat. 710; Pub. L. 104-127, title VIII, §835, Apr. 4, 1996, 110 Stat. 1169; Pub. L. 105-185, title II, §241, June 23, 1998, 112 Stat. 547; Pub. L. 107-171, title VII, §7208(a), May 13, 2002, 116 Stat. 442; Pub. L. 110-234, title VII, §7406(d)(2), May 22, 2008, 122 Stat. 1252; Pub. L. 110-246, §4(a), title VII, §7406(d)(2), June 18, 2008, 122 Stat. 1664, 2013; Pub. L. 113-79, title VII, §§7128(b)(2)(B), 7208, Feb. 7, 2014, 128 Stat. 878, 881; Pub. L. 115-334, title VII, §§7208, 7614(b)(2)(B), Dec. 20, 2018, 132 Stat. 4805, 4834.)

**Editorial Notes****CODIFICATION**

Pub. L. 110-234 and Pub. L. 110-246 made identical amendments to this section. The amendments by Pub. L. 110-234 were repealed by section 4(a) of Pub. L. 110-246.

**AMENDMENTS**

2018—Pub. L. 115-334, §7208(1), inserted “to Phenome” after “Genome” in section catchline.

Subsec. (a). Pub. L. 115-334, §7208(2), added subsec. (a) and struck out former subsec. (a) which related to goals for the Agricultural Genome Initiative.

Subsec. (b). Pub. L. 115-334, §7208(3), added subsec. (b) and struck out former subsec. (b) which related to duties of the Secretary of Agriculture under the Agricultural Genome Initiative.

Subsec. (c)(1). Pub. L. 115-334, §7208(4), inserted “, acting through the National Institute of Food and Agriculture,” after “The Secretary”.

Subsec. (e). Pub. L. 115-334, §7208(5), inserted “to Phenome” after “Genome”.

Subsec. (f). Pub. L. 115-334, §7614(b)(2)(B), added subsec. (f) and redesignated former subsec. (f) as (g).

Pub. L. 115-334, §7208(6), added subsec. (f).

Subsec. (g). Pub. L. 115-334, §7614(b)(2)(B)(i), redesignated subsec. (f) as (g).

2014—Subsec. (c)(3). Pub. L. 113-79, §7208, added par. (3).

Subsecs. (e), (f). Pub. L. 113-79, §7128(b)(2)(B), redesignated subsec. (f) as (e) and struck out former subsec. (e) which related to matching of funds.

2008—Subsec. (d). Pub. L. 110-246, §7406(d)(2), substituted “Paragraphs (4), (7), (8), and (11)(B)” for “Paragraphs (1), (6), (7), and (11)”.

2002—Subsec. (b)(3). Pub. L. 107-171, §7208(a)(1), inserted “pathogens and” before “diseases causing economic hardship”.

Subsec. (b)(7), (8). Pub. L. 107-171, §7208(a)(2)-(4), added par. (7) and redesignated former par. (7) as (8).

1998—Pub. L. 105-185 amended section catchline and text generally, substituting present provisions for provisions which in subsec. (a) required plant genome mapping program, in subsec. (b) authorized competitive grants for research projects, in subsec. (c) described research areas for projects, in subsec. (d) set forth deadline for submission of plan for awarding grants, in subsec. (e) directed coordination of section activities with certain related activities, in subsec. (f) required protection of proprietary interests when considered to be appropriate, and in subsec. (g) authorized appropriations for fiscal years 1996 and 1997 to carry out this section.

1996—Subsec. (g). Pub. L. 104-127 inserted “for fiscal years 1996 and 1997” after “appropriated”.

1995—Subsecs. (g), (h). Pub. L. 104-66 redesignated subsec. (h) as (g) and struck out former subsec. (g) which required Secretary to submit annual reports to Congress describing operations of grant program for plant genome mapping.

**Statutory Notes and Related Subsidiaries****EFFECTIVE DATE OF 2018 AMENDMENT**

Amendment by section 7614(b)(2)(B) of Pub. L. 115-334 applicable to grants, cooperative agreements, or other awards made after Dec. 20, 2018, with matching funds requirement in effect on Dec. 20, 2018, to continue to apply to such grant, cooperative agreement, or other award, see section 7614(c) of Pub. L. 115-334, set out as a note under section 3151 of this title.

**EFFECTIVE DATE OF 2008 AMENDMENT**

Amendment of this section and repeal of Pub. L. 110-234 by Pub. L. 110-246 effective May 22, 2008, the date of enactment of Pub. L. 110-234, except as otherwise provided, see section 4 of Pub. L. 110-246, set out as an Effective Date note under section 8701 of this title.

Amendment by section 7406(d)(2) of Pub. L. 110-246 inapplicable to any solicitation for grant applications issued by the Cooperative State Research, Education, and Extension Service before June 18, 2008, see section 7406(c) of Pub. L. 110-246, set out as a note under section 3157 of this title.

**§ 5925. High-priority research and extension initiatives****(a) Competitive specialized research and extension grants authorized****(1) In general**

The Secretary of Agriculture (referred to in this section as the “Secretary”) may make competitive grants to support research and extension activities specified in subsections (d) through (g).

**(2) Matching funds requirement****(A) In general**

Subject to subparagraph (C), an entity receiving a grant under paragraph (1) shall provide non-Federal matching funds (including funds from an agricultural commodity promotion, research, and information program) equal to not less than the amount of the grant.

**(B) In-kind support**

Non-Federal matching funds described in subparagraph (A) may include in-kind support.

**(C) Waiver**

The Secretary may waive the matching funds requirement under subparagraph (A) with respect to a research project if the Secretary determines that—

(i) the results of the project are of a particular benefit to a specific agricultural commodity, but those results are likely to be applicable to agricultural commodities generally; or

(ii)(I) the project—

(aa) involves a minor commodity; and

(bb) deals with scientifically important research; and

(II) the recipient is unable to satisfy the matching funds requirement.

**(3) Consultation**

The Secretary shall make the grants in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board.

**(b) Administration****(1) In general**

Except as otherwise provided in this section, paragraphs (4), (7), (8), and (11)(B) of subsection (b) of section 3157 of this title shall apply with respect to the making of grants under this section.

**(2) Use of task forces**

To facilitate the making of research and extension grants under this section in the research and extension areas specified in subsections (d) through (g), the Secretary may appoint a task force for each such area to make recommendations to the Secretary. The Secretary may not incur costs in excess of \$1,000 for any fiscal year in connection with each task force established under this paragraph.

**(c) Partnerships encouraged**

Following the completion of a peer review process for grant proposals received under this section, the Secretary shall provide a priority to those grant proposals, found in the peer review process to be scientifically meritorious, that involve the cooperation of multiple entities.

**(d) High-priority research and extension areas****(1) Dairy financial risk management research and extension**

Research and extension grants may be made under this section for the purpose of providing research, development, or education materials, information, and outreach programs regarding risk management strategies for dairy producers and for dairy cooperatives and other processors and marketers of milk.

**(2) Potato research and extension**

Research and extension grants may be made under this section for the purpose of developing and evaluating new strains of potatoes that are resistant to blight and other diseases, as well as insects. Emphasis may be placed on developing potato varieties that lend themselves to innovative marketing approaches.

**(3) Wood use research and extension**

Research and extension grants may be made under this section for the purpose of devel-

oping new uses for wood from underused tree species as well as investigating methods of modifying wood and wood fibers to produce better building materials.

**(4) Bighorn and domestic sheep disease mechanisms**

Research and extension grants may be made under this section to conduct research relating to the health status of (including the presence of infectious diseases in) bighorn and domestic sheep under range conditions.

**(5) Agricultural development in the American-Pacific region**

Research and extension grants may be made under this section to support food and agricultural science at a consortium of land-grant institutions in the American-Pacific region.

**(6) Tropical and subtropical agricultural research**

Research grants may be made under this section, in equal dollar amounts to the Caribbean and Pacific Basins, to support tropical and subtropical agricultural research, including pest and disease research, at the land-grant institutions in the Caribbean and Pacific regions.

**(7) Women and minorities in stem fields**

Research and extension grants may be made under this section to increase participation by women and underrepresented minorities from rural areas in the fields of science, technology, engineering, and mathematics, with priority given to eligible institutions that carry out continuing programs funded by the Secretary.

**(8) Alfalfa seed and alfalfa forage systems research program**

Research and extension grants may be made under this section for the purpose of studying improvements in alfalfa seed and alfalfa forage systems yields, biomass and persistence, pest pressures, the bioenergy potential of alfalfa seed and other alfalfa forage systems to reduce losses during harvest and storage.

**(9) Coffee plant health initiative**

Research and extension grants may be made under this section for the purposes of—

(A) developing and disseminating science-based tools and treatments to combat the coffee berry borer (*Hypothenemus hampei*); and

(B) establishing an areawide integrated pest management program in areas affected by, or areas at risk of, being affected by the coffee berry borer.

**(10) Corn, soybean meal, cereal grains, and grain byproducts research and extension**

Research and extension grants may be made under this section for the purpose of carrying out or enhancing research to improve the digestibility, nutritional value, and efficiency of the use of corn, soybean meal, cereal grains, and grain byproducts for the poultry and food animal production industries.

**(11) Macadamia tree health initiative**

Research and extension grants may be made under this section for the purposes of—

(A) developing and disseminating science-based tools and treatments to combat the macadamia felted coccid (*Eriococcus ironsidei*); and

(B) establishing an areawide integrated pest management program in areas affected by, or areas at risk of being affected by, the macadamia felted coccid.

**(12) National turfgrass research initiative**

Research and extension grants may be made under this section for the purposes of—

(A) carrying out or enhancing research related to turfgrass and sod issues;

(B) enhancing production and uses of turfgrass for the general public;

(C) identifying new turfgrass varieties with superior drought, heat, cold, and pest tolerance to reduce water, fertilizer, and pesticide use;

(D) selecting genetically superior turfgrasses and developing improved technologies for managing commercial, residential, and recreational turfgrass areas;

(E) producing turfgrasses that—

(i) aid in mitigating soil erosion;

(ii) protect against pollutant runoff into waterways; or

(iii) provide other environmental benefits;

(F) investigating, preserving, and protecting native plant species, including grasses not currently utilized in turfgrass systems;

(G) creating systems for more economical and viable turfgrass seed and sod production throughout the United States; and

(H) investigating the turfgrass phytobiome and developing biologic products to enhance soil, enrich plants, and mitigate pests.

**(13) Fertilizer management initiative**

**(A) In general**

Research and extension grants may be made under this section for the purpose of carrying out research to improve fertilizer use efficiency in crops—

(i) to maximize crop yield; and

(ii) to minimize nutrient losses to surface and groundwater and the atmosphere.

**(B) Priority**

In awarding grants under subparagraph (A), the Secretary shall give priority to research examining the impact of the source, rate, timing, and placement of plant nutrients.

**(14) Cattle fever tick program**

Research and extension grants may be made under this section to study cattle fever ticks—

(A) to facilitate the understanding of the role of wildlife in the persistence and spread of cattle fever ticks;

(B) to develop advanced methods for eradication of cattle fever ticks, including—

(i) alternative treatment methods for cattle and other susceptible species;

(ii) field treatment for premises, including corral pens and pasture loafing areas;

(iii) methods for treatment and control on infested wildlife;

(iv) biological control agents; and

(v) new and improved vaccines;

(C) to evaluate rangeland vegetation that impacts the survival of cattle fever ticks;

(D) to improve management of diseases relating to cattle fever ticks that are associated with wildlife, livestock, and human health;

(E) to improve diagnostic detection of tick-infested or infected animals and pastures; and

(F) to conduct outreach to impacted ranchers, hunters, and landowners to integrate tactics and document sustainability of best practices.

**(15) Laying hen and turkey research program**

Research grants may be made under this section for the purpose of improving the efficiency and sustainability of laying hen and turkey production through integrated, collaborative research and technology transfer. Emphasis may be placed on laying hen and turkey disease prevention, antimicrobial resistance, nutrition, gut health, and alternative housing systems under extreme seasonal weather conditions.

**(16) Chronic wasting disease**

Research and extension grants may be made under this section for the purposes of supporting research projects at land-grant colleges and universities (as defined in section 3103 of this title) with established deer research programs for the purposes of treating, mitigating, or eliminating chronic wasting disease.

**(17) Algae agriculture research program**

Research and extension grants may be made under this section for the development and testing of algae and algae systems (including micro- and macro-algae systems).

**(18) Nutrient management**

Research and extension grants may be made under this section for the purposes of examining nutrient management based on the source, rate, timing, and placement of crop nutrients.

**(19) Dryland farming agricultural systems**

Research and extension grants may be made under this section for the purposes of carrying out or enhancing research on the utilization of big data for more precise management of dryland farming agricultural systems.

**(20) Hop plant health initiative**

Research and extension grants may be made under this section for the purposes of developing and disseminating science-based tools and treatments to combat diseases of hops caused by the plant pathogens *Podosphaera macularis* and *Pseudoperonospora humuli*.

**(e) Pulse crop health initiative**

**(1) Definitions**

In this subsection:

**(A) Initiative**

The term “Initiative” means the pulse crop health initiative established by paragraph (2).

**(B) Pulse crop**

The term “pulse crop” means dry beans, dry peas, lentils, and chickpeas.

**(2) Establishment**

The Secretary shall carry out a pulse crop health competitive research and extension initiative to address the critical needs of the pulse crop industry by developing and disseminating science-based tools and information, including—

(A) research conducted with respect to pulse crops in the areas of health and nutrition, such as—

(i) pulse crop diets and the ability of such diets to reduce obesity and associated chronic disease; and

(ii) the underlying mechanisms of the health benefits of pulse crop consumption;

(B) research related to the functionality of pulse crops, such as—

(i) improving the functional properties of pulse crops and pulse crop fractions; and

(ii) developing new and innovative technologies to improve pulse crops as an ingredient in food products;

(C) research conducted with respect to pulse crops for purposes of enhancing sustainability and global food security, such as—

(i) improving pulse crop productivity, nutrient density, and phytonutrient content using plant breeding, genetics, and genomics;

(ii) improving pest and disease management, including resistance to pests and diseases; and

(iii) improving nitrogen fixation and water use efficiency to reduce the carbon and energy footprint of agriculture;

(D) the optimization of systems used in producing pulse crops to reduce water usage; and

(E) education and technical assistance programs with respect to pulse crops, such as programs—

(i) providing technical expertise to help food companies include pulse crops in innovative and healthy food; and

(ii) establishing an educational program to encourage pulse crop consumption in the United States.

**(3) Administration**

Paragraphs (4), (7), (8), and (11)(B) of subsection (b) of section 3157 of this title shall apply with respect to the making of a competitive grant under this subsection.

**(4) Priorities**

In making competitive grants under this subsection, the Secretary shall provide a higher priority to projects that—

(A) are multistate, multiinstitutional, and multidisciplinary; and

(B) include explicit mechanisms to communicate results to the pulse crop industry and the public.

**(5) Authorization of appropriations**

There are authorized to be appropriated to carry out this subsection \$25,000,000 for each of fiscal years 2014 through 2023.

**(f) Training coordination for food and agriculture protection****(1) In general**

The Secretary shall make a competitive grant to, or enter into a contract or a cooperative agreement with, an eligible entity (described in paragraph (2)) for purposes of establishing an internationally integrated training system to enhance the protection of the food supply in the United States, to be known as the “Comprehensive Food Safety Training Network” (referred to in this subsection as the “Network”).

**(2) Eligibility****(A) In general**

For purposes of this subsection, an eligible entity is a multiinstitutional consortium that includes—

(i) a nonprofit institution that provides food safety protection training; and

(ii) one or more training centers in institutions of higher education (as defined in section 1001 of title 20) that have demonstrated expertise in developing and delivering community-based training in food supply and agricultural safety and defense.

**(B) Collective consideration**

The Secretary may consider such consortium collectively and not on an institution-by-institution basis.

**(3) Duties of eligible entity**

As a condition of receiving a competitive grant or entering into a contract or a cooperative agreement with the Secretary under this subsection, the eligible entity, in cooperation with the Secretary, shall establish and maintain the Network, including by—

(A) providing basic, technical, management, and leadership training (including by developing curricula) to regulatory and public health officials, producers, processors, and other agribusinesses;

(B) serving as the hub for the administration of the Network;

(C) implementing a standardized national curriculum to ensure the consistent delivery of quality training throughout the United States;

(D) building and overseeing a nationally recognized instructor cadre to ensure the availability of highly qualified instructors;

(E) reviewing training proposed through the National Institute of Food and Agriculture and other relevant Federal agencies that report to the Secretary on the quality and content of proposed and existing courses;

(F) assisting Federal agencies in the implementation of food safety protection training requirements including requirements under the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), the Agricultural Act of 2014, and any provision of law amended by such Act; and

(G) performing evaluation and outcome-based studies to provide to the Secretary information on the effectiveness and impact of training and metrics on jurisdictions and sectors within the food safety system.

**(4) Membership**

An eligible entity may alter the consortium membership to meet specific training expertise needs.

**(5) Authorization of appropriations**

There are authorized to be appropriated to carry out this subsection \$20,000,000 for each of fiscal years 2014 through 2023, to remain available until expended.

**(g) Pollinator protection****(1) Research and extension****(A) Grants**

Research and extension grants may be made under this section—

(i) to survey and collect data on bee colony production and health;

(ii) to investigate pollinator biology, immunology, ecology, genomics, and bioinformatics;

(iii) to conduct research on various factors that may be contributing to or associated with colony collapse disorder, and other serious threats to the health of honey bees and other pollinators, including—

(I) parasites and pathogens of pollinators; and

(II) the sublethal effects of insecticides, herbicides, and fungicides on honey bees and native and managed pollinators;

(iv) to develop mitigative and preventative measures to improve native and managed pollinator health; and

(v) to promote the health of honey bees and native pollinators through habitat conservation and best management practices.

**(B) Authorization of appropriations**

There is authorized to be appropriated to carry out this paragraph \$10,000,000 for each of fiscal years 2008 through 2023.

**(2) Department of Agriculture capacity and infrastructure****(A) In general**

The Secretary shall, to the maximum extent practicable, increase the capacity and infrastructure of the Department—

(i) to address colony collapse disorder and other long-term threats to pollinator health, including the hiring of additional personnel; and

(ii) to conduct research on colony collapse disorder and other pollinator issues at the facilities of the Department.

**(B) Authorization of appropriations**

There is authorized to be appropriated to carry out this paragraph \$7,250,000 for each of fiscal years 2008 through 2023.

**(3) Honey bee surveillance**

There is authorized to be appropriated to conduct a nationwide honey bee pest, pathogen, health, and population status surveillance program \$2,750,000 for each of fiscal years 2008 through 2023.

**(4) Enhanced coordination of honeybee and pollinator research****(A) In general**

The Chief Scientist of the Department of Agriculture shall coordinate research, extension, education, and economic activities in the Department of Agriculture relating to native and managed pollinator health and habitat.

**(B) Duties**

In carrying out subparagraph (A), the Chief Scientist shall—

(i) assign an individual to serve in the Office of the Chief Scientist as a Honeybee and Pollinator Research Coordinator who shall be responsible for leading the efforts of the Chief Scientist in carrying out such subparagraph;

(ii) implement and coordinate pollinator health research efforts of the Department, as recommended by the Pollinator Health Task Force;

(iii) establish annual strategic priorities and goals for the Department for native and managed pollinator research;

(iv) communicate such priorities and goals to each agency or office of the Department of Agriculture, the managed pollinator industry, and relevant grant recipients under programs administered by the Secretary; and

(v) coordinate and identify all research on native and managed pollinator health needed and conducted by the Department of Agriculture and relevant grant recipients under programs administered by the Secretary to ensure consistency and reduce unintended duplication of effort.

**(C) Research**

In coordinating research activities under subparagraph (A), the Chief Scientist shall ensure that such research—

(i) identifies and addresses the multiple stressors on pollinator health, including pests and pathogens, reduced habitat, lack of nutritional resources, and exposure to pesticides;

(ii) evaluates stewardship and management practices of managed pollinators that would impact managed pollinator health;

(iii) documents the prevalence of major pests, such as *varroa destructor* (commonly referred to as the varroa mite), and diseases that are transported between States through practices involving managed pollinators;

(iv) evaluates the impact of overcrowding of colonies for pollination services and the impact of such overcrowding on pollinator health status and pollinator health recovery;

(v) evaluates and reports on the health differences of managed pollinators in—

(I) crops not requiring contract pollination;

(II) crops requiring contract pollination; and

(III) native habitat;

(vi) evaluates the impact of horticultural and agricultural pest management practices on native and managed pollinator colonies in diverse agroecosystems;

(vii) documents pesticide residues that are—

(I) found in native and managed pollinator colonies; and

(II) associated with typical localized commercial crop pest management practices;

(viii) with respect to native and managed pollinator colonies visiting crops for crop pollination or honey production purposes, documents—

(I) the strength and health of such colonies;

(II) the survival, growth, reproduction, and production of such colonies;

(III) pests, pathogens, and viruses that affect such colonies;

(IV) environmental conditions of such colonies;

(V) beekeeper practices; and

(VI) any other relevant information, as determined by the Chief Scientist;

(ix) documents, with respect to healthy populations of managed pollinators, best management practices and other practices for managed pollinators and crop managers;

(x) evaluates the effectiveness of—

(I) conservation practices that target the specific needs of native and managed pollinator habitats;

(II) incentives that allow for the expansion of native and managed pollinator forage acreage; and

(III) managed pollinator breeding practices and efforts to, with respect to managed pollinators, avoid creating a genetic bottleneck and improve genetic diversity;

(xi) in the case of commercially managed pollinator colonies, continues to gather data—

(I) on an annual basis with respect to losses of such colonies, splits of such colonies, and the total number of pollinator colonies;

(II) on rising input costs; and

(III) overall economic value to the food economy; and

(xii) addresses any other issue relating to native and managed pollinators, as determined by the Chief Scientist, in consultation with scientific experts.

#### **(D) Publication**

The Chief Scientist, to the maximum extent practicable, shall—

(i) make publicly available the results of the research described in subparagraph (C); and

(ii) in the case of the research described in subparagraph (C)(vi), publish any data or reports that were produced by the Department of Agriculture but not made publicly available during the period beginning on January 1, 2008, and ending on December 20, 2018.

#### **(5) Consultation**

The Secretary, in consultation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency, shall publish guidance on enhancing pollinator health and the long-term viability of populations of pollinators, including recommendations related to—

(A) allowing for managed honey bees to forage on National Forest System lands where compatible with other natural resource management priorities; and

(B) planting and maintaining managed honey bee and native pollinator foraging on National Forest System lands where compatible with other natural resource management priorities.

#### **(6) Annual report on response to honey bee colony collapse disorder**

The Secretary shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate an annual report—

(A) describing the progress made by the Department of Agriculture in—

(i) investigating the cause or causes of honey bee colony collapse and honey bee health disorders;

(ii) finding appropriate strategies, including best management practices<sup>1</sup> to reduce colony loss; and

(iii) addressing the decline of managed honey bees and native pollinators;

(B) assessing Federal efforts to mitigate pollinator losses and threats to the United States commercial beekeeping industry; and

(C) providing recommendations to Congress regarding how to better coordinate Federal agency efforts to address the decline of managed honey bees and native pollinators.

#### **(h) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 1999 through 2023.

(Pub. L. 101-624, title XVI, §1672, Nov. 28, 1990, 104 Stat. 3770; Pub. L. 102-237, title IV, §§406, 407(11), Dec. 13, 1991, 105 Stat. 1864, 1865; Pub. L. 104-127, title VIII, §§836, 863, 888, Apr. 4, 1996, 110 Stat. 1169, 1174, 1180; Pub. L. 105-185, title II, §242, June 23, 1998, 112 Stat. 549; Pub. L. 107-171, title VII, §§7119, 7208(b), May 13, 2002, 116 Stat. 434, 442; Pub. L. 108-465, title III, §302, Dec. 21, 2004, 118 Stat. 3885; Pub. L. 110-234, title VII, §§7203, 7204, May 22, 2008, 122 Stat. 1233; Pub. L. 110-246, §4(a), title VII, §§7203, 7204, June 18, 2008, 122 Stat. 1664, 1994; Pub. L. 113-79, title VII, §§7128(b)(2)(C), 7209, Feb. 7, 2014, 128 Stat. 879, 881; Pub. L. 115-334, title VII, §§7209, 7614(b)(2)(C), Dec. 20, 2018, 132 Stat. 4806, 4834.)

#### **Editorial Notes**

##### REFERENCES IN TEXT

The Federal Food, Drug, and Cosmetic Act, referred to in subsec. (f)(3)(F), is act June 25, 1938, ch. 675, 52

<sup>1</sup> So in original. Probably should be followed by a comma.

Stat. 1040, which is classified generally to chapter 9 (§301 et seq.) of Title 21, Food and Drugs. For complete classification of this Act to the Code, see section 301 of Title 21 and Tables.

The Agricultural Act of 2014, referred to in subsec. (f)(3)(F), is Pub. L. 113-79, Feb. 7, 2014, 128 Stat. 649. For complete classification of this Act to the Code, see Short Title note set out under section 9001 of this title and Tables.

#### CODIFICATION

Pub. L. 110-234 and Pub. L. 110-246 made identical amendments to this section. The amendments by Pub. L. 110-234 were repealed by section 4(a) of Pub. L. 110-246.

#### AMENDMENTS

2018—Subsec. (a). Pub. L. 115-334, §7614(b)(2)(C), designated first and second sentences as pars. (1) and (3), respectively, inserted headings, and added par. (2).

Subsec. (d)(8). Pub. L. 115-334, §7209(1)(A), substituted, in heading, “Alfalfa seed and alfalfa forage systems” for “Alfalfa and forage”, and in text, substituted “alfalfa seed and alfalfa forage systems” for “alfalfa and forage” and “alfalfa seed and other alfalfa forage” for “alfalfa and other forages, and”.

Subsec. (d)(11) to (20). Pub. L. 115-334, §7209(1)(B), added pars. (11) to (20).

Subsec. (e)(5). Pub. L. 115-334, §7209(2), substituted “2023” for “2018”.

Subsec. (f)(5). Pub. L. 115-334, §7209(3), substituted “2023” for “2018”.

Subsec. (g)(1)(B), (2)(B), (3). Pub. L. 115-334, §7209(4)(A), substituted “2023” for “2018”.

Subsec. (g)(4) to (6). Pub. L. 115-334, §7209(4)(B), (C), added par. (4) and redesignated former pars. (4) and (5) as (5) and (6), respectively.

Subsec. (h). Pub. L. 115-334, §7209(5), substituted “2023” for “2018”.

2014—Subsec. (a). Pub. L. 113-79, §7209(1), substituted “subsections (d) through (g)” for “subsections (e) through (i)”.

Subsec. (b)(2). Pub. L. 113-79, §7209(2), substituted “subsections (d) through (g)” for “subsections (e) through (i)”.

Subsec. (c). Pub. L. 113-79, §7128(b)(2)(C), redesignated subsec. (d) as (c), and struck out former subsec. (c) which related to matching funds requirement.

Subsec. (d). Pub. L. 113-79, §7209(5), added pars. (9) and (10), redesignated pars. (6), (9), (10), (44), (45), (46), (49), and (50) as (1) to (8), respectively, and struck out former pars. (1) to (5), (7), (8), (11) to (43), (47), (48), (51), and (52), which related to certain research and extension grants.

Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (e) as (d).

Subsec. (e). Pub. L. 113-79, §7209(6), added subsec. (e) and struck out former subsec. (e) which related to imported fire ant control, management, and eradication.

Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (f) as (e).

Subsec. (f). Pub. L. 113-79, §7209(7), added subsec. (f) and struck out former subsec. (f) which related to Formosan termite research and eradication.

Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (g) as (f). Former subsec. (f) redesignated (e).

Subsec. (g). Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (h) as (g).

Subsec. (g)(1)(B), (2)(B). Pub. L. 113-79, §7209(8)(A), substituted “2018” for “2012”.

Subsec. (g)(3). Pub. L. 113-79, §7209(8)(A), (B), struck out “pest and pathogen” after “bee” in heading and substituted “pest, pathogen, health, and population status surveillance” for “pest and pathogen surveillance” and “2018” for “2012” in text.

Subsec. (g)(4). Pub. L. 113-79, §7209(8)(D), added par. (4). Former par. (4) redesignated (5).

Subsec. (g)(5). Pub. L. 113-79, §7209(8)(E)(i), (ii), substituted “annual report—” for “annual report” in in-

troductory provisions, inserted subpar. (A) designation before “describing”, redesignated former subpars. (A) and (B) as cls. (i) and (ii) of subpar. (A), respectively, and realigned margins.

Pub. L. 113-79, §7209(8)(C), redesignated par. (4) as (5). Subsec. (g)(5)(A)(i). Pub. L. 113-79, §7209(8)(E)(iii)(I), inserted “and honey bee health disorders” after “collapse”.

Subsec. (g)(5)(A)(ii). Pub. L. 113-79, §7209(8)(E)(iv)(I), inserted “, including best management practices” after “strategies”.

Subsec. (g)(5)(A)(iii). Pub. L. 113-79, §7209(8)(E)(iii)(II), (iv)(II), (v), added cl. (iii).

Subsec. (g)(5)(B), (C). Pub. L. 113-79, §7209(8)(E)(vi), added subpars. (B) and (C).

Subsec. (h). Pub. L. 113-79, §7209(9), substituted “2018” for “2012”.

Pub. L. 113-79, §7209(3), (4), redesignated subsec. (i) as (h) and struck out former subsec. (h) which related to regional centers of excellence.

Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (i) as (h).

Subsec. (i). Pub. L. 113-79, §7209(4), redesignated subsec. (i) as (h).

Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (j) as (i).

Subsec. (j). Pub. L. 113-79, §7128(b)(2)(C)(ii), redesignated subsec. (j) as (i).

2008—Subsec. (a). Pub. L. 110-246, §7204(b)(1), substituted “subsections (e) through (i)” for “subsections (e), (f), and (g)” in first sentence.

Subsec. (b)(1). Pub. L. 110-246, §7204(b)(2)(A), substituted “paragraphs (4), (7), (8), and (11)(B)” for “paragraphs (1), (6), (7), and (11)”.

Subsec. (b)(2). Pub. L. 110-246, §7204(b)(2)(B), substituted “subsections (e) through (i)” for “subsection (e)”.

Subsec. (d). Pub. L. 110-246, §7203, substituted “shall” for “may”.

Subsec. (e). Pub. L. 110-246, §7204(a)(1)(B)–(D), redesignated pars. (2), (3), (5), (6), (9) to (14), (16), (18) to (20), (22), (24), (25), (28) to (31), (33), (35) to (40), and (44) as (1) to (29), respectively, added pars. (30) to (52), and struck out former pars. (1), (4), (7), (8), (15), (17), (21), (23), (26), (27), (32), (34), (41) to (43), and (45), which related to research on the brown citrus aphid and the citrus tristeza virus, uses of mesquite, red meat safety, sorghum ergot eradication, development of the low-bush blueberry, wild pampas grass control, genetic aspects of scrapie in sheep, forestry, wind erosion, crop loss models, harvesting productivity for fruits and vegetables, agricultural marketing, beef cattle genetics, ingestion of dairy pipeline cleaner, genetic resource conservation, and improvement of specialty crop production, respectively.

Subsec. (e)(3). Pub. L. 110-246, §7204(a)(1)(A), substituted “, improving, and eventually commercializing, aflatoxin controls in corn and other affected agricultural products and crops” for “and controlling aflatoxin in the food and feed chains”.

Subsecs. (h) to (j). Pub. L. 110-246, §7204(a)(2)–(4), added subsecs. (h) and (i), redesignated former subsec. (h) as (j), and substituted “2012” for “2007” in subsec. (j).

2004—Subsec. (e)(45). Pub. L. 108-465 added par. (45).

2002—Subsec. (e)(25) to (44). Pub. L. 107-171, §7208(b), added pars. (25) to (44).

Subsec. (h). Pub. L. 107-171, §7119, substituted “2007” for “2002”.

1998—Pub. L. 105-185 amended section catchline and text generally, substituting present provisions for provisions which in subsecs. (a) to (f) which authorized specialized research programs relating to, respectively, brown citrus aphid and citrus tristeza virus, ethanol, aflatoxin, mesquite, prickly pear, and deer tick ecology and related research, and for provisions in subsec. (g) subjecting research to peer review, setting limitation on use of funds, and providing for general eligibility to participate in programs.

1996—Subsec. (a). Pub. L. 104-127, §§863(1), 888, added subsec. (a) and struck out heading and text of former

subsec. (a). Text read as follows: “The Secretary of Agriculture is encouraged to fund research for the development of technology which will ascertain the lean content of animal carcasses to be used for human consumption.”

Subsecs. (d)(4), (e)(4). Pub. L. 104-127, § 836, substituted “1997” for “1995”.

Subsec. (f). Pub. L. 104-127, § 863, redesignated subsec. (i) as (f) and struck out heading and text of former subsec. (f). Text read as follows:

“(1) RESEARCH REQUIRED.—The Secretary of Agriculture shall establish and carry out a program to make grants to colleges and universities for research relating to immunoassay used—

“(A) to detect agricultural pesticide residues on agricultural commodities for human consumption; and  
“(B) to diagnose animal and plant diseases.

“(2) PREFERENCE.—In making grants under this subsection, the Secretary may give preference to those colleges and universities that, as of November 28, 1990, are conducting research described in this subsection.”

Subsec. (g). Pub. L. 104-127, § 863, redesignated subsec. (k) as (g) and struck out heading and text of former subsec. (g). Text read as follows: “The Secretary shall make research and extension grants available for the development of agricultural production and marketing systems that will service niche markets located in nearby metropolitan areas. In awarding such grants, the Secretary shall pay particular attention to areas—

“(1) with a high concentration of small farm operations; and

“(2) that experience difficulty in delivering products to market due to geographic isolation.”

Subsec. (h). Pub. L. 104-127, § 863(1), struck out subsec. (h) which provided that Secretary of Agriculture may establish and carry out a program to conduct research on disease of scrapie in sheep and goats.

Subsec. (i). Pub. L. 104-127, §§ 836, 863(2), redesignated subsec. (i) as (f) and substituted “1997” for “1995”.

Subsec. (j). Pub. L. 104-127, § 863(1), struck out heading and text of subsec. (j). Text read as follows: “The Secretary of Agriculture may—

“(1) conduct fundamental and applied research related to the development of new commercial products derived from natural plant materials for industrial, medical, and agricultural applications; and

“(2) participate with colleges and universities, other Federal agencies, and private sector entities in conducting such research.”

Subsec. (k). Pub. L. 104-127, § 863(2), redesignated subsec. (k) as (g).

1991—Subsec. (c). Pub. L. 102-237, § 407(11), redesignated pars. (A) to (I) as (1) to (9), respectively.

Subsec. (i). Pub. L. 102-237, § 406(1), substituted “Secretary of Agriculture, acting through the Cooperative State Research Service, to make competitive grants” for “Agricultural Research Service”.

Subsec. (k)(1). Pub. L. 102-237, § 406(2), substituted “Research” for “Except for research funded under subsection (i), research”.

#### Statutory Notes and Related Subsidiaries

##### EFFECTIVE DATE OF 2018 AMENDMENT

Amendment by section 7614(b)(2)(C) of Pub. L. 115-334 applicable to grants, cooperative agreements, or other awards made after Dec. 20, 2018, with matching funds requirement in effect on Dec. 20, 2018, to continue to apply to such grant, cooperative agreement, or other award, see section 7614(c) of Pub. L. 115-334, set out as a note under section 3151 of this title.

##### EFFECTIVE DATE OF 2008 AMENDMENT

Amendment of this section and repeal of Pub. L. 110-234 by Pub. L. 110-246 effective May 22, 2008, the date of enactment of Pub. L. 110-234, see section 4 of Pub. L. 110-246, set out as an Effective Date note under section 8701 of this title.

##### METHYL BROMIDE ALTERNATIVES

Pub. L. 108-465, title III, § 301, Dec. 21, 2004, 118 Stat. 3885, provided that:

“(a) PRIORITY.—The Secretary of Agriculture shall elevate the priority of current methyl bromide alternative research and extension activities and reexamine the risks and benefits of extending the phase-out deadline in effect on the date of the enactment of this Act [Dec. 21, 2004], including the estimated cost to the grower or processor associated with any alternatives proposed.

“(b) AUTHORIZATION OF APPROPRIATIONS.—For each of the fiscal years 2005 through 2009, there is authorized to be appropriated to the Secretary of Agriculture \$5,000,000 to carry out this section.”

#### Executive Documents

##### CREATING A FEDERAL STRATEGY TO PROMOTE THE HEALTH OF HONEY BEES AND OTHER POLLINATORS

Memorandum of President of the United States, June 20, 2014, 79 F.R. 35903, provided:

Memorandum for Heads of Executive Departments and Agencies

Pollinators contribute substantially to the economy of the United States and are vital to keeping fruits, nuts, and vegetables in our diets. Honey bee pollination alone adds more than \$15 billion in value to agricultural crops each year in the United States. Over the past few decades, there has been a significant loss of pollinators, including honey bees, native bees, birds, bats, and butterflies, from the environment. The problem is serious and requires immediate attention to ensure the sustainability of our food production systems, avoid additional economic impact on the agricultural sector, and protect the health of the environment.

Pollinator losses have been severe. The number of migrating Monarch butterflies sank to the lowest recorded population level in 2013-14, and there is an imminent risk of failed migration. The continued loss of commercial honey bee colonies poses a threat to the economic stability of commercial beekeeping and pollination operations in the United States, which could have profound implications for agriculture and food. Severe yearly declines create concern that bee colony losses could reach a point from which the commercial pollination industry would not be able to adequately recover. The loss of native bees, which also play a key role in pollination of crops, is much less studied, but many native bee species are believed to be in decline. Scientists believe that bee losses are likely caused by a combination of stressors, including poor bee nutrition, loss of forage lands, parasites, pathogens, lack of genetic diversity, and exposure to pesticides.

Given the breadth, severity, and persistence of pollinator losses, it is critical to expand Federal efforts and take new steps to reverse pollinator losses and help restore populations to healthy levels. These steps should include the development of new public-private partnerships and increased citizen engagement. Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, I hereby direct the following:

SECTION 1. *Establishing the Pollinator Health Task Force.* There is hereby established the Pollinator Health Task Force (Task Force), to be co-chaired by the Secretary of Agriculture and the Administrator of the Environmental Protection Agency. In addition to the Co-Chairs, the Task Force shall also include the heads, or their designated representatives, from:

- (a) the Department of State;
- (b) the Department of Defense;
- (c) the Department of the Interior;
- (d) the Department of Housing and Urban Development;
- (e) the Department of Transportation;
- (f) the Department of Energy;
- (g) the Department of Education;
- (h) the Council on Environmental Quality;
- (i) the Domestic Policy Council;
- (j) the General Services Administration;
- (k) the National Science Foundation;



(l) the National Security Council Staff;  
 (m) the Office of Management and Budget;  
 (n) the Office of Science and Technology Policy; and  
 (o) such executive departments, agencies, and offices as the Co-Chairs may designate.

SEC. 2. *Mission and Function of the Task Force.* Within 180 days of the date of this memorandum, the Task Force shall develop a National Pollinator Health Strategy (Strategy), which shall include explicit goals, milestones, and metrics to measure progress. The Strategy shall include the following components:

(a) *Pollinator Research Action Plan.* The Strategy shall include an Action Plan (Plan) to focus Federal efforts on understanding, preventing, and recovering from pollinator losses. The Plan shall be informed by research on relevant topics and include:

(i) studies of the health of managed honey bees and native bees, including longitudinal studies, to determine the relative contributions of, and mitigation strategies for, different stressors leading to species declines and colony collapse disorder, including exposure to pesticides, poor nutrition, parasites and other pests, toxins, loss of habitat and reduced natural forage, pathogens, and unsustainable management practices;

(ii) plans for expanded collection and sharing of data related to pollinator losses, technologies for continuous monitoring of honey bee hive health, and use of public-private partnerships, as appropriate, to provide information on the status and trends of managed hive losses;

(iii) assessments of the status of native pollinators, including the Monarch butterfly and bees, and modeling of native pollinator populations and habitats;

(iv) strategies for developing affordable seed mixes, including native pollinator-friendly plants, for maintenance of honey bees and other pollinators, and guidelines for and evaluations of the effectiveness of using pollinator-friendly seed mixes for restoration and reclamation projects;

(v) identification of existing and new methods and best practices to reduce pollinator exposure to pesticides, and new cost-effective ways to control bee pests and diseases; and

(vi) strategies for targeting resources toward areas of high risk and restoration potential and prioritizing plans for restoration of pollinator habitat, based on those areas that will yield the greatest expected net benefits.

(b) *Public Education Plan.* The Strategy shall include plans for expanding and coordinating public education programs outlining steps individuals and businesses can take to help address the loss of pollinators. It shall also include recommendations for a coordinated public education campaign aimed at individuals, corporations, small businesses, schools, libraries, and museums to significantly increase public awareness of the importance of pollinators and the steps that can be taken to protect them.

(c) *Public-Private Partnerships.* The Strategy shall include recommendations for developing public-private partnerships to build on Federal efforts to encourage the protection of pollinators and increase the quality and amount of habitat and forage for pollinators. In developing this part of the Strategy, the Task Force shall consult with external stakeholders, including State, tribal, and local governments, farmers, corporations, and nongovernmental organizations.

(d) Task Force member agencies shall report regularly to the Task Force on their efforts to implement section 3 of this memorandum.

SEC. 3. *Increasing and Improving Pollinator Habitat.* Unless otherwise specified, within 180 days of the date of this memorandum:

(a) Task Force member agencies shall develop and provide to the Task Force plans to enhance pollinator habitat, and subsequently implement, as appropriate, such plans on their managed lands and facilities, consistent with their missions and public safety. These plans may include: facility landscaping, including easements; land management; policies with respect to road

and other rights-of-way; educational gardens; use of integrated vegetation and pest management; increased native vegetation; and application of pollinator-friendly best management practices and seed mixes. Task Force member agencies shall also review any new or renewing land management contracts and grants for the opportunity to include requirements for enhancing pollinator habitat.

(b) Task Force member agencies shall evaluate permit and management practices on power line, pipeline, utility, and other rights-of-way and easements, and, consistent with applicable law, make any necessary and appropriate changes to enhance pollinator habitat on Federal lands through the use of integrated vegetation and pest management and pollinator-friendly best management practices, and by supplementing existing agreements and memoranda of understanding with rights-of-way holders, where appropriate, to establish and improve pollinator habitat.

(c) Task Force member agencies shall incorporate pollinator health as a component of all future restoration and reclamation projects, as appropriate, including all annual restoration plans.

(d) The Council on Environmental Quality and the General Services Administration shall, within 90 days of the date of this memorandum, revise their respective guidance documents for designed landscapes and public buildings to incorporate, as appropriate, pollinator-friendly practices into site landscape performance requirements to create and maintain high quality habitats for pollinators. Future landscaping projects at all Federal facilities shall, to the maximum extent appropriate, use plants beneficial to pollinators.

(e) The Departments of Agriculture and the Interior shall, within 90 days of the date of this memorandum, develop best management practices for executive departments and agencies to enhance pollinator habitat on Federal lands.

(f) The Departments of Agriculture and the Interior shall establish a reserve of native seed mixes, including pollinator-friendly plants, for use on post-fire rehabilitation projects and other restoration activities.

(g) The Department of Agriculture shall, as appropriate and consistent with applicable law, substantially increase both the acreage and forage value of pollinator habitat in the Department's conservation programs, including the Conservation Reserve Program, and provide technical assistance, through collaboration with the land-grant university-based cooperative extension services, to executive departments and agencies, State, local, and tribal governments, and other entities and individuals, including farmers and ranchers, in planting the most suitable pollinator-friendly habitats.

(h) The Department of the Interior shall assist States and State wildlife organizations, as appropriate, in identifying and implementing projects to conserve pollinators at risk of endangerment and further pollinator conservation through the revision and implementation of individual State Wildlife Action Plans. The Department of the Interior shall, upon request, provide technical support for these efforts, and keep the Task Force apprised of such collaborations.

(i) The Department of Transportation shall evaluate its current guidance for grantees and informational resources to identify opportunities to increase pollinator habitat along roadways and implement improvements, as appropriate. The Department of Transportation shall work with State Departments of Transportation and transportation associations to promote pollinator-friendly practices and corridors. The Department of Transportation shall evaluate opportunities to make railways, pipelines, and transportation facilities that are privately owned and operated aware of the need to increase pollinator habitat.

(j) The Department of Defense shall, consistent with law and the availability of appropriations, support habitat restoration projects for pollinators, and shall direct military service installations to use, when possible, pollinator-friendly native landscaping and minimize use of pesticides harmful to pollinators through integrated vegetation and pest management practices.

(k) The Army Corps of Engineers shall incorporate conservation practices for pollinator habitat improvement on the 12 million acres of lands and waters at resource development projects across the country, as appropriate.

(l) The Environmental Protection Agency shall assess the effect of pesticides, including neonicotinoids, on bee and other pollinator health and take action, as appropriate, to protect pollinators; engage State and tribal environmental, agricultural, and wildlife agencies in the development of State and tribal pollinator protection plans; encourage the incorporation of pollinator protection and habitat planting activities into green infrastructure and Superfund projects; and expedite review of registration applications for new products targeting pests harmful to pollinators.

(m) Executive departments and agencies shall, as appropriate, take immediate measures to support pollinators during the 2014 growing season and thereafter. These measures may include planting pollinator-friendly vegetation and increasing flower diversity in plantings, limiting mowing practices, and avoiding the use of pesticides in sensitive pollinator habitats through integrated vegetation and pest management practices.

SEC. 4. *General Provisions.* (a) This memorandum shall be implemented consistent with applicable law and subject to the availability of appropriations.

(b) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to any agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(c) Nothing in this memorandum shall be construed to require the disclosure of confidential business information or trade secrets, classified information, law enforcement sensitive information, or other information that must be protected in the interest of national security or public safety.

(d) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(e) The Secretary of Agriculture is hereby authorized and directed to publish this memorandum in the Federal Register.

BARACK OBAMA.

**§ 5925a. Repealed. Pub. L. 113–79, title VII, § 7210, Feb. 7, 2014, 128 Stat. 885**

Section, Pub. L. 101–624, title XVI, § 1672A, as added Pub. L. 105–185, title II, § 243, June 23, 1998, 112 Stat. 554; amended Pub. L. 107–171, title VII, § 7120, May 13, 2002, 116 Stat. 434; Pub. L. 110–234, title VII, § 7205, May 22, 2008, 122 Stat. 1238; Pub. L. 110–246, § 4(a), title VII, § 7205, June 18, 2008, 122 Stat. 1664, 1999, related to nutrient management research and extension initiative.

**Statutory Notes and Related Subsidiaries**

**STUDY OF NUTRIENT BANKING**

Pub. L. 107–171, title VII, § 7411, May 13, 2002, 116 Stat. 462, provided that the Secretary of Agriculture may conduct study to evaluate nutrient banking for purpose of enhancing health and viability of watersheds in areas with large concentrations of animal producing units, prior to repeal by Pub. L. 113–79, title VII, § 7408(c), Feb. 7, 2014, 128 Stat. 898.

**§ 5925b. Organic agriculture research and extension initiative**

**(a) Competitive specialized research and extension grants authorized**

In consultation with the National Agricultural Research, Extension, Education, and Economics

Advisory Board, using funds made available under subsection (e), the Secretary of Agriculture (referred to in this section as the “Secretary”) may make competitive grants in each of fiscal years 2019 through 2023 to support research, education, and extension activities regarding organically grown and processed agricultural commodities for the purposes of—

(1) facilitating the development and improvement of organic agriculture production, breeding, and processing methods;

(2) evaluating the potential economic benefits of organic agricultural production and methods to producers, processors, and rural communities;

(3) exploring international trade opportunities for organically grown and processed agricultural commodities;

(4) determining desirable traits for organic commodities;

(5) identifying marketing and policy constraints on the expansion of organic agriculture;

(6) conducting advanced on-farm research and development that emphasizes observation of, experimentation with, and innovation for working organic farms, including research relating to production, marketing, food safety, socioeconomic conditions, and farm business management;

(7) examining optimal conservation, soil health, and environmental outcomes relating to organically produced agricultural products; and

(8) developing new and improved seed varieties that are particularly suited for organic agriculture.

**(b) Grant types and process, prohibition on construction**

Paragraphs (4), (7), (8), and (11)(B) of subsection (b) of section 3157 of this title shall apply with respect to the making of grants under this section.

**(c) Matching requirement**

**(1) In general**

Subject to paragraph (3), an entity receiving a grant under subsection (a) shall provide non-Federal matching funds (including funds from an agricultural commodity promotion, research, and information program) equal to not less than the amount of the grant.

**(2) In-kind support**

Non-Federal matching funds described in paragraph (1) may include in-kind support.

**(3) Waiver**

The Secretary may waive the matching funds requirement under paragraph (1) with respect to a research project if the Secretary determines that—

(A) the results of the project are of a particular benefit to a specific agricultural commodity, but those results are likely to be applicable to agricultural commodities generally; or

(B)(i) the project—

(I) involves a minor commodity; and

(II) deals with scientifically important research; and