"(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 (1), research".

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."

§ 5925a. Nutrient management research and extension initiative

(a) Competitive research and extension grants authorized

The Secretary of Agriculture (referred to in this section as the "Secretary") may make competitive grants to support research and extension activities specified in subsection (e) of this section. The Secretary shall make the grants in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board.

(b) Administration

(1) In general

Paragraphs (4), (7), (8), and (11)(B) of subsection (b) of section 450i 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 subsection (e) of this section, 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) Matching funds required

(1) In general

The Secretary shall require the recipient of a grant under this section to provide funds or in-kind support from non-Federal sources in an amount at least equal to the amount provided by the Federal Government.

(2) Waiver authority

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

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

(B) the project involves a minor commodity, the project deals with scientifically important research, and the grant recipient is unable to satisfy the matching funds requirement.

(d) Priority

Following the completion of a peer review process for grant proposals received under this section, the Secretary shall give priority to those grant proposals that involve—

(1) the cooperation of multiple entities; and

(2) States or regions with a high concentration of livestock, dairy, or poultry operations.

(e) Nutrient management research and extension areas

(1) Animal waste and odor management

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

(A) identifying, evaluating, and demonstrating innovative technologies for animal waste management and related air quality management and odor control;

(B) investigating the unique microbiology of specific animal wastes, such as swine waste and dairy and beef cattle waste, to develop improved methods to effectively manage air and water quality; and

(C) conducting information workshops to disseminate the results of the research.

(2) Water quality and aquatic ecosystems

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

tigating the impact on aquatic food webs, especially commercially important aquatic species and their habitats, of microorganisms of the genus Pfiesteria and other microorganisms that are a threat to human or animal health.

(3) Rural and urban interface

Research and extension grants may be made under this section for the purpose of identifying, evaluating, and demonstrating innovative technologies to be used for animal waste management (including odor control) in rural areas adjacent to urban or suburban areas in connection with waste management activities undertaken in urban or suburban areas.

(4) Animal feed

Research and extension grants may be made under this section for the purpose of maximizing nutrition management for livestock, while limiting risks, such as mineral bypass, associated with livestock feeding practices.

(5) Alternative uses and renewable energy

Research and extension grants may be made under this section for the purpose of finding innovative methods and technologies to allow agricultural operators to make use of animal waste, such as use as fertilizer, methane digestion, composting, and other useful byproducts.

(f) 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 2012.

(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.)

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

2008—Subsec. (b)(1). Pub. L. 110-246, §7205(1), added par. (1) and struck out former par. (1). Prior to amendment, text read as follows: "Paragraphs (1), (6), (7), and (11) of subsection (b) of section 450i of this title shall apply with respect to the making of grants under this section"

Subsec. (d). Pub. L. 110–246, §7205(2), added subsec. (d) and struck out former subsec. (d). Prior to amendment, text read as follows: "Following the completion of a peer review process for grant proposals received under this section, the Secretary may provide a priority to those grant proposals, found in the peer review process to be scientifically meritorious, that involve the cooperation of multiple entities."

Subsec. (e)(1)(B). Pub. L. 110-246, \$7205(3)(A), inserted "and dairy and beef cattle waste" after "swine waste". Subsec. (e)(5). Pub. L. 110-246, \$7205(3)(B), added par. (5) and struck out former par. (5). Prior to amendment,

text read as follows: "Research and extension grants may be made under this section for the purpose of finding innovative methods and technologies for economic use or disposal of animal waste."

Subsecs. (f), (g). Pub. L. 110-246, §7205(4), (5), redesignated subsec. (g) as (f) and substituted "2012" for "2007"

 $2002\mathrm{-Subsec.}$ (g). Pub. L. 107–171 substituted "2007" for "2002".

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.

STUDY OF NUTRIENT BANKING

Pub. L. 107-171, title VII, §7411, May 13, 2002, 116 Stat. 462, provided that:

- "(a) IN GENERAL.—The Secretary [of Agriculture] may conduct a study to evaluate nutrient banking for the purpose of enhancing the health and viability of watersheds in areas with large concentrations of animal producing units.
- "(b) COMPONENTS.—In conducting any study under subsection (a), the Secretary shall evaluate the costs, needs, and means by which litter may be collected and distributed outside the applicable watershed to reduce potential point source and nonpoint source phosphorous pollution.
- "(c) REPORT.—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 a report that describes the results of any study conducted under subsection (a)."

§ 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, the Secretary of Agriculture (referred to in this section as the "Secretary") may make competitive grants to support research and extension activities regarding organically grown and processed agricultural commodities for the purposes of—

- (1) facilitating the development of organic agriculture production, breeding, and processing methods;
- (2) evaluating the potential economic benefits to producers and processors who use organic methods:
- (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 and marketing and to socioeconomic conditions;
- (7) examining optimal conservation 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 450i of this title shall apply