

119TH CONGRESS
1ST SESSION

S. 3528

To amend the Food, Agriculture, Conservation, and Trade Act of 1990 to direct the Secretary of Agriculture to establish research centers of excellence for alternative protein innovation, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 17, 2025

Mr. SCHIFF (for himself and Mr. PADILLA) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

A BILL

To amend the Food, Agriculture, Conservation, and Trade Act of 1990 to direct the Secretary of Agriculture to establish research centers of excellence for alternative protein innovation, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Producing Real Oppor-
5 tunities for Technology and Entrepreneurs Investing in
6 Nutrition Act”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

1 (1) Protein innovation that produces high-quality
2 foods using under-utilized biomass and biomanu-
3 facturing processes is an essential component of the
4 bioeconomy.

5 (2) The United States has produced several
6 groundbreaking biotechnological breakthroughs
7 across the last decade that can diversify the food
8 system.

9 (3) In recent years, multiple countries have dra-
10 matically increased public investments into alter-
11 native protein research and development.

12 (4) According to the Department of Agri-
13 culture, every \$1 of investment into agricultural re-
14 search results in \$20 of economic productivity.

15 (5) As of 2019, the plant-based food industry
16 supported over 55,000 jobs in the United States,
17 and the protein sector could create as many as
18 10,000,000 jobs globally by 2050.

19 (6) Diversifying the protein supply of the
20 United States will increase domestic supply chain re-
21 silience, decrease reliance on foreign grain and other
22 commodities, and provide more choices to American
23 consumers.

1 (7) The global demand for meat is predicted to
2 double by 2050, thus increasing the need for addi-
3 tional food sources.

4 (8) A diversified food system would improve
5 global and domestic food security.

6 (9) Protein innovation can strengthen national
7 security, improve supply chain resilience, and lower
8 the risk of bioterrorism.

9 **SEC. 3. RESEARCH CENTERS OF EXCELLENCE FOR FOOD**
10 **AND AGRICULTURE INNOVATION.**

11 Section 1673 of the Food, Agriculture, Conservation,
12 and Trade Act of 1990 (7 U.S.C. 5926) is amended—

13 (1) in subsection (a), by inserting “of Agri-
14 culture (referred to in this section as the ‘Sec-
15 retary’)” after “The Secretary”; and

16 (2) by adding at the end the following:

17 “(e) CENTERS OF EXCELLENCE FOR FOOD AND AG-
18 RICULTURE INNOVATION.—

19 “(1) RECOGNITION.—The Secretary shall recog-
20 nize not fewer than 3 centers of excellence, one of
21 which shall be led by an 1890 Institution (as defined
22 in section 2 of the Agricultural Research, Extension,
23 and Education Reform Act of 1998 (7 U.S.C.
24 7601)), to focus on the areas specified in paragraph
25 (2) relating to the advancement of emerging and in-

novative food and agriculture with an emphasis on
diversifying edible protein sources.

“(2) AREAS OF FOCUS.—

“(A) FOOD BIOMANUFACTURING RE-
SEARCH AND DEVELOPMENT.—A center of ex-
cellence recognized under paragraph (1) may
carry out research, development, and education
programs that support the quality, production,
or cost-effectiveness of emerging and innovative
foods that employ—

“(i) bioprocessing;

“(ii) biomanufacturing; and

“(iii) the conversion of biomass into
proteins and fats at scale.

“(B) STUDENT SUCCESS AND WORKFORCE
DEVELOPMENT.—A center of excellence recog-
nized under paragraph (1) may engage in ac-
tivities to ensure that students have the skills
and education needed to work in innovative
food and agriculture industries, including agri-
cultural science, technology, engineering, math-
ematics, and related fields of study.

“(3) AUTHORIZATION OF APPROPRIATIONS.—

There is authorized to be appropriated to carry out

1 this subsection \$15,000,000 for each of fiscal years
2 2026 through 2030.

3 “(4) REPORT.—Not later than 1 year after the
4 date of enactment of the Producing Real Opportuni-
5 ties for Technology and Entrepreneurs Investing in
6 Nutrition Act, and every year thereafter, the Sec-
7 retary shall submit to the Committee on Agriculture
8 of the House of Representatives and the Committee
9 on Agriculture, Nutrition, and Forestry of the Sen-
10 ate a report describing—

11 “(A) the resources invested in the centers
12 of excellence recognized under paragraph (1);
13 and

14 “(B) the work being done by such centers
15 of excellence.”.

16 **SEC. 4. AGRICULTURE AND FOOD RESEARCH INITIATIVE.**

17 Section 2(b)(2)(E) of the Competitive, Special, and
18 Facilities Research Grant Act (7 U.S.C. 3157(b)(2)(E))
19 is amended—

20 (1) by redesignating clauses (ii) through (v) as
21 clauses (iii) through (vi), respectively; and

22 (2) by inserting after clause (i) the following
23 new clause:

24 “(ii) tools and production methods
25 that increase the availability of edible pro-

1 tein sources using bioprocessing, biomanu-
2 facturing, and the conversion of under-uti-
3 lized biomass into high-value ingredients;”.

4 **SEC. 5. AGRICULTURAL RESEARCH SERVICE.**

5 (a) ESTABLISHMENT OF NATIONAL PROGRAM.—The
6 Secretary of Agriculture, acting through the Adminis-
7 trator of the Agricultural Research Service, shall establish
8 a national program dedicated to protein security that in-
9 creases rural prosperity and farmer profits, which is fo-
10 cused on—

- 11 (1) bioprocessing;
12 (2) biomanufacturing; and
13 (3) the conversion of under-utilized biomass
14 into high-value ingredients.

15 (b) AUTHORIZATION OF APPROPRIATIONS.—There is
16 authorized to be appropriated to carry out the program
17 under this section \$10,000,000 for each of fiscal years
18 2026 through 2030.

19 **SEC. 6. FOOD BIOMANUFACTURING AND PRODUCTION**
20 **GRANT PROGRAM.**

21 (a) IN GENERAL.—Not later than 180 days after the
22 date of enactment of this Act, the Secretary of Agriculture
23 (referred to in this section as the “Secretary”) shall estab-
24 lish a grant program to ensure that the United States has
25 a viable domestic food biomanufacturing and production

1 capability to support and sustain increased global demand
2 for protein.

3 (b) ELIGIBLE ENTITIES.—An entity is eligible to re-
4 ceive a grant under subsection (a) if—

5 (1) such entity is—

6 (A) a nonprofit or for-profit private entity;

7 (B) an institution of higher education;

8 (C) a National Laboratory;

9 (D) a State or local government; or

10 (E) a consortium of entities described in
11 subparagraphs (A) through (D); and

12 (2) such entity—

13 (A) is headquartered in the United States
14 and operates primarily within the United
15 States;

16 (B) is at least 51 percent owned and con-
17 trolled by 1 or more individuals who are citizens
18 of the United States; and

19 (C) deploys intellectual property and con-
20 tent that is owned by United States individuals.

21 (c) GRANTS.—

22 (1) USE OF FUNDS.—An entity that receives a
23 grant under this section shall use funds received
24 through the grant—

1 (A) to carry out 1 or more demonstration
 2 projects for the advanced biomanufacturing,
 3 production, or bioprocessing of edible proteins
 4 and fats at scale;

5 (B) to construct 1 or more new commer-
 6 cial-scale facilities for such advanced biomanu-
 7 facturing, production, or bioprocessing; and

8 (C) to retool, retrofit, or expand 1 or more
 9 existing facilities located in the United States
 10 and determined qualified by the Secretary for
 11 such advanced biomanufacturing, production, or
 12 bioprocessing.

13 (2) AMOUNT OF GRANTS.—The amount of a
 14 grant awarded under this section shall be not less
 15 than \$10,000,000.

16 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
 17 authorized to be appropriated to the Secretary to carry
 18 out the program under this section \$50,000,000 for each
 19 of fiscal years 2026 through 2030.

20 **SEC. 7. FOOD BIOWORKFORCE DEVELOPMENT GRANT PRO-**
 21 **GRAM.**

22 (a) IN GENERAL.—Not later than 180 days after the
 23 date of the enactment of this Act, the Secretary of Agri-
 24 culture shall establish a competitive grant program to sup-

1 port food biomanufacturing and bioprocessing workforce
2 development.

3 (b) ELIGIBLE ENTITY.—An entity is eligible to re-
4 ceive a grant under this section if the entity is—

5 (1) a governmental entity;

6 (2) a public, private, or cooperative organiza-
7 tion organized on a for-profit or nonprofit basis; or

8 (3) an Indian Tribe (as defined in section 4 of
9 the Indian Self-Determination and Education Assist-
10 ance Act (25 U.S.C. 5304)) on a Federal or State
11 reservation or any other federally recognized Indian
12 Tribe.

13 (c) USE OF FUNDS.—An entity to which a grant is
14 made under this section shall use the grant funds to—

15 (1) train new and existing employees on food
16 biomanufacturing and bioprocessing methods;

17 (2) establish a center for training, technology,
18 and trade that will provide training to employees in
19 food biomanufacturing and bioprocessing;

20 (3) provide higher-education scholarships to
21 students pursuing careers in food biomanufacturing
22 and bioprocessing, including at community colleges;

23 (4) conduct regional, community, and local eco-
24 nomic development planning and coordination for

1 the purpose of increasing food biomanufacturing and
 2 bioprocessing;

3 (5) provide technical assistance to gain compli-
 4 ance with Federal, State, or local regulations related
 5 to food biomanufacturing and bioprocessing; or

6 (6) facilitate business and lending opportunities
 7 related to food biomanufacturing and bioprocessing,
 8 including identifying relevant information necessary
 9 for obtaining—

10 (A) private capital investments;

11 (B) Federal and State loan guarantees;

12 (C) Federal and State direct grants; or

13 (D) other financial support mechanisms
 14 from Federal and State entities.

15 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
 16 authorized to be appropriated to carry out this section
 17 \$25,000,000 for each of fiscal years 2026 through 2030.

18 **SEC. 8. NATIONAL STRATEGY ON ALTERNATIVE PROTEINS.**

19 (a) ESTABLISHMENT OF A NATIONAL STRATEGY ON
 20 ALTERNATIVE PROTEINS.—The Secretary of Agriculture
 21 (referred to in this section as the “Secretary”) shall—

22 (1) establish a national strategy on protein se-
 23 curity in coordination with the Secretaries concerned
 24 that meets the requirements of subsection (c); and

1 (2) not later than 1 year after the date of en-
2 actment of this Act, finalize such strategy.

3 (b) CONSIDERATIONS.—When developing the na-
4 tional strategy under subsection (a), the Secretaries con-
5 cerned shall consider—

6 (1) the best available science related to edible
7 protein diversification that is focused on bioproc-
8 essing, biomanufacturing, and the conversion of
9 under-utilized biomass into high-value ingredients;

10 (2) the strategic benefits of expanding research,
11 development, and production of protein diversifica-
12 tion relating to—

13 (A) national security and warfighter readi-
14 ness;

15 (B) agriculture opportunities for domestic
16 farmers;

17 (C) food and agricultural innovation;

18 (D) resilient supply chains; and

19 (E) cross-cutting scientific advancements;

20 (3) global competition and the economic bene-
21 fits of protein diversification relating to—

22 (A) future economic productivity;

23 (B) job creation in the biotechnology sec-
24 tor; and

1 (C) existing public investments and strate-
 2 gies of competitor countries; and

3 (4) existing policies and programs offered by
 4 the Federal Government and State governments
 5 that—

6 (A) fund open-access research and develop-
 7 ment at institutions of higher education and
 8 government agencies;

9 (B) incentivize private sector research and
 10 development;

11 (C) support new and existing food bio-
 12 manufacturers;

13 (D) support farmers in the United States
 14 that produce crops and feedstocks that support
 15 protein diversification and food biomanufac-
 16 turing; and

17 (E) represent a barrier for effective—

18 (i) open-access food biomanufacturing
 19 research and development;

20 (ii) scale-up of food biomanufacturing;

21 and

22 (iii) regulatory oversight.

23 (c) CONTENTS.—The national strategy shall—

24 (1) use a whole-of-government approach to en-
 25 sure that the United States remains the global lead-

er of food biomanufacturing, bioprocessing, and bio-
workforce development for future generations; and

(2) include—

(A) objectives to fulfill the purpose of the
national strategy specified in paragraph (1), in-
cluding interagency coordination;

(B) barriers to fulfill such purpose;

(C) solutions to the barriers identified
under subsection (b)(4)(E); and

(D) a plan for the implementation of the
national strategy.

(d) SECRETARIES CONCERNED DEFINED.—In this
section, the term “Secretaries concerned” means—

(1) the Secretary of Defense;

(2) the Secretary of Energy;

(3) the Secretary of Commerce;

(4) the Director of the National Science Foun-
dation;

(5) the Director of the National Institutes of
Health;

(6) the Commissioner of Food and Drugs;

(7) the Director of the Centers for Disease
Control and Prevention;

(8) the Administrator of the Environmental
Protection Agency; and

1 (9) the Director of the Office of Science and
2 Technology Policy.

3 **SEC. 9. RULE OF CONSTRUCTION.**

4 Nothing in this Act, or an amendment made by this
5 Act, shall be construed to support the production of in-
6 sects for food or animal feed.

