

117TH CONGRESS
1ST SESSION

S. _____

To amend the Food Security Act of 1985 to authorize the Secretary of Agriculture [to improve agricultural productivity, profitability, resilience, and ecological outcomes through modernized data infrastructure and analysis / to collect, analyze, and provide data to improve conservation outcomes, increase agricultural productivity, profitability, and resilience, and accelerate the development of carbon and other ecosystem service markets], and for other purposes.

IN THE SENATE OF THE UNITED STATES

Ms. KLOBUCHAR (for herself and Mr. THUNE) introduced the following bill; which was read twice and referred to the Committee on

A BILL

To amend the Food Security Act of 1985 to authorize the Secretary of Agriculture [to improve agricultural productivity, profitability, resilience, and ecological outcomes through modernized data infrastructure and analysis / to collect, analyze, and provide data to improve conservation outcomes, increase agricultural productivity, profitability, and resilience, and accelerate the development of carbon and other ecosystem service markets], 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Agriculture Innovation
3 Act of 2021”.

4 **SEC. 2. DATA ON CONSERVATION AND PRODUCTION PRAC-**
5 **TICES.**

6 Section 1247 of the Food Security Act of 1985 (16
7 U.S.C. 3847) is amended to read as follows:

8 **“SEC. 1247. DATA ON CONSERVATION AND PRODUCTION**
9 **PRACTICES.**

10 “(a) PURPOSE.—The purpose of this section is to im-
11 prove conservation outcomes, increase agricultural produc-
12 tivity and resilience, and accelerate the development of
13 carbon and other ecosystem service markets by collecting,
14 analyzing, and providing data—

15 “(1) to better understand how covered con-
16 servation practices and suites of covered conserva-
17 tion practices and covered production practices im-
18 pact farm, ranch, and other working land produc-
19 tivity and profitability (such as crop yields, soil
20 health, and other risk-reducing factors);

21 “(2) to support the measurement and quan-
22 tification of ecosystem services provided by farm,
23 ranch, and other working land, such as carbon se-
24 questration, water filtration, and habitat, that result
25 from covered conservation practices and covered pro-
26 duction practices; and

1 “(3) to improve the implementation of Depart-
2 ment programs to optimize productivity, profit-
3 ability, and ecological benefits.

4 “(b) DEFINITIONS.—In this section:

5 “(1) COVERED CONSERVATION PRACTICE.—The
6 term ‘covered conservation practice’ means a specific
7 conservation practice or enhancement that is de-
8 signed to protect soil health, farm and ranch produc-
9 tivity, or both (including the protection of wildlife
10 habitat) while maintaining or enhancing crop yields
11 in an economically sustainable manner (including
12 such a conservation practice or enhancement that is
13 supported by the Department or used independently
14 by a producer), as determined by the Secretary.

15 “(2) COVERED PRODUCTION PRACTICE.—The
16 term ‘covered production practice’ means a practice
17 used to produce a crop or livestock, including pest
18 control, nutrient management, manure management,
19 water and irrigation management, seed, feed and nu-
20 trition, and crop residue management.

21 “(3) DEPARTMENT.—The term ‘Department’
22 means the Department of Agriculture.

23 “(c) DATA COLLECTION, REVIEW, ANALYSIS, AND
24 TECHNICAL ASSISTANCE.—The Secretary, acting through
25 the 1 or more applicable Under Secretaries that head mis-

1 sion areas relating to farm and ranch productivity and
2 conservation, in coordination with the Chief Economist
3 and the Under Secretary for Research, Education, and
4 Economics, shall carry out the following activities:

5 “(1) Identify data relating to the impacts of
6 covered conservation practices and covered produc-
7 tion practices on enhancing crop yields, soil health,
8 and ecosystem services, reducing the risk [of
9 _____], and improving farm, ranch, and other
10 working land profitability generated or collected by
11 the Department, including the Farm Service Agency,
12 the Risk Management Agency, the Natural Re-
13 sources Conservation Service, the National Agricul-
14 tural Statistics Service, the Economic Research
15 Service, the Forest Service, and any other relevant
16 agency, as determined by the Secretary.

17 “(2) Collect or acquire, using technology and a
18 modernized survey system, to the maximum extent
19 practicable, or another appropriate method, any ad-
20 ditional producer data, baseline data, or other data
21 relating to the impacts of covered conservation prac-
22 tices and covered production practices on enhancing
23 crop yields, soil health, and ecosystem services, re-
24 ducing the risk [of _____], and improving farm,
25 ranch, and other working land profitability necessary

1 to achieve the purpose described in subsection (a),
2 ensuring that data is collected from all types and
3 sizes of operations.

4 “(3) Ensure that producer data identified or
5 collected under paragraph (1) or (2) are collected in
6 a compatible format at the field- and farm-level and
7 in a manner that places the lowest practicable bur-
8 den on producers and improves the interoperability
9 of the data collected by the Department for the pur-
10 poses of this section and optimizes the interoper-
11 ability to the extent practicable with data generated
12 by other organizations and other activities of the De-
13 partment with respect to covered conservation prac-
14 tices and covered production practices.

15 “(4) Establish procedures and incentives for
16 producers to voluntarily elect to be contacted to par-
17 ticipate in or submit additional research and to pro-
18 vide supplemental data that may be useful in statis-
19 tical analyses of the impacts of covered conservation
20 practices on—

21 “(A) enhancing crop yields, soil health,
22 and ecosystem services;

23 “(B) reducing the risk [of _____]; and

24 “(C) improving farm, ranch, and other
25 working land profitability.

1 “(5) Integrate, collate, and link, to the max-
2 imum extent practicable, data identified or collected
3 under this subsection with other government or non-
4 governmental data sources that include crop yields,
5 soil health, covered conservation practices, and cov-
6 ered production practices.

7 “(6) Establish a conservation and farm produc-
8 tivity data warehouse designed to carry out the pur-
9 poses of this section that ensures the security, pri-
10 vacy, and integrity of data.

11 “(7) Make available data through the data
12 warehouse established under paragraph (6) to aca-
13 demic institutions and researchers that meet the
14 user permission requirements described in subsection
15 (d)(2)(A) for the provision of technical assistance.

16 “(8) Analyze, consistent with the scientific in-
17 tegrity policy of the Department, the data identified
18 or collected under this subsection to consider the im-
19 pacts of covered conservation practices and covered
20 production practices on enhancing crop yields, soil
21 health, and ecosystem services and improving farm,
22 ranch, and other working land profitability.

23 “(9) Use the results of the analyses under para-
24 graph (8) to improve the implementation of Depart-
25 ment programs to increase productivity, profitability,

1 and ecological benefits of farm, ranch, and other
2 working land.

3 “(10) Promptly make publicly available on the
4 data warehouse established under paragraph (6) the
5 research, analyzed data, and other information gen-
6 erated in carrying out this section—

7 “(A) that demonstrates the impacts of cov-
8 ered conservation practices and covered produc-
9 tion practices on enhancing crop yields, soil
10 health, and ecosystem services, reducing the
11 risk [of _____], and improving farm,
12 ranch, and other working land profitability; and

13 “(B) in a manner that is easily accessed by
14 producers, researchers, and other stakeholders.

15 “(d) DATA WAREHOUSE ESTABLISHMENT.—

16 “(1) IN GENERAL.—To develop the data ware-
17 house under subsection (c)(6), the Secretary may
18 enter into 1 or more agreements with 1 or more aca-
19 demic institutions, organizations, government agen-
20 cies, or other experts determined necessary by the
21 Secretary to provide the necessary technical assist-
22 ance, expertise, and technology infrastructure to de-
23 velop that data warehouse.

24 “(2) REQUIREMENT TO MODERNIZE DATA SE-
25 CURITY, STORAGE, AND ACCESS.—

1 “(A) IN GENERAL.—In establishing the
2 data warehouse under subsection (c)(6), the
3 Secretary shall use industry-standard data se-
4 curity protocols and user permissions to protect
5 the security and confidentiality of proprietary
6 producer data while automating and standard-
7 izing data collection, storage, and sharing, to
8 the maximum extent practicable, for the pur-
9 pose of carrying out this section and encour-
10 aging agriculture innovation.

11 “(B) ADDITIONAL REQUIREMENTS.—In
12 carrying out subparagraph (A), the Secretary
13 shall establish procedures for the operation and
14 use of the data warehouse that includes—

15 “(i) prohibiting the sale of any indi-
16 vidual producer data; and

17 “(ii) requiring any published research
18 to release only aggregated data.

19 “(e) PRODUCER TOOLS.—

20 “(1) IN GENERAL.—Not later than 3 years
21 after the date of enactment of the Agriculture Inno-
22 vation Act of 2021, the Secretary shall provide tech-
23 nical assistance, including through internet-based
24 tools, based on the analysis conducted in carrying
25 out this section and other sources of relevant data,

1 to assist producers in improving sustainable produc-
2 tion practices that increase yields and enhance envi-
3 ronmental outcomes.

4 “(2) INTERNET-BASED TOOLS.—Internet-based
5 tools described in paragraph (1) shall provide to pro-
6 ducers, to the maximum extent practicable—

7 “(A) confidential data specific to each
8 farm or ranch of the producer; and

9 “(B) general data relating to the impacts
10 of covered conservation practices on enhancing
11 crop yields, soil health, and otherwise reducing
12 risk and improving farm and ranch profit-
13 ability.

14 “(f) EFFECT ON PRIVACY PROTECTION LAWS.—
15 Nothing in this section affects the applicability to this sec-
16 tion of—

17 “(1) section 1770;

18 “(2) section 1619 of the Food, Conservation,
19 and Energy Act of 2008 (7 U.S.C. 8791);

20 “(3) section 502(c) of the Federal Crop Insur-
21 ance Act (7 U.S.C. 1502(c));

22 “(4) section 552a of title 5, United States
23 Code; or

1 “(5) any other applicable privacy law that pro-
2 tects personally identifiable information of pro-
3 ducers.

4 “(g) REPORTING.—Not later than 1 year after the
5 date of enactment of the Agriculture Innovation Act of
6 2021, and each year thereafter, the Secretary shall submit
7 to the Committee on Agriculture, Nutrition, and Forestry
8 of the Senate and the Committee on Agriculture of the
9 House of Representatives a report that includes—

10 “(1) a summary of the analysis conducted
11 under this section;

12 “(2) the number and regions of producers that
13 voluntarily submitted information under subsection
14 (c)(4);

15 “(3) a description of any additional or new ac-
16 tivities planned to be conducted under this section in
17 the next fiscal year, including—

18 “(A) research relating to any additional
19 conservation practices or production practices;

20 “(B) any new types of data to be collected;

21 “(C) any improved or streamlined data col-
22 lection efforts associated with this section; and

23 “(D) any new research projects; and

24 “(4) in the case of the first 2 reports submitted
25 under this subsection, a description of the current

1 status of the implementation of activities under sub-
2 section (c).

3 “(h) FUNDING AND ADMINISTRATION.—The Sec-
4 retary shall use the existing funds and authorities of the
5 Department to carry out this section.”.