

119TH CONGRESS
1ST SESSION

H. R. 1985

To enhance the participation of precision agriculture in the United States,
and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 10, 2025

Mr. DAVIS of North Carolina (for himself and Mr. MANN) introduced the
following bill; which was referred to the Committee on Agriculture

A BILL

To enhance the participation of precision agriculture in the
United States, 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 “Promoting Precision
5 Agriculture Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) **ADVANCED WIRELESS COMMUNICATIONS**
9 **TECHNOLOGY.**—The term “advanced wireless com-
10 munications technology” means advanced technology

1 that contributes to mobile (5G or beyond) networks,
2 next-generation Wi-Fi networks, or other future net-
3 works using other technologies, regardless of wheth-
4 er the network is operating on an exclusive licensed,
5 shared licensed, or unlicensed frequency band.

6 (2) ARTIFICIAL INTELLIGENCE.—The term “ar-
7 tificial intelligence” has the meaning given the term
8 in section 238(g) of the John S. McCain National
9 Defense Authorization Act for Fiscal Year 2019
10 (Public Law 115–232; 10 U.S.C. note prec. 4061).

11 (3) FOREIGN ADVERSARY.—The term “foreign
12 adversary” means any foreign government or foreign
13 nongovernment person engaged in a long-term pat-
14 tern or serious instances of conduct significantly ad-
15 verse to the national security of the United States,
16 or security and safety of United States persons.

17 (4) PRECISION AGRICULTURE.—The term “pre-
18 cision agriculture” means managing, tracking, or re-
19 ducing crop or livestock production inputs, including
20 seed, feed, fertilizer, chemicals, water, time, and
21 such other inputs as the Secretary determines to be
22 appropriate, at a heightened level of spatial and tem-
23 poral granularity to improve efficiencies, reduce
24 waste, and maintain environmental quality.

1 (5) PRECISION AGRICULTURE EQUIPMENT.—

2 The term “precision agriculture equipment” means
3 any equipment or technology that directly contrib-
4 utes to a reduction in, or improved efficiency of, in-
5 puts used in crop or livestock production, includ-
6 ing—

7 (A) global positioning system-based or
8 geospatial mapping;

9 (B) satellite or aerial imagery;

10 (C) yield monitors;

11 (D) soil mapping;

12 (E) sensors for gathering data on crop,
13 soil, and livestock conditions;

14 (F) Internet of Things and technology that
15 relies on edge and cloud computing;

16 (G) data management software and ad-
17 vanced analytics;

18 (H) network connectivity products and so-
19 lutions, including public and private wireless
20 networks;

21 (I) global positioning system guidance,
22 auto-steer systems, autonomous fleetings, and
23 other machine-to-machine operations;

24 (J) variable rate technology for applying
25 inputs, such as section control; and

1 (K) any other technology, as determined by
2 the Secretary, that directly contributes to a re-
3 duction in, or improved efficiency of, the use of
4 crop or livestock production inputs, which may
5 include—

6 (i) seed;

7 (ii) feed;

8 (iii) fertilizer;

9 (iv) soil amendments;

10 (v) chemicals;

11 (vi) water;

12 (vii) time;

13 (viii) fuel; and

14 (ix) such other inputs as the Sec-

15 retary determines to be appropriate.

16 (6) SECRETARY.—The term “Secretary” means
17 the Secretary of Agriculture.

18 (7) TRUSTED.—The term “trusted” means,
19 with respect to a provider of advanced communica-
20 tions service or a supplier of communications equip-
21 ment or service, that the Secretary has determined
22 that the provider or supplier is not owned by, con-
23 trolled by, or subject to the influence of, a foreign
24 adversary.

1 (8) VOLUNTARY CONSENSUS STANDARDS DE-
2 VELOPMENT ORGANIZATION.—The term “voluntary
3 consensus standards development organization”
4 means an organization that develops standards in a
5 process that meets the principles for the develop-
6 ment of voluntary consensus standards (as defined
7 in the document of the Office of Management and
8 Budget entitled “Federal Participation in the Devel-
9 opment and Use of Voluntary Consensus Standards
10 and in Conformity Assessment Activities” (OMB
11 Circular A–119)).

12 **SEC. 3. PURPOSES.**

13 The purposes of this Act are—

14 (1) to enhance the participation of precision ag-
15 riculture in the United States; and

16 (2) to promote United States leadership in vol-
17 untary consensus standards development organiza-
18 tions that set standards for precision agriculture.

19 **SEC. 4. INTERCONNECTIVITY STANDARDS FOR PRECISION**
20 **AGRICULTURE.**

21 (a) IN GENERAL.—Not later than 2 years after the
22 date of enactment of this Act, the Secretary, in consulta-
23 tion with the Director of the National Institute of Stand-
24 ards and Technology and the Federal Communications
25 Commission, shall—

1 (1) develop voluntary, consensus-based, private
2 sector-led interconnectivity standards, guidelines,
3 and best practices for precision agriculture that will
4 promote economies of scale and ease the burden of
5 the adoption of precision agriculture; and

6 (2) in carrying out paragraph (1)—

7 (A) coordinate with relevant public and
8 trusted private sector stakeholders and other
9 relevant industry organizations, including vol-
10 untary consensus standards development orga-
11 nizations; and

12 (B) consult with sector-specific agencies,
13 other appropriate agencies, and State and local
14 governments.

15 (b) CONSIDERATIONS.—The Secretary, in carrying
16 out subsection (a), shall, in consultation with the Federal
17 Communications Commission and the Director of the Na-
18 tional Institute of Standards and Technology, consider—

19 (1) the evolving demands of precision agri-
20 culture;

21 (2) the connectivity needs of precision agri-
22 culture equipment;

23 (3) the cybersecurity challenges facing precision
24 agriculture, including cybersecurity threats for agri-
25 culture producers and agriculture supply chains;

1 (4) the impact of advanced wireless communica-
2 tions technology on precision agriculture; and

3 (5) the impact of artificial intelligence on preci-
4 sion agriculture.

5 **SEC. 5. GAO ASSESSMENT OF PRECISION AGRICULTURE**
6 **STANDARDS.**

7 (a) STUDY.—Not later than 1 year after the Sec-
8 retary develops standards under section 4, and every 2
9 years thereafter for the following 8 years, the Comptroller
10 General of the United States shall conduct a study that
11 assesses those standards, including the extent to which
12 those standards, as applicable—

13 (1) are voluntary;

14 (2) were developed in coordination with relevant
15 industry organizations, including voluntary con-
16 sensus standards development organizations; and

17 (3) have successfully encouraged the adoption
18 of precision agriculture.

19 (b) REPORT.—The Comptroller General of the
20 United States shall submit to the Committee on Com-
21 merce, Science, and Transportation of the Senate, the
22 Committee on Science, Space, and Technology of the
23 House of Representatives, the Committee on Agriculture
24 of the House of Representatives, and the Committee on
25 Agriculture, Nutrition, and Forestry of the Senate a re-

- 1 port that summarizes the findings of each study conducted
- 2 under subsection (a).

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