

117TH CONGRESS  
1ST SESSION

# H. R. 2581

To establish a biochar demonstration project and biochar grant program,  
and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 15, 2021

Ms. HERRELL (for herself, Mr. WESTERMAN, Mr. NEWHOUSE, and Mr. GOSAR) introduced the following bill; which was referred to the Committee on Agriculture, and in addition to the Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To establish a biochar demonstration project and biochar  
grant program, 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 “Biochar Innovations  
5 and Opportunities for Conservation, Health, and Advance-  
6 ments in Research Act of 2021” or the “BIOCHAR Act  
7 of 2021”.

1 **SEC. 2. BIOCHAR DEMONSTRATION PROJECT.**

2 (a) DEMONSTRATION PROJECTS.—

3 (1) ESTABLISHMENT.—

4 (A) IN GENERAL.—Not later than 2 years  
5 after the date of the enactment of this section,  
6 the Secretaries shall establish a program to  
7 enter into partnerships with eligible entities to  
8 carry out demonstration projects to support the  
9 development and commercialization of biochar  
10 in accordance with this subsection.

11 (B) LOCATION OF DEMONSTRATION  
12 PROJECTS.—The Secretaries shall, to the max-  
13 imum extent practicable, establish at least one  
14 biochar demonstration project in each Forest  
15 Service region.

16 (2) PROPOSALS.—To be eligible to enter into a  
17 partnership to carry out a biochar demonstration  
18 project under paragraph (1)(A), an eligible entity  
19 shall submit to the Secretaries a proposal at such  
20 time, in such manner, and containing such informa-  
21 tion as the Secretaries may require.

22 (3) PRIORITY.—In selecting proposals under  
23 paragraph (2), the Secretaries shall give priority to  
24 partnering with eligible entities that submit pro-  
25 posals to carry out biochar demonstration projects  
26 that—

1 (A) have the most carbon sequestration po-  
2 tential;

3 (B) will create new jobs and contribute to  
4 local economies, particularly in rural areas;

5 (C) will demonstrate—

6 (i) new and innovative uses of biochar;

7 (ii) viable markets for cost effective  
8 biochar-based products;

9 (iii) the ecosystem services of biochar;

10 (iv) the benefits of biochar to restore  
11 forest heath and resiliency, including for  
12 forest soils and watersheds; or

13 (v) any combination of purposes speci-  
14 fied in clauses (i) through (iv);

15 (D) are located in local markets that have  
16 the greatest need for the biochar production  
17 units due to—

18 (i) nearby lands identified as having  
19 high or very high or extreme risk of wild-  
20 fire;

21 (ii) availability of sufficient quantities  
22 of feedstocks; or

23 (iii) a high level of demand for  
24 biochar or other commercial byproducts of  
25 biochar; or

1           (E) any combination of purposes specified  
2           in subparagraphs (A) through (D).

3           (4) USE OF FUNDS.—In carrying out the pro-  
4           gram established under paragraph (1)(A), the Secre-  
5           taries may enter into partnerships and provide fund-  
6           ing to carry out demonstration projects that—

7           (A) acquire and test various feedstocks and  
8           their efficacy;

9           (B) develop and optimize commercially and  
10          technologically viable biochar production units,  
11          including mobile and permanent units;

12          (C) demonstrate the production of biochar  
13          from forest residues and the use of biochar to  
14          restore forest health and resiliency;

15          (D) build, expand, or establish biochar fa-  
16          cilities;

17          (E) conduct research on new and innova-  
18          tive uses of biochar or demonstrate cost-effec-  
19          tive market opportunities for biochar and  
20          biochar-based products;

21          (F) carry out any other activities the Sec-  
22          retaries determine appropriate; or

23          (G) any combination of the purposes speci-  
24          fied in subparagraphs (A) through (F).

1           (5) FEEDSTOCK REQUIREMENTS.—To the max-  
2       imum extent practicable, a biochar demonstration  
3       project under this subsection shall, with respect to  
4       the feedstock used under such project, derive at  
5       least 50 percent of such feedstock from forest  
6       thinning and management activities, including mill  
7       residues, conducted on National Forest System  
8       lands.

9           (6) REVIEW OF BIOCHAR DEMONSTRATION.—

10          (A) IN GENERAL.—The Secretaries shall  
11       conduct regionally specific research, including  
12       economic analyses and life-cycle assessments, on  
13       the biochar produced from the demonstration  
14       projects under this subsection, including—

15               (i) the effects of such biochar on—

16                       (I) forest health and resiliency;

17                       (II) carbon capture and seques-  
18       tration, including increasing soil car-  
19       bon in the short-term and long-term;

20                       (III) productivity, reduced input  
21       costs, and water retention in agricul-  
22       tural practices;

23                       (IV) soil and grassland health for  
24       grazing activities, including grazing  
25       activities on Federal land;

1 (V) environmental remediation  
2 activities, including abandoned mine  
3 land remediation; and

4 (VI) other ecosystem services of  
5 biochar;

6 (ii) the efficacy of biochar as a co-  
7 product of biofuels or in biochemicals; and

8 (iii) whether biochar can effectively be  
9 used to produce any other technologically  
10 and commercially viable outcome.

11 (B) COORDINATION.—The Secretaries  
12 shall, to the maximum extent practicable, pro-  
13 vide data, analysis, and other relevant informa-  
14 tion collected under subparagraph (A) to eligi-  
15 ble institutions conducting research and devel-  
16 opment activities on biochar pursuant to receiv-  
17 ing a grant under subsection (b).

18 (7) LIMITATION ON FUNDING FOR ESTAB-  
19 LISHING BIOCHAR FACILITIES.—In the case of an el-  
20 igible entity that enters in to a partnership to carry  
21 out a biochar demonstration project under this sub-  
22 section and seeks to establish a biochar facility  
23 under such demonstration project, the Secretaries  
24 may not provide funding to such eligible entity in an

1 amount greater than 35 percent of the capital cost  
2 of establishing such biochar facility.

3 (b) BIOCHAR RESEARCH AND DEVELOPMENT GRANT  
4 PROGRAM.—

5 (1) ESTABLISHMENT.—The Secretary of Agri-  
6 culture shall establish an applied biochar research  
7 and development grant program to make competitive  
8 grants to eligible institutions to carry out the activi-  
9 ties described in paragraph (3).

10 (2) APPLICATIONS.—To be eligible to receive a  
11 grant under this subsection, an eligible entity shall  
12 submit to the Secretary a proposal at such time, in  
13 such manner, and containing such information as  
14 the Secretary may require.

15 (3) USE OF FUNDS.—An eligible institution  
16 that receives a grant under this subsection shall use  
17 the grant funds to conduct applied research on—

18 (A) the effect of biochar on forest health  
19 and resiliency, accounting for variations in  
20 biochar, soil, climate, and other factors;

21 (B) the effect of biochar on soil health and  
22 water retention, accounting for variations in  
23 biochar, soil, climate, and other factors;

24 (C) the long-term carbon sequestration po-  
25 tential of biochar;

(D) the best management practices of  
biochar and biochar based-products to—

(i) maximize carbon sequestration  
benefits; and

(ii) maximize the commercial viability  
and application of such products in for-  
estry, agriculture, environmental remedi-  
ation, water quality improvement, and  
other uses;

(E) the regional uses of biochar to increase  
productivity and profitability, including—

(i) uses in agriculture and environ-  
mental remediation; and

(ii) use as a co-product in fuel produc-  
tion;

(F) new and innovative uses from biochar  
byproducts; and

(G) opportunities to expand markets for  
biochar and create jobs, particularly in rural  
areas.

(c) REPORTS.—

(1) REPORT TO CONGRESS.—Not later than 2  
years after the date of the enactment of this section,  
the Secretaries shall submit a report to Congress  
that—



1 (A) includes policy and program rec-  
2 ommendations to improve the widespread use of  
3 biochar;

4 (B) identifies the areas of research needed  
5 to advance biochar commercialization; and

6 (C) identifies barriers to further biochar  
7 commercialization, including permitting and  
8 siting considerations.

9 (2) PRESIDENT’S ANNUAL BUDGET REQUEST.—

10 Beginning 2 years after the date of the enactment  
11 of this section and annually until the date described  
12 in subsection (d), the Secretaries shall include in the  
13 budget materials submitted to Congress in support  
14 of the President’s annual budget request (submitted  
15 to Congress pursuant to section 1105 of title 31,  
16 United States Code) for each fiscal year a report on  
17 the status of the demonstration projects carried out  
18 under subsection (a) and the research and develop-  
19 ment grants carried out under subsection (b).

20 (d) SUNSET.—The authority to carry out this section  
21 shall terminate on the date that is 10 years after the date  
22 of the enactment of this section.

23 (e) DEFINITIONS.—In this section:

24 (1) BIOCHAR.—The term “biochar” means car-  
25 bonized biomass produced by converting feedstock

1 through reductive thermal processing for non-fuel  
2 uses.

3 (2) ELIGIBLE ENTITY.—The term “eligible enti-  
4 ty” means—

5 (A) State, local, and Tribal governments;

6 (B) eligible institutions; and

7 (C) private, non-private, or cooperative en-  
8 tities.

9 (3) ELIGIBLE INSTITUTION.—The term “eligi-  
10 ble institution” means land-grant colleges and uni-  
11 versities, including institutions eligible for funding  
12 under the—

13 (A) Act of July 2, 1862;

14 (B) Act of August 30, 1890, including  
15 Tuskegee University;

16 (C) Public Law 87–788 (commonly known  
17 as the “McIntire-Stennis Act of 1962”); or

18 (D) Equity in Educational Land-Grant  
19 Status Act of 1994 (7 U.S.C. 301 note).

20 (4) FEEDSTOCK.—The term “feedstock” means  
21 excess biomass in the form of plant matter or mate-  
22 rials that serves as the raw material for the produc-  
23 tion of biochar.

24 (5) SECRETARIES.—The term “Secretaries”  
25 means—

1                   (A) the Secretary of Agriculture, acting  
2 through the Chief of the Forest Service; and

3                   (B) the Secretary of Energy, acting  
4 through the Director of the Office of Science.

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