Funding
Climate-Smart Research

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The Value of Public Agricultural R&D

• Key driver of productivity growth, keeping US farmers competitive
• Reduces food prices
• Crowds-in private investment, rather than crowding it out
• $20 benefit-cost ratio
• Develops practices and technologies to address environmental issues
• Reduces greenhouse gas emissions for as low as $12/tCO₂e
Public Spending on Agricultural R&D has Fallen by One-Third Since 2002
Farm Bill Title 7: Research, Extension and Related Matters

- Title 7 supports agricultural research and extension programs to expand academic knowledge and help producers be more productive.
- Research accounted for <0.2% of all 2018 Farm Bill mandatory spending.
- Many research programs are authorized to receive mostly discretionary (appropriated) funds.

Source: CRS using the CBO Baseline (May 2023) for the five largest titles, and amounts in law for programs in other titles.
Note: Total estimated at $1,463 billion.
Research Program Funding for Climate Mitigation (2017–2021 average)

Notes: ARS mitigation and USGCRP reflect USDA estimates of enacted funding for FY21. Funding by mitigation area is not calculated owing to data limitations. Other funding is calculated based on analysis of project descriptions over 2017–2021.
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• $600+ million awarded and matched to-date

• $1.40 in non-federal matching funding for every $1 awarded

• Up to 40% of awards support climate-smart agriculture

• Over 40% of projects develop tools for immediate use
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FFAR Awards by Year

Source: FFAR

- FFAR Award Portion
- Matching Award Portion

Chart showing the awards by year from 2014 to 2023.
Agriculture Advanced R&D Authority

- Long-term, high-risk, high-return R&D
- Modeled after successful ARPA-style agencies
- Authorized in 2018 Farm Bill for $50M but appropriated $1 million per year

<table>
<thead>
<tr>
<th>Program</th>
<th>Department</th>
<th>FY 2023 Appropriations</th>
</tr>
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<tbody>
<tr>
<td>DARPA (Defense Advanced Research Projects Agency)</td>
<td>Defense</td>
<td>$4.1 billion</td>
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<tr>
<td>ARPA E (Advanced Research Projects Agency Energy)</td>
<td>Energy</td>
<td>$470 million</td>
</tr>
<tr>
<td>ARPA I (Advanced Research Projects Agency Infrastructure)</td>
<td>Transportation</td>
<td>$3.2 million</td>
</tr>
<tr>
<td>ARPA H (Advanced Research Projects Agency Health)</td>
<td>HHS</td>
<td>$1.5 billion</td>
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<tr>
<td>AGARDA (Agriculture Advanced Research and Development Authority)</td>
<td>USDA</td>
<td>$1 million</td>
</tr>
</tbody>
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Gaps in Mitigation-Related R&D Spending

Agricultural R&D Spending on Climate Mitigation (2017–2021 Average)

Notes: ARS mitigation and USGCRP reflect USDA estimates of actual funding for FY21. Funding by mitigation area is not calculated owing to data limitations. Other funding is calculated based on analysis of project descriptions for 2017–2021. Columns do not sum to equal total because funding for projects can fall under multiple categories.
Thank you

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