

State of Organic Seed: A Five-Year Update

Jared Zystro • Organic Seed Alliance



stateoforganicseed.org





Advancing ethical seed solutions to meet food and farming needs in a changing world

Agenda



Project overview

Key findings

Recommendations

Q&A

State of Organic Seed

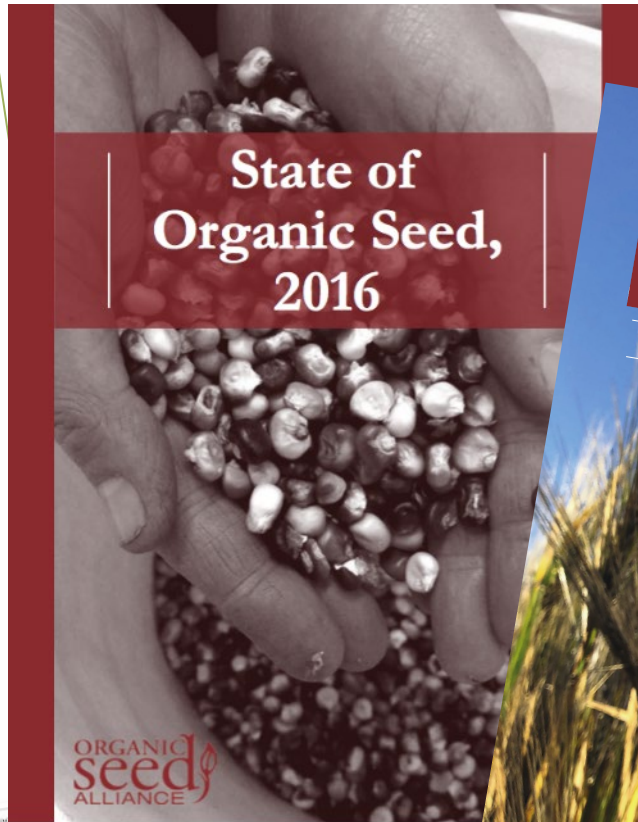
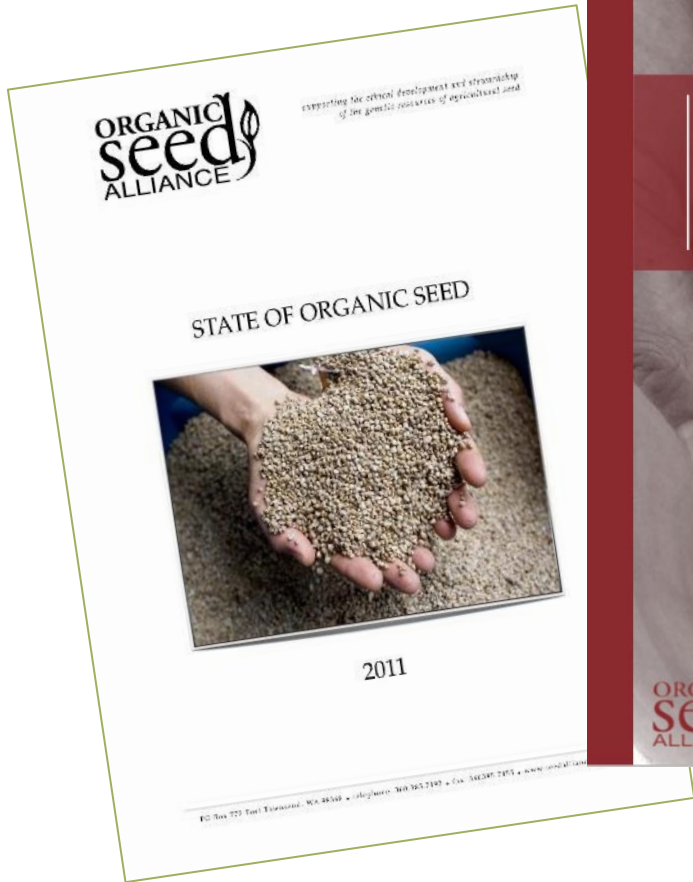
State of Organic Seed (SOS) is an ongoing project to monitor organic seed systems in the U.S.

Every five years, OSA releases this progress report and action plan for increasing the organic seed supply while fostering seed grower networks and policies that aim to decentralize power and ownership in seed systems.

The benefits of expanding organic seed in the field and marketplace go beyond meeting a regulatory requirement

Climate | Growers | Environment | Human Health





Objectives of SOS

- Help organic producers meet the NOP's organic seed requirement
- Identify urgent organic plant breeding and seed research needs
- Address barriers to the organic seed market faced by BIPOC growers who currently face prejudice and harm
- Promote policies and actions that increase the availability and diversity of organic seed and foster decentralized seed systems

Principles guiding SOS

- Organic food should begin with organic seed
- Seeds are a vital yet vulnerable natural resource that must be respected and managed in a manner that enhances long-term viability and integrity
- Agricultural research should serve more than one goal and should strive to increase benefits for all living systems, including soil, plants, animals and humans



Principles guiding SOS

- Action must be taken to remove structural barriers to a just and equitable seed and food system
- The equitable exchange of seed, with appropriate acknowledgement, consent and compensation, enhances innovation and curtails the negative impacts of concentrated ownership and consolidated power in decision making
- Growers and their communities have the right to determine whether, and how, culturally important seeds are used and shared to avoid biopiracy

Principles guiding SOS

- Indigenous knowledge should be recognized as the foundation of organic farming and agroecology and uplifted in partnerships and leadership.
- Application of the International Federation of Organic Movements' (IFOAM) Principles of Organic Agriculture



The Principle
of Health.



The Principle
of Ecology.



The Principle
of Fairness.



The Principle
of Care.

IFOAM
INTERNATIONAL FEDERATION OF
ORGANIC AGRICULTURE MOVEMENTS

Project methods

Targeted surveys:

- Organic producers (1,059)
- Organic seed producers/companies (127)
- Organic breeders/researchers (51)
- Organic certifiers (22)

Other:

- Seed producer/company interviews (26)
- Database of organic research funding
- Grower focus groups (100+)

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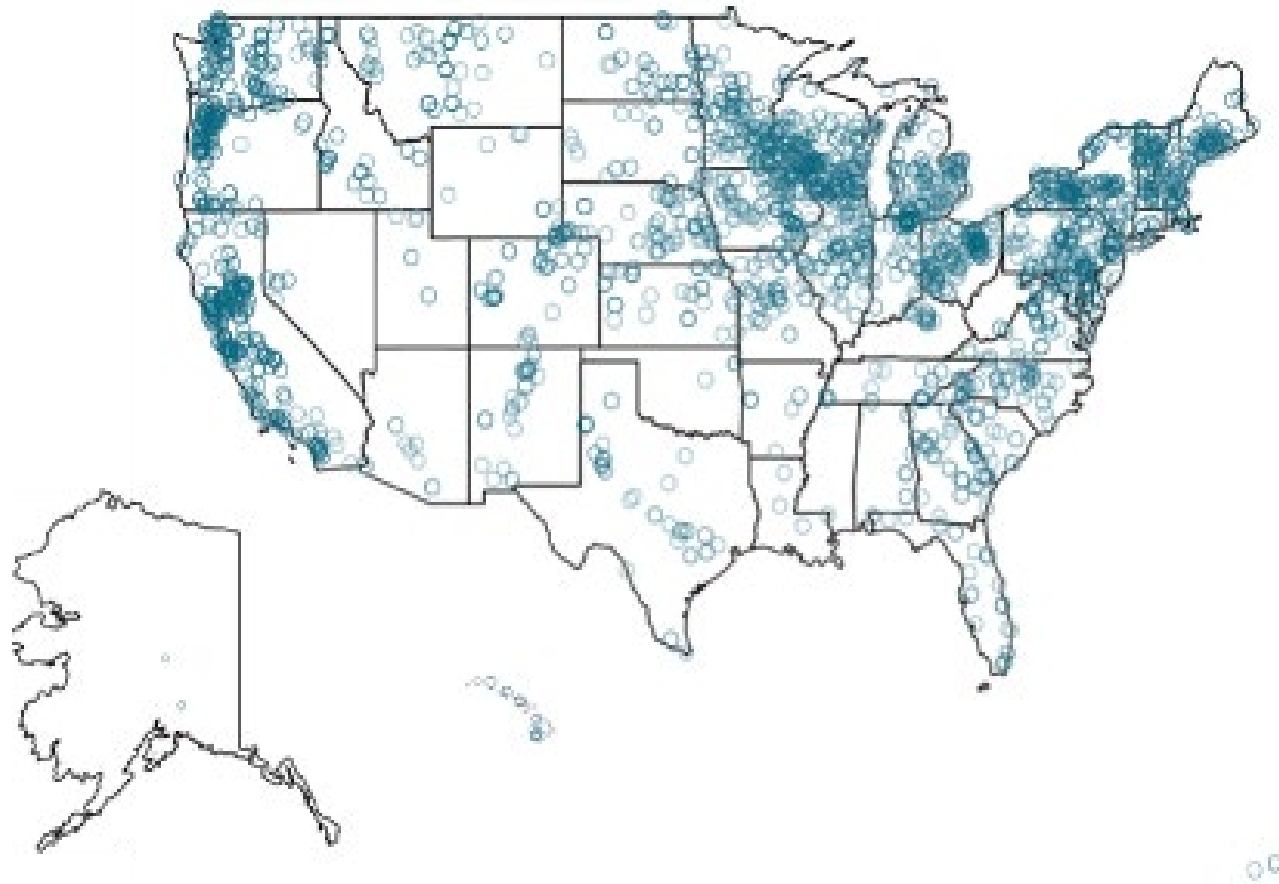


Key findings

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Key findings: Organic producer survey

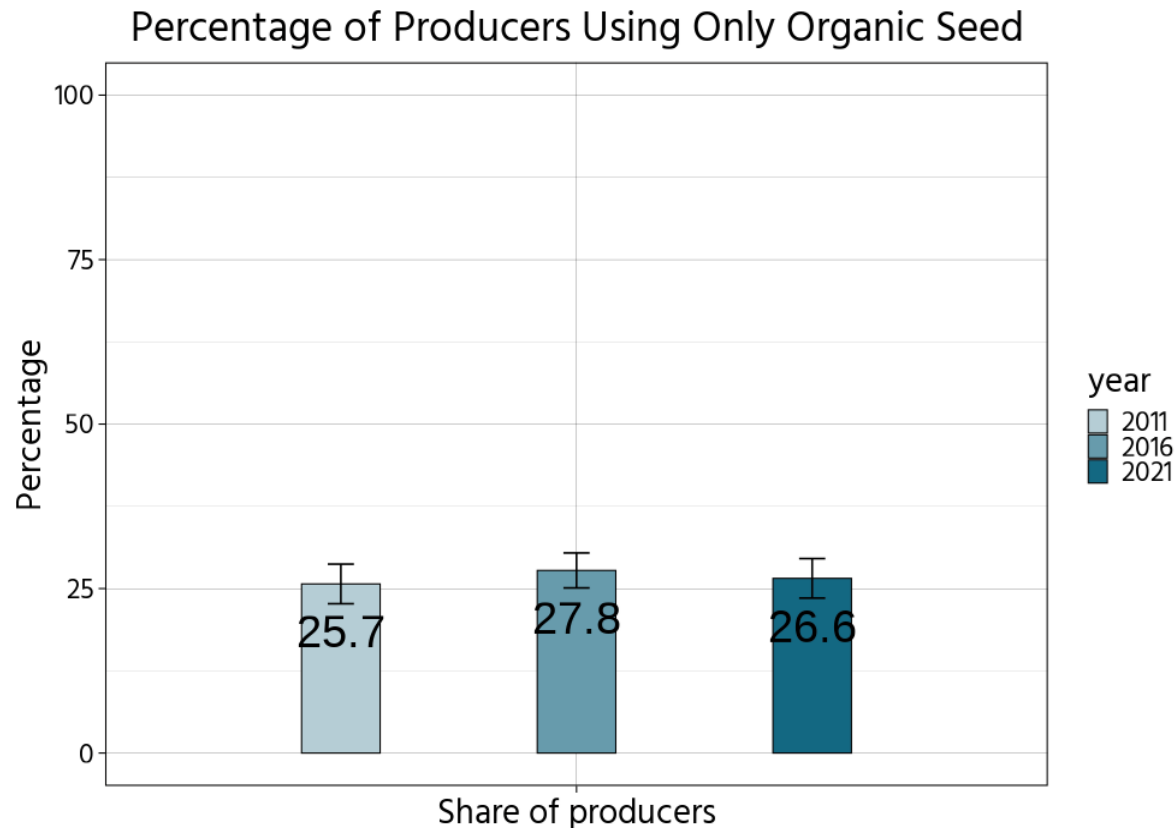


Key findings: Organic producer survey

Most organic producers are still using non-organic seed for at least part of their operation

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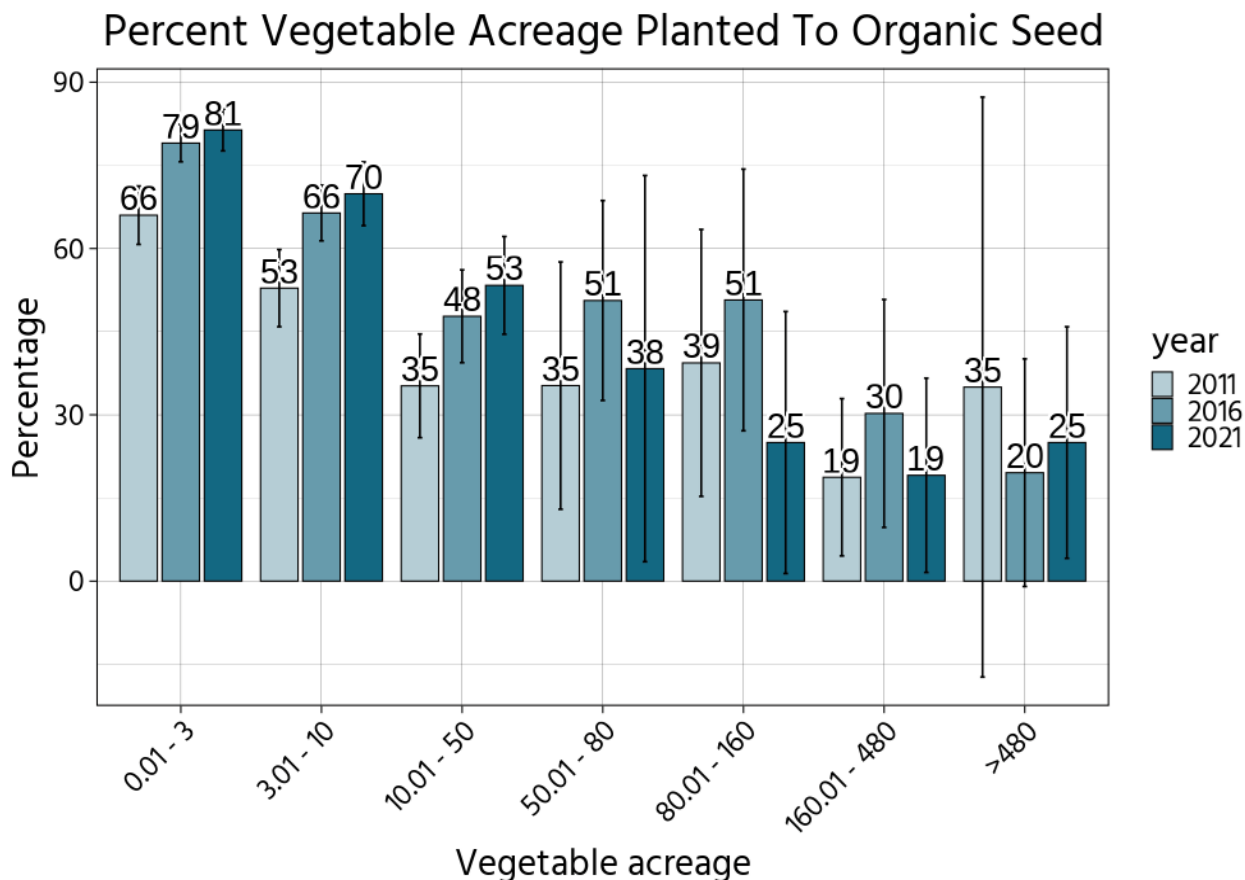


Key findings: Organic producer survey

Vegetable producers who grow fewer than 50 acres of crops report using more organic seed

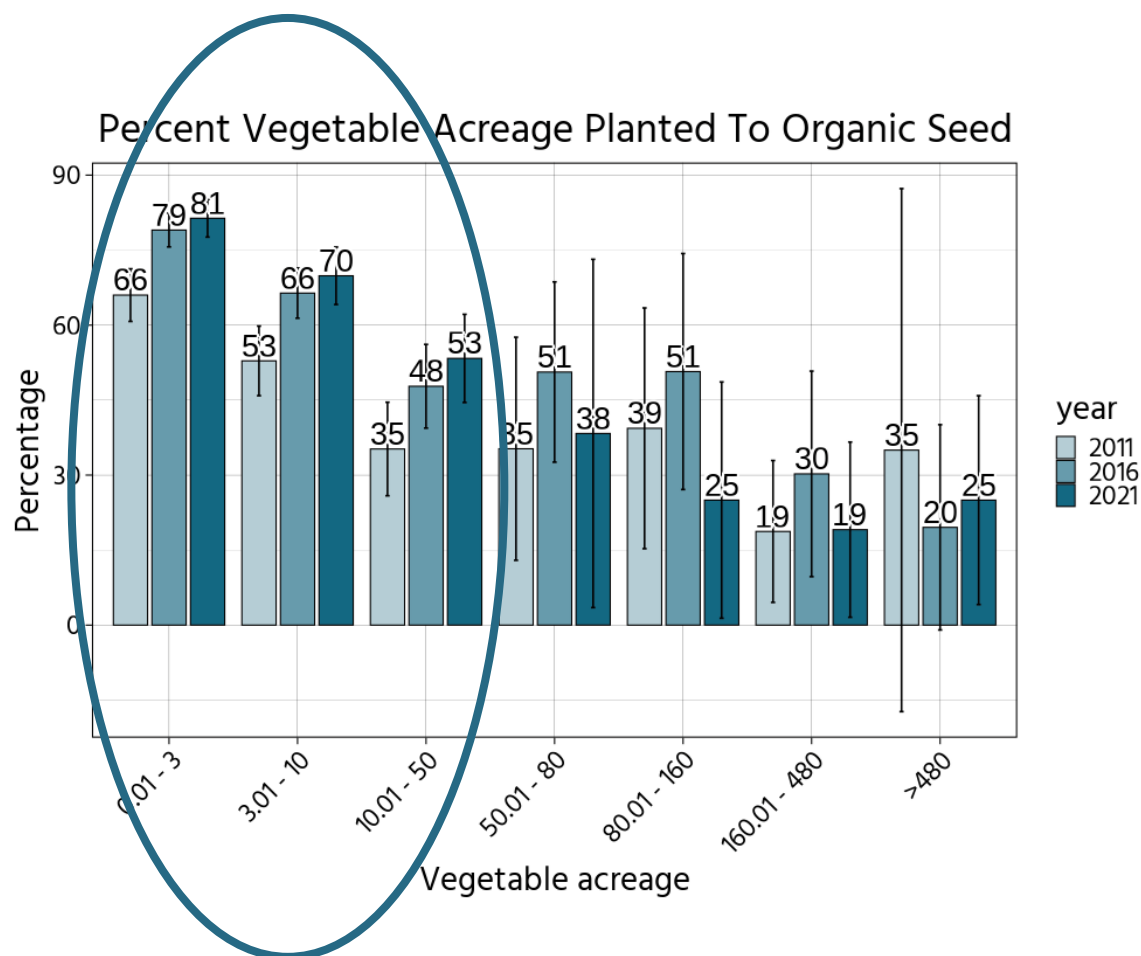
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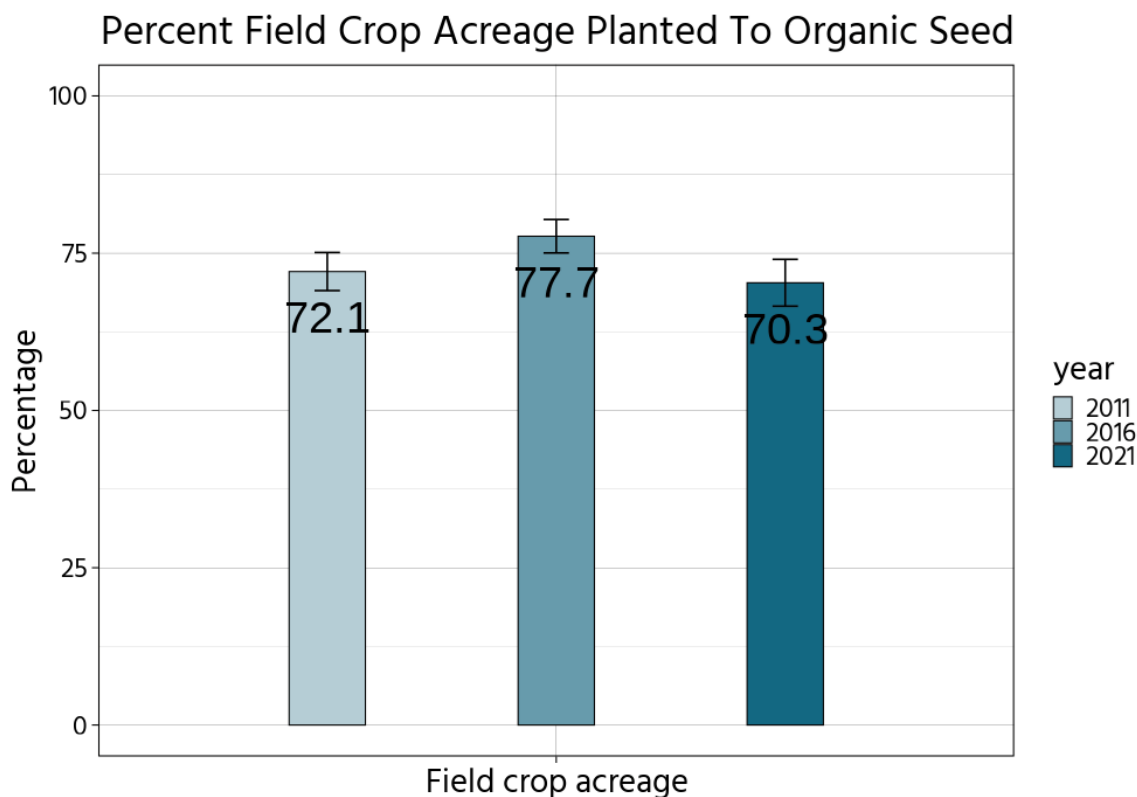


Key findings: Organic producer survey

Organic seed sourcing in field crops, forage crops, and cover crops remains stagnant

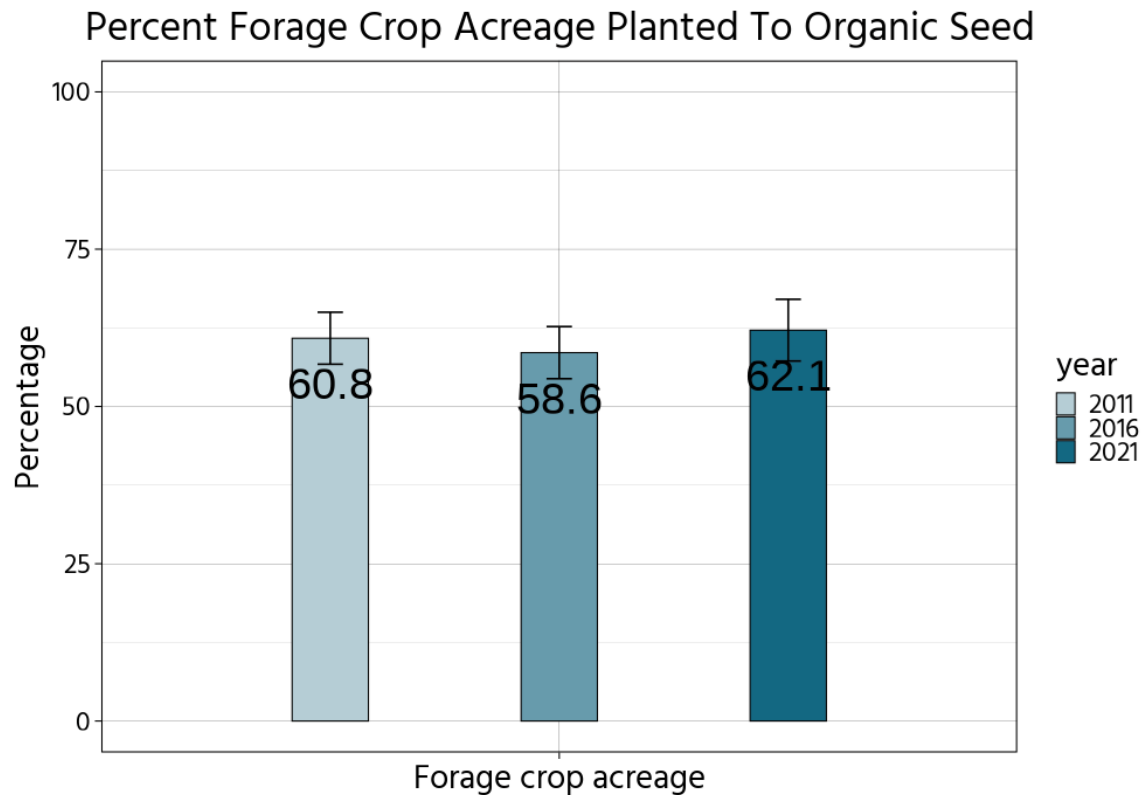
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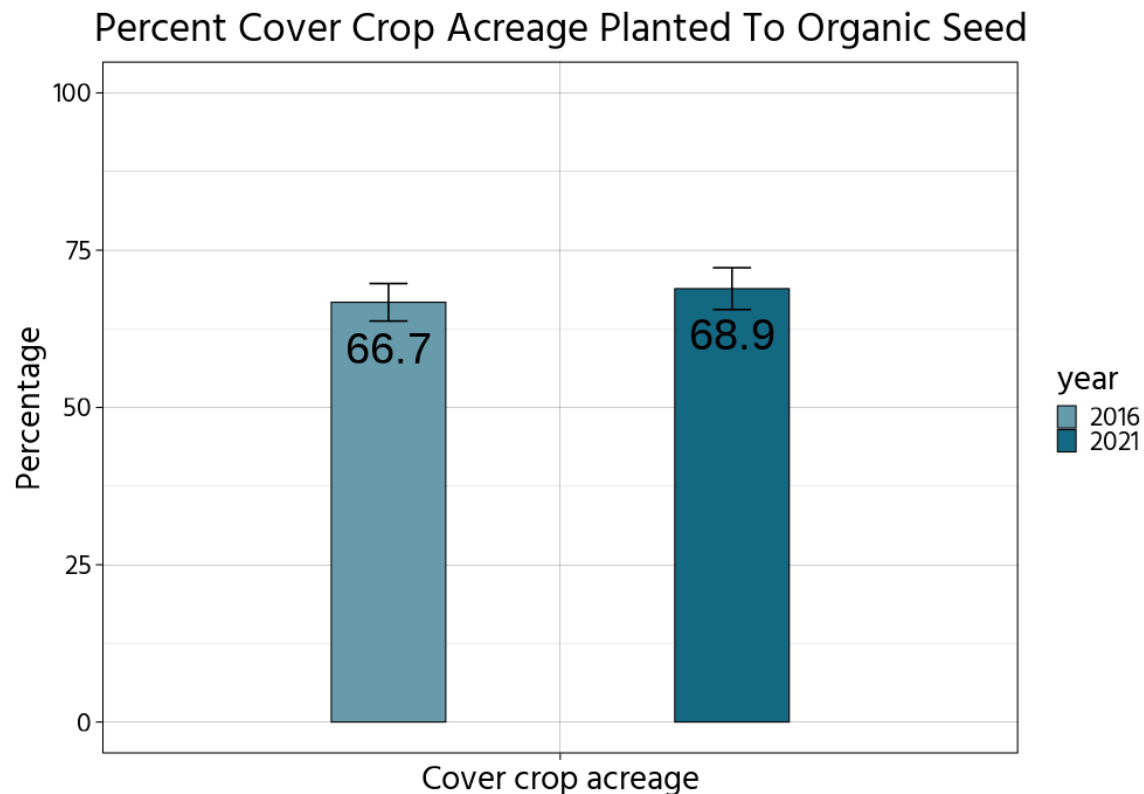
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Key findings: Organic producer survey

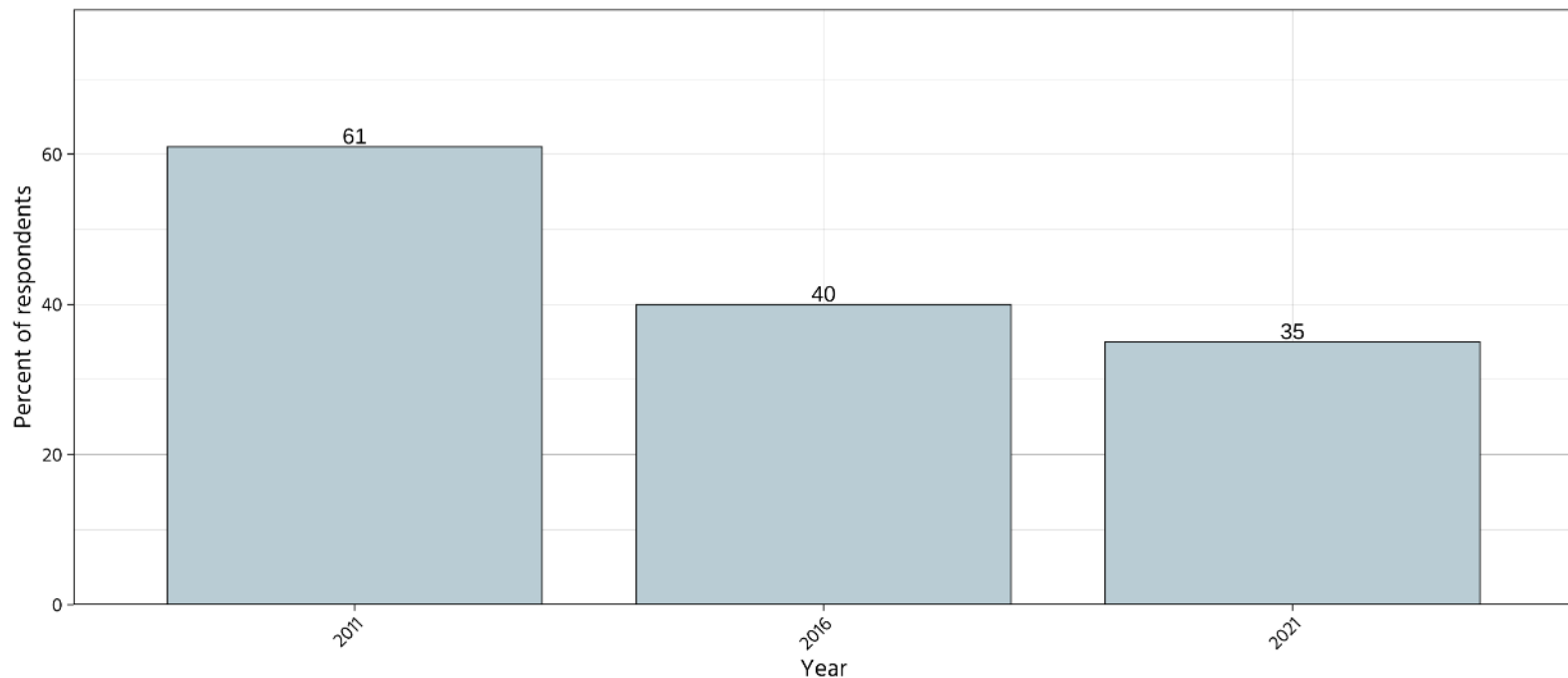
Organic seed sourcing in field crops, forage crops, and cover crops remains stagnant



Key findings: Organic producer survey

Fewer producers are getting requests from certifiers to take great steps to source organic seed

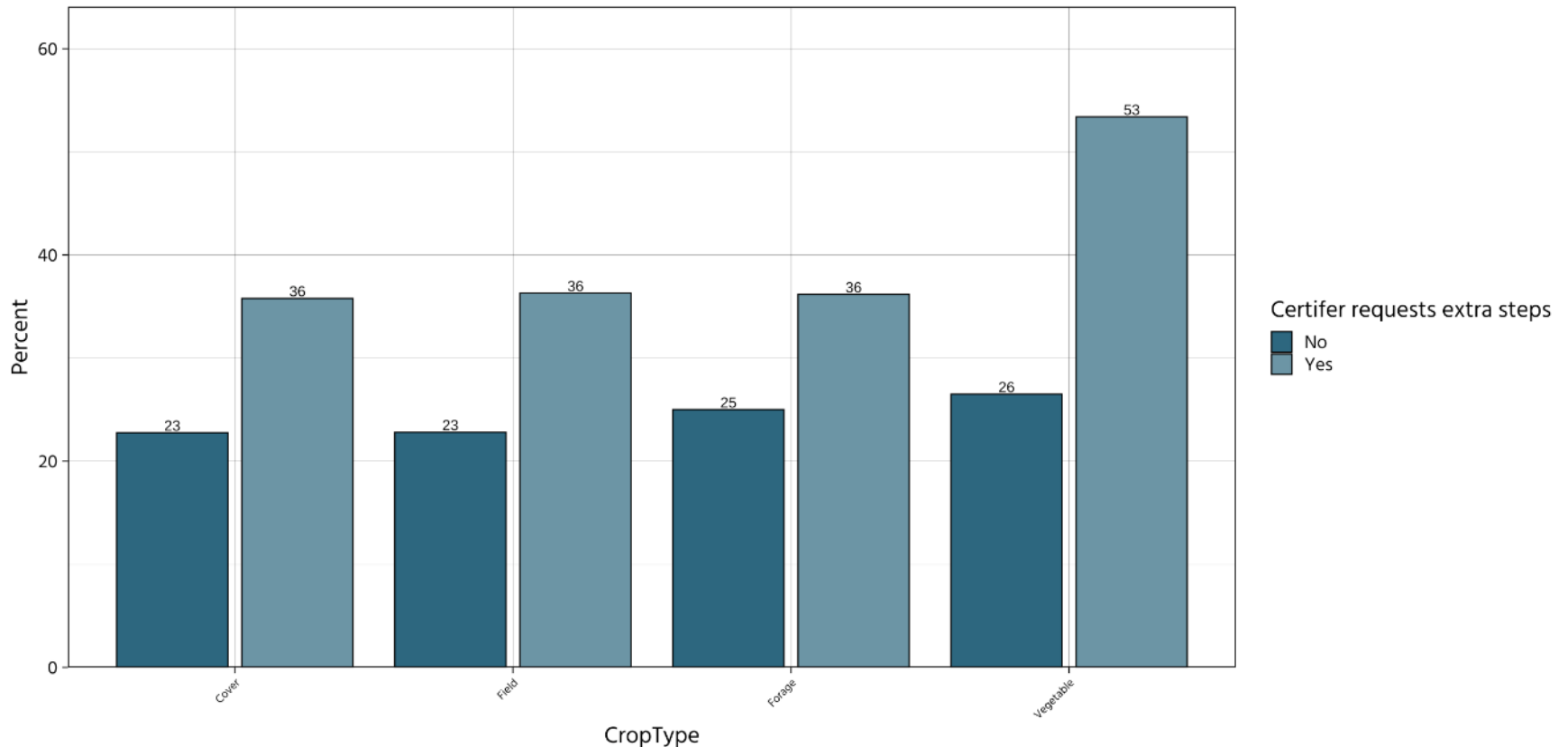
Figure 21. Over the last three years, certifier requested greater steps to source organic seed



Key findings: Organic producer survey

Our data suggests that certifier requests lead to more organic seed sourcing

Figure 22. Increase in organic seed usage by certifier requests for extra sourcing steps



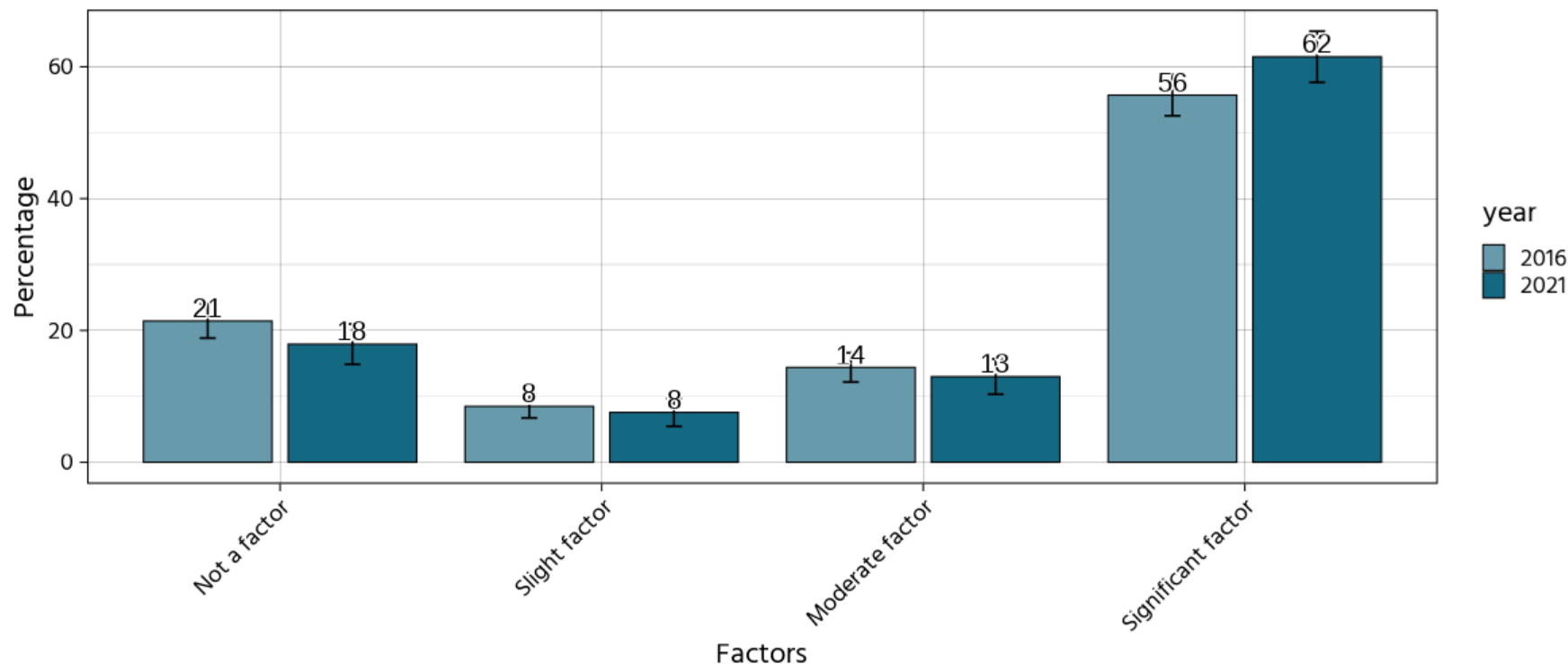
Key findings: Organic producer survey

Producers report variety unavailability as their top reason for not sourcing organic seed

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How much was the inavailability of specific varieties in organic seed a factor in your decision NOT to purchase organic seed?



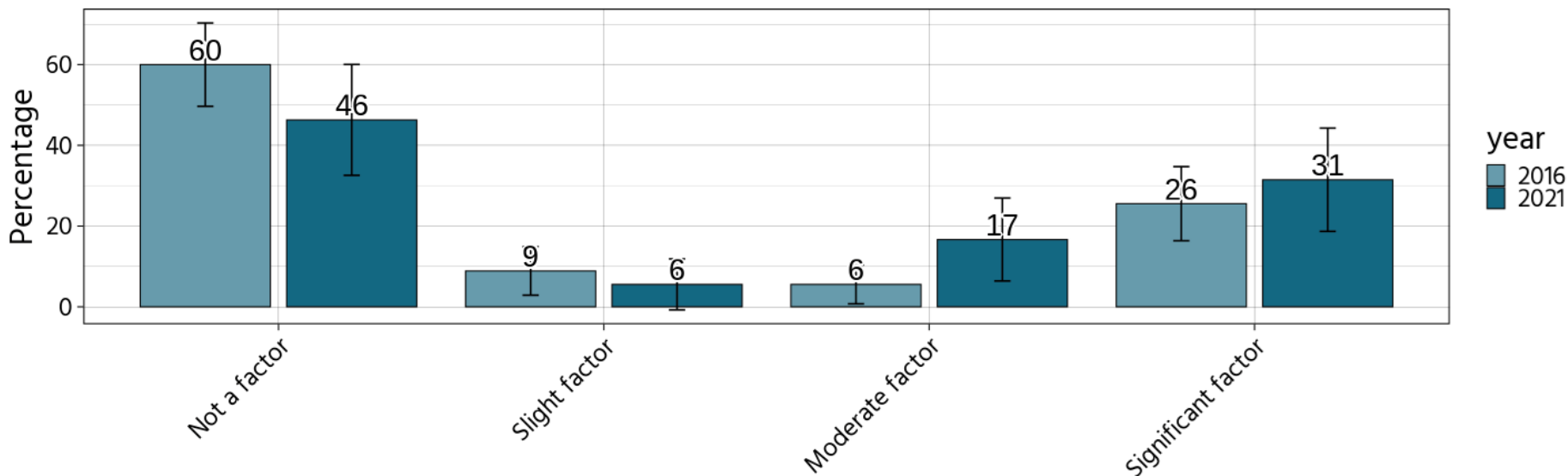
Key findings: Organic producer survey

We saw an increase in larger vegetable producers reporting a processor/buyer requirement as a factor in not sourcing organic seed

Key findings: Organic producer survey

We saw an increase in larger vegetable producers reporting a processor/buyer requirement as a factor in not sourcing organic seed

How much was processor (buyer) requiring or supplying varieties that are not available organically a factor in your decision NOT to purchase organic seed?



Factors for producers that grow vegetables and other crops with total acreages of: 50.01 - 80, 80.01 - 160, 160.01 - 480, >480

Key findings: Organic producer survey

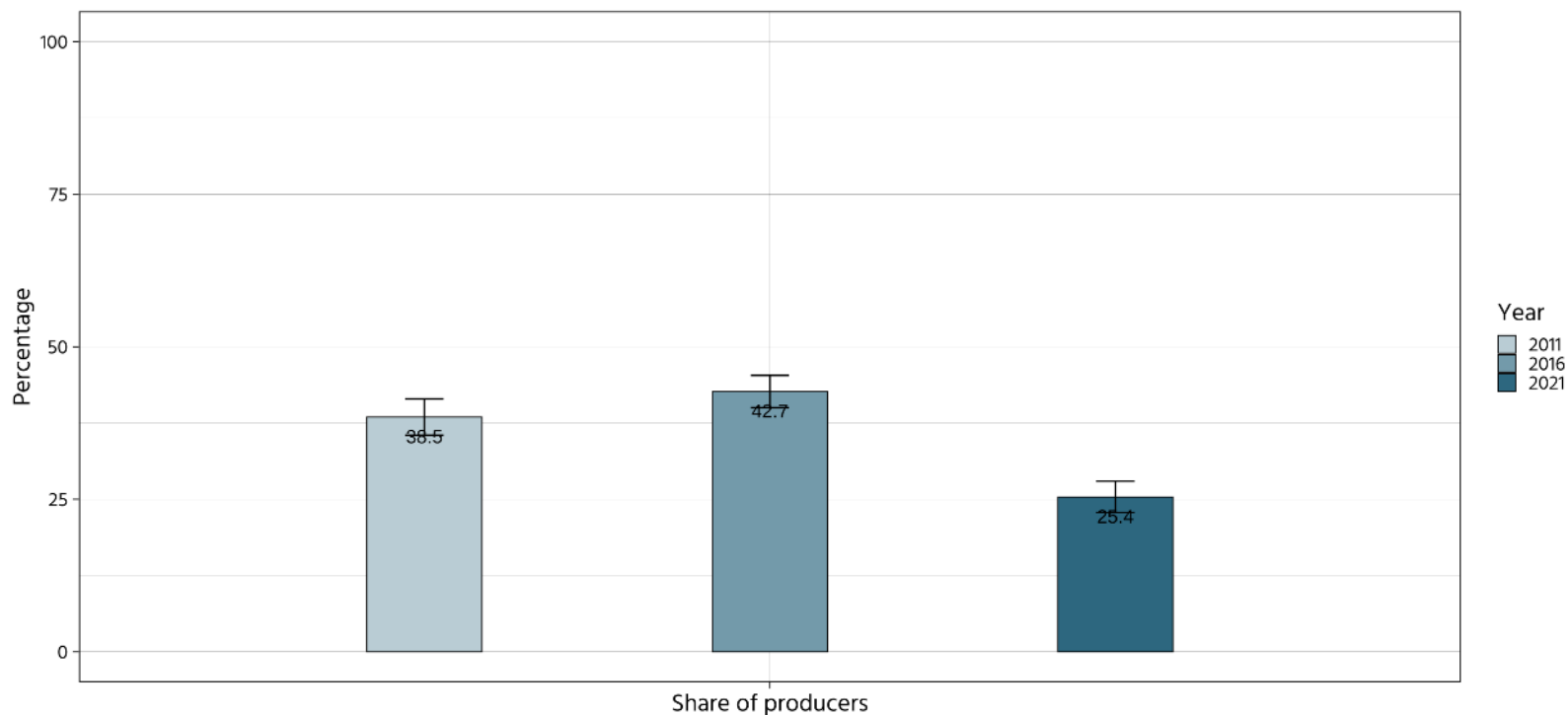
Organic producers believe organic seed is important to the integrity of organic food (83%) and that varieties bred for organic production support their success and that of the organic industry (86%)



Key findings: Organic producer survey

Fewer organic producers are saving/producing seed (25% compared to 42% in 2016), but 40% say they're interested in producing organic seed commercially

Figure 9. Percentage of producers growing their own seed



Key findings: Certifier survey

In 2020, 22 ACAs responded to OSA's survey. Collectively they represent 80%+ of certified organic farms

- Only **16%** of certifiers believe that organic producers go beyond three catalogs/sources to find organic seed

“ We need to constantly reinforce that the grower needs to do more work to locate or trial organic seed.”

ORGANIC CERTIFIER

- **52%:** more certifier/inspector trainings
- **80%:** more educational materials/outreach to producers
- **84%:** access to organic variety trial data
- Certifiers identified the need for a comprehensive database

Key findings: Certifier survey

“Processors (buyers) demanding varieties in contract that are not available as organic continues to be the most significant roadblock to increasing use of organic seed in large row crop production.”

ORGANIC CERTIFIER



Key findings: Research investments

USDA program and foundation funding lists were searched for public organic seed & breeding projects

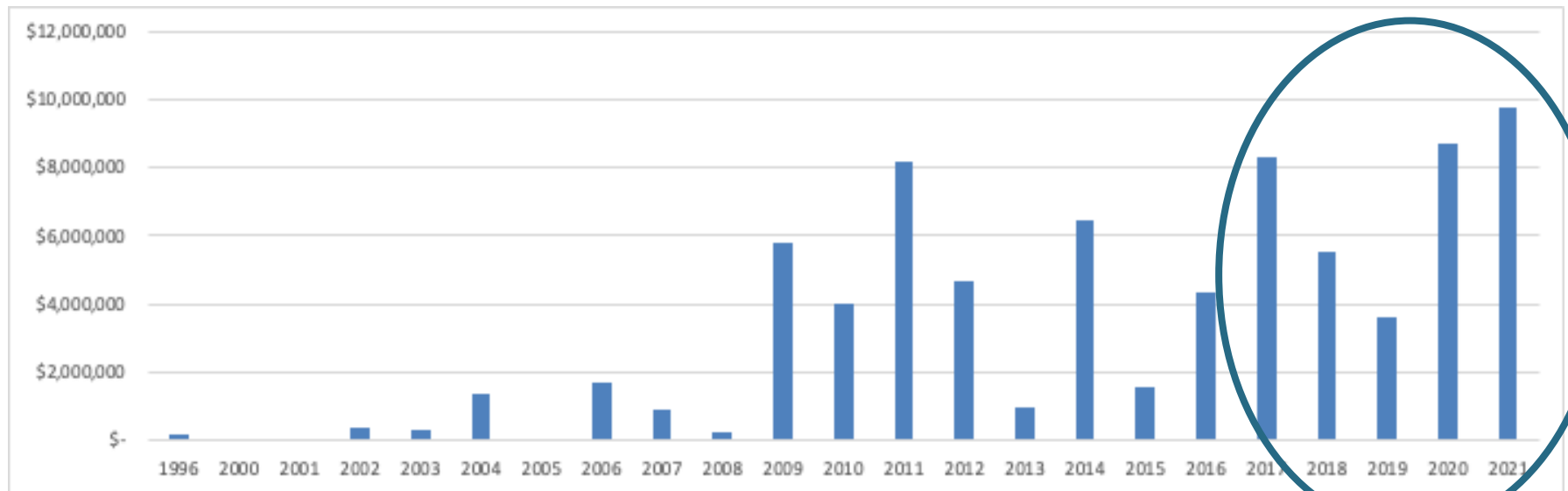
- 198 projects were identified
- Projects were categorized according to topic, region, funding source, and crop type



Key findings: Research investments

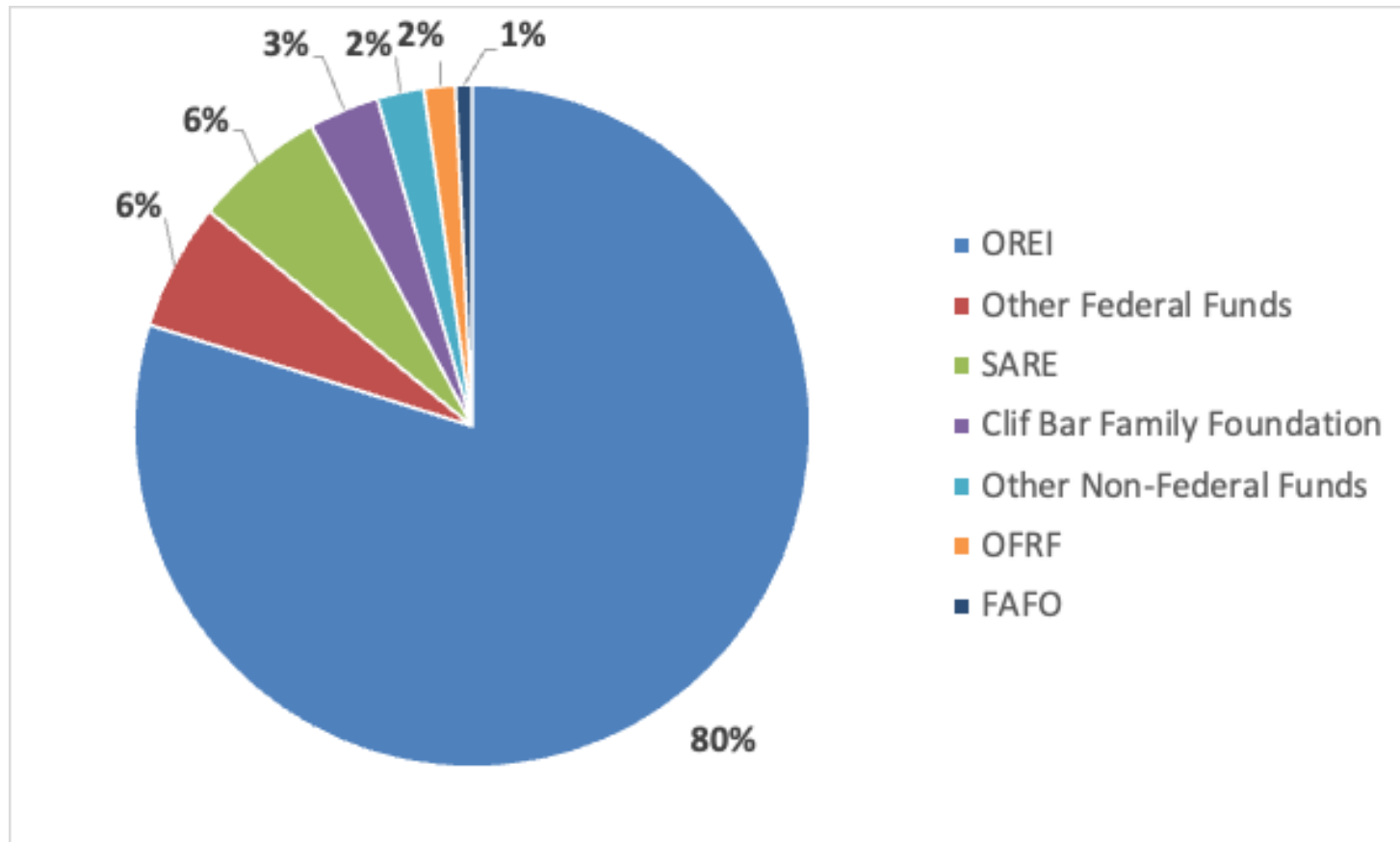
Public investments in organic plant breeding and other organic seed research totaled **\$39.8 million** in the last five years alone

Funding for public organic seed and breeding initiatives by year



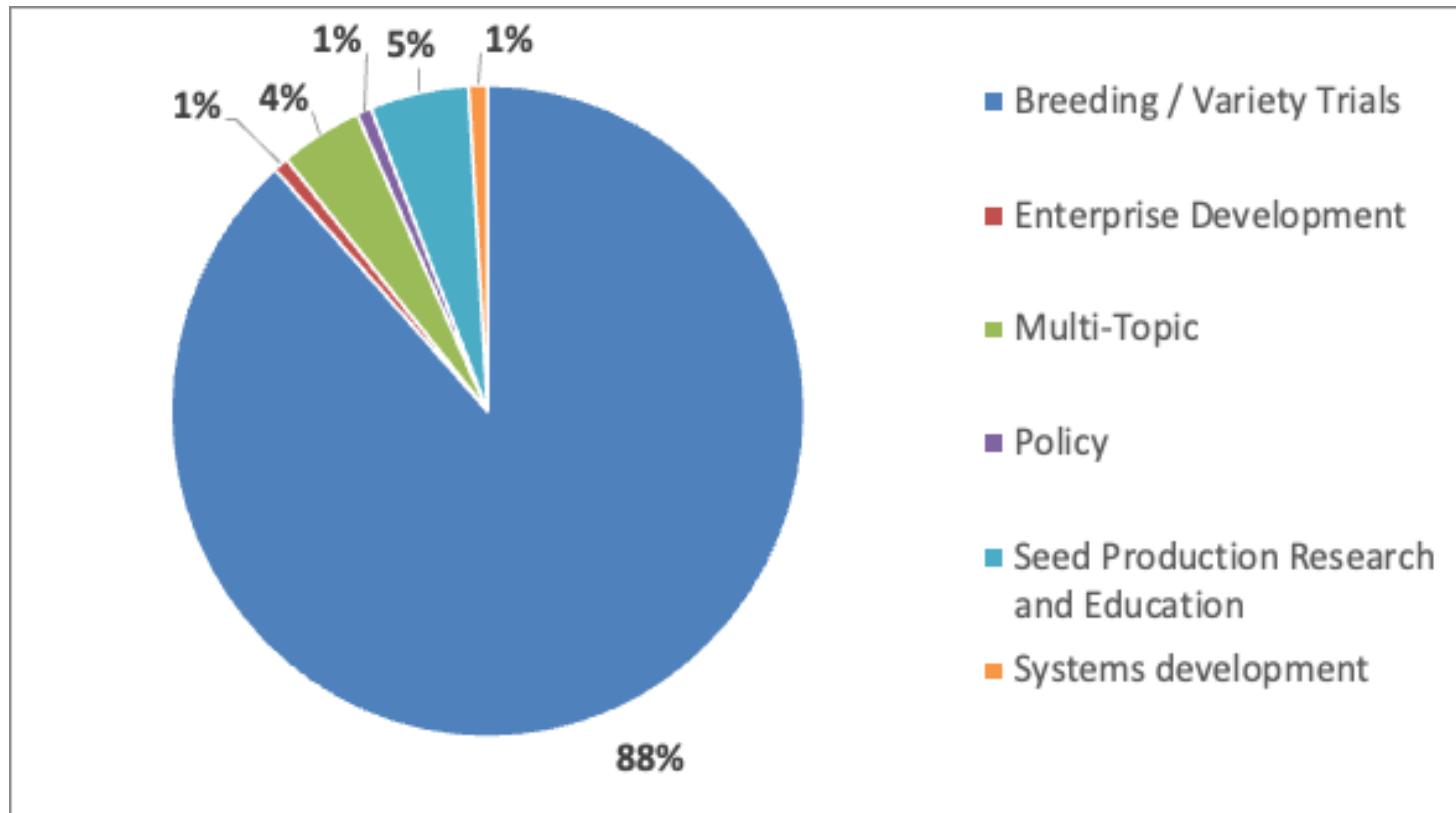
Key findings: Research investments

USDA's Organic Research and Extension Initiative (OREI) was the largest source of funding



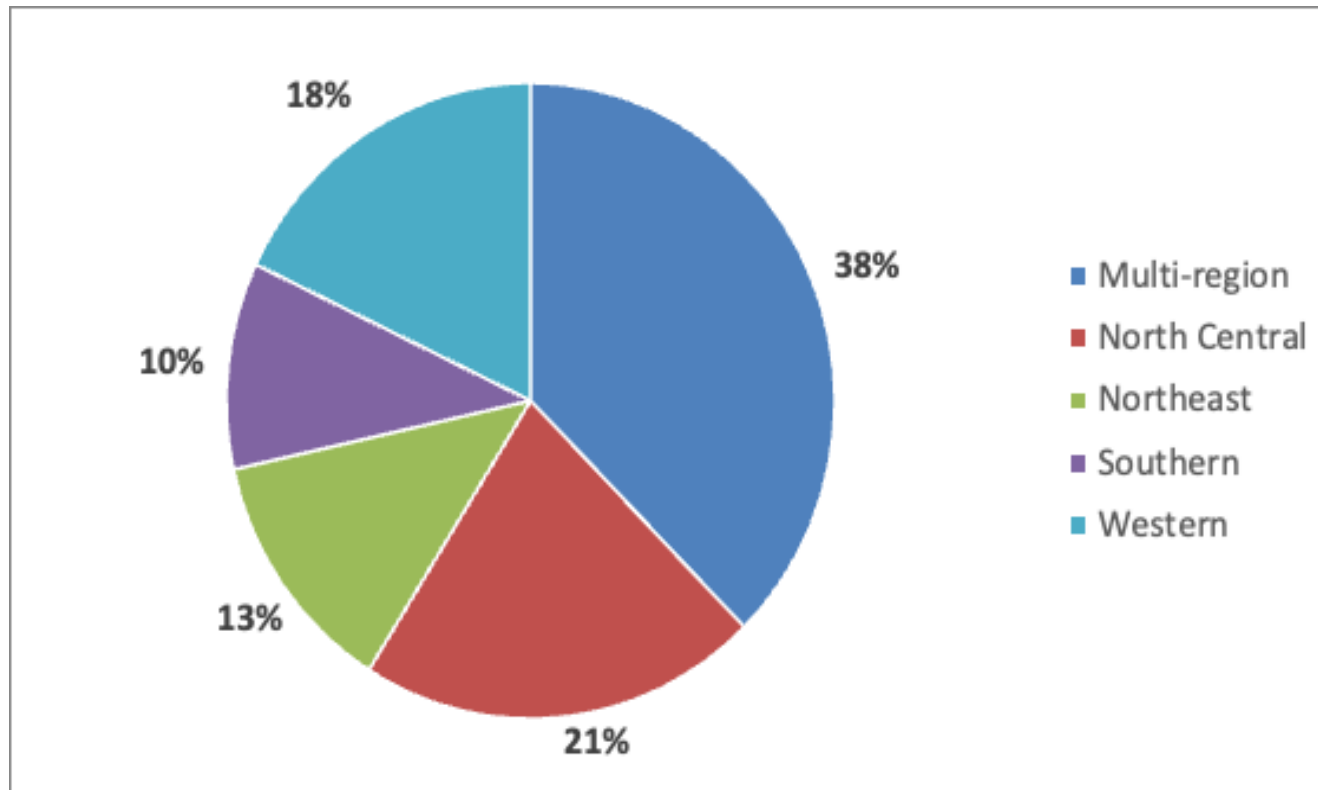
Key findings: Research investments

Breeding and variety trial research received the most funding



Key findings: Research investments

Multi-region projects received the most funding

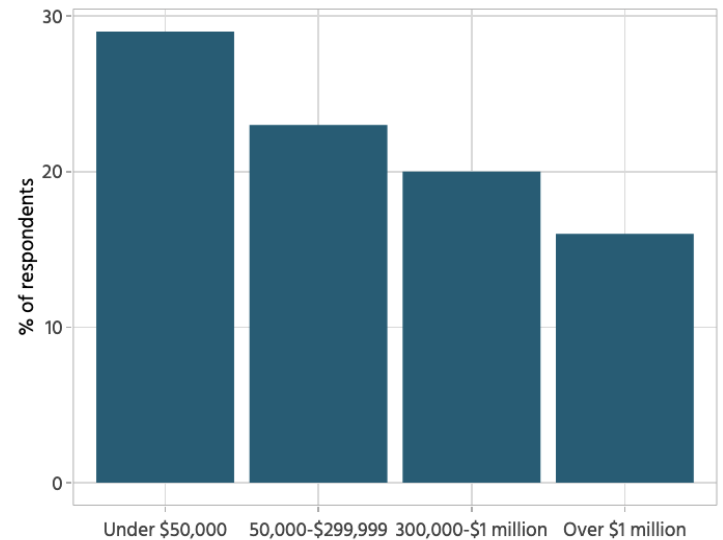
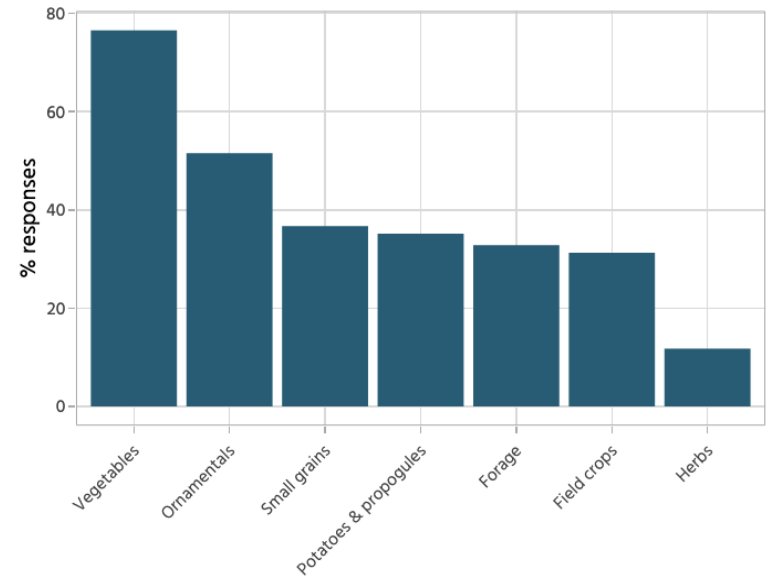
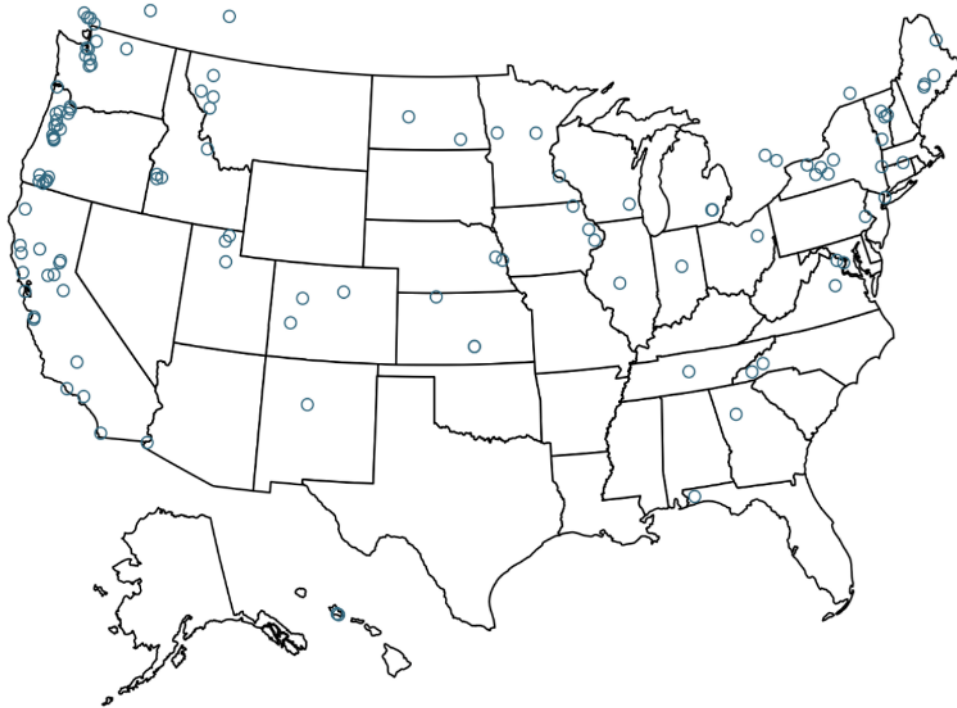


Key findings: Seed producer survey

Who are organic seed producers?

1) operations that include seed as a certified crop or product under NOP, and 2) organic seed companies

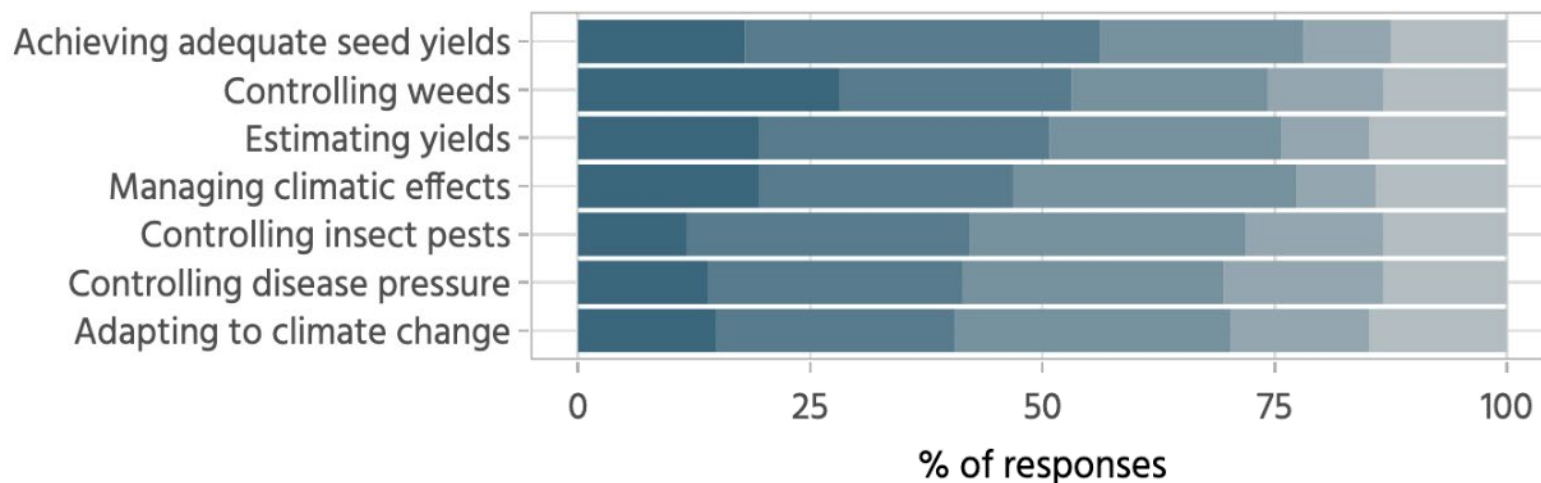
Key findings: Seed producer survey



Key findings: Seed producer survey

Top production challenges include estimating and achieving yields, controlling weeds, pest and disease pressure, and climate effects

Top production challenges: all regions



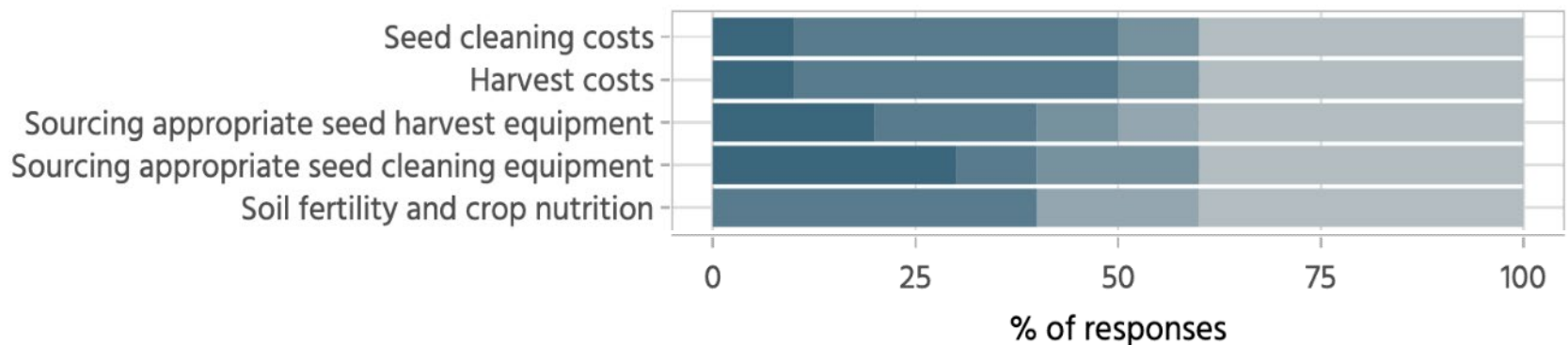
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Key findings: Seed producer survey

With some variation across regions:

Southern region highlights more infrastructure needs

Top production challenges: Southern region



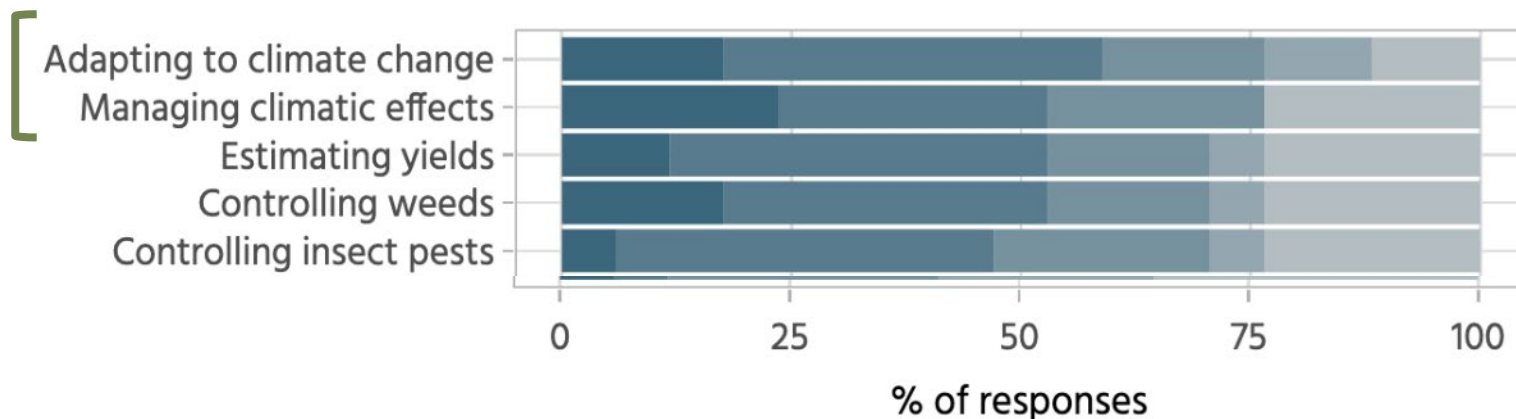
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Key findings: Seed producer survey

With some variation across regions:

Northeast region ranks climate challenges the highest

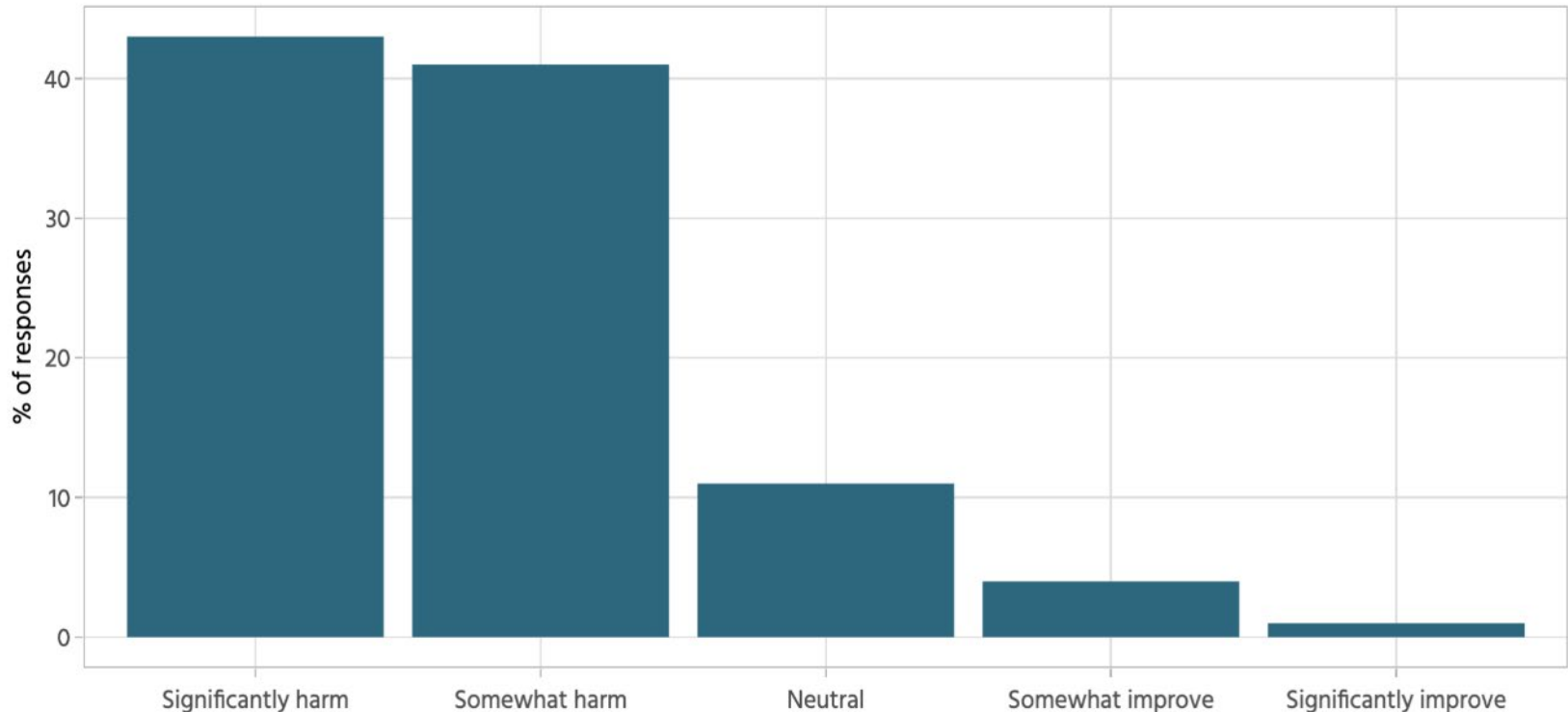
Top production challenges: Northeastern region



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Key findings: Seed producer survey

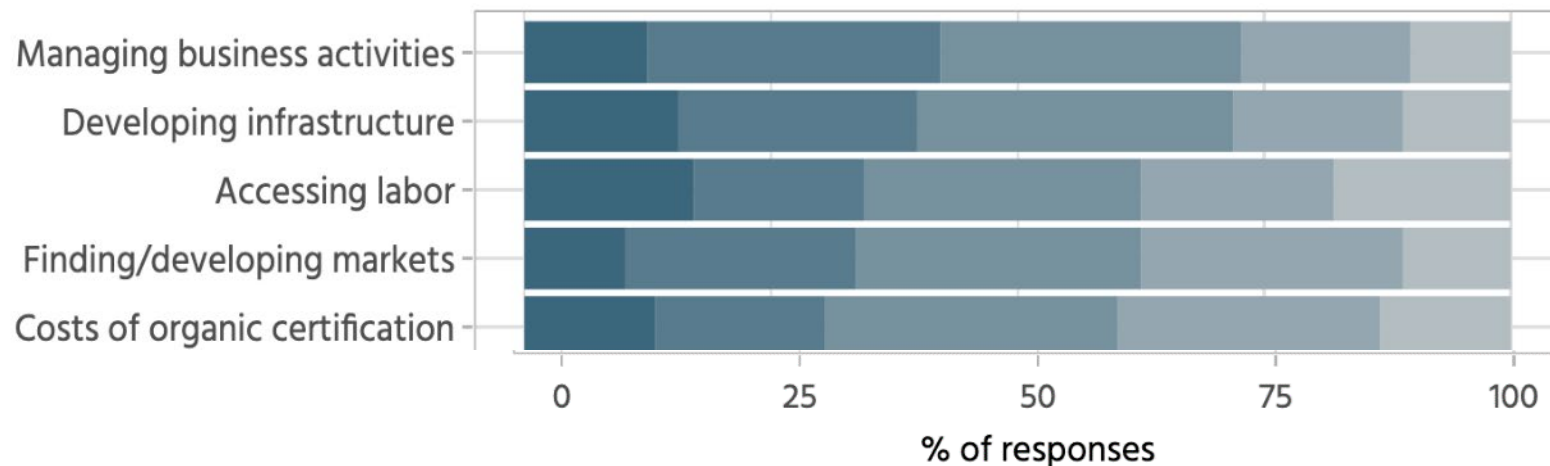
Climate is impacting organic seed growers and viewed as a threat to production



Key findings: Seed producer survey

Top non-production challenges include managing business activities and markets, infrastructure, labor, and organic certification costs

Top non-production challenges: all regions



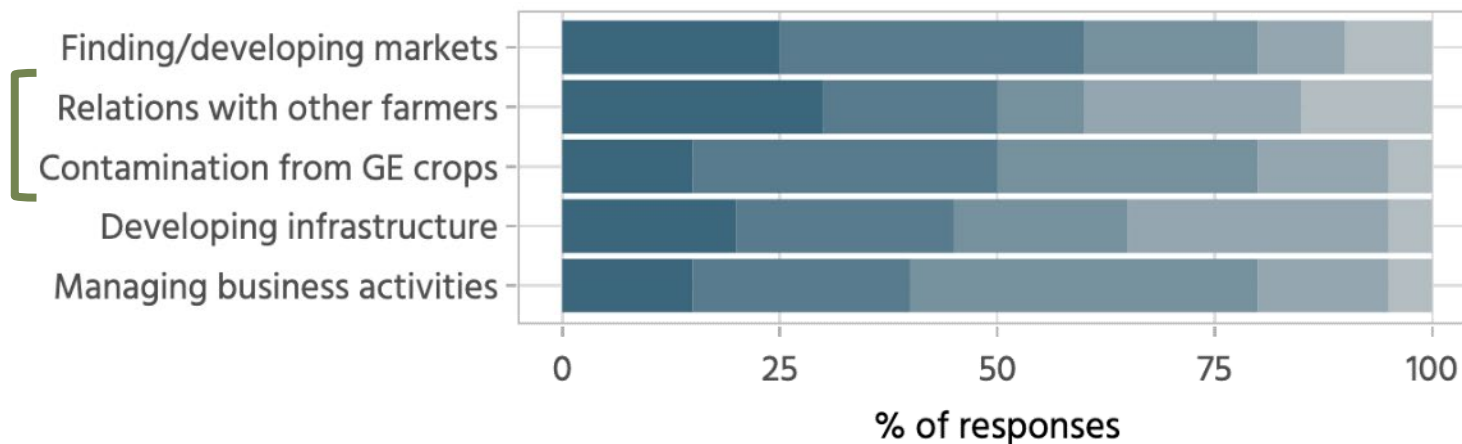
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Key findings: Seed producer survey

With some regional variations:

North Central region is challenged by GE contamination and farmer relations

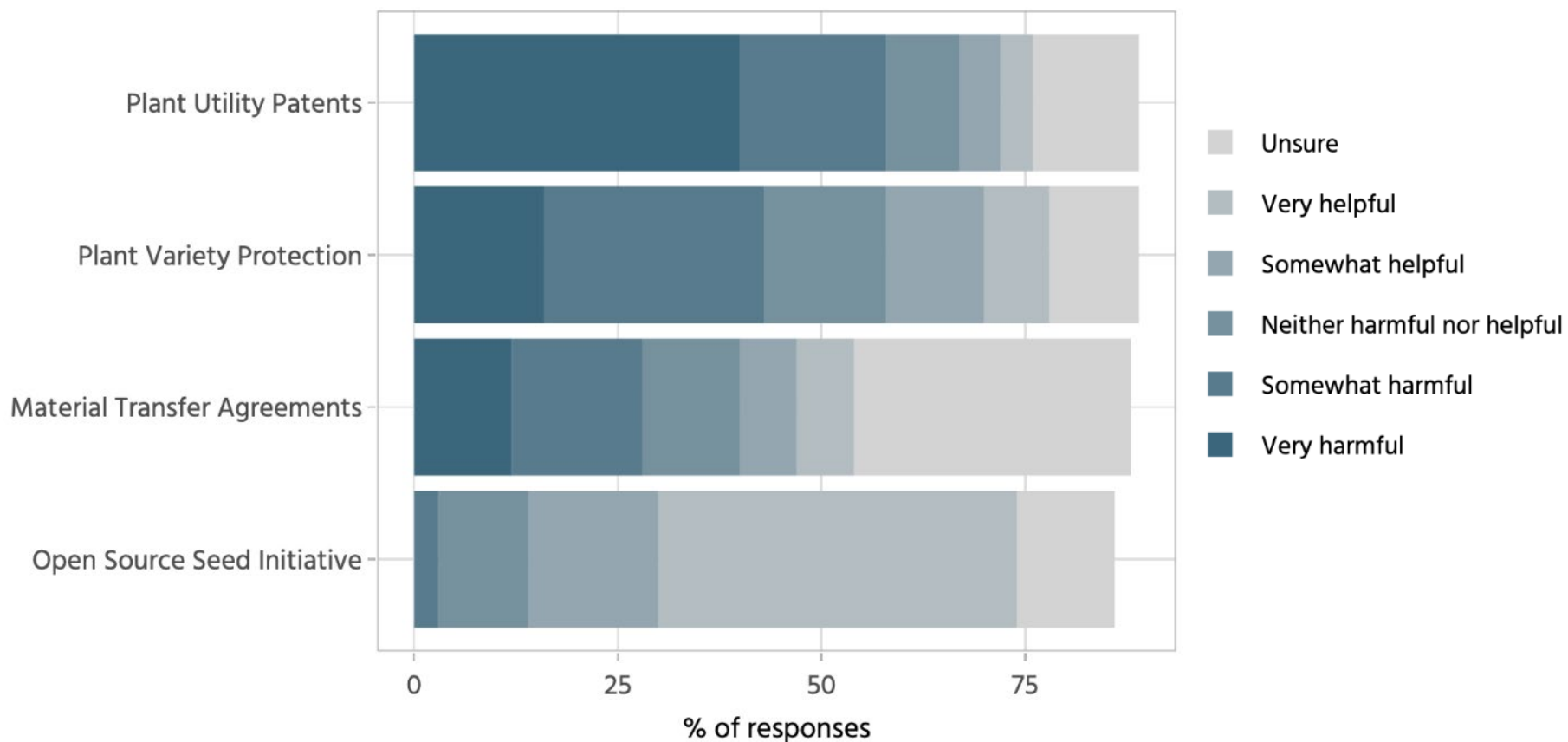
Top non-production challenges: North Central region



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Key findings: Seed producer survey

Plant utility patents are seen as a harmful form of intellectual property protection



Key findings: Seed producer survey

How the seed system is organized can provide insight into its resilience. We asked seed producers to define their vision of a "resilient seed system"

"A resilient seed system is one that can succeed in the face of challenges of climate, political, and market force impacts. It utilizes the decentralized network of growers, provides widespread education and communication among all participants, and fosters cooperation and sharing for the benefit of all."

- Organic seed producer

Key findings: Seed producer survey

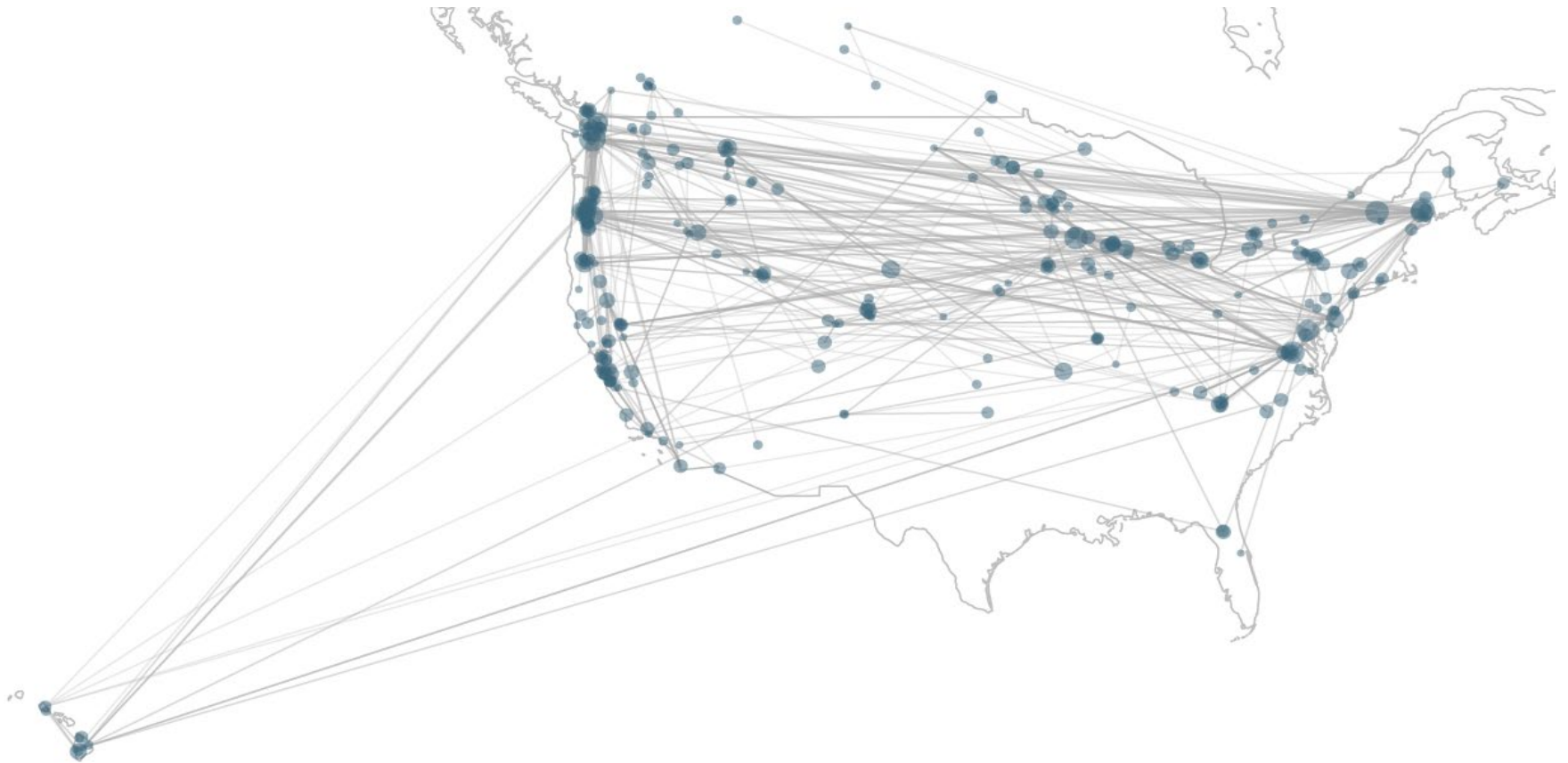
“ A resilient seed system includes the participation and perspectives of many people. Large farms, small farms, gardeners, researchers, and breeders. People of color, women, those that have long been excluded.”

ORGANIC SEED PRODUCER



Key findings: Seed producer survey

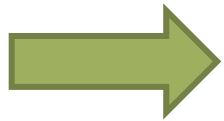
The organic seed network is structured in a way that mostly reflects this vision of a resilient seed system



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Takeaway

In 20 years, we have seen:

- tremendous growth in the organic seed supply
- increases in organic plant breeding/research funding
- more resources/trainings to support organic certifiers
- growing understanding of why organic seed is important

And yet our data over the course of these years show no meaningful improvement in organic seed sourcing in absence of regulatory changes



Recommendations

"Not much is changing on its own, so there may need to be a change in the regulations to move this issue forward." – Organic certifier

Top priority: The organic seed regulation should be strengthened & consistently enforced, regardless of farm size

- The organic seed regulation should be strengthened per the 2018 NOSB recommendation as should the organic seed guidance (2019 NOSB recommendation)

Organic buyers/processors who contract with organic producers to use specific varieties should be held accountable to the organic seed regulation

Recommendations

A comprehensive organic seed database is still needed

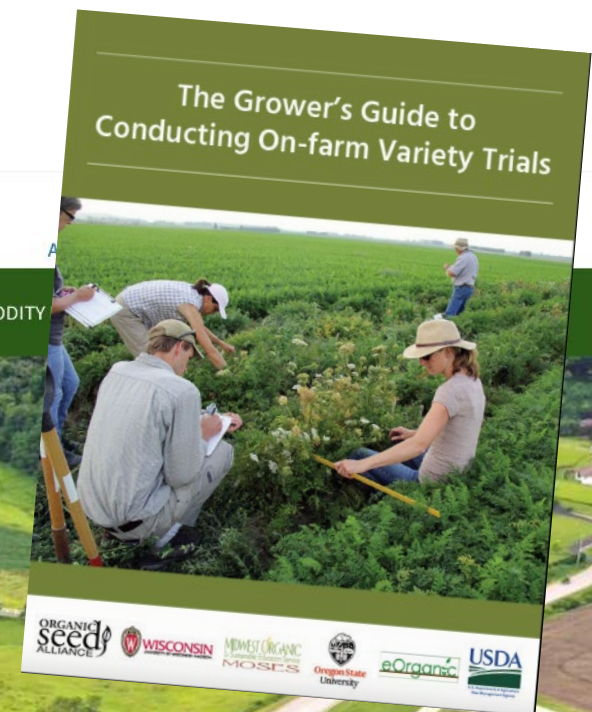
Ongoing investments in certifier, inspector, and producer trainings and outreach would also support more consistent enforcement of the organic seed regulation

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U.S. DEPARTMENT OF AGRICULTURE



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Organic Integrity Learning Center



Recommendations

Public research investments in organic plant breeding and seed initiatives should continue to increase

- Funding priorities should prioritize seed producers' production and non-production challenges identified in this report
- Funding should prioritize the participation of historically underrepresented seed growers

Train more organic seed producers and support existing producers

Policy action to address climate change is urgently needed

Acknowledgements



USDA's Organic Research and Extension Initiative (OREI)

Organic Farming Research Foundation (OFRF)

Western Sustainable Agriculture Research & Education (SARE)

The many organic certifiers and organizations that helped distribute our organic producer survey

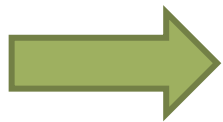
The growers, certifiers, researchers, and seed companies who took time to take our surveys

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ORGANIC
seed
ALLIANCE

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