

# AT-RISK FARMER & RANCHER DIVERSIFICATION PILOT PROGRAM



HELPING  
FAMILY FARMERS  
TRANSITION TO  
CLIMATE-SMART CROPS



# FAMILY FARMERS & CLIMATE-SMART CROPS



## About Agriculture Fairness Alliance (AFA)

AFA is a nonprofit advocating for farmers' use of nonexploitative practices that halt climate change and lead to cleaner, healthier, safer environments. As consumers shift to plant-centered diets the food system should respond to the free-market choices of everyday Americans and enable family farmers to capitalize on serving these emerging markets.

## Family Farmers Feel Market & Climate Pressures

**"In the past year, we saw three dairy neighbors go out of business... We can't do this much longer."**

PAUL  
DAIRY FARMER  
180 MILKING COWS

**"Animal agriculture is environmentally expensive."**

“

DAN  
DAIRY FARMER  
600 MILKING COWS

- Family farm bankruptcies increased 20% over the previous year.\*
- The four largest meatpackers controlled 85% of beef packing.†
- A farmer's share of retail sales has fallen from 50% in 1952 to less than 16% today.‡
- Livestock industries are largely flat.§
- Plant-based food sales grew 14 times faster than total food sales.§

2019

## At-Risk Farmer & Rancher Diversification Pilot Program



**AMERICAN  
FARMERS  
NEED A  
HAND UP  
NOT A  
HANDOUT**



Not all livestock farmers want to transition to climate-smart crop production like Paul and Dan. But for those who do, we propose a pilot program to assist with the transition. 'At-Risk Farmer' is a targeted best-practices approach to enable family farmers to innovate to meet the demands of a changing market and climate. Now is the time for policy makers to empower independent family farmers' leadership in implementing profitable, common sense, market-responsive climate solutions all while thriving on their own land.

**Proposed legislative language is available at [afa.farm/legislation](https://afa.farm/legislation)**

# FAMILY FARMERS FEEL MARKET PRESSURES



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Family farmers are getting squeezed out of traditional markets. Being as naturally good stewards of their own land, when they go bankrupt, and vacate their land, **it compounds the climate crisis.**

The simple truth is federal programs could **incentivize farmers** to spur new innovations on their own land, such as repurposing carbon-intensive livestock operations into climate-smart crop production.

Such policy would be a win for farmers, the climate, and Americans.

# AT-RISK FARMER & RANCHER DIVERSIFICATION PILOT PROGRAM



At-Risk Farmer is a three-year pilot program, funded at **\$5 million per year** through a USDA department, such as the National Institute of Food and Agriculture (NIFA).



**AMERICAN  
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## Transition Planning

Experts in agri-ecology, economics, and farm resource planning would work with nonprofits, land-grant universities, or farmers directly to evaluate assets, estimate transition costs, survey market trends, evaluate distribution networks, and design a specific transition plan.

## Transition Expenses

The pilot program would pay for transition costs, such as converting old assets to new purposes and purchasing equipment needed for new production.

## Report Generation

A goal of this program is to learn best management practices (BMPs) for farm transitions. Funding will cover costs associated with reporting BMPs, emissions reductions, and other information that may be useful to other agricultural programs.



# FAMILY FARMERS ARE STRUGGLING



PAUL  
DAIRY FARMER  
180 MILKING COWS



"My kids live in a house built by their great, great grandfather, but they won't be milking cows. We are more efficient than ever, but it won't be enough to keep up with a changing world.

**Animal agriculture is environmentally expensive.**

And the elephant in the room lingers: climate change."

"I grew up understanding the economics of agriculture.

**In the past year, we saw three dairy neighbors go out of business.**

Recently, I started to see how unsustainable our dairy farm, the vast majority of agriculture, and Western society are.

**We can't do this much longer."**



DAN  
DAIRY FARMER  
600 MILKING COWS



MATT & SON AUSTIN  
LIVESTOCK BROKER,  
DAIRY FARMER



"When milk prices are down, I have no income because farmers can't get loans and they can't buy cattle. If my wife wasn't a nurse I don't know what I'd do sometimes."

**I know a lot of farmers who would be behind an At-Risk Farmer Pilot Program."**

# FARMER PROFILE: PAUL



Paul's dairy farm has been in his family since 1873. He is the fifth generation to farm this land. He, his wife, and their four children live in a house built by their great, great grandfather.



Paul's son with his dairy calf

PAUL J  
DAIRY FARMER  
180 MILKING COWS  
DODGE, WISCONSIN

Between financial pressures and concern for the environment - particularly climate change - Paul and his family are experimenting with hazelnut trees in the hope that they can transition. An At-Risk Farmer pilot program would enable Paul's family to transition faster.

Paul wants to stop milking cows and start producing protein-rich tree nuts. In doing so, he'll rebuild soil, store carbon, reduce CH<sub>4</sub> emissions by ~60 tons/yr, and cut N<sub>2</sub>O emissions by ~0.3 tons/yr.

**[More about Paul at afa.farm/paul](https://afa.farm/paul)**

# FARMER PROFILE: JULIE & PETE



Julie and Pete are Michigan dairy farmers with 140 acres available for planting. After a lifetime in dairy, Pete is open to new ideas in farming.

“

**“Six years ago we had it all figured out: we would be debt-free in 2018, with a few more years to make enough to retire and live on. None of that happened.” - Pete**

The farm needed a lot of environmental upgrades. With an EQIP grant and a hefty loan, the Juengals protected the nearby watershed by making necessary, and expensive, improvements.



**"The next five years we felt ourselves spiraling downward. That loan was just one more nail in the coffin." - Julie**

In the summer of 2020, Pete and his 91-year-old father both came down with COVID-19. Pete missed a full planting on the farm.

**“If we didn't have the neighbor renting our barns and land, I don't know what we'd do.” - Pete**

”

# FARMER PROFILE: MATT & AUSTIN



Matt and his son Austin are Pennsylvania cattle brokers and dairymen. They intend to transition a 133-acre farm from a 100 cow dairy to a diversified farm producing hemp, solar energy, and medical cannabis. They are looking for stability through diversification, and to be better stewards of the land by producing environmentally friendly products.



MATT & AUSTIN  
CATTLE BROKERS & DAIRY FARMERS  
NEW HOLLAND, PA

**Farmers need options. I know a lot of farmers who would be behind an At-Risk Farmer Pilot Program; they would take the cattle off, and transition to diversify."**  
- Matt

“

"I run into distraught farmers all the time. This is what I do. I liquidate cattle for farmers who are at their wits' end. They're going broke or retiring."

"When milk prices are down, I have no income because farmers can't get loans and they can't buy cattle. If my wife wasn't a nurse I don't know what I'd do sometimes."

**"Farmers should have the At-Risk Farmer Pilot Program option; it's good for the environment if farmers transition from animal production to plant-based production."**  
- Austin

"You have to care, and be working towards a better planet. We need to be better stewards of the land. This legislation would lower the gas footprint of farms, making a greener, cleaner environment."

"We're excited to diversify and see where this opportunity goes. We look forward to going in this direction."

”

# FARMER PROFILE: DAN



Dan's 1200 acre dairy farm is home to 600 milking cows. Operating the business with his father and brother, Dan first imagined transitioning to growing tree nuts when he read the book *Restoration Agriculture* by Mark Shepard.



600 MILKING COWS  
NEAR MADISON, WISCONSIN

Dan is experimenting with hazelnut, walnut, and pecan trees. A full transition to nut production will take a large investment, but he has the land and the desire.

By transitioning to hazelnut production he'll rebuild soil, store carbon, reduce CH<sub>4</sub> emissions by ~200 tons per year, and cut N<sub>2</sub>O emissions by ~1.4 tons per year. In greenhouse gas savings, it'll be like garaging 1,500-4,500 cars, depending on calculation assumptions.

“

“I don’t know how to convey how urgently and drastically we need to address climate change and biosphere collapse, but from rural Wisconsin voters like me, agriculture land has enormous potential in combating both. Farmers would love to be a part of the solution if they’re met halfway rather than vilified. Wisconsin farmers are looking for alternatives.”

[More about Dan's farm at afa.farm/dan](https://afa.farm/dan)

# PLANT-BASED FOODS MARKET TRENDS



## CONSUMER DEMAND ↑

Plant-based food sales growing 14X faster vs total food sales \*

### The Business Case for Plant-Based Meat, Eggs, and Dairy

Plant-based shoppers spend 61% more than the average consumer.

Thirty-nine percent of Americans are actively trying to incorporate more plant-based foods into their diets.<sup>5</sup> Meanwhile, 60% of consumers want to reduce their meat consumption.<sup>6</sup> A new segment has emerged—flexitarians, defined as those who try to eat less conventional meat but don't restrict themselves to a vegetarian or vegan diet. Flexitarians represent about one-third of the U.S. population. Millennials and Gen Z are over-indexed on purchase intent—42% and 46%, respectively.

-Good Food Institute

- 33-44% of U.S. consumers identify as flexitarian. ^
- 90% of Millennials are willing to pay more for environmentally friendly products. †
- Plant-based food Grocery sales that directly replace animal products have grown 29% in the past 2 years. §

## INVESTMENT ↑

Doubling year over year

- \$824 million was invested in alternative protein companies in 2019. \*
- \$1.5 billion has been invested in the first seven months of 2020. ¶
- US oat milk sales surged by 686% in 2019. ‡
- "In 2019, more than 700 new plant-based meat, egg, and dairy products hit the shelves at U.S. retailers. \*
- Plant-based is one of the biggest trends in food and a key driver of sales growth in retail." ¶



# CLIMATE-SMART CROPS



## FAVA BEANS

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"Fava beans are prolific and easy to grow. They could become a favorite bean among Americans. They are highly versatile; you can cook them when young in the pod and eat the whole thing, allow them to get bigger and harvest the beans themselves when green and soft, or allow them to dry out and store for later."

**"Supply seems to be constantly challenged"**

"We use fava bean protein in a couple of our SKUs due to its fairly neutral flavor profile. Unfortunately, many other companies have the same idea, and the supply seems to be constantly challenged. According to the supplier, demand is spiking rapidly and they struggle to keep up."



- MIYOKO SCHINNER  
FOUNDER & CEO



Found in

- grocery stores
- restaurants
- *coming soon:* Starbucks



# CLIMATE-SMART CROPS



## MUNG BEANS

### A Key Ingredient in Top Selling Brands

With the rise of plant-based alternative products like Just Egg and Beyond Burgers, demand for mung beans is booming. Well suited to droughty regions of Wisconsin and Oklahoma, mung beans build soil health and fix nitrogen.

Plant-Based Egg  
Market Size  
**\$1.4 Billion** by 2025



"Aug 4 (Reuters) - Beyond Meat Inc reported quarterly sales that topped analyst estimates. Beyond Meat, whose burgers and sausages are sold at stores like Costco and Walmart said U.S. retail sales nearly tripled to about \$90 million, while revenue from international stores rose 167% to \$9.6 million."\*



# CLIMATE-SMART CROPS



## HAZELNUTS

### Ripe for Global Competition

The global hazelnut market is dominated by Turkey, which supplies 67%. Annual growth is projected at 10% per year, making the hazelnut export market ripe for competition.^

**\$620M** Market  
Annual Growth Projected  
at 10% per Year



"Hazelnuts are an emerging new crop for the Upper Midwest with significant economic and environmental benefits."

- *The Upper Midwest Hazelnut Development Initiative*  
[midwesthazelnuts.org](http://midwesthazelnuts.org).

# CLIMATE-SMART CROPS



## MUSHROOMS

### Mycoproteins are Trending

Functional mushrooms are new and emerging in fast growing food and beverage categories like shelf stable creams and creamers and frozen desserts.

**\$500M**  
Global Market  
by 2027



Worldwide meat substitute brands like Quorn (brand), center their products around mycoproteins. Growth dynamics: mycoprotein products have a high consumer acceptance ranking...social and cultural acceptance in place.

# "ANIMAL AGRICULTURE IS ENVIRONMENTALLY EXPENSIVE"



- Livestock is responsible for 65% of all human-related emissions of N<sub>2</sub>O, a greenhouse gas with 296x the global warming potential of CO<sub>2</sub>, and which stays in the atmosphere for 150 years.<sup>¶</sup>

- In one year, animal husbandry creates as much carbon emissions as the entire transportation sector.\*



- If cows were their own country, they would be the third-biggest greenhouse gas emitter in the world.<sup>‡</sup>

- 1.5 acres can produce 37,000 pounds of plant-based food or 375 pounds of beef.<sup>‡</sup>



- If every American swapped out all the beef in their diet for beans, it would get the United States halfway to meeting greenhouse gas emission targets set in the Paris climate accord.<sup>§</sup>

# THE FUTURE IS PLANT-BASED



**WHEN YOU HELP  
FAMILY FARMERS  
TRANSITION TO  
CLIMATE-SMART CROPS**



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