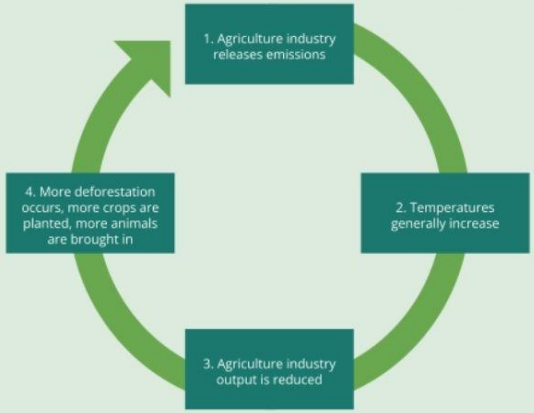
Reality

The farm displayed in the picture above is located in Oregon and is suffering losses in crop yield.

Observed Problems

Crop loss
Flooding
Poor soil health
Chemical Leeching
Erosion

What's Happening?



By the Numbers

Agriculture produces ***10-15%*** of global annual emissions

Output of farms down ***30%*** since 1961* - equivalent to past ***7 years lost***

*Based on a zero carbon scenario since 1961

Difference

Both this farm and the other farm shown are located in Oregon and have the same precipitation, soil, and grow the same crops. The difference is that this farm employs adaptation measures to promote soil health. Adaptation measures are actions taken to reduce the impact of worsening weather events and changing weather patterns.

Common Adaptation Strategies

Adaptive plants
No till practices
Cover Crops
Precision Farming
Buffer Strip
Diverse crops

Our Solution

Positive Environmental Impact ( )
Initial Investment ( )

Adaptive Crops (1)

Crops that are especially resistant to changes in the climate.

No Till Practices (2)

Leaving soil intact to preserve terraranan ecosystems and promote soil health.

Cover Crops (3)

Plants that keep soil intact and healthy, prevent disease spread, and prevent erosion.

Precision Farming (4)

A method of using technology to assess farm health and better manage resources.

Buffer Strips (5)

Limit loss of topsoil, prevents water pollutant leeching, and filter storm runoff.

Diverse Crops (6)

The planting of a variety of crops as well as different types of the same crop.

Conclusion

With the implementation of each one of these solutions, it is possible to extend the life of a farm as climate change worsens; crops will withstand the test of time, soil will be kept healthy, and as such, productivity of the farm will benefit, increasing earnings (covering and surpassing initial costs).

(1)

(2)

(3)

(4)

(5)

(6)

Next Steps

Learn More

About adaptive plants:
https://apnews.com/article/climate-science-business-university-of-maine-environment-and-nature-002430d7c76076523d6191c13abe7b35
About No-Till Practice:
https://www.wkar.org/environment/2020-07-31/msu-study-finds-no-till-farming-yields-long-term-economic-benefits
About cover crops:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/technical/?cid=nrcs144p2_027252
About Precision Farming:
https://www.luxresearchinc.com/press-releases/precision-agriculture-is-cost-effective-for-farms-of-5000-acres
About Buffer Strips:
https://www.cleanlakesalliance.org/buffer-strips/
About Diverse Crops:
https://www.youtube.com/watch?v=8m7gaRnnqj0
About Case Studies:
https://www.reacchpna.org/case_studies

Self Advocate

Reach out to the following agencies to get change rolling!
1.) American Farm Bureau Federation
- National Association of State Departments of Agriculture

Spread the Word!

1.) Ask what you neighbor is doing! Learn from your neighbors and help others get involved.
2.) Ask local officials Give questions to your local government officials about improving farming adaptations
3.) Create a safe place in your farming community to talk about farming adaptations and climate change

Works Cited:

https://docs.google.com/document/d/16oD9K83RelT_dmCI51rk1TBw8YBnJavIjsLMhBGA/edit