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 Leaching
- Erosion

What's Happening?

1. Agriculture industry releases emissions
2. Temperatures generally increase
3. Agriculture industry output is reduced
4. More deforestation occurs, more crops are planted, more animals are brought in

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 (/Images)
Initial Investment (Images)

Adaptive Crops (1)
Crops that are especially resistant to changes in the climate.

No Till Practices (2)
Leaving soil intact to preserve terrararian 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).

Next Steps

Learn More
About adaptive plants:
About No-Till Practice:
About cover crops:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/technical/?id=nrcs144p2_027252
About Precision Farming:
About Buffer Strips:
https://www.cleanlakesalliance.org/buffer-strips/
About Diverse Crops:
https://www.youtube.com/watch?v=8m7gaRnnqj0
About Case Studies:
https://www.reachpna.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/16oD9K83ReI4T_dO15Trk1TBwYBnjvij5LMhBGA/edit