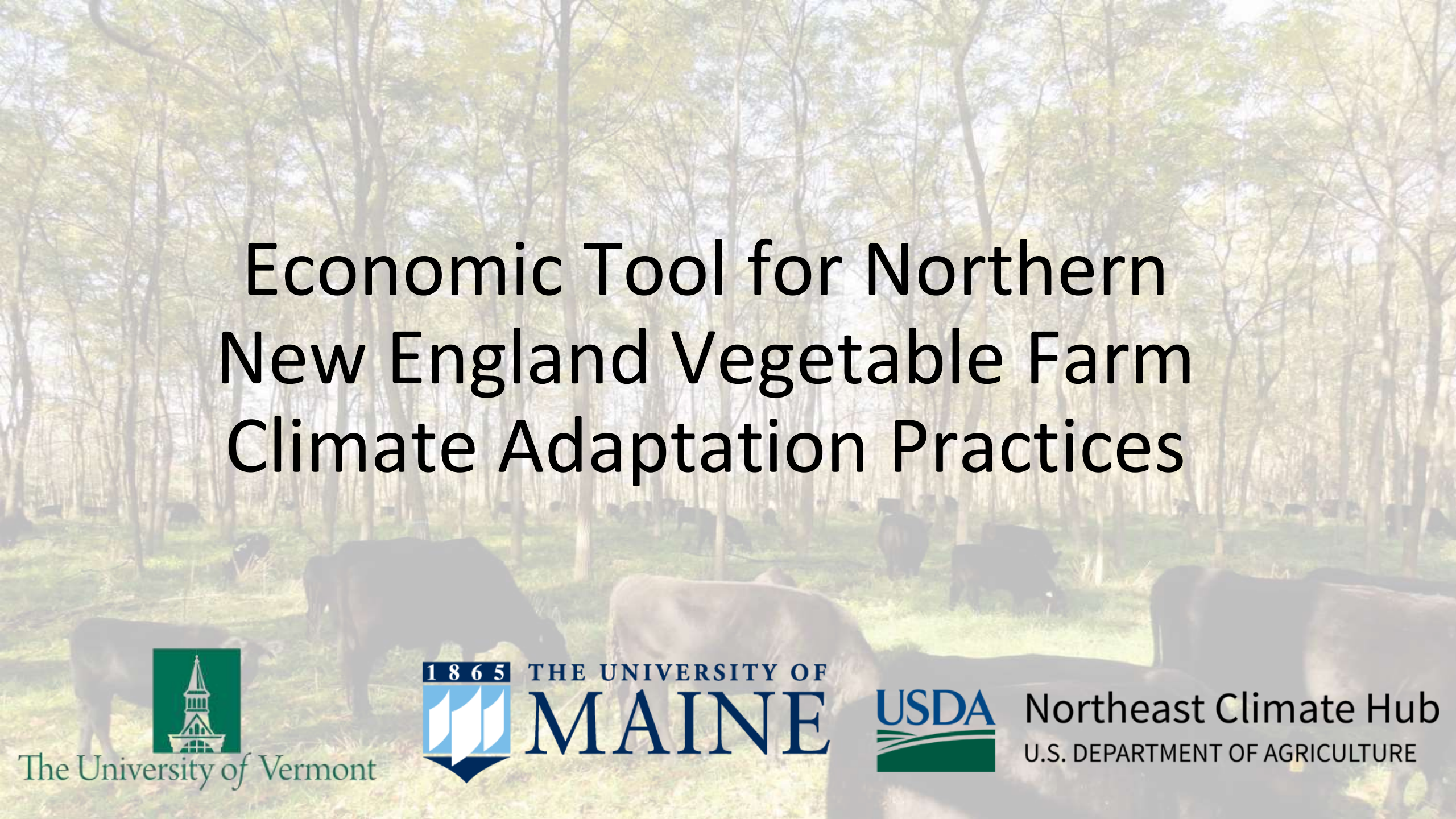
Economic Tool for Northern New England Vegetable Farm Climate Adaptation Practices



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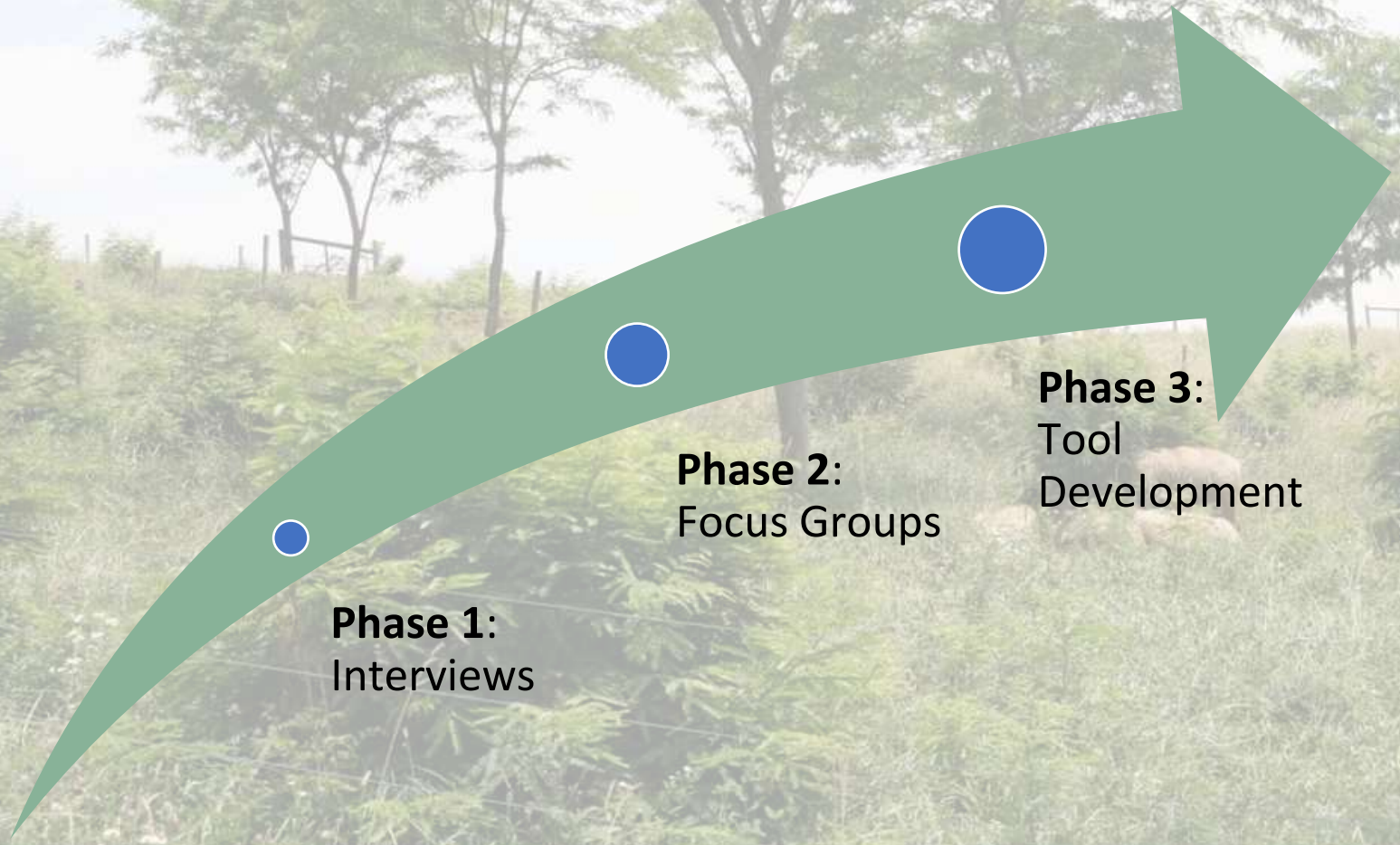
Project Overview

- Climate change is one of the greatest environmental threats to future generations, and one that will have significant impacts on US agriculture.
- There is an increasing focus on the development of climate resources and information to help farmers plan for future changes.
- The availability of climate resources may be growing, but few are targeted towards small, medium and beginning farmers in New England and the unique production challenges they face.
- The goal of this project was to create tools and resources designed to address this gap in resources and respond to farmers' expressed needs.

Project Overview



Two Tools

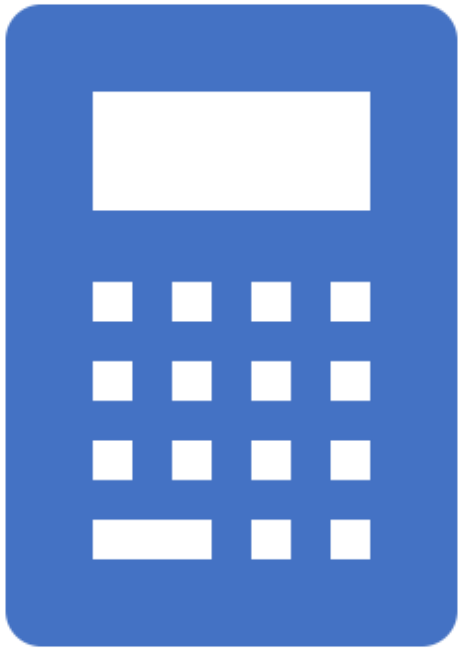
- Economic Tool
- Visualizations

Three Practices

- Silvopasture
- Irrigation
- Tarping

Economic Tool

- Lays out the costs and revenues from implementing different climate adaptation practices.
- User can input farm-specific data to map out economic costs and benefits for given practice on their farm (defaults available).
- Tool should be used together with our other tools and technical advisors to better understand specific opportunities and challenges for implementation on any given farm.



Silvopasture

Irrigation

Tarping

Climate Change Adaptation Practices

Economic Tool - Irrigation

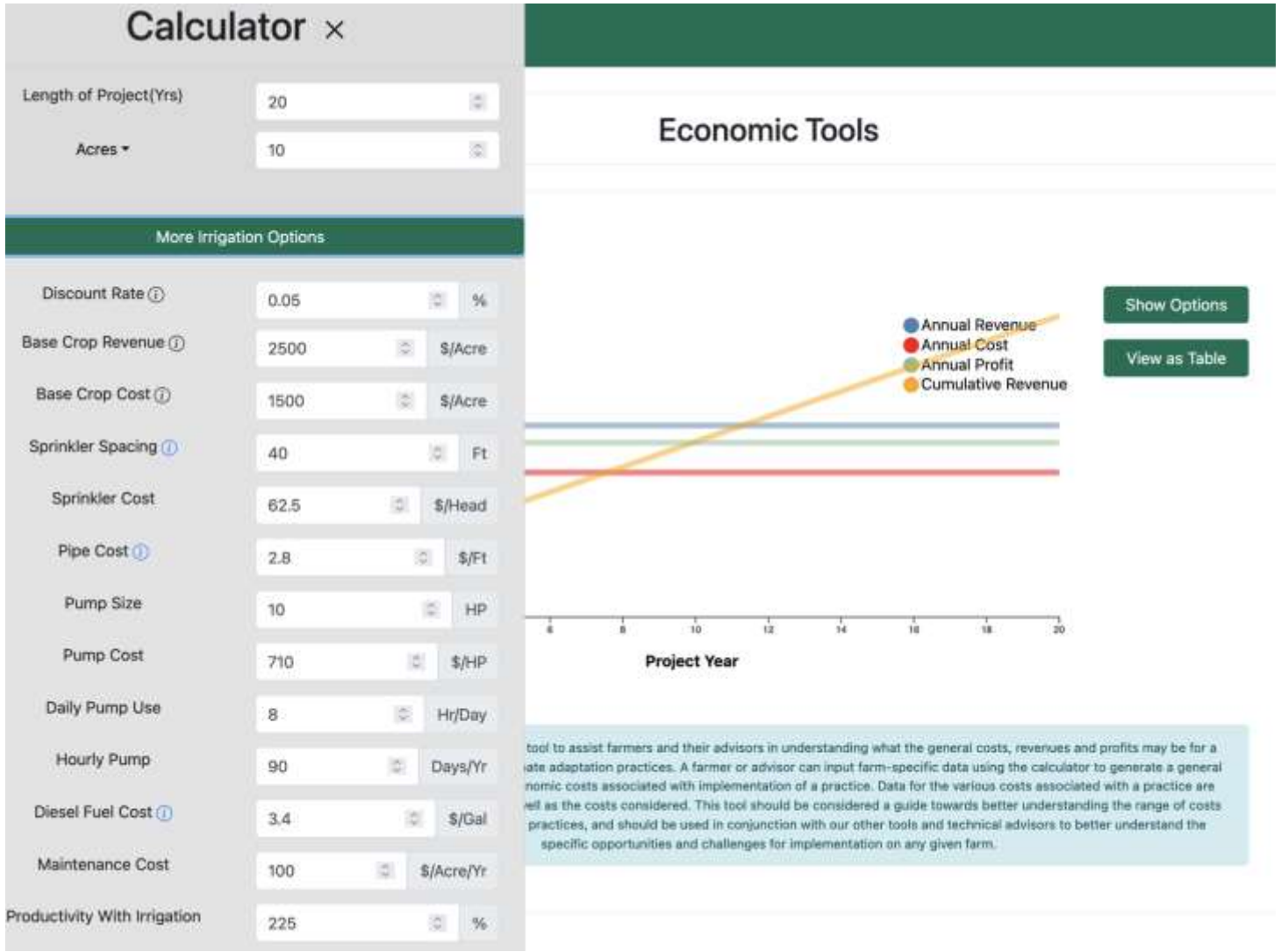
Project Length & Farm Size

Crop Revenues and Costs

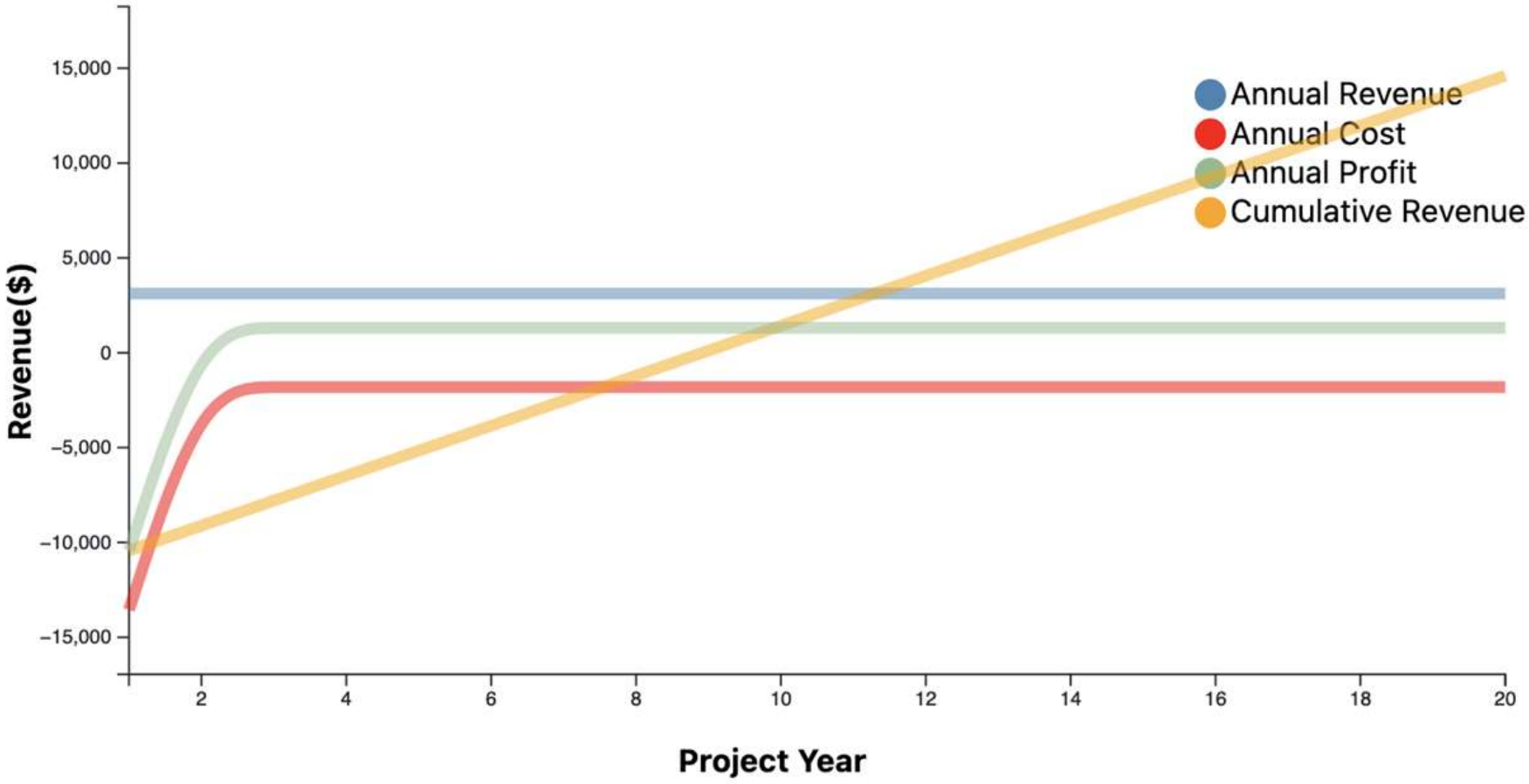
Capital Costs

Operation and Maintenance Costs

Crop Productivity Change



Economic Tool - Irrigation



Show Options

View as Table

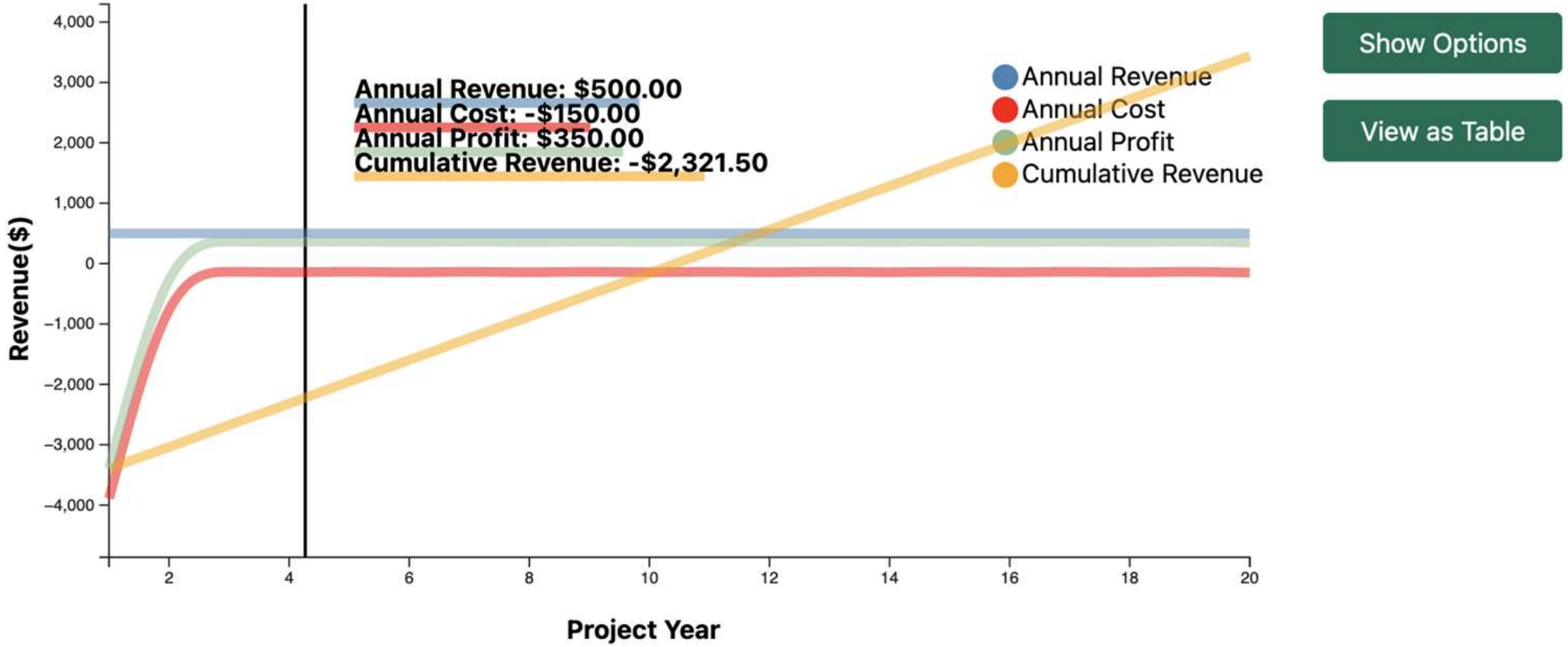
Economic Tool - Irrigation

Component	Per Acre	Total Area	
PV Benefit	$38,944.41	$389,444.07	
PV Cost	-$33,713.11	-$337,131.14	
NPV ⓘ	$5,231.29	$52,312.93	
Year	Revenue	Cost	Value
1	$3,125.00	-$13,557.98	-$10,432.98
2	$3,125.00	-$1,807.22	-$9,115.20
3	$3,125.00	-$1,807.22	-$7,797.41
4	$3,125.00	-$1,807.22	-$6,479.63
5	$3,125.00	-$1,807.22	-$5,161.84
6	$3,125.00	-$1,807.22	-$3,844.06
7	$3,125.00	-$1,807.22	-$2,526.28
8	$3,125.00	-$1,807.22	-$1,208.49
9	$3,125.00	-$1,807.22	$109.29
10	$3,125.00	-$1,807.22	$1,427.07
11	$3,125.00	-$1,807.22	$2,744.86
12	$3,125.00	-$1,807.22	$4,062.64
13	$3,125.00	-$1,807.22	$5,380.42
14	$3,125.00	-$1,807.22	$6,698.21
15	$3,125.00	-$1,807.22	$8,015.99

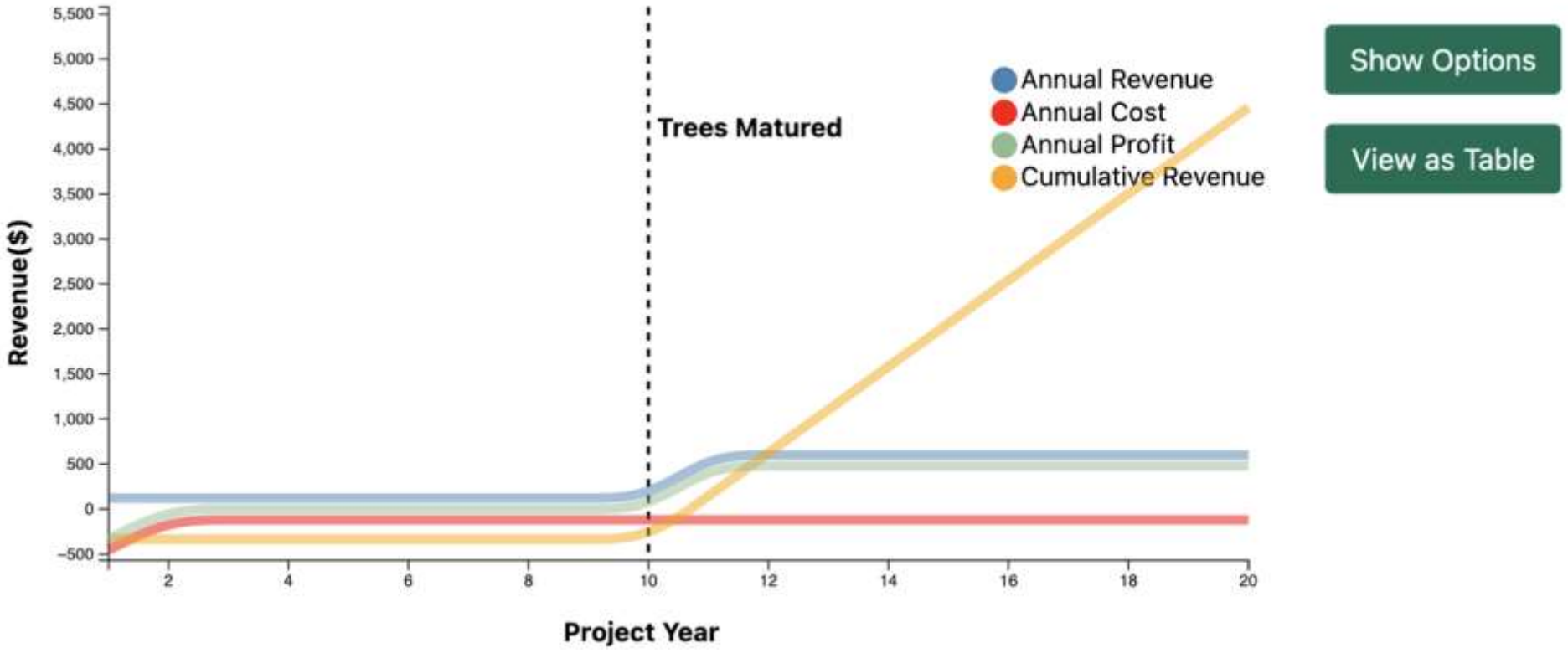
Show Options

View as Graph

Economic Tool - Tarping



Economic Tool - Silvopasture



Visit the website:
http://www.nefarmclimate.com

Trial our Economic Tool and other resources!

Acknowledgements

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- Grant Team
  - *University of Vermont*: Meredith Niles, Joshua Faulkner, Beth Holtzman, Stephanie Hurley, Nick Cheney, Brad Demarest, Devon Johnson, Carolyn Hricko
  - *University of Maine*: Adam Daigneault, Rachel Schattman, Sonja Birthisel, Eric Gallandt, Ruthie Clements
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  - Tim Harrold, University of Vermont

Photo Credits

- **Slide 1, 2 & 9**: Steve Gabriel, “Six Key Principles for a Successful Silvopasture,” Cornell Small Farms Program, June 28, 2018 https://smallfarms.cornell.edu/2018/06/six-key-principles-for-a-successful-silvopasture/
- **Slide 3 & 4**: Steve Gabriel’s “Six Key Principles for a Successful Silvopasture,” Cornell Small Farms Program, June 28, 2018 https://smallfarms.cornell.edu/2018/06/six-key-principles-for-a-successful-silvopasture/. Photo courtesy of Gabriel Pent.
- **Slide 8**: From left to right:
  - Steve Gabriel, “Six Key Principles for a Successful Silvopasture,” Cornell Small Farms Program, June 28, 2018 https://smallfarms.cornell.edu/2018/06/six-key-principles-for-a-successful-silvopasture/
  - T-Tape Drip Tape, Hort Americas, https://hortamericas.com/catalog/irrigation/connectors/t-tape-drip-tape-2/, from Rachel Schattman and Chloe Boutelle, "Getting started with drip irrigation: components and costs,” University of Vermont Extension, Updated November 2018. https://www.uvm.edu/climatefarming/sites/default/files/files/uvm_dripirrigation.pdf
  - Courtesy of Stephanie Hurley
- **Slide 10**: T-Tape Drip Tape, Hort Americas, https://hortamericas.com/catalog/irrigation/connectors/t-tape-drip-tape-2/, from Rachel Schattman and Chloe Boutelle, "Getting started with drip irrigation: components and costs,” University of Vermont Extension, Updated November 2018.
- **Slide 11, 36 & 37**: Courtesy of Stephanie Hurley