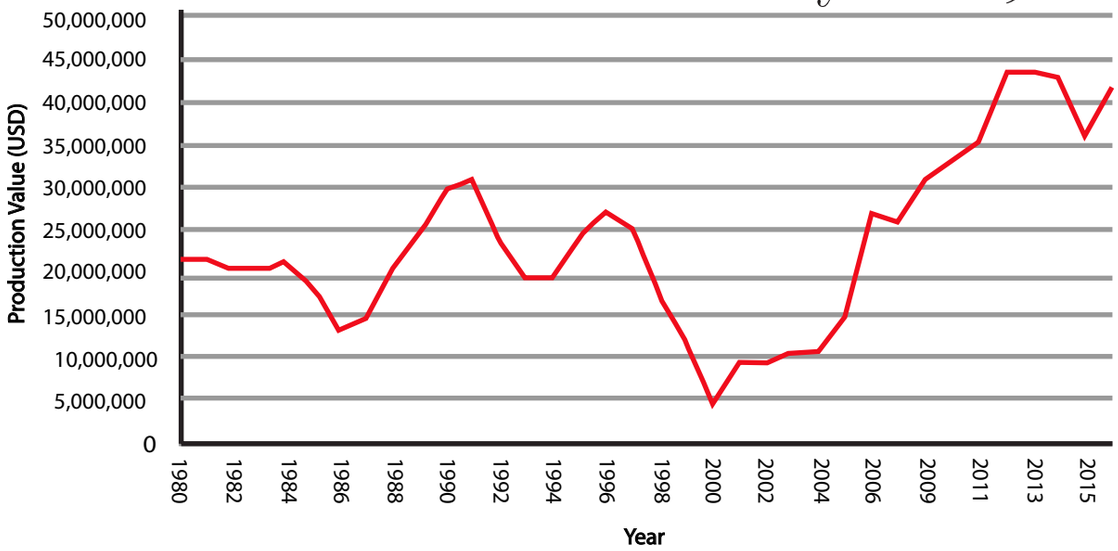
Economic Value of Tobacco Grown in Pennsylvania: 1980-2016



Mary Gilbert's data supports the fact that extream weather and climate change has a relationship with the economic value of Lancaster crops.

tween the heightened occurrence of extreme weather events and crop resilience. In Lancaster, an increase in heat waves and extreme precipitation events could affect the overall quality of soil and total crop yield. However, Global Climate Models (models observed: ECHAM5 and MIROC3.2) project a decrease in frost days which may add to the farmers' growing season in Lancaster County and could offset part of the decrease of crop yield due to extreme events. As the economic value of these two crops continue to rise, it's found that Climate Change and heightened occurrences of extreme events may cause susceptibility to the market.

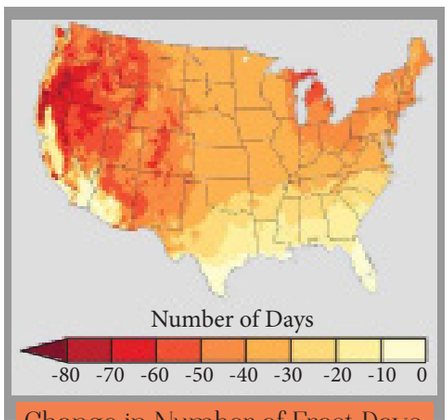
With a projected population of 9 billion by 2050, climate change will continue to add to the challenge of feeding a hungry and growing world. However, research such as Gilbert's will prove to be beneficial when adapting and mitigating to the agricultural adversities found right here in Lancaster County.

As Mary reflects on her experience she says,

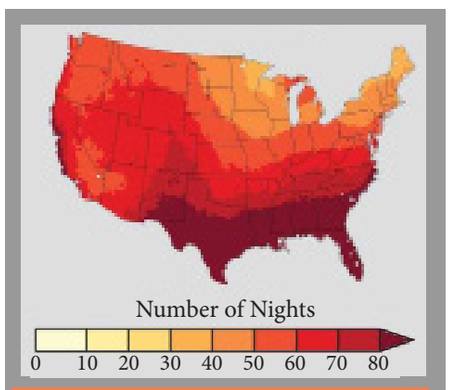
"For me, the greatest thing about conducting this research was being able to work with one of the most respected members of the climate science and sustainability field on a project with real impacts close to home.",

referring to Dr. Sepi Yalda, a meteorology faculty member and consultant for the United Nations.

Mary Gilbert is thankful for having the opportunity to research such a vital topic in climate and appreciates the assistance provided by her research advisor, Dr. Yalda. Literally providing food for thought, her research is not only providing strategic information for producers, but is also creating informed consumers of agriculture.



Change in Number of Frost Days



Change in Number of Hot Nights