

# **Possible impacts of climate change on productivity on the eastern shore of Virginia.**

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An analysis of climate and weather records of eastern Virginia was undertaken to establish the stability and variability of weather conditions in the region. Agricultural production records for the eastern shore of Virginia were then related to these climate and weather data to establish how previous weather events have affected the reliability and resilience of agricultural and forestry productivity in the area. Using this information and information from various global climate change models, possible climate change scenarios were analyzed to establish their impact on productivity in the region. Particular attention was given to how these climate changes will change evapo-transpiration and ground water recharge on the eastern shore and its impact on agricultural productivity. Modified growing season lengths, changes in the stability and predictability of rainfall, the increased occurrence of extreme weather events, together with altered wet/dry cycles and increased variability of temperature and rainfall were also analyzed.