

Impact of Climate on Quantity and Quality of Virginia-Type Peanut.

A.F. RAMSEY*, Virginia Tech, Blacksburg, VA, **J.B. TACK**, Kansas State Univ., Manhattan, KS, and **M. BALOTA**, Virginia Tech, Suffolk, VA, 23437.

We examined the impact of warming temperatures on quantity and quality of virginia-type peanuts. Using value formulas from the Commodity Credit Corporation, changes in quantity and quality were mapped to changes in revenue. We then used regression approaches to jointly model the relationship between peanut yield and sample shares of extra-large kernels (ELK) and total sound mature kernels (TSMK). The regression models were applied to 33 years of data from the multi-state Peanut Variety and Quality Evaluation (PVQE) program which were linked to fine-scale weather data. We found negative impacts of weather warming on revenue through both yield and quality channels. Studies on climate change on agriculture production that fail to consider impacts on crop quality may underestimate the damage to farm revenue.