INTRODUCTION: Georgia has prostate cancer incidence rates that are consistently above the national average, a notable portion of Georgia’s economy is rooted in agricultural production, and agricultural practices have been associated with an increased risk for prostate cancer.

METHODS: This investigation uses an ecological analysis to examine the hypothesis that prostate cancer incidence rates in Georgia counties are associated with farming activity or an increased use of agriculture chemicals. Data were obtained from National Cancer Institute Surveillance, Epidemiology and End Results (SEER) 2000–09, United States Department of Agriculture (USDA) 1987 Agriculture Survey, and 2010 US Census.

RESULTS: In counties that have greater than 34.1% minority population, for each dollar spent on agricultural chemicals per acre there was an observed increase of 4.5 cases of prostate cancer per 100,000 male population ($P$-value = 0.0002). No association was detected between percent of county farmland and prostate cancer rates.
CONCLUSIONS: This study aids in generating hypotheses regarding possible aspects of prostate cancer risk factors, which could help guide analytic analyses using individual-level data to confirm these findings.