

Developing Weed Management Risk Tools for Crops in North Carolina

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Effective weed management is important in protecting crop yield. Evolved resistance to herbicides across many crops has increased the need to integrate non-chemical practices into weed management programs. Cultural practices can include tillage systems, cover crops, cropping sequence, row spacing and plant population, planting date, and cultivar selection. A risk management tool to evaluate risk of over ten North Carolina peanut pests was developed using Microsoft Excel software. One component in this risk tool is weed management and risk to yield. Based on the approach used in the peanut risk tool, similar risk management tools have been developed for weeds in blueberry, corn, cotton, soybean, sweetpotato, and tobacco. Within a risk management tool, a numerical value associated with risk is assigned to each production practice that can affect weed populations and their subsequent impact on crop yield. The risk tool also includes estimates of cost for each practice and can demonstrate the financial investment needed to decrease risk. These tools are currently being modified based on NC State Extension agent input and will be released for public use in late 2021.