

Introduction of a Herbicide Selector Tool for Peanut

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To assist North Carolina peanut growers with weed manage, a web based herbicide selection tool has been developed. The tool allows users to select weeds and indicate known weed herbicide resistances. Based on weeds selected and herbicide resistances, weed competitive indices and herbicide efficacies, the application ranks registered herbicide treatments on the calculated overall potential control. Herbicide treatments can be filtered based on application timing (i.e. preemergence, postemergence, etc.). For each herbicide treatment, details on potential control of each selected weed is provided.

Development of the herbicide selection tool involved the development of a Microsoft (MS) SQL database, MS Visual Basic .Net RESTful Web service, and JavaScript based web client user interface. Weed competitive indices for peanut were obtained from a previous developed herbicide selection web application, WebHADSS. Weed herbicide efficacies published in the 2021 North Carolina Agricultural Chemicals Manual were utilized to populate the database. Additionally, the herbicide selection tool and related database are designed to handle addition crops.