

## **Evaluating Fluridone for Crop Tolerance and Weed Control in Peanut Production**

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With peanuts being considered a minor use crop in the United States, herbicide development targeted specifically towards peanut production is limited. This makes it necessary to research how herbicides that are used in other cropping systems can be used in peanut production. The rise in herbicide resistant weed species magnifies the need to expand the mechanisms of herbicide action that can be used in peanut production.

Fluridone (1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]pyridin-4-one) is a WSSA group 12 herbicide, registered for use for pre-emergent weed control in cotton as Brake. This product was evaluated over three locations and four years in Georgia to determine the level of crop injury and its weed control potential. Fluridone was applied at several rates and also mixed with other herbicides to evaluate crop safety and weed control potential. While fluridone did cause stunting, chlorosis, and bleaching, this did not have any impact on total yield in plots that were maintained weed free. From a weed control standpoint, fluridone shows good results in controlling Palmer Amaranth (*Amaranthus palmerii*), but seems to have less efficacy than Dual Magnum on annual grasses and sedges when mixed with Valor. Registration for use of this product in peanut production would help to reduce the spread of resistance by increasing the mechanisms of herbicide action that can be used on peanuts.

Reg in cotton

Minor use crop