

Fluometuron

Trade Names: Cotoran, Meturon

Chemical Family: Substituted urea

Mode of Action: Inhibition of photosystem II electron transport at the Q_B binding site on the D1 protein.

General Symptoms: Chlorosis and necrosis is first apparent on lower leaves and leaf margins.



Figure 1

Figure 1. Soybean injury at 14 days after treatment with 1.5 lb ai/A fluometuron applied preemergence. Symptoms are similar to those caused by atrazine with chlorosis and necrosis first apparent on the the leaf margins, followed by plant death. If cotton crop failure occurs after a fluometuron application, soybean planting during that cropping season is not permissible and attempts to plant soybeans will result in the injury symptoms shown in this figure.

Agronomic Use: Fluometuron is a standard herbicide for weed control in cotton, most often applied preemergence.

Additional Information: Like other PSII inhibitors such as atrazine and metribuzin, fluometuron's spectrum of activity is rather broad, but broadleaf weed control is generally greater than that of grasses. For this reason, a graminicide is often tank mixed with fluorometuron. The margin of selectivity in cotton is very narrow, and thus cotton injury can result, especially on sandy soils low in organic matter.

Rotational Restrictions: If crop failure results, cotton can be replanted immediately, whereas all other crops can be planted 6 months after application (see label).

Symptoms on other Crops:



Figure 2

Figure 2. Fluometuron injury on wheat. The first apparent symptoms are chlorosis and necrosis of leaf tips and leaf margins.

Prepared by: Dr. Jason Norsworthy; Extension Specialist; Clemson University; Edisto Research and Education Center; 64 Research Road; Blackville, SC 29817; 803-284-3343; jnorswo@clemson.edu