

## Alfalfa and sainfoin tolerance to fluridone

Ryan J Hill – UCCE Tehama

**Methods:** Alfalfa (Ameristand 518; fall dormancy 5) and sainfoin (Reneumex) were planted in Red Bluff, CA in November 2024. Fluridone herbicide (Brake On!, SEPRO Ag, LLC.) was applied at three different timings, relative to planting, all at the 21 fl oz/A rate. Application timings included at planting, first leaf or cotyledon stage, or 3-4 trifoliolate stage. A 0.3 square meter quadrat was used to assess crop stand density and visual assessments were used to assess % injury.

Grass-selective herbicide (Clethodim) was used to control grass weeds in experimental plots, applied December 2025.

**Results:** Weed pressure was high in this trial and heavily affected establishment in untreated plots. Alfalfa and sainfoin were injured by the treatments applied at planting. Though many sainfoin plants grew through the injury it seems that many alfalfa plants were killed by this treatment. Alfalfa stand density was greatest when fluridone was applied at the cotyledon stage and sainfoin stand density was greatest when fluridone was applied at planting. Sainfoin is very sensitive to competition at the seedling stage, possibly explaining the low stand count associated with later application timings.

These results suggest good tolerance of both species to fluridone but more data are required before drawing any conclusions. To adequately demonstrate crop safety 2x rate of 43 fl oz/A should be tested.

### February 19<sup>th</sup> Evaluation

Date	Fluridone Rate	Timing	Injury (%)		Plant count (per 0.3 square meters)	
			Alfalfa	Sainfoin	Alfalfa	Sainfoin
Untreated			0	0	8	5
Nov 8th	21 fl oz/A	At planting	30	20	11	15
Dec 11th	21 fl oz/A	first leaf or cotyledon	0	10	32	10
Feb 12th	21 fl oz/A	3-4 trifoliolate	2.5	0	23	9