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*Effectiveness of Cereal Rye as a Cover Crop on Alfalfa*

In this experiment, the problem addressed was if rye was a useful cover crop for alfalfa. To test this rye was planted in flats and then killed with the herbicide glyphosate. Alfalfa seeds were then planted in the killed rye, and after growth the alfalfa was harvested and the biomass was measured. It was discovered that the alfalfa planted in the flats without rye as a cover crop produced more biomass. The biomass after desiccation was more than 10g higher for the alfalfa planted without the rye cover crop. This indicates that planting rye as a cover crop for alfalfa may not be beneficial for alfalfa crop production. This research and additional allelopathy research on rye will assist farmers in determining whether or not to use rye as a cover crop for alfalfa and other crop species.