

## **Effect of Hog Manure Applications on Weed Control Management.**

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**Abstract** The hog industry is expanding in western Canada, particularly in Manitoba where the industry is expected to double over the next decade. At the same time, producers are experiencing increasing farm expenses, mainly due to greater fertilizer and pest management input costs. Farms with both crops and livestock, and farms with crops and a nearby source of livestock manure, will benefit by integrating use of the manure resource into crop nutrient plans, thereby reducing the input costs of inorganic fertilizers. The objective of this research project is to examine the impact of hog manure application on weed control management for reducing pest management input costs. Using field plots and laboratory experiments, the study examines the effect of manure application on the number and community of emerged weed species, as well as on their time of emergence relative to the crop. In addition, the study will measure herbicide (Trifluralin) control efficacy and carry-over risks differences between manured and inorganically-fertilized crop production systems. The results of the study will improve the ability of producers to develop more integrated management plans, and enhance the utility and consistency of manure and weed control management planning procedures.