



2020-112: Development of salt tolerant alfalfa cultivar adapted to Western Canada

Researcher: Bill Biligetu

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Alfalfa growth under saline conditions is limited. Given that there are more than 10 million hectares of saline soil in North America, investing in varieties that have greater tolerance would provide more options for producers across the continent.

However, studying salt tolerance and waterlogging in the has been complicated. Different soil properties, seasonal variation in rainfall, and other have made creating varieties difficult. Advances such as molecular markers have had promise, but the results have not been validated in the breeding population.

Dr. Bill Biligetu has already used the Synchrotron to do basic research studies to note salt tolerance in alfalfa. He and his research team will continue to breed salt tolerant alfalfa lines, and evaluate for winterkill, water logging tolerance and agronomic performance. They will then genotype the most promising lines, in order to discover sal tolerant genes in the plants. They wil then evaluate the most promising lines in the AAFC Salt Labs.