Frost in Flax: Utilizing Field Demonstrations

The Situation

With the low price farm economy, farmers are seeking profits in minor crops. In 2015, North Dakota produced 92% of U.S. flax. At an average marketing price, the 2015 ND crop was worth $82.4 million dollars to the state’s economy.

In general, minor crops receive less ag research attention than major commodities like wheat or soybeans.

An ~27° frost occurred on May 30, 2015 near Rock Lake, ND. Damage occurred to seedling flax fields. Farmers had questions on a reduced plant stand and potential yield loss. Also, if the field was destroyed, what are re-plant crop selection choices to utilize in early June?

Extension Response

Lindy Berg, Towner County Extension agent, surveyed damaged flax fields to help a farmer make decision on field replanting. After consultation, the farmer decided to re-seed half the field with soybeans.

The remaining flax had areas of acceptable minimal stands as frost damage is highly variable in the landscape.

Lindy and I designed a field demonstration to measure the reduced flax stands ability to compensate for yield by increased plant branching. The demonstration would address, “Is it better to keep a reduced stand of flax or take a chance with soybeans seeded in early June?”

The field was monitored throughout the growing season. At the end of season, field samples were counted for expected branching compensation, plant population, and harvested. Economics between flax and soybeans were compared.

Results were shared at Towner County Crop Improvement Meeting, Lake Region Round-Up, and the International Flax Institute in 2016. This program reached 125 growers, industry, and higher education individuals.

Impacts

Building Community Knowledge. Making the right farm management decisions after a late frost event is difficult. NDSU Extension has resources to guide farmers through this decision. However, second guessing choices that must be made in a short time period is a common discussion point.

Farmers are more apt to utilize minor crops if they are familiar with them in terms of best management and perceived growing risks. This Extension work validated potential rewards of keeping a frost-damaged flax stand.

Economic Returns. This demonstration showed in the 2015/2016 economy with flax at $8.85/ bu and soybeans at $8.80/ bu, minimum stands of flax will gross return the same amount of money as a soybean crop prior to reseeding costs.

Feedback

- I’ve done the back of the napkin calculations and flax can return more dollars than soybeans. - Farmer

Public Value Statement

Extension answers today’s ag issues with on-farm demonstrations and teaching.

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