December 2020

Flax on the Farm

Field Survey Results[§]

2020 was characterized by hot, dry conditions during flowering and late in the season, a situation which typically does not promote high levels of disease in flax but can enhance certain insect populations and have an agronomic impact on the crop.

DISEASE

- 86 flax crops were surveyed for disease in 2020, 11 in Manitoba and 75 in Saskatchewan.
- More than half (59%) of the surveyed crops had pasmo, which was an increase over both 2019 (49%) and 2018 (54%). Similar to the situations in 2018 and 2019, pasmo severity was at low to moderate levels in most of the flax crops surveyed.
- Alternaria blight was the second most prevalent disease in the 2020 flax crop and was observed in approximately 26% of the flax fields surveyed in Manitoba and Saskatchewan. This was similar to the situation in 2019 with 31% of the surveyed fields having Alternaria, but was a significant decline from 2018 where Alternaria was found in 73% of fields.
- Fusarium wilt was present in 7% of crops surveyed compared to 6% in 2019 and 1% in 2018.
- The prevalence of aster yellows was low at 9% and was increased over both 2019(2%) and 2018 (6%). The early arrival of aster leafhoppers in 2020, unusually, did not result in a significant increase in aster yellows disease.
- No powdery mildew, Sclerotinia or rust were observed.

INSECTS

- 27 fields were surveyed, 16 in Saskatchewan and 11 in Manitoba
- Grasshoppers were common and caused boll drop in many fields.
- Crickets were abundant.
- Confirmed that crickets spend time in the flax canopy.
- Flax bollworm was observed in two fields in Saskatchewan.
- Thrip populations were high in some fields in Central Saskatchewan.
- Lygus bugs were common in Manitoba and noted in Central Saskatchewan.
- Aphids were observed in three fields, two in Manitoba and one in Saskatchewan.
- A few flea beetles were noted in fields in Manitoba, but these are not known to be pests of flax.
- Large populations of brown stink bugs were present in fields in Manitoba.

MANITOBA CROP ALLIANCE
SaskFlax
FLAX COUNCIL OF CANADA

- There was widespread damage to attached and fallen bolls. Grasshoppers, crickets and birds are all known to cause damage to flax bolls.

AGRONOMY

- 86 flax crops were surveyed for disease in 2020, 11 in Manitoba and 75 in Saskatchewan.
- 51% of fields had excellent stands (vs. 75% in 2019 and 69% in 2018).
- 9% of fields had some lodging (vs. 10% in 2019 and 0% in 2018).
- 30% of fields had moderate to high weed infestations (vs. 17% in 2019 and 37% in 2018).
- Small, late germinated plants and plants with dead main or secondary branches were common in most fields. Possible explanations for dead branches could be: frost, Fusarium, drought or herbicide injury.
- Seeds and bolls were smaller than normal and this was most likely due to the warm, dry conditions during flowering and seed fill.
- A range of 5 to 13 seeds per boll were observed. Ten is the theoretical maximum number that a boll can contain, so it was unusual to see this many in multiple fields.

[§]The flax field survey was conducted by staff of the Crop Development Centre, the Saskatchewan Flax Development Commission and the Saskatchewan Ministry of Agriculture.

⚠ **Don't forget to check on your stored flax seed this month!** More frequent monitoring is critical if flax seed was binned when tough (10.1-13.5% moisture) or damp (>13.5% moisture), as it will be more susceptible to heating and deterioration due to storage mould growth. Remember that the size and shape of flax seed makes it very dense in storage so maintaining good airflow is important. Refer to the August edition of Flax on the Farm for more advice on flax seed storage.

For more information about the flax field survey, insects, diseases and seed testing contact the following:

Michelle Beaith
Agronomist
Saskatchewan Flax Development Commission
(306) 664-1901
michelle@saskflax.com

Dane Froese
Industry Development Specialist – Oilseeds
Manitoba Agriculture and Resource Development
(204) 750-2840
dane.froese@gov.mb.ca

Cory Jacob
Provincial Specialist, Oilseed Crops
Saskatchewan Ministry of Agriculture
(306) 787-4668
cory.jacob@gov.sk.ca

MANITOBA CROP ALLIANCE
SaskFlax
FLAX COUNCIL OF CANADA

Useful links:

1. Seed Quality:

- Photos of seed quality issues (Flax Council of Canada)
- Canadian Food Grade Flax (Flax Council of Canada)
- Effect of Fall Frost on Seed Quality (Saskatchewan Ministry of Agriculture)
- Seed Smart Alberta
- Marketing, Grading and Seed Quality of Flax (September edition of Flax on the Farm-Saskatchewan Flax Development Commission)
- Seed Testing Flax (October edition of Flax on the Farm-Saskatchewan Flax Development Commission)

2. Insect Pests:

- Insect Monitoring and Control (June Insect edition of Flax on the Farm-Saskatchewan Flax Development Commission)

3. Diseases:

- Disease Monitoring and Control (June Disease edition of Flax on the Farm-Saskatchewan Flax Development Commission)