

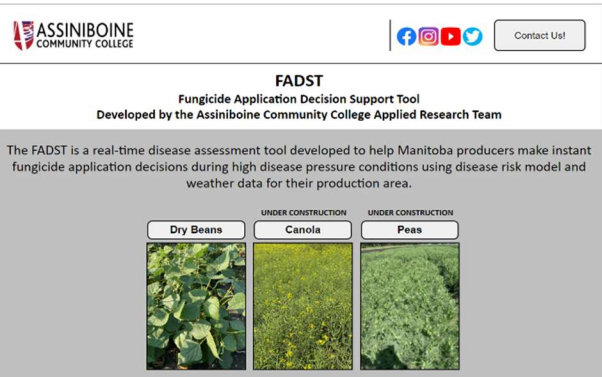
The Fungicide Application Decision Support Tool (FADST) for White Mould Management in Dry Beans in Manitoba

http://fadst.assiniboine.net/desktop_site/index.php

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Introduction:

White Mould is a serious fungal disease of legumes and pulse crops in Manitoba, caused by a highly destructive soil-borne pathogen (*Sclerotinia sclerotiorum*), which is difficult to manage, causing thousands of dollars in revenue loss annually. Currently, only fungicide applications are able to manage the disease, largely controlled by weather conditions, agronomic practices, and choice of dry bean varieties.



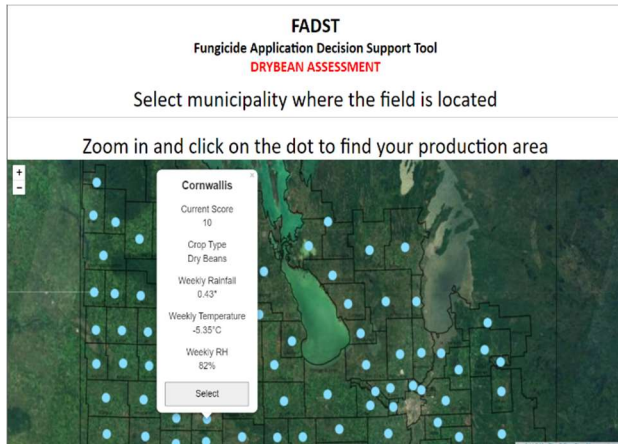
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FADST
Fungicide Application Decision Support Tool
Developed by the Assiniboine Community College Applied Research Team

The FADST is a real-time disease assessment tool developed to help Manitoba producers make instant fungicide application decisions during high disease pressure conditions using disease risk model and weather data for their production area.

UNDER CONSTRUCTION

Dry Beans Canola Peas



FADST
Fungicide Application Decision Support Tool
DRYBEAN ASSESSMENT

Select municipality where the field is located

Zoom in and click on the dot to find your production area

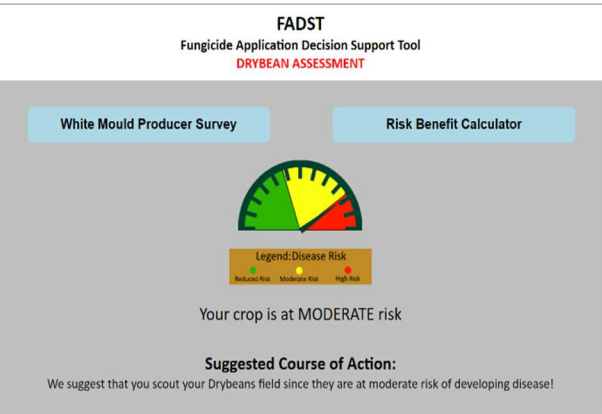
Cornwallis
Current Score: 10
Crop Type: Dry Beans
Weekly Rainfall: 0.43"
Weekly Temperature: -5.35°C
Weekly RH: 82%

Developing FADST:

A real-time weather-based FADST was developed using the leaflet platform, based on the integration of weather data collected from 108 MB Ag. weather stations across the province and a disease severity model adopted from the University of Nebraska-Lincoln. The FADST will predict a municipality-scale disease risk using weather data in real-time processed for a 7-day weekly rolling average and disease severity values (DSV) of related weather parameters such as rainfall and temperature.

Testing and Validation of FADST:

The FADST was tested during the 2021-2022 growing seasons by comparing computed risk assessment with field disease severity evaluations. The risk maps generated are freely available to dry bean producers via a dedicated web page. The FADST can be modified for other crops/diseases and reduce the reliance on pesticide applications but still achieving desirable disease management while protecting the environment and farm economics.



FADST
Fungicide Application Decision Support Tool
DRYBEAN ASSESSMENT

White Mould Producer Survey Risk Benefit Calculator

Legend: Disease Risk
Reduced Risk Moderate Risk High Risk

Your crop is at MODERATE risk

Suggested Course of Action:
We suggest that you scout your Drybeans field since they are at moderate risk of developing disease!

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