BACTERIAL LEAF STREAK TESTING

WHAT IS BACTERIAL LEAF STREAK?

Bacterial leaf streak is a crop disease caused by *Xanthomonas translucens* pv. *undulosa* infecting numerous cereal crop types and resulting in significant grain yield reduction. Within Canada, reports of crop loss have been raised for wheat primarily. The first visual signs of the disease are small oval, light green, water-soaked lesions which later in the growing cycle join, resulting in irregular streaks. Moderate to heavy infections can lead to withering and death of leaf tissue, which interrupts plant photosynthesis and yield set. Bacterial leaf streak may have multiple infection cycles during the growing season and is spread through rain or field activities. The pathogen source is through crop residue or seed, and thrives in growing seasons with warm days, cool nights and sizable rainfall. Best management practices start with scouting, followed by lab analysis, seed selection and crop rotational planning.

HOW TO SUBMIT SAMPLES?

- Follow proper sampling procedures for tissue, which includes a minimum of 10 leaves which have suspected leaf damage.
- For tissue, package in a paper bag. If unavailable, wrap the suspected leaf tissue in paper towel, then package in a plastic bag.
- Complete the Chain of Custody form, which is available upon request. Ensure to detail the result recipient and invoice information.
- Samples should be couriered.
- Sample turn around is 7-10 business days. RUSH analysis available upon request.

HOW DOES SGS TEST FOR BACTERIAL LEAF STREAK?

- RT-PCR method for detection of *Xanthomonas translucens* pv. *undulosa* using probe-based procedure.
- Quality controls processed in tandem for PCR: Positive Control (Detection), Negative Control (Not Detected), Extraction Blank, and No Template Control.
- STANDARD qualification available for live leaf tissue.
- Reporting for Root Tissue: Results are expressed as 'Detected' or 'Not Detected' for *Xanthomonas translucens* pv. *undulosa/translucens*. Differentiation between *Xanthomonas translucens* pv. *undulosa* and *Xanthomonas translucens* pv. *translucens* is not available at this time.

TESTING SERVICES CAN BENEFIT YOUR ORGANIZATION. CONTACT US TODAY:

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WHEN YOU NEED TO BE SURE

SGS