

ALPHA AMYLASE TESTING

WheatRite®

Pre-harvest sprouting generally occurs when rain falls during or just prior to harvest. Sprouting causes an increase in the production of alpha-amylase, an enzyme that breaks down starches in the grain to simpler carbohydrates. Excessive amount of alpha-amylase in flour will significantly affect the quality of breads and noodles. This means that grain showing increased levels of alpha-amylase activity cannot go to premium markets, thus effecting returns to both the grower and elevator operators.

The WheatRite® test is a low cost alternative to a laboratory method called Falling Number and suited for screening on-farm, at the elevator or for use as a fast laboratory test. Results can be evaluated visually by comparison with a color chart to estimate Falling Number equivalent. The test is simple to run, taking only approximately 5 minutes including sample preparation.

- Simply grind a sample (minimum 100 kernels) with a hand or coffee grinder.
- Add the wheat meal and extraction solution to the marked tube (provided)
- Mix gently by inverting the tube 15-20 times. Then let the sample rest for 20 seconds.
- Draw a sample of the suspension with the dropper (provided)
- Add the suspension to the green bowl on the WheatRite® cassette
- Mix in one drop of immunoconjugate and leave mixture for 60 seconds
- Press the green filter assembly on the cassette down to the stop position
- Allow mixture to filter, add a wash reagent and allow filtering for 30-60 seconds
- Remove the entire filter assembly and add wash reagent once more allow it to filter
- Color changes in the test strip provide an estimate of alpha-amylase content
- The test is now complete and can be read by comparison to the color chart

The WheatRite® test kits can be used on processed flour and kits are sold in packages of 10 or 100 with all of the necessary measuring and preparation tools (except the grinder.) Kits will require refrigeration (40°F) upon receipt. Shelf life is approximately 2 years under proper storage conditions.

10 pack kit: Ship dims. 13" L x 10" W x 6" H, Ship wt. 2 lbs., Net wt. 1 lb.

100 pack kit: Ship dims. 15" L x 15" W x 16" H, Ship wt. 12 lbs., Net wt. 11 lbs.



10 Pack WheatRite®	No. WR-10
100 Pack WheatRite®	No. WR-100
Electric grinder 110V, 60Hz	No. WR-G