VICAM®

A Waters Business

AflaTest® ■ AflaTest® WB ■ AflaOchra™ HPLC ■ AOZ™ ■ DON-V™ ■ FumoniTest™ ■ Myco6in1™ ■ OchraTest™ ■ OchraTest™ WB

Keeping the Corn Trade Healthy

Corn (maize) is among the most versatile and functional crops in the world. Corn and its processing byproducts are often used as food or feed ingredients, resulting in the need to monitor the quality and safety of each corn shipment prior to use in food, feed or industrial applications.

Aflatoxin, fumonisin, vomitoxin (DON), zearalenone, T-2, citrinin and ochratoxin A are the mycotoxins most commonly detected in grains. Severe health risks follow the consumption of mycotoxins, including immune suppression, liver and kidney damage, growth and reproduction problems, and even cancer. Aflatoxin is classified as a Group I carcinogen by the International Agency for Research on Cancer (IARC) and is highly regulated through worldwide maximum allowable levels which are enforced by the US FDA, EU, Asia and many more regions of the world. The FDA has also created guidance for fumonisin levels, and the EU has enforceable limits for fumonisin in human and animal foods. Shipments containing unacceptable levels of mycotoxins are rejected at the port, and often are reported in public 'alert' systems to ensure that the product is returned to point of origin, or destroyed.

Mycotoxins are the chemical byproducts of soil-borne molds which thrive on the plant tissue of corn and other field, tree and vine grown crops. Monitoring mycotoxins in corn is simple – using VICAM's family of single and multiple mycotoxin detection solutions for on-site, processing and laboratory use. Qualitative and quantitative solutions provide a well-rounded system for detection and confirmation at every level in the chain of custody, including point of receiving/grading, grain storage, processing and finished product quality control.

- Confirm inbound corn quality prior to storage and processing
- Keep inbound corn trucks and shipments moving with rapid testing
- Make grain management decisions with confidence

HERE'S HOW SIMPLE VICAM TESTS ARE TO USE:

EXTRACT SAMPLE

- Grind and weigh sample
- Add salt and methanol/water mixture
- Filter

DILUTE AND FILTER

- Dilute extract
- Filter

ABSORB AND ELUTE

- Pass filtrate over selected affinity column
- Wash column
- Elute toxin and collect in a cuvette

MEASURE

- Add developers and place cuvette into a calibrated fluorometer, or
- Dilute and inject eluate into HPLC or UPLC®
- Determine toxin concentration

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VICAM NARROW BORE COLUMNS

BENEFITS		AflaTest	FumoniTest	OchraTest
Durable	Long shelf life; requires no refrigeration	X		X
Versatile	Can be used with a variety of samples	X	X	X
Convenient	For use with fluorometric or HPLC	X	X	X
Easy	No special skills required, test can be performed virtually anywhere	X	X	X
Quick	Less than 10 minutes to isolate toxin*	X		
Safe	Requires less toxic materials than other methods	X	X	X

VICAM WIDE BORE COLUMNS

BENEFITS		AflaTest WB	FumoniTest WB	OchraTest WB
Durable	Long shelf life; requires no refrigeration	X		X
Versatile	Can be used with a variety of samples	X	X	X
Exclusive	Specifically for HPLC, UPLC or LC/MS/MS use	X	X	X
Quick	10 minutes to isolate toxin*	X	X	X
Wide Range	Detects high levels of toxins	X	X	X
Fast Flow	Passes more volume over the column	X	X	X

VICAM MULTI-ANALYTE COLUMNS

BENEFITS		AOZ	AflaOchra HPLC	Myco6in1
Convenient	Only one sample and one procedure required to detect multiple toxins	X	X	X
Durable	Long shelf life	X	X	X
Economical	One test provides results for multiple toxins, saving time and materials	X	X	X
Fast Flow	Passes more volume over the column	X	X	X
Exclusive	Specifically for HPLC, UPLC and LC/MS/MS	X	X	X

VICAM VERTU QUANTITATIVE STRIP TESTS

BENEFITS		Afla-V	DON-V
Fast Screening	Result in 5 minutes*	X	X
Simple	No special training required	X	X
Convenient	Easily performed onsite or in the lab. No incubation	X	X
Durable	Long shelf life	X	X
Accurate	Real-time data which can be printed or downloaded to a computer	X	X

** Excludes preparation & extraction*

Subject to change without notice.

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