VICAM®

A Waters Business

AflaTest® ▪ AflaTest® WB ▪ AflaOchra™ HPLC ▪ DONtest™ ▪ DONtest™ WB ▪ DON-V™ ▪ OchraTest™ ▪ OchraTest™ WB

### HERE'S HOW SIMPLE VICAM TESTS ARE TO USE:

**EXTRACT SAMPLE**

- Grind and weigh sample
- Add water and blend
- Filter

**FILTER**

- Filter

**ABSORB AND ELUTE**

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

**MEASURE**

- Inject eluate into HPLC or UPLC®
- Determine toxin concentration

# Keeping the Wheat Trade Healthy

The impact of mycotoxins on wheat reaches across human, companion animal and livestock populations and has serious economic implications throughout the global food supply chain. Vomitoxin (DON) is the most common mycotoxin associated with wheat, although virtually all major mycotoxins have been isolated from wheat, including ochratoxin A, T-2, HT-2, zearalenone, fumonisin, citrinin and aflatoxins.

As DON levels reach 1 ppm in swine rations, feed intake declines, directly impacting weight gain and ultimately, production. If contamination exceeds 5 ppm, feed refusal becomes severe and vomiting may occur. FDA and EU regulations define acceptable levels of DON in grains, feed rations and foods intended for human consumption.

Current EU maximum levels are: 1.25 ppm for unprocessed cereals; 1.75 ppm for unprocessed durum wheat, oats and maize; 0.75 ppm for cereals and pasta intended for direct human consumption; 0.5 ppm for bread and 0.25 ppm for cereals and foods intended for infants and young children. The FDA guidelines are 1 ppm for human foods, 5 ppm for grains and grain byproducts intended for swine feed rations and 10 ppm for grains and byproducts intended for cattle and poultry feeds. All other animals, including companion animals are subject to the 5 ppm maximum level guidance by the FDA.

VICAM offers complete qualitative and quantitative testing solutions for DON, ochratoxin A and all major mycotoxins of concern for wheat. Field, storage, processing and laboratory environments rely on VICAM's family of solutions for rapid screening at point of receival, quantitation on-site and single or multiple mycotoxin detection with HPLC, UPLC or LC/MS/MS detection.

The NEW Vertu™ system with DON-V™ offers quantitative on-site DON determination for the field, processor and laboratory in a simple, precise format that may be performed virtually anywhere.

- **Detect vomitoxin (DON) prior to wheat acceptance**
- **Make inbound wheat acceptance decisions quickly and with greater confidence**
- **Protect your process and product stream from the risks of contamination with mycotoxins**

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## VICAM NARROW BORE COLUMNS

| BENEFITS | | AflaTest | DONtest | 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 |
| **Easy** | No special skills required, test can be performed virtually anywhere | X | | X |
| **Quick** | Less than 10 minutes to isolate toxin* | X | X | |
| **Safe** | Requires less toxic materials than other methods | X | X | X |

## VICAM WIDE BORE COLUMNS

| BENEFITS | | AflaTest WB | DONtest WB | OchraTest WB |
|---|---|---|---|---|
| **Durable** | Long shelf life; requires no refrigeration | X | 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 | | AflaOchra HPLC |
|---|---|---|
| **Convenient** | Only one sample and one procedure required to detect multiple toxins | X |
| **Durable** | Long shelf life; requires no refrigeration | X |
| **Economical** | One test provides results for multiple toxins, saving time and materials | X |
| **Fast** | Passes more volume over the column | X |
| **Exclusive** | Specifically for HPLC, UPLC, LC/MS/MS use | X |
| **Wide Range** | Detects levels as high as 100 ppb for OTA and Aflatoxin | 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 and extraction*

Subject to change without notice.



The analytical methods presented in this data sheet have been researched and developed by VICAM to be used exclusively with VICAM products. These methods have been validated in the VICAM laboratories to perform to the specifications indicated in the VICAM procedures. The user assumes all risk in using VICAM procedures and products. VICAM makes no warranty of any kind, expressed or implied, other than that VICAM products conform to Waters' printed specification and quality control standards. Waters will, at its option, repair or replace any product, or part thereof, which proves to be defective in workmanship or material. VICAM's undertaking to repair or service such products is exclusive and is in lieu of all other warranties whether written, oral, expressed, or implied, including any implied warranty of merchantability or fitness for a particular purpose. VICAM shall have no liability for anticipated or lost profits or any loss, inconvenience or damage whether direct, indirect, incidental, consequential or otherwise, to person or property, or for strict liability or negligence arising from or in connection with the use of these assay procedures or VICAM products.

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