

## Mycotoxin Analysis in Milk

Dairy products such as milk, yogurt and cheese provide essential nutrition to the human diet. The protein, fat, vitamins and minerals found in dairy products support healthy development in children as well as heart health, bone strength and healthy weight maintenance for adults. Milk is also believed to help prevent cardiovascular disease, type-2 diabetes and osteoporosis.

Dairy feed plays a critical role in the production and quality of milk. If grain, feed or forage containing aflatoxin B<sub>1</sub> is consumed by dairy cattle, it is converted to aflatoxin M<sub>1</sub> through normal metabolic processes and is expressed in the milk at a rate of 1-2%. The International Agency for Research on Cancer classifies aflatoxin M<sub>1</sub> as a Group 2B (or probable) carcinogen. Global regulatory limits for aflatoxin in milk and other dairy products range from 0.5 parts per billion (ppb) in the US to as low as 0.05 ppb for the EU, with even lower limits for foods intended for infants and children. VICAM offers rapid, on-site test kits and laboratory solutions that deliver the precise data required to ensure that dairy products are both nutritious and safe to consume.

Whether you monitor aflatoxin on-site or use a trusted outside laboratory, ask for VICAM by name.

- **USDA certified aflatoxin testing procedures help to prevent contamination of dairy feed rations**
- **Select the ideal solution for aflatoxin M<sub>1</sub> detection to meet internal and export regulations**
- **Field and laboratory based methods ensure quality management throughout the entire production chain from feed rations to finished dairy products**

### HERE'S HOW SIMPLE AFLA M<sub>1</sub>-V IS TO USE:

#### PREPARE SAMPLE:

- Measure 3 mL liquid raw or pasteurized milk
- Filter into clean vessel

#### PREPARE TEST STRIP:

- Add 250 µL filtered sample to reaction vial
- Mix well
- Insert Afla M<sub>1</sub>-V strip

#### ANALYZE:

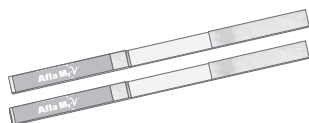
- Incubate
- Place strip in Vertu Reader
- View/print Aflatoxin M<sub>1</sub> concentration

## VICAM Immunoaffinity Columns



BENEFITS		AflaTest	Afla M <sub>1</sub> HPLC	Afla M <sub>1</sub> FL
<b>Convenient</b>	For use with fluorometer, LC or LC/MS/MS	X	X	X
<b>Easy</b>	No special skills required for fluorometric use; minimal training or expertise needed	X	X	X
<b>Quick</b>	Less than 20 minutes to isolate toxin	X	X	X
<b>Safe</b>	Requires less toxic materials than other methods	X	X	X

## Vertu Quantitative Lateral Flow Strip Tests



BENEFITS		Afla M <sub>1</sub> -V
<b>Fast Screening</b>	Results in minutes	X
<b>Simple</b>	No special expertise required	X
<b>Economical</b>	Fewer consumables and reagents	X
<b>Safe</b>	No toxins needed to perform test	X
<b>Rugged</b>	Engineered for real-world environments	X

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