CPA MPA
Pesticides ZEN
DON OTA
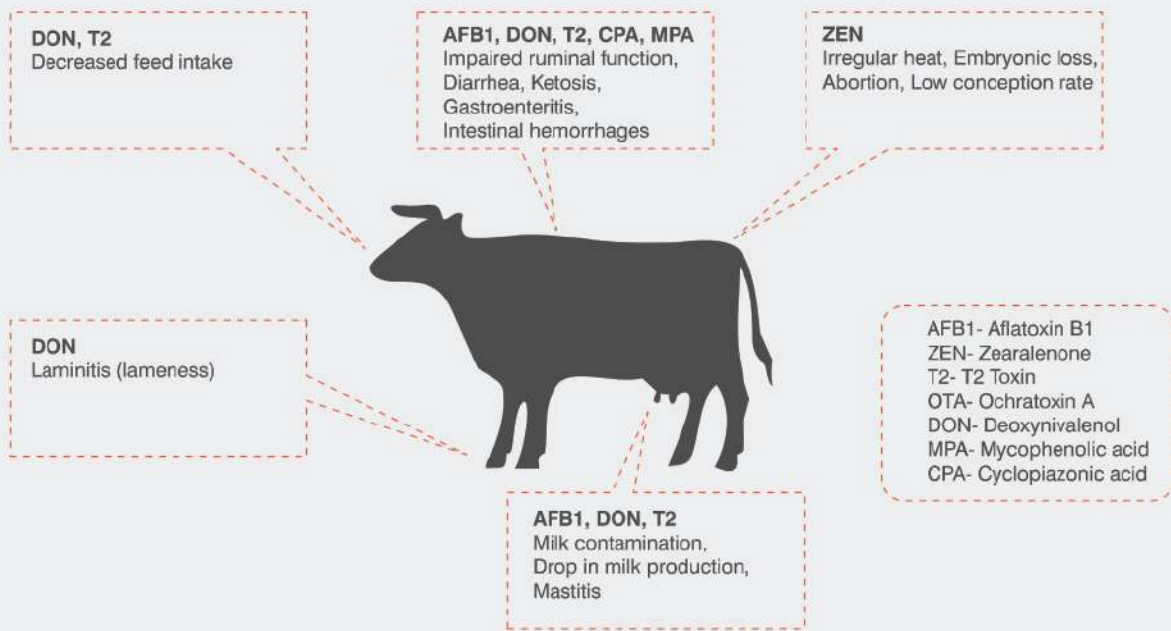T2 AF B1

WHEN IT COMES TO SAFETY, WE PROTECT

Toxfin™ 360⁰

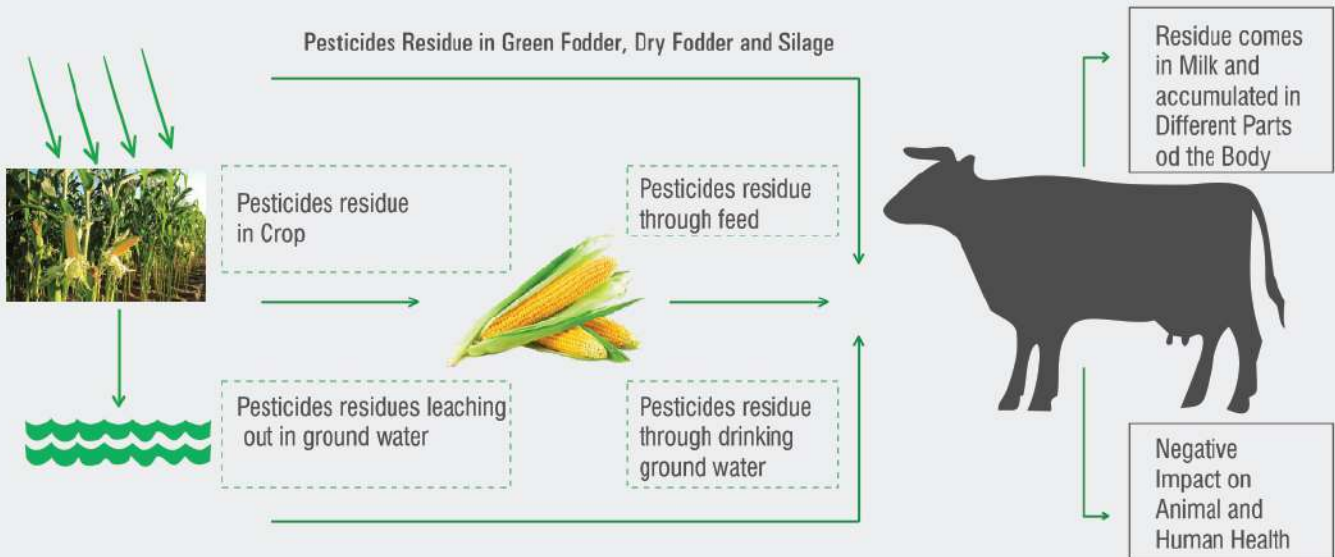## THE FORWARD THINKING
MYCOTOXIN BINDER FOR RUMINANTS

KEMIN®

Toxin risks in cattle feed

Cattle feed ingredients and silage may contaminated with mycotoxins and pesticides. Mycotoxins and pesticides are serious threat to health and productivity of dairy animals.

DON, T2
Decreased feed intake

AFB1, DON, T2, CPA, MPA
Impaired ruminal function,
Diarrhea, Ketosis,
Gastroenteritis,
Intestinal hemorrhages

ZEN
Irregular heat, Embryonic loss,
Abortion, Low conception rate

DON
Laminitis (lameness)

AFB1- Aflatoxin B1
ZEN- Zearalenone
T2- T2 Toxin
OTA- Ochratoxin A
DON- Deoxynivalenol
MPA- Mycophenolic acid
CPA- Cyclopiazonic acid

AFB1, DON, T2
Milk contamination,
Drop in milk production,
Mastitis

Pesticides residues- threat for Ruminants

Pesticides

Pesticides Residue in Green Fodder, Dry Fodder and Silage

Pesticides residue
in Crop

Pesticides residue
through feed

Residue comes
in Milk and
accumulated in
Different Parts
od the Body

Pesticides residues leaching
out in ground water

Pesticides residue
through drinking
ground water

Negative
Impact on
Animal and
Human Health

Thiram, Thiamethoxam, Atrazin, Carbofuran and Deltamethrin are commonly found pesticides in cattle feed.

KEMIN®

Toxfin™ 360⁰

THE FORWARD THINKING MYCOTOXIN BINDER FOR RUMINANTS

Features of TOXFIN™ 360⁰

TOXFIN™ 360⁰ is a novel combination of nano porous **Synthetic tectosilicates (STS)**, activated clays and organic acids. **STS** is highly efficient in binding of mycotoxins and pesticides. It has **faster**, **stronger** and **better** binding to toxin due to its unique properties.
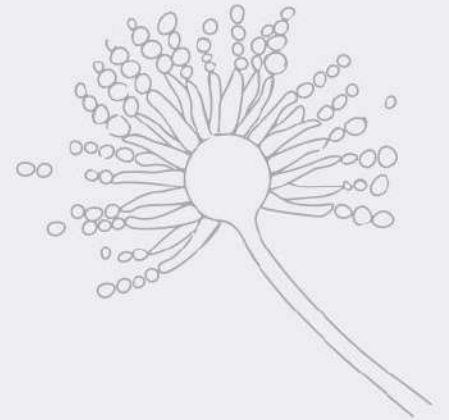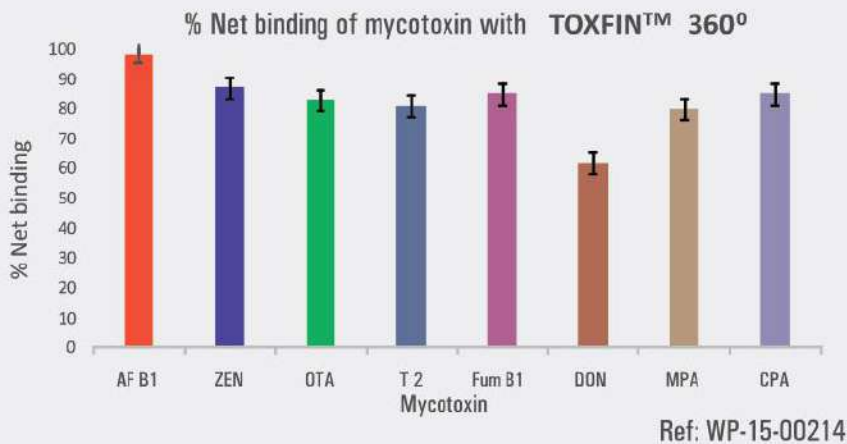

- Novel material nano porous active – Synthetic tectosilicate (STS)

- Better binding of Mycotoxins due to presence of Lewis and Bronsted acidic sites on the STS and uniform pore size (5 A⁰)

- Ideal surface area – 333 m^2/g

- Superior absolute (net) binding to all the mycotoxins

- Selective pesticide binding

- Faster binding to mycotoxins before they get absorbed in the system and cause damage to animals

- Negligible binding of essential nutrients – Vitamins and Mineral

- Free from Dioxins, Heavy metals, Pesticides , PCBs, Antibiotics etc

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Nano Porous material - 5 A⁰ width pores

pH resistant binding

Ideal Surface area and CEC - 333 m^2/g -1.83 meq/g

PH

STS Super 7

No binding of nutrients

Faster binding with Mycotoxins

Better binding of Mycotoxins and Pesticides

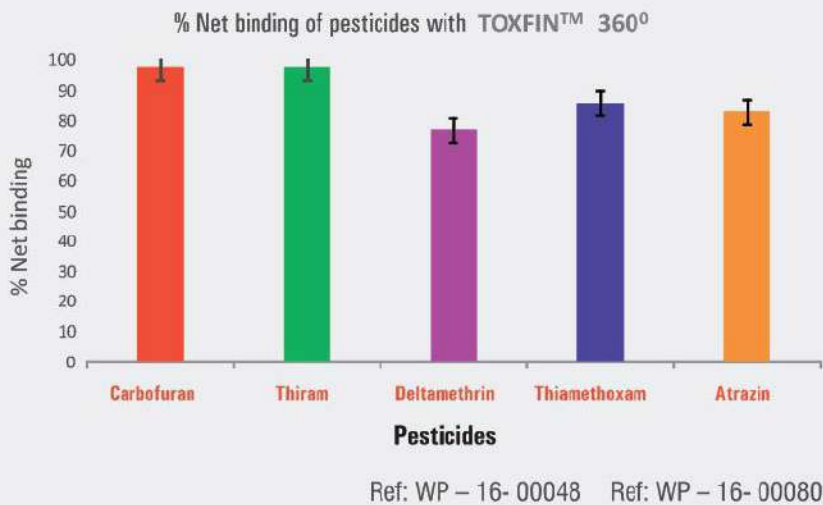Stronger binding with Mycotoxins - Hydrophobic and ionic bonds

Advantage of TOXFIN™ 360⁰

The efficacy of the product has been proved by *in vitro* net binding and in vivo excretion studies

1. *In vitro* net binding :

% Net binding of mycotoxin with **TOXFIN™ 360⁰**

Ref: WP-15-00214

The pesticides binding efficacy of the product has been proved by in vitro net binding

2. Pesticide binding

% Net binding of pesticides with TOXFIN™ 360⁰

Ref: WP – 16- 00048   Ref: WP – 16- 00080

- Reduces chance of mycotoxixosis and selective pesticides toxicity
- Ensure feed safety

- Ensure performance of dairy animals by improved protection
- Lowers medical cost of dairy farm

Dosage: 1-5 kg / MT Depending upon the toxicity