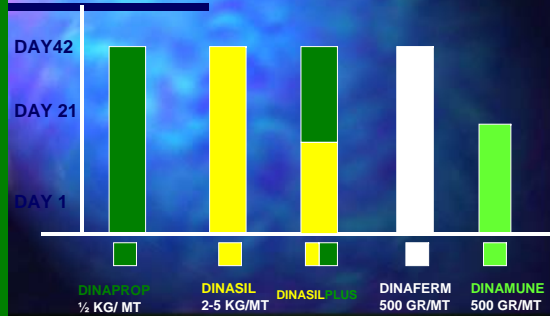


DINASIL

RECOMENDATION CHART BROILERS



Composition

TYPICAL ELEMENTAL RANGE

Item	Expected %	Low %	High%
SiO ₂	64.7	58.00	68.00
AL ₂ O ₃	18.00	14.00	23.00
Others			
Fe ₂ O ₃			
MgO			
CaO			
Na ₂ O			
TiO ₂			
Others			
Total	10.5	5.05	16.7

Product Specifications

ANIMAL FEEDS

Birds, swine, cattle, rabbits, horse, sheep

EFFICACY

The efficacy of a specially selected aluminosilicate known as **DINASIL** is substantiated by extensive efficacy data. Please refer to product catalogue.

USAGE & DOSAGE

1-5 kg. per metric ton

STORAGE

Store in a cool, dry, ventilated area

PRECAUTIONS Avoid contact with skin and eyes; Avoid breathing dust; Use protective facial mask; Use in a well ventilated area

EXPIRATION 2 years maximum in original shelf life

PACKAGING 25 Kg multi-wall bag or 25 Kg plastic pail with polyethylene liner

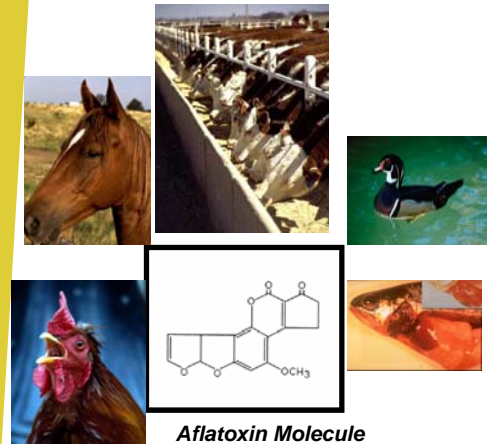


DINATEC

Quality You Can Trust

DINASIL

Advanced Mycotoxin Binding Technology



Aflatoxin Molecule



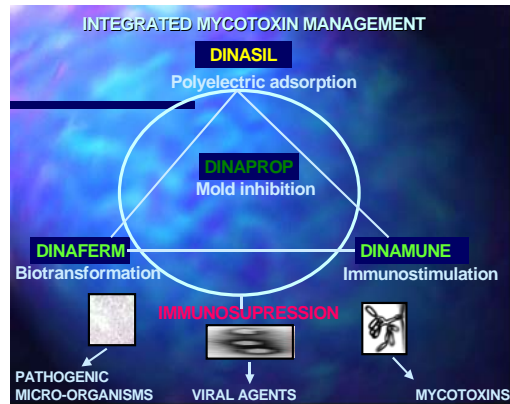
Formulated to bind toxins (mycotoxins) produced by mold organisms in such a way that the toxin is not absorbed by the animal



DIVERSIFIED NUTRI-AGRI TECHNOLOGIES INC.
130 C. JOHN MORROW PARKWAY #220
GAINESVILLE, GA. 30501-1247
TEL 770 531 1309, FAX 770 234 6283
e-mail "info@dinatec.com"
Visit our web site at <http://www.dinatec.com>

"A Dynamic Approach to Nutri-Agri Product Research and Technology Development"

DINATEC recommends an integrated approach to mycotoxin management and prevention. Please see chart below or us for more information.



How does DINASIL work?

DINASIL binds mycotoxins inside the animals' digestive system and passes them through the intestinal tract, exiting in the fecal matter without causing harm to livestock.

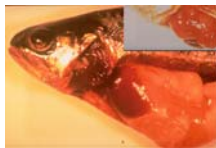
What is in DINASIL?

DINASIL contains highly effective, specially selected aluminosilicate and other proprietary components.

Recommended dose.

DINASIL is added at a rate of 1 - 5 kg per ton of finished feed.

All species are affected by mycotoxins. Ducks, turkeys and trout are the most sensitive.



Affected trout liver

Symptoms of Mycotoxicosis in Cows

- Unthriftiness, lethargy & anorexia.
- Decreased milk production
- Normal or below normal body temperature
- Dry, peeling skin on the muzzle
- Prolapse of the rectum
- Liver damage (*bile, ductile proliferation, necrosis diffused fibrosis, inflammation of the veins and arteries, fatty infiltration*)
- Elevated blood levels of cholesterol; bilirubin; aspartate and aminotransferase enzymes; lactic dehydrogenase and alkaline phosphates
- Edema of the abdominal cavity



We know many of these findings are not necessarily specific for aflatoxicosis therefore making a diagnosis becomes much more difficult. Added to this problem is the fact that with ruminants it is very difficult to say whether the toxin in question is causing a malfunction of the rumen or is causing a systematic toxicity.

Symptoms of Mycotoxicoses in Swine

General symptoms: Reduced feed intake, growth performance & immune function at low levels. If one toxin is identified, chances are high other toxins are present.

Aflatoxin B1 Decrease in feed intake and growth. Hepatomegaly. At levels of 1,000 to 5,000 ppb, one can expect acute effects including death.

Aflatoxin M1: Metabolized in milk of sows consuming aflatoxin-contaminated diets. Affects nursing piglets.

Deoxynivalenol (DON) Causes feed refusal, decreased weight gain & increased incidence of infectious disease. High levels result in severe weight loss. Pigs will consume sufficient amounts of contaminated feed to induce vomiting. DON is also called vomitoxin because of its association with swine vomiting.

T-2 toxin: Decreased productivity & kidney nephrosis.

Zearalenone: Affects reproductive performance. Prepuberal gilts are the most sensitive.

Other Symptoms: Reddening & increased size of the vulva, increased size of mammary tissue, embryonic mortality at certain stages of gestation and fertility problems which are related to false heat.



Symptoms of Mycotoxicoses in Poultry

Aflatoxin Critical level is 5 ppb. Turkeys & ducks are most susceptible. Higher mortality. Levels lower than 5 ppb may still reduce resistance to disease, decrease ability to withstand stress and bruising, and cause unthriftiness. Enlarged yellow livers. (Hepatomegaly), hydropericardium, pigmentation and feathering problems are also typical symptoms. Reduced egg size & egg production are important symptoms observed.

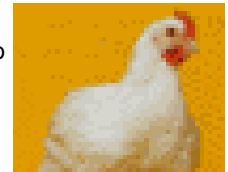
Aflatoxin metabolites have been found in egg yolks an important fact for human consumption.

Mycotoxicoses can be difficult to diagnose in field situations.

Since numerous other mycotoxins, as well as reduced nutritive value and palatability of feeds, are generated by mold activity, the presence of fumonisin, deoxynivalenol, or zearalenone in poultry feeds is cause for concern.

T-2 toxin and other trichothecenes cause mouth & intestinal lesions & impair immune response, causing egg production declines, decreased feed consumption, weight loss, & altered feather patterns. Most potent *Fusarium* mycotoxin for poultry.

DON alone has few effects in poultry. In field situations, DON levels are associated with reduced feed consumption in layers and broiler breeders. DON may be an indicator that T-2 or other unknown *Fusarium* mycotoxins are present.



Is it still necessary to add a toxin binder if a mold inhibitor is used in the feed?

Yes. A toxin binder is specifically used to bind mycotoxins produced by molds, while a mold inhibitor stops mold reproduction. When molds are present, toxins are produced in most cases. This makes the use of a toxin binder a necessity. This is why the concept of a product like **DINASIL** is so valuable. **DINASIL** protects the essential nutrients in feed as well as your animals.