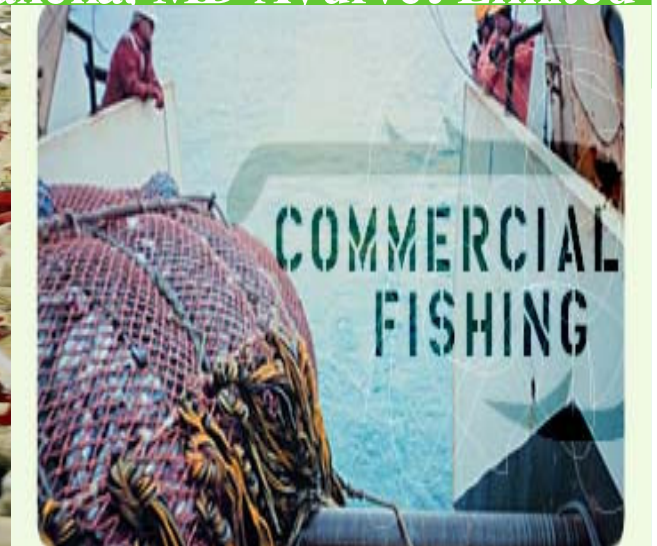




The importance and field of usage of Ayurvedic/herbal forage-supplements and para-medicines in domestic animal husbandry - An Indian Perspective

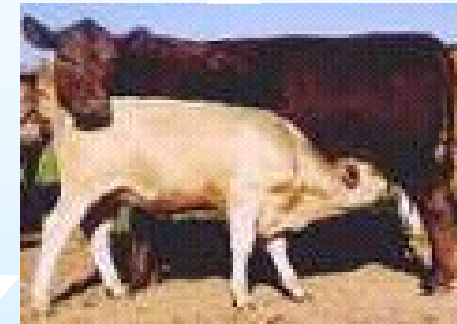


Mr. M.J. Saxena, MD Ayurvet Limited



The integrated approach followed during old days

Farmer's joint family (at least 2 generations)



Farm land

Livestock wealth

Grains and cash crops

Major means of sustenance

Crop residues

manure

Milk, Meat, Eggs, fuel, and Draught power

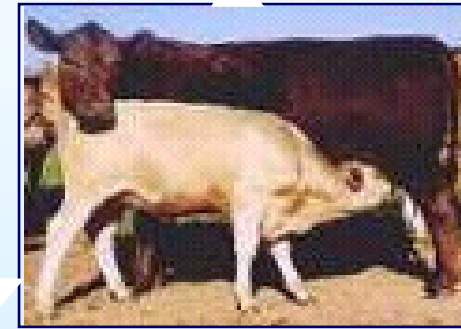
Supplements income and nutritional needs

Optimum resource utilization and value creation

Agriculture and Livestock- The inseparable components of the Rural Agricultural Household



Farm land



Livestock wealth

Grains and cash crops

Major means of sustenance

Common resources

manure

Milk, Meat, Eggs, fuel, and Draught power

Supplements income and nutritional needs

Optimum resource utilization and value creation

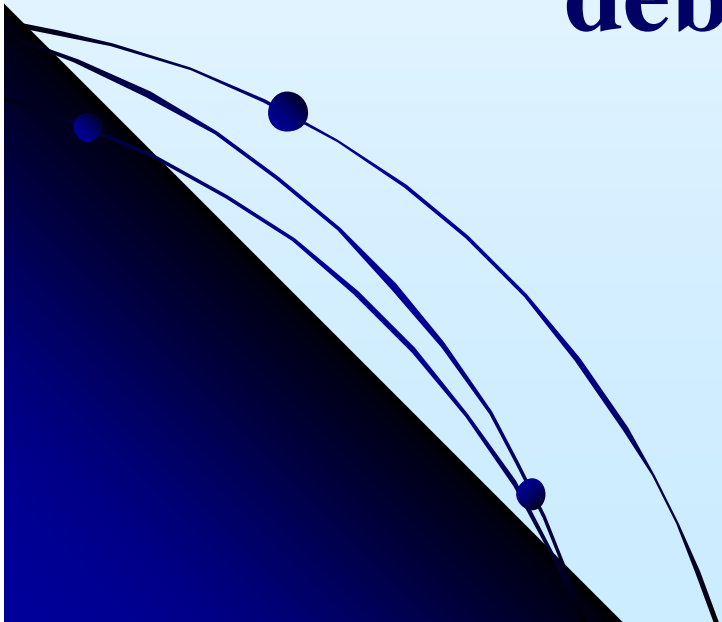
Food safety along with food security

SAFE MILK & MEAT **CONCERN FOR ALL**



A CHALLENGE FOR THE NEW MILLENIUM

**Mankind find itself at the
crossroads where sustaining the
entire ecosystem has become major
debatable issue!!!!**



The need of the hour

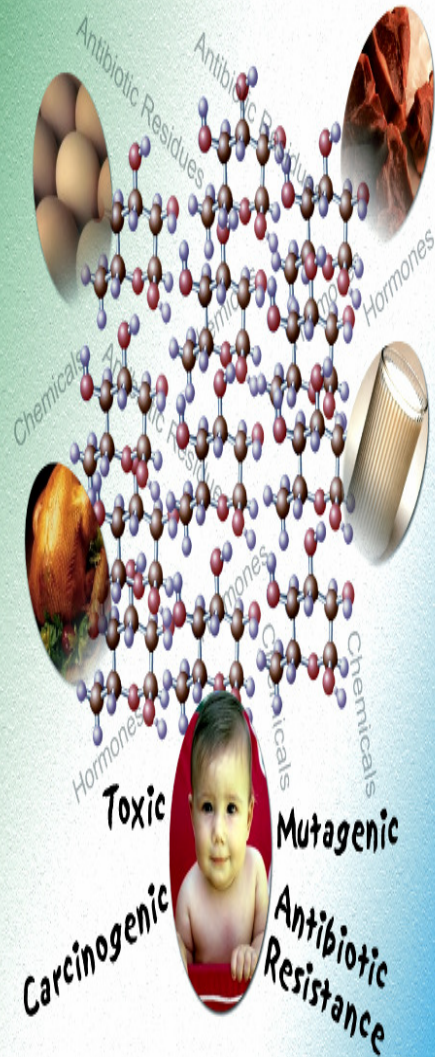
3S approach

- **S = Safe**
- **S = Sustainable**
- **S = Scientific approach**

Can we reshape our thoughts & rediscover the power of nature to help us attain food safety along with food security

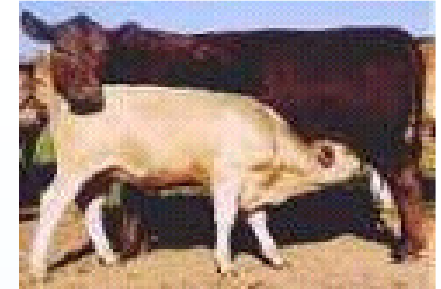
SAFE MILK & MEAT

CONCERN FOR ALL



A CHALLENGE FOR THE NEW MILLENNIUM

An animal in natural habitat ...

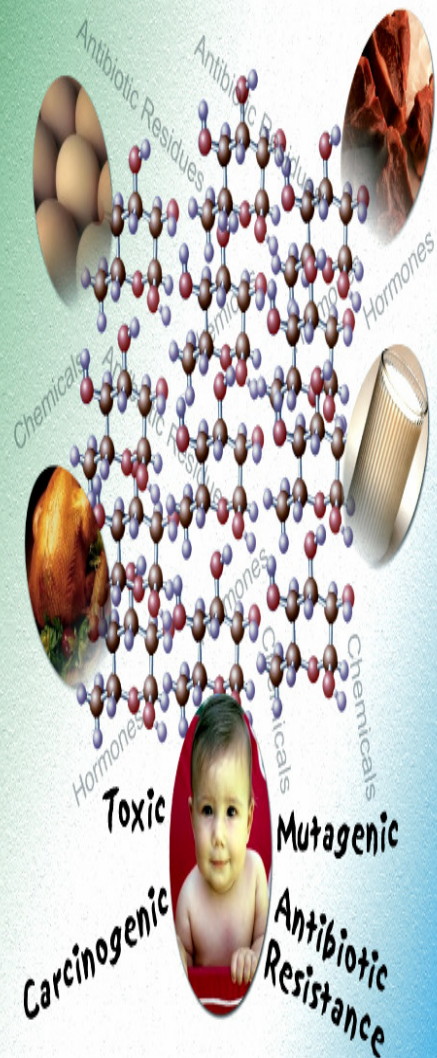


- Free range grazing
- Selection from vast store house of nature
- Open land area without any captivity
- Occasional grazing on selected herbs (Zoopharmacognosy)
- Instinct to avoid many toxic plant

How far current farm practices simulate???

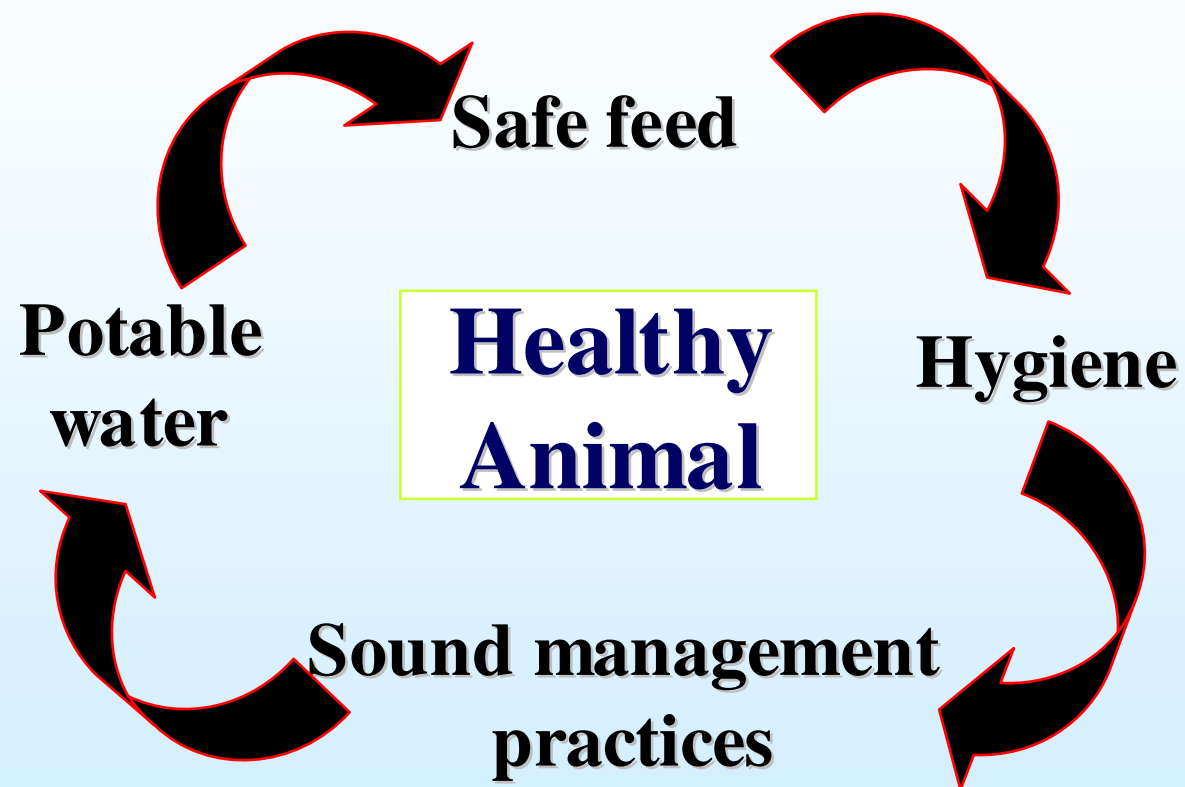
SAFE MILK & MEAT

CONCERN FOR ALL



A CHALLENGE FOR THE NEW MILLENNIUM

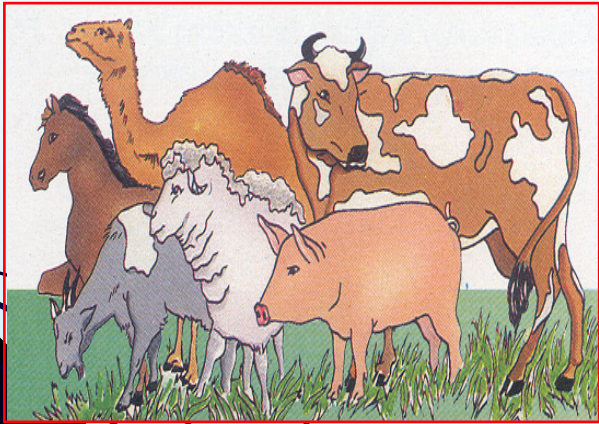
Concern extends beyond safe feed...



Animal with sub-optimal health may not comply with norms of safe food



HEALTH





HEALTH

**IS NOT THE ABSENCE OF
DISEASE OR ILLNESS**

Dr. XYZ

MBBS, MD

**This is to certify that
Mr.ABC is free from any
disease**



HEALTH

**IT IS THE PERFECT STATE OF COORDINATION
AND BALANCE OF BODY WITH THE OUTER
ENVIRONMENT AND DIET**

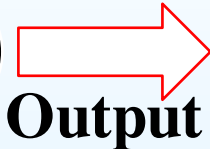


**BOTANICALS/HERBALS FOR
PROFITABLE & SAFE
ANIMAL/POULTRY PRODUCTION**

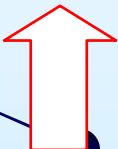
Feed



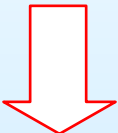
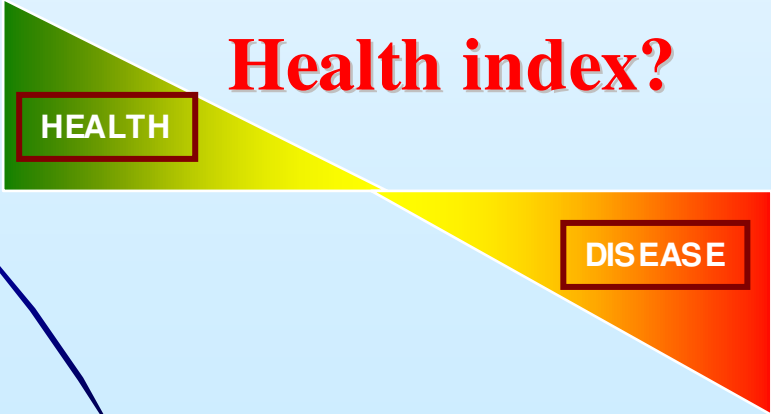
**Biological machine
Poultry/Cattle/Pig**



**Meat/Milk
egg**



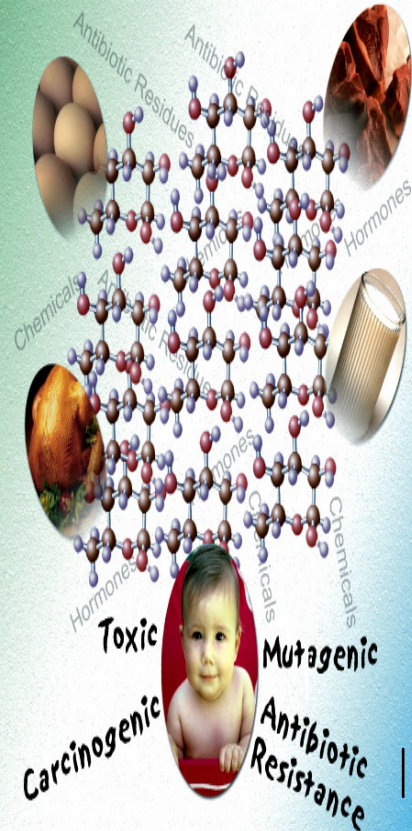
Money In



Money Out

SAFE MILK & MEAT

CONCERN FOR ALL



A CHALLENGE FOR THE NEW MILLENNIUM

The solution...

AYURVEDA

A 5000 year old Science of Life

A GIFT FROM MOTHER NATURE

SAFE FEED TO SAFE FOOD: THE HERBAL WAY



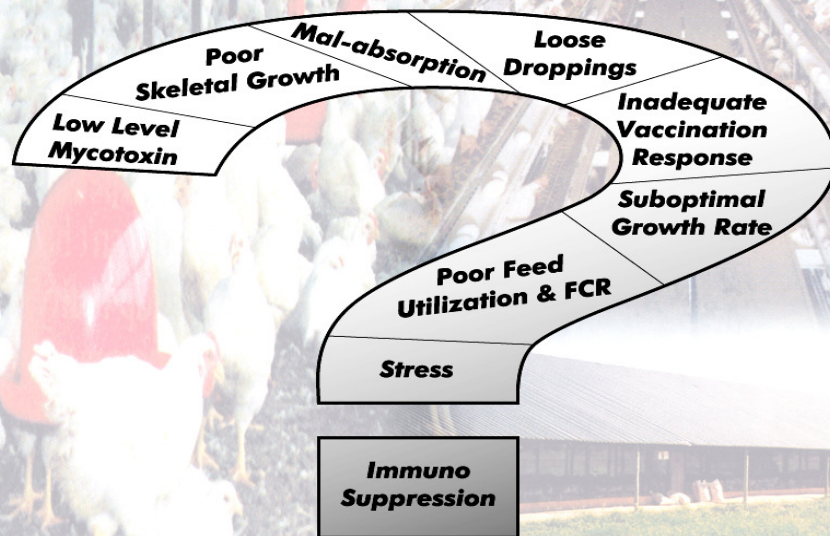
OBJECTIVES OF AYURVEDA

1. स्वस्थस्य स्वास्थ्य रक्षणम् ।
To maintain the health of normal persons
2. आतुरस्य रोग विमोक्षणम् ।
To cure the disease in the patients

**The natural & safe way to produce safe
food via safe feed**

POULTRY PRODUCTION

Problems are many...

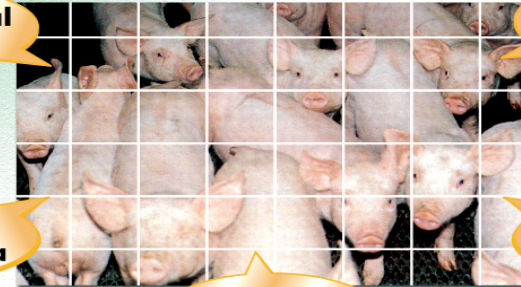


SOLUTION IS IN NATURE...

PIG FARMING

OBSTACLES TO PRODUCTION...

Suboptimal Growth



Metritis

Weaning Diarrhoea

Mastitis

Agalactia

CARE & CURES FROM NATURE...



THE PRODUCTION BARRIERS

Digestive Health

Liver Disorders
Rumen Dysfunction

Udder Health

Mastitis



Skin Integrity

Skin Affections

Reproductive Health

Delayed Involution of Uterus
Retention of Placenta
Uterine Infection
Delayed First Post Parturient Heat

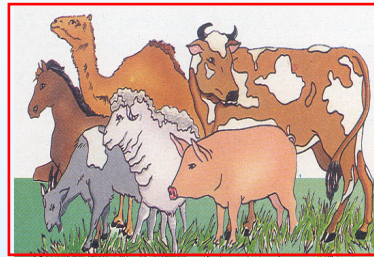
Are these the only concern in current context....



Stress & Immunosuppression

Environment stress

Management stress



Performance stress

Pathological stress

Suboptimal productivity
Disease incidences

Antistress & Immunomodulation herbs



ANTIOXIDANT

Amala Research Bulletin, 15, 46-52, 1995.

ADAPTOGENIC

Int. J. Of Pharmacog. 33(2), 148-154, 1995

IMMUNOMODULATOR

Journal of Ethnopharm. 44(1), 55-60, 1994

Phyllanthus emblica



ANTISTRESS

.Phytother. Res., 1987, 1(1), 32.

ADAPTOGENIC

Int. J. Crude Drug Res. 20(1) 29-35, 1982

IMMUNOMODULATOR

Int. J. Cancer, 1971, 8, 487.

Withania somnifera



ANTISTRESS

Indian Drugs, 1988, 25(5), 172-175.

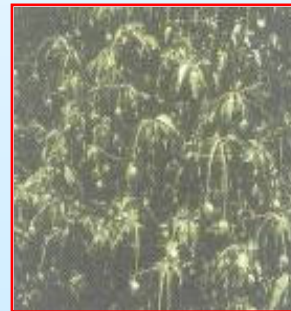
J Phys. Pharmacol, 1997, 41(2), 139-43.

ANTIOXIDANT

Journal of Clinical Bio. and Nutrition,

1996, 20(2), 113-119.

Ocimum sanctum



MACROPHAGE

ACTIVATION ACTIVITY

Phytotherapy Research, 1993, 7, 107

IMMUNOMODULATORY

J. Phytopathol., 1989, 125, 238

Naturwissenschaften, 1972, 59, 651.

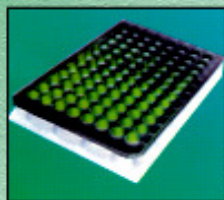
Cancer lett., 1987, 37, 293.

Mangifera Indica

To improve productivity & body defense

STRESROAK

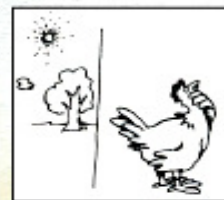
BOOSTS UP THE BODY DEFENCE MECHANISM



Defence against "IBD"

- Antibody titre up by 21%
- 35% less mortality

Deptt. Pathology, Nagpur Vety. College, India



Heat Stress

- 19% more wt. gain
- Cortisol level down by 71%

Biotecnologija yugoslavi Stocarstuv, 1998 : 215-218



Chicks from Parent Flock

- Hatchability up by 5.4 - 7.3%

World Poultry, 11 (16), 2000 : 50-51



Day Old Chicks

- Maternal antibody titre up by 59%

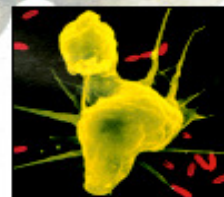
World Poultry, 11 (16), 2000 : 50-51



Vaccination Response

- 32% high antibody titre
- 100% protection against challenge from NCDV

Indian J. Poultry Sci. 34(1), 1999 : 38-41



Body Resistance

- Improved phagocytic index

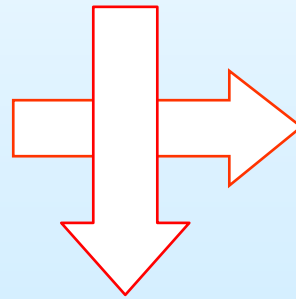
Deptt. Microbiology, Vety. College, Hyderabad, India

DEPEND ON STRESROAK TO HIT THE PROFIT KILLER STRESS

THE NATURAL WAY TO ENHANCE NUTRIENT UTILIZATION

Optimum Liver Function

Utilization Of Feed



-Good Body Weight
-Better liver protection
during high demand period

Use Of Liver Tonics

The herbal ingredients with proven liver tonic action

Ingredients	Action
<i>Andrographis paniculata</i>	Hepatoprotective, Cholagogue
<i>Phyllanthus niruri</i>	Antihepatotoxic
<i>Picrorhiza kurroa</i>	Hepatoprotective, Choleretic
<i>Tinospora cordifolia</i>	Tonic, Stimulant, Immunomodulator
<i>Terminalia arjuna</i>	Cardiotonic, Hepatostimulant

Well documented

Extensively used

Scientifically validated

FEED UTILIZATION

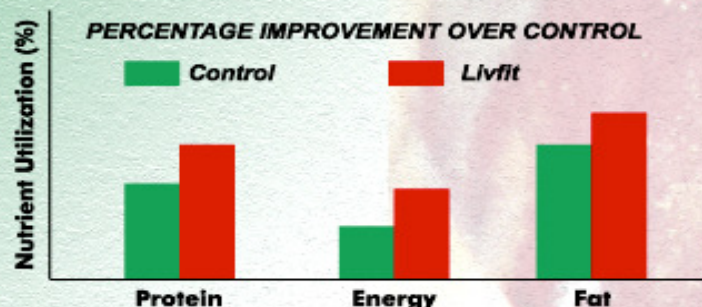
THE  TO SUCCESS

Tone up Liver Function with...

Superliv

FOR BETTER GROWTH & PRODUCTION

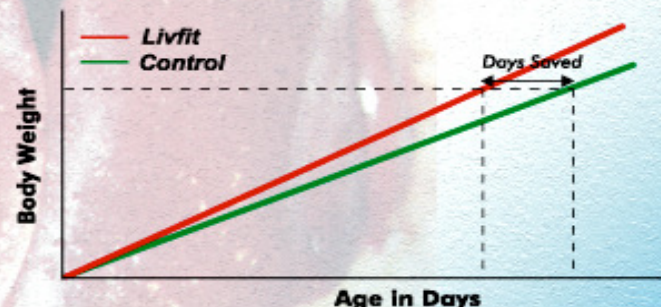
Improvement in Feed Utilization...



- 1.25% increase in protein utilization
- 1.4% increase in energy utilization
- 3.2% increase in fat utilization

Central Avian Research Institute, Bareilly, India

Improvement in Growth Rate...



- 4.25% increase in growth rate
- 5% improvement in feed conversion ratio

I.J. Poult. Sci., 32(1) 1997 : 86-88

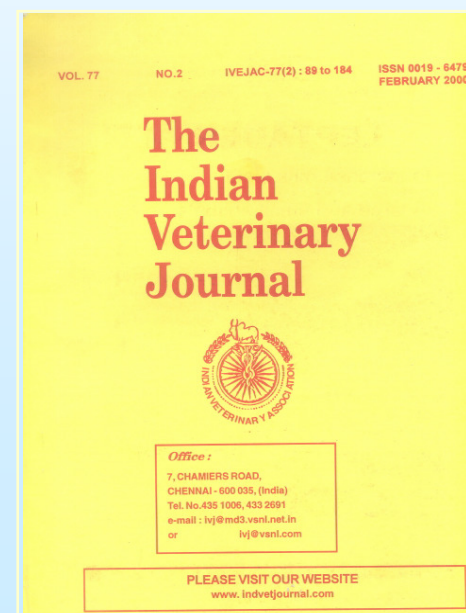
**THE NATURAL ~~ANTIBIOTIC~~ NEW
GROWTH PROMOTER**

One of the most thoroughly validated liver tonic formula

18 Research Papers Published in Various Scientific Journals



**6 M.V.Sc. Thesis
on SUPERLIV
with
Nutrient Utilization
Studies**

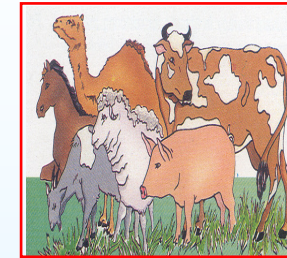
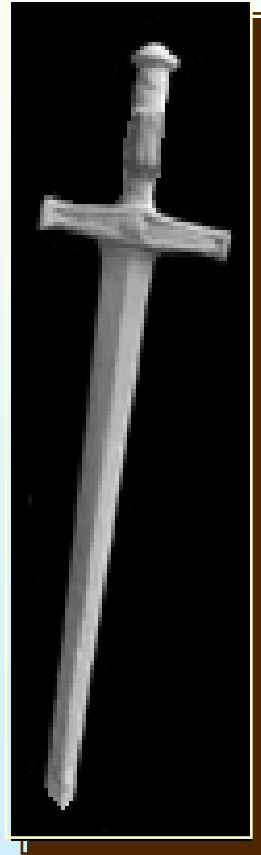


Mycotoxins menace



↓ Quality of feed

↓ Performance of feed



↓ Performance of animal

↓ Productivity

↓ Immunity

Potentially toxic, even in microquantities

MYCOTOXIN MENACE

THE GLOBAL PROBLEM

The New Comprehensive Approach

**Herbs for
Mould Inhibition**

**HSCAS for
Chemosorption**

**Herbs for
Inhibition of
Mycotoxin
Biosynthesis**

**Herbs for
Bioneutralization**



**Four Way
Attack on
Mycotoxin**

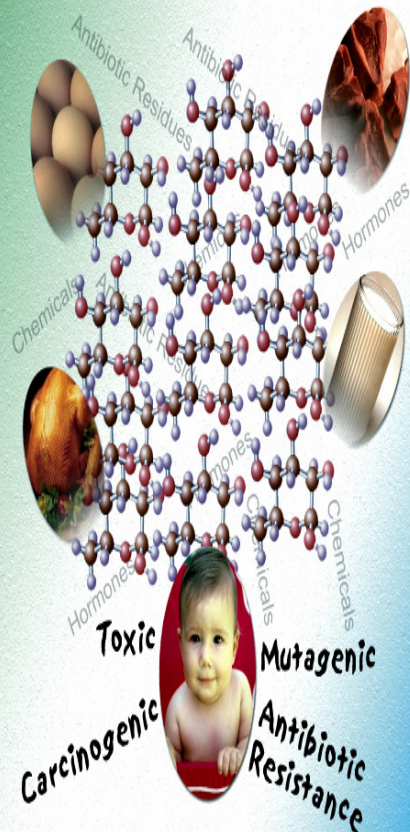
**THE COMPLETE SOLUTION FOR
MYCOTOXIN CONTROL**



AYURVET

SAFE MILK & MEAT

CONCERN FOR ALL



A CHALLENGE FOR THE NEW MILLENNIUM

The solution...

AYURVEDA

A 5000 year old Science of Life

A GIFT FROM MOTHER NATURE

The Herbal way: Validation for clinical benefits

Mastitis control...

<ul style="list-style-type: none"> • Mastilep for immunopotentiation <i>M.V. Sc. thesis...</i> • Mastilep reduces Somatic Cell Count <i>Int. J. Animal Sci. 1996...</i> • Mastilep and Milk Quality <i>The Veterinarian, 2002...</i> 	<ul style="list-style-type: none"> • Mastilep reduces udder microbial load <i>M.V. Sc. thesis...</i> • Mastilep for treatment of subclinical mastitis <i>Int. J. Animal Sci. 1996...</i> • Mastilep for prevention of mastitis <i>The Veterinarian, 2002...</i>
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Reproductive health...

IMPROVES UTERINE FUNCTIONS & REPRODUCTIVE PERFORMANCE...

		Exapar	Control
Proper cleansing of uterus	Lochial discharge	8.41 days	13.67 days
Timely involution of uterus	Uterine involution	29.03 days	50.42 days
Early onset of heat	Open days	63.41 days	120.67 days
Improved reproductive efficiency	Conception rate	82.35%	29.17%

Clinical Study conducted at deptt. of Animal Reproduction, Bidar Vet. College, Karnataka, India

Many more...



Efficacy validation of Herbals In Mastitis Control

Indication	No. of trials	Benefits
Treatment of SCM	9	Treats SCM irrespective of etiology
Supportive therapy in CM	5	Effectively treats, prevents recurrence & restores milk yield
Prophylaxis for control of Mastitis	2	Minimizes the incidence of mastitis
Treatment of early stage of acute Mastitis	1	Provides complete cure. No need of supportive therapy.
Improvement of milk quality	8	Lowers SCC, clears infection & improves fat and SNF%
<i>In vitro</i> efficacy	1	No bactericidal activity- Suggests <i>in vivo</i> activity
Potentialiation of udder immunity	1	Improves phagocytic index of Macrophages.

Efficacy validation of herbals as digestive regulator in Livestock

Indication	No. of trials	Benefit
Treatment of simple indigestion	4	Treats quickly & restores rumen environment
Treatment of Acidosis	3	Treats & restores ruminal pH, microflora and count
Growth promotion in pigs	3	Rapid weight increment
Growth promotion in kids	1	Better weight gain
Anorexia	2	Restores appetite
In vitro evaluation	1	Sustains rumen liquor parameters
Pharmacological evaluation	1	Sustains rumen liquor parameters
Improvement of digestive functions	1	Improves biochemical parameters
Digestive tonic	2	Improves utilization of roughage for increase in milk production

GIT activity modulation by certain herbs

Andrographis paniculata

- Inhibition of enterotoxin induced secretion
- Interference with adenylate cyclase stimulation
- Non-specifically increase in intestinal absorption

Int. J. Crude Drug Research, 1990, 28(4), 273-283

Berberis aristata

Effective in controlling diarrhea in bacteriologically positive and negative patients

Reduction in volume & duration of diarrhea, period of hydration and the convalescent period

Journal of Indian Medical Association, 1967, 48(1), 1-17

GIT activity modulation by certain herbs

Punica granatum

- **Stops castor oil induced diarrhea**
- **Decreases rate of flow of ingesta thus controlling diarrhea**

Int. J. Pharmacognosy, 30, 1968, 289

Holarrhena Antidysenterica

- **Consessine, an alkaloid present in plant is responsible for treating chronic Amoebic dysentery**

Int. J. Pharmacy 30, 1968: 289

LOOSE DROPPINGS

For prompt and effective control depend on...

DIAROAK

A true GIT function modulator

Effective in
multiple
Etiology

Repair
Damaged
Mucosa

Safe &
Resistance
Free

No harmful residues
in produce

GIT
Microflora
Friendly

With added advantage of...

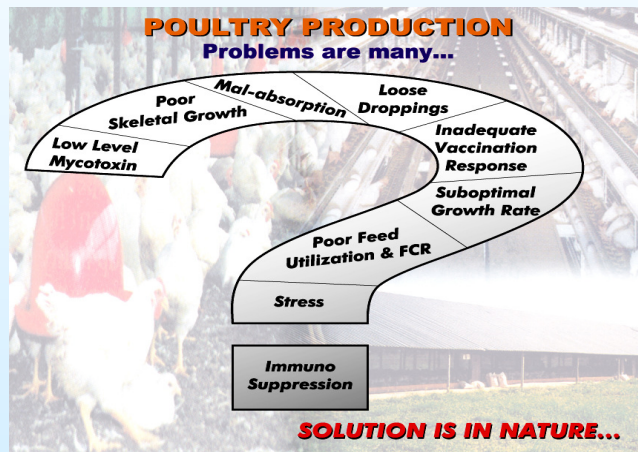
(MP)
MUCOPOLYSACCHARIDE

- Captures toxins irreversibly
- Increases transit time of ingesta
- Adsorption & slow release of electrolytes nutrients

**DIAROAK : THE TRUE NATURAL SYMPTOMATIC
ANTIDIARRHOEAL**

POULTRY PRODUCTION

Problems are many...



SOLUTION IS IN NATURE...

ERROR: stackunderflow
OFFENDING COMMAND: ~
STACK: