WELCOME

ETHNOVETERINARY MEDICINE

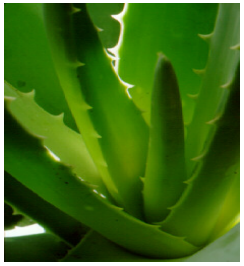


Dr. Shailendra Kumar

PES INCHARGE HPMPCL







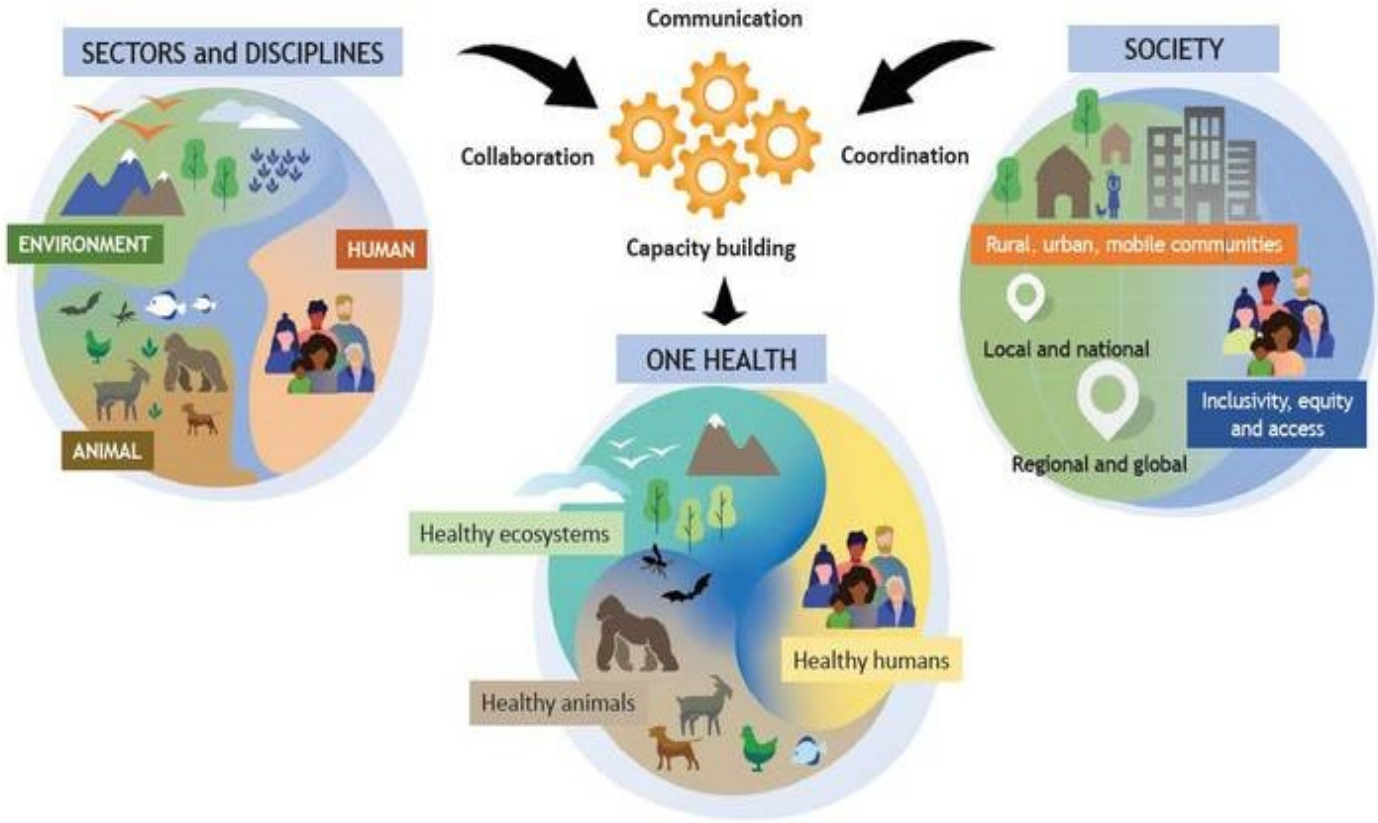
हरित प्रदेश दुग्ध उत्पादक संस्था

Ethano-veterinary Practices for Digestive, Reproductive, Production And Skin Problem

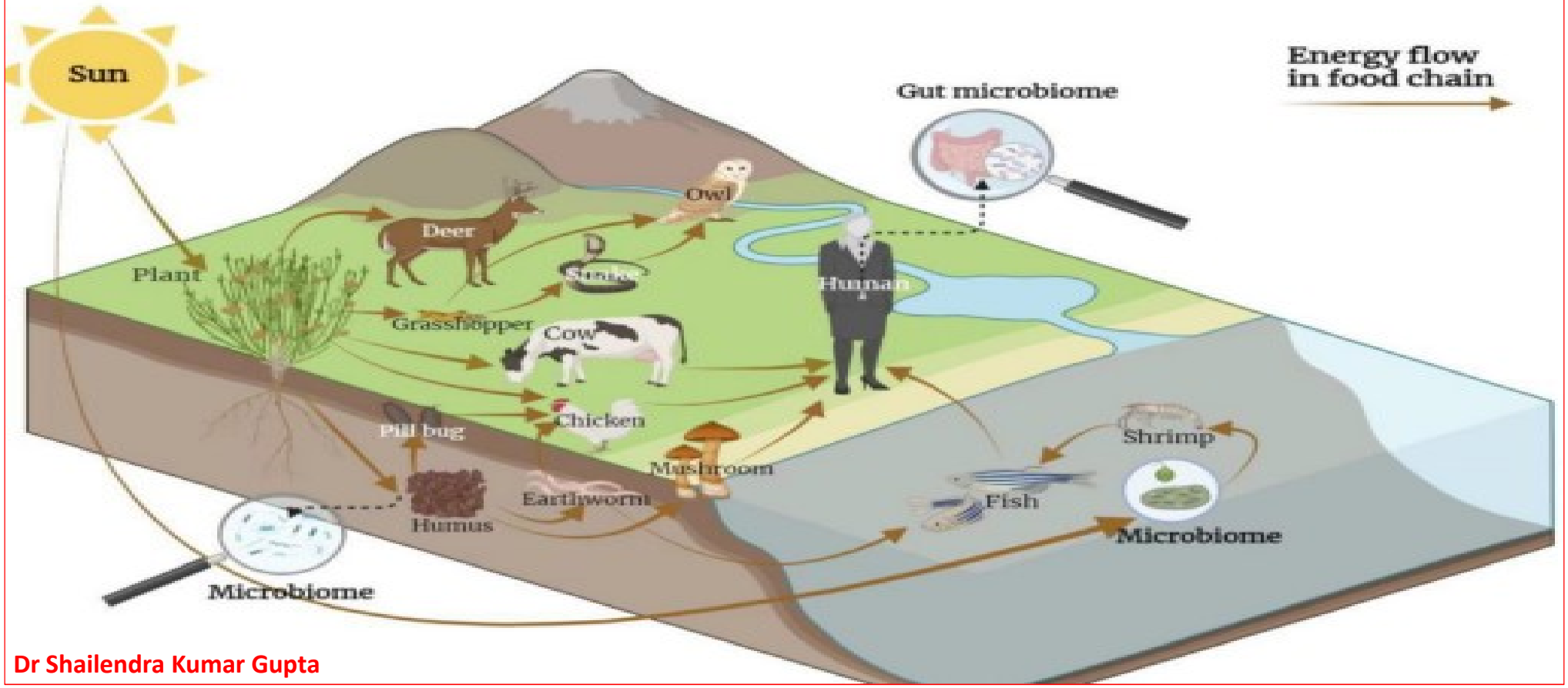
Dr Shailendra Kumar Gupta

One Health approach to better monitor risk of zoonotic germ-spillover and emergence

One Health- a collaborative multisectoral approach, inextricably linked to the **health** of **Soil, Plants, Animals, Human & Environment**



Dr Shailendra Kumar Gupta



Dr Shailendra Kumar Gupta

- Antimicrobial resistance (AMR) is a critical One Health issue affecting human, animal, and environmental health.
- **Global scale:** FAO, WHO and WOAH recognize AMR as a threat to sustainable food systems.
- **India's challenge:** Intensive agri,livestock and aquaculture production → risk of antibiotic overuse, residues in food, and trade barriers.
- **Opportunity:** India is taking steps with **National Action Plan on AMR**, sectoral guidelines (PMMSY, MPEDA, NCONF, DAHDF, NDDB, ICAR) and alternative approaches like EthnoVeterianry Medicine and **medicinal agroecology**.

Dr Shailendra Kumar Gupta

Mastitis

Inflammation of mammary glands

Physical, Chemical and usually Bacteriological changes in milk

Pathologically

Presence of significantly increased leucocytes of Somatic cells in milk as evidence of inflammation

Dr Shailendra Kumar Gupta





Clinical → Mastitis ← Sub-Clinical

Visible abnormalities
Secretion
Udder
Systemic Reaction

No Visible
Abnormalities
Inflammation Evidence
High SCC

Dr Shailendra Kumar Gupta

Treatment

Mechanistic insights into EVM formulation for mastitis

- The formulation downregulates pro-inflammatory cytokines (IL-1β, IL-6, TNF-α) and upregulates anti-inflammatory cytokines (IL-10).
- Curcumin inhibits NF-κB signaling, reducing inflammation and oxidative stress.
- Aloe vera enhances macrophage activation and epithelial regeneration.

Dr Shailendra Kumar Gupta

Aloevera – 250 GM
Turmeric – 50 Gm
CaHC03 – 10 or 15 Gm

Mustard/Linseed Oil 150 Gm



Clinical

Before Treatment



After Treatment



Dr Shailendra Kumar Gupta

REPEAT BREEDING

Animals that have not conceived for three consecutive inseminations, inspite of -

- **The animal being regularly cyclic (with normal inter-oestrus interval)**
- **The development of genitalia is apparently normal**
- **The genitalia is apparently free of infection (oestrual discharge is clear)**
- **Proper insemination technique**
- **Management and Nutritional**
- **'True' oestrum (avoid mid-cycle oestrum)**

"CYCLIC NON-BREEDERS"

Dr Shailendra Kumar Gupta

OESTRUM AND OVULATION

Species	Duration of oestrum	Timing of ovulation
Cow	18 hrs (12 -24 hrs)	10 – 12 hrs after the END of oestrus
Buffalo	19 – 21 hrs	10 – 14 hrs after the END of oestrus
Sheep	29 – 30 hrs	12 -24 hrs after the onset of oestrus
Goat	39 hrs	Near the end of oestrus
Pig	48 – 72 hrs	24 - 40hrs after the onset of oestrus
Mare	4 – 8 days	24 – 48 hrs before the end of oestrus

Prolonged oestrus is related to disturbed ovulation in cattle

Dr Shailendra Kumar Gupta

RAPHANUS SATIVUS

R. sativus **has anti-inflammatory activity**

The root of *R. sativus* contain 'raphanin' - reported for its antibacterial and antifungal properties.



Dr Shailendra Kumar Gupta

ALOE VERA

Aloe vera- The components of gel include proteins, lipids, amino acids, vitamins, enzymes, inorganic compounds and different carbohydrates.

Phyto-nutrient rich Aloe vera gel that mainly contains phytosterols, polysaccharides, flavonoids and polyphenols.

These phyto-components can act independently or synergistically at various targets in the reproductive organs

Causes reversion of estrous cyclicity and improves steroid status



Dr Shailendra Kumar Gupta

MORINGA OLIFERA

M. olifera is **a source of insulin-like proteins.**

The leaves are rich in minerals, vitamins and other essential phytochemicals.
It is used as potential antioxidant, anticancer, anti-inflammatory, antidiabetic and antimicrobial agent.



Dr Shailendra Kumar Gupta

CISUSS QUANDRAGULARIS

C. quandrangularis is capable of improving sexual behaviour.

Administration of Cisuss significantly improves the serum oestradiol concentration

Significantly improves the Vit.D3 concentration in serum



Dr Shailendra Kumar Gupta

MURRAYA KOENIGII

Murraya koenigii **leaves has the potential to augment the ovarian function in terms of follicular development and steroidogenesis in rats**

M. koenigii **leaves contain genistein - mimic the action of 17β-estradiol**

Girinimbiol and Girinimbine, the most active carbazole alkaloids - hypoglycaemic (insulin like) effect.

Potent and novel therapeutic agent for scavenging of Nitric oxide (NO) - regulation of pathological conditions.

Showed antibacterial effect against *B. subtilis, Staph. aureus, C. pyogenes, P. vulgaris and Pasteurella multicida.*



Dr Shailendra Kumar Gupta

Repeat breeder cows

Treatment
schedule

- I four days : ***Raphanus sativus rhizomes***
- II four days : ***Aloe vera*** stem
- III four days : ***Moringa oleifera*** leaves
- IV four days : ***Cisuss quadrangularis*** stem
- V four days : ***Murraya koenigii*** leaves



R. sativus



A. vera



M. oleifera



C. quadragularis



M. koenigii

Dr Shailendra Kumar Gupta

Mostely Common Case

Digestive Disorders	**Cyanorexia,** **Bloat,** **Acid ingestion,** **Omasal and Intestinal Impaction, Diarrhea etc.**
Reproductive Disorder	**Placental Retention,** **Prolapse- Vaginal – Uterine** **Excessive lochial discharge**
Production Disease	**Milk Fever,** **Creeping syndrome,** **Hburia,** **Hypomagnesemic Tetany,** **Low Milk Production**

Dr Shailendra Kumar Gupta

Karrha is Given After Calving

Dr Shailendra Kumar Gupta

Validation

1- Sauf -Fennel or Aniseeds (Foeniculum vulgare)
2- Ajwain - Bishops weed or Carom seeds (Trachyspermum capticum)
3- Methi - Blue Fenugreek (Trigonelts caerulea)
4- Sowa - Dill seed (Anethum Gravealens)
5- Kura (Picrorhiza kurroa)
6-Kala jeera - Block cumin (Bunium persicum)
7-Dhaula Jeera - Caraway seeds (Carum carvi)
8-Bari Elaichi- Greater or Black cardamon (Amomum subulatum)
9- Sundha –Dried Ginger (Zingiben officinale)
10- Bhoori Mirch (Piper nigrum)

Dr Shailendra Kumar Gupta

HARIT PRADESH
Milk Producer Organisation





Dr Shailendra Kumar Gupta

Saunf

Fennel Seeds or Aniseeds
Foeniculum vulgare

anethole, fenchone, and estragole = Phytoestrogen

- Myometrial Contraction leading to Expulsion of Placenta
- Alveolar development leading to Inc Milk Production

NDDB DAIRY SERVICES

HARIT PRADESH
Milk Producer Organization

NDDB DAIRY SERVICES





Dr Shailendra Kumar Gupta

Ajwain

Carom seeds or Bishop's weed
Trachyspermum copticum

Thymol

Strong Germicide,
Fungicide &
Antispasmodic

Methi



Blue Fenugreek,
Trigonella caerulea



Diosgenin glycosides

=

Oestrogenic in Nature

Precursor of P4

Dr Shailendra Kumar Gupta

Sowa

Dill Seed ,
Anethum graveolens





Anti Gas Properties

Dr Shailendra Kumar Gupta

Kuru

Picrorhiza kurroa



Dr Shailendra Kumar Gupta

Ethanol Extract of Rhizomes

Free Radical (O2)- Scavenging Action

Inc Healing of Stomach wall of indomethacin induced gastric ulcerated rats

Anti inflammatory action on GIT



Kala jeera (Black cumin , Bunium persicum)



Cuminaldehyde → Antihistaminic Action



Dr Shailendra Kumar Gupta

Dhaula jeera (Caraway seeds , Carum carvi)

Carvone (a ketone), limonene (a terpene) and traces of carvacrol

- Anthelmintic
- Relieves heartburn





Dr Shailendra Kumar Gupta

Bari Elaichi – Greater or Black Cardamom ,

Amomum subulatum

Natural and effective source of Ca

Cineol

Stimulant, stomachic and astringent

Prevents Mucus in Airways





Dr Shailendra Kumar Gupta

Sundh (Dried Ginger, Zingiber officinale



Volatile oils- gingerols and shogaols

Inc Digestive enzymes

Anti-inflammatory

Dr Shailendra Kumar Gupta

Bhoori Mirch (Piper nigrum)



Thermogenic

↓

Contains Piperine

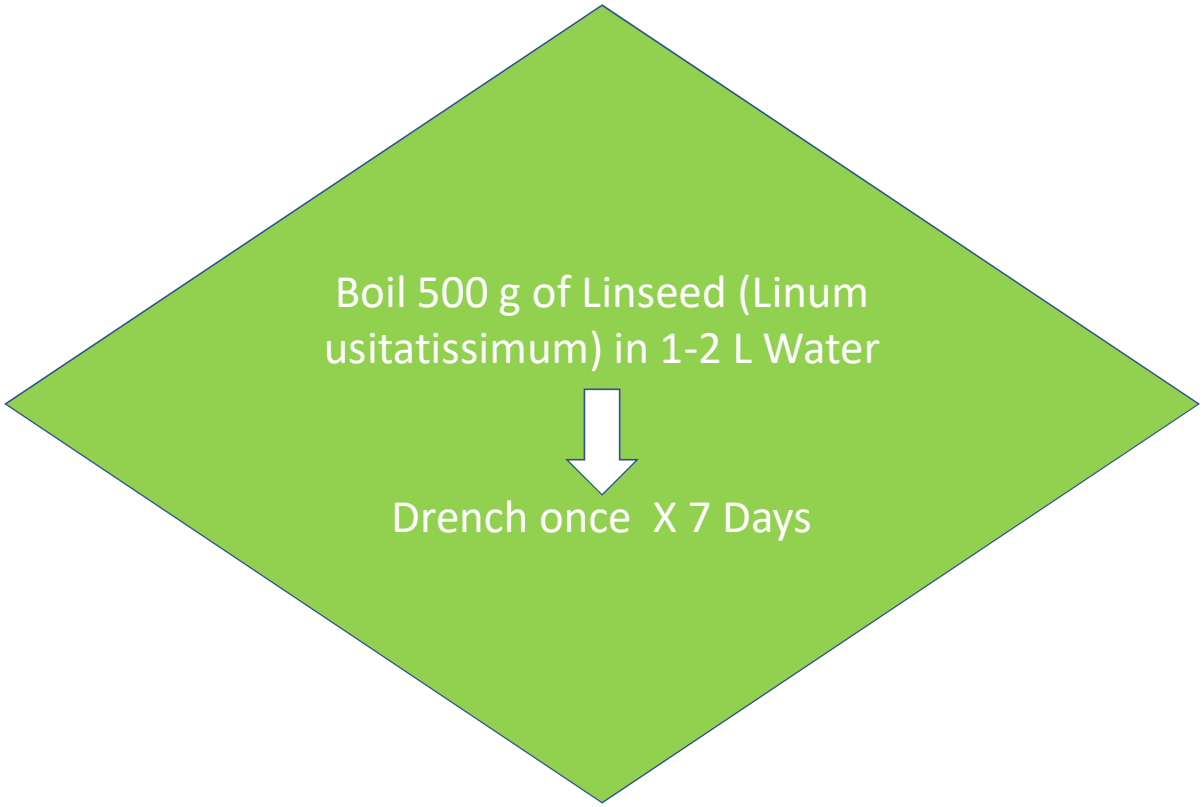
↓

Prevents Constipation indigestion and pain



Dr Shailendra Kumar Gupta

Reduced Milk Yield



Dr Shailendra Kumar Gupta

Constipation

Boil 750 g of crushed Gallaker (Pods of Indian Laburnum, Cassia fistula) with 250 g of Gulkand (Sweetened Rose Petals) in 2 liters of water



Drench it Once

Acts as Bulk Purgative due to 1,8-Dihydroxyanthaquinone



Dr Shailendra Kumar Gupta

HARIT PRADESH

Milk Producer Organization

NDDB DAIRY SERVICES





Dr Shailendra Kumar Gupta