



HERBAL TREATMENT OF ANIMAL LICE OR ECTOPARASITE

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Abstract:

In herbal way we can treat cattle bite by ectoparasites parasite, nowadays world is looking towards herbal remedy and it is being brought as medicine and it is proving effective. Ectoparasites are parasites that live on or in the skin but not within the body. Fleas, ticks, lice and ear mites are common ectoparasites.

Current control methods of ectoparasites, management controls include removal of dung and manure and provision of proper drainage for fly populations targeting their breeding sites, chemical control, development of resistance to it, public concern in terms of residues in food, Includes biological control. Despite many problems like environmental pollution, life form is used, manipulated and exploited. Sterile insect technology sterile insect technology is a method of biological control by which large numbers of sterile insects are released to suppress populations of others.

By using herbal remedies such as (custard apple leaf oil, neem oil, turmeric oil, melia dubia) by applying it in the form of cream to the ectoparasites parasite bites of cattle. Diagnosis can be found from ectoparasites disease.

Keyword: Ectoparasite

Introduction:

Ectoparasites (fleas, ticks, mites and lice) are removed from a human or animal host after applying a composition that causes the temperature of the treated area to rise or fall below normal. Cattle are infected with many arthropod ectoparasites and nuisance pests, which can cause significant productivity loss and severely compromised animal welfare.

Ectoparasites, a taxonomic form in humans, are a diverse group of organisms that infect the skin of animals it is important to emphasize clinical aspects in ectoparasite therapy and to provide optimal instruction to the patient on the use of topical therapeutics to avoid adverse effects and assure complete removal of the ectoparasite to avoid the development of drug-resistance .

The prevalence of ectoparasites was high and this may affect the well-being and productivity of small ruminants, the present study showed. Therefore, in order to reduce the spread of ectoparasites and the

impact on productivity and health status, there is a need to plan integrated control measures with permanent veterinary services aimed at creating awareness among livestock owners about the importance and control of ectoparasites.

The herbal composition can significantly control mixed ectoparasite infections, it has been shown by clinical studies and can help heal wounds caused by tick, flea allergic dermatitis

HERBAL TREATMENT :-

Cattle suffer from many diseases because they are exposed to many pathogens and parasites. Pathogens that can cause diseases in cattle include viral infections, bacteria. Treatment with medicinal plants with antibacterial activity is a beneficial option in cattle.

MATERIAL & METHODS :

We first gathered the herbal plants that are effective in ectoparasite treatment. Then we collect all those plants and keep them to dry, then take each one in a beaker according to quantity. Then we mix all those ingredients and add one liter of clean water and strain through a fine sieve or muslin cloth then we transfer to a bottle attached to a sprayer. Then we mix all of them in the form of cream.

1)DRUG PROFILE:-

A) CUSTARD APPLE LEAF:

Synonyms: Annona squamosa leaves

Biological name: Annona squamosa

Family : Annonaceae

Chemical constituent : phenol based compound
(proanthocynidins)

B)NEEM :-

Synonym : Neem

Biological name : Azadirachta indica

Family : Meliaceae

Chemical constituent : Nimbidol, Nimbin, Nibidol

C)TURMERIC :-

Synonym : Haldi, Halad , Curcuma

Biological name : Curcuma longa linn

Family : Zingiberaceae

Chemical constituent : Curcumin1, curcumin2, curcumin3, zingiberene

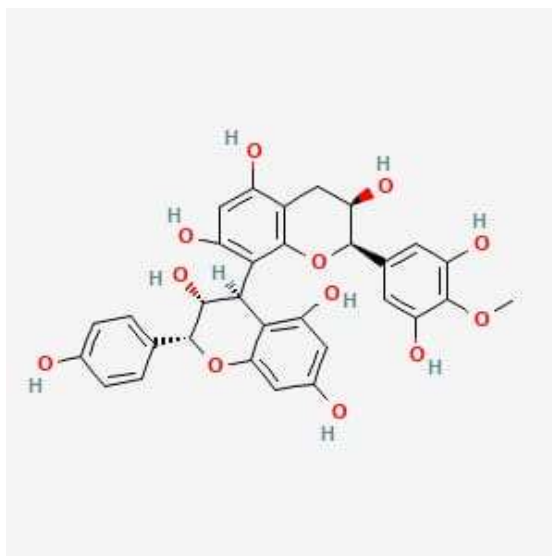
D)MELIA DUBIA :

Synonym: Malabar neem,

Biological name : Melia composita willd, Melia dubia

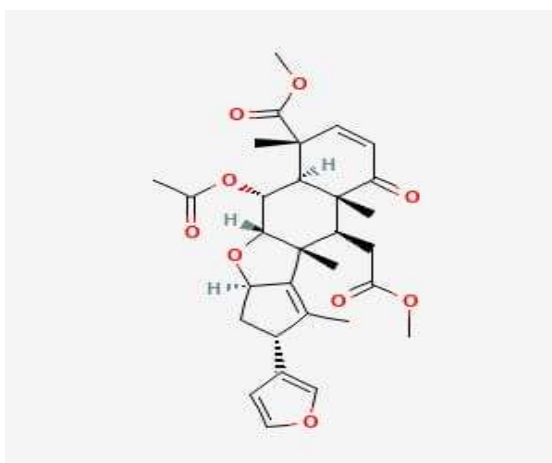
Family : Meliaceae

Chemical constituent : linolenic acid , palmitic acid, Humulene

IUPAC Name:-**1)proanthocynidins****(3R)-2-(3,5-dihydroxy-4-methoxyphenyl)-8-[(2R,3R,4R)-3,5,7-trihydroxy-2-(4-hydroxyphenyl)-3,4-dihydro-2H-chromen-4-yl]-3,4-dihydro-2H-chromene-3,5,7-triol**Molecular Formula:- C₃₁H₂₈O₁₂

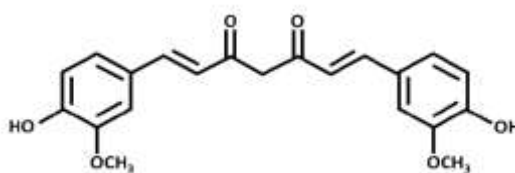
Molecular Weight:- 592.5 g/mol

Uses :- antibacterial

2)Nimbin**methyl (1S,2R,3R,4R,8R,9S,10R,13R,15R)-2-(acetyloxy)-13-(furan-3-yl)-9-(2-methoxy-2-oxoethyl)-4,8,10,12-tetramethyl-7-oxo-16-oxatetracyclo[8.6.0.0^{3,8}.0^{11,15}]hexadeca-5,11-diene-4-carboxylate**Molecular Formula:- C₃₀H₃₆O₉

Molecular Weight:- 540.60144 g/mol

Uses:- antibacterial

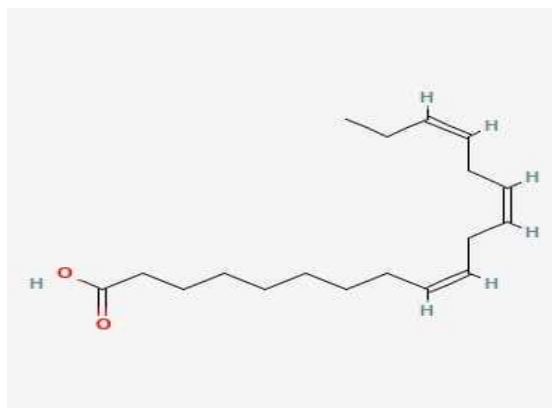
3) Curcumin:-**(1E,6E)-1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione**

Molecular Formula:- C₂₁H₄₀O₆

Molecular Weight:- 368.39 g/mol

Uses:- antibacterial

4) linolenic acid:-



Cis,cis-9.12-octadecadienoic acid

Molecular Formula:- C₁₈H₃₀O₂

Molecular Weight:- 278.4 g/mol

Uses: Antibacterial

Preparation:-

Herbal oil spray for treatment of ectoparasites was formulated first on small scale and then bulk for 2 time 100 ml container for preparation of the sample, the composition of ingredient was

1) Custard apple leaf powder

2) Neem bark powder

3) Turmeric powder

4) Melia dubia bark powder

- Firstly melia dubia bark was sun dry to 8- 10 days
- Neem bark sun dry to 8-10 days
- Custard apple leaf sun dry 4-5 day
- Take turmeric powder
- Firstly melia dubia, neem bark, custard apple leaf was grinded into fine powder
- This fine powder put in thimble tube and loaded in to the soxhlet apparatus main chamber

- The extraction solvent to be used is placed in distillation flask
- The flask is placed on the heating element
- The soxhlet extraction is placed a top the flask
- The solvent is heated to reflux. The solvent vapour travels up a distillation arm, and floods into the chamber housing the thimble of solid. The condenser ensures that any solvent vapour cools, and drips back down into the chamber housing the solid material.
- After 10 cycle stop the heating element and remove the solvent into separating funnel
- Add the chloroform in solvent and shake vigorously
- And keep aside 3 –4 day's
- After 72 hr oil is separated
- Collected all oil from the solvent

All type of oil mixed in specific quantity

F1= 1) Custard apple leaf oil = 30 ml

2) Neem oil = 30ml

3) Melia dubia oil = 20ml

4) Turmeric oil = 20ml

F2= 1) Custard apple leaf oil = 30 ml

2)Neem oil = 20ml

3) Melia dubia oil = 30ml

4) Turmeric oil = 20ml

- This oil is transfer into air tight containers or spray bottle
- After oil prepaation we chake evaluation parameter

Evaluation Test:-

Evaluation of herbal spray was following

1)Physical Evaluation:-

Formulated herbal creams was further Evaluated by using the following physical parameter Physical parameter colour, odour, consistency, and state of the formulation.

Colour:- The colour of the spray was observed by visual examination.

Odour:-The odour of cream was found to be characteristics.

Consistency:- The formulation was examined by applying on the animal skin surface

state :- The state was spray was examined visually. The spray was liquid in state result.

Sr.no	Parameters	Result
01	Ph	6.10
02	Colour	Green
03	odour	Unpleasant
04	Spread ability	good
05	Homogeneity	good
06	Skin irritation:	No irritation
07	Sensitivity test	No irritation

2) Irritancy test

Mark an area (1sq.cm) on the left-hand dorsal surface. The spray was applied to the specified area and time was noted. Irritancy, erythema, edema, was checked if any for regular intervals up to 24 hrs. and reported.

RESULT :-

In this research, we found that by giving herbal plants the form of medicine, we are able to diagnose diseases in cow or cattle like ectoparasites. Cattle suffer from various diseases as they are surrounded by various pathogens and parasites. Pathogens that cause diseases of cattle include viral infections, bacteria. Treatment with medicinal plants with antibacterial activity in cattle is a potentially beneficial option. Medicinal plants can act as immunostimulants, providing early activation of non-specific defense mechanisms of cattle and enhancing specific immune responses.

The fruits and leaves of custard apple leaf, garlic, turmeric, basil, Indian neem, maha neem (melia dubia) can be used as an alternative to chemicals to treat infestations of ectoparasites.

CONCLUSION:-

Cattle suffer from various diseases as they are surrounded by various pathogens and parasites. Pathogens that can cause diseases of cattle include viral infections, bacteria. Treatment with medicinal plants with antibacterial activity is a potentially beneficial option in Cattle

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