REVIEW OF RESEARCH
IMPACT FACTOR : 5.7631(UIF) ISSN: 2249-894X
VOLUME - 1 | ISSUE - 2 | MARCH - 2019

# DEVELOPMENT OF ECOFRIENDLY MOSQUITO REPELLENT COIL FROM COW DUNG

**PathanIftesam Samamdarkhan[1], Chavan R. T[2] and Naik.A.P[3]**
**[1]Toshniwal Arts, Commerce and Science College, Sengaon Dist. Hingoli (MS.) India**
**(B.Sc. Third year)**
**[2]Assistant Professor. Department of Botany Toshniwal Arts, Commerce and Science College, Sengaon Dist. Hingoli (MS.) India**
**[3]Assistant Professor & Head, Department of Dairy Science. Toshniwal Arts, Commerce and Science College, Sengaon Dist. Hingoli (MS.) India**

**ABSTRACT :**

*The chemical based mosquito repellents available in the market contain some harmful to cause threat to human health. An attempt has been made or prepares a 100 % herbal repellent product. This herbal product is effective and cheaper than presently chemical based mosquito repellent. There is no side effect on inhalation or even on digestion. This paper deals with selection and optimization of ingredients, their characteristics, medicinal properties and studies conducted about the comparison with the existing mosquito repellent. The all the ingredient's easily available. The main aim of this products development is to provide employment to the rural youth and economic gain to farmers.*

**Key words**: *Cow dung, Tulsi, Neem, Phytochemistry.*

## INTRODUCTION

With the onset of modern civilization we are for getting several useful natural resources and one of that is cattle dung. The cow dung utility as fertilizer, cheap fuel and cheap housing material and as insect repellent. Scientist proved that pyrethroids used in repellent lead to hyper excitation of nervous system and prolong uses result in corneal damage liver and asthma. About 10-12 % of users are seriously affected by use of repellents. The common problems are caused by inhalation of its smoke. In the present study an attempt has been made to develop a cow dung based herbal mosquito repellent. Ever since an established fact and practice is than the natural mosquito repellent is more effective, cheap and keep environmental pleasant and healthy friendly and ecofriendly. +

## MATERIAL AND METHODS

Raw material has been selected based on experience traditional knowledge and practice by ancestors. Traditionally used repelling agents have been blended with some new ingredients. The most popular and traditional ways of repelling mosquitoes is by using Neem leaves along with cow dung. It is and excellent antiviral agent when burn. Raal is also used along with cow dung because its smell that keeps environment fresh and free from bacteria. Tulsi is the most scared and most generally used medicinal plant in Indian homes. It is good antiviral and insecticidal property. Lemon grass oil is an aromatic and medicinal herb. It is has been used because of its disinfectant property and good smell. Clover oil is also utilized. It is also aromatic and medicinal herb. Ajowan is also show the enhancing mosquito repellent property and for its antiseptic and antifungal properties.

## Material Optimization

For preparing the mosquito repellent cow dung as well as coal powder has been selected as base. Cow dung is better because it has some additional exceptional properties. Some unpublished data says that the cow dung smoke is a potential antioxidant. A detailed study on cow dung based dhoop/ coil is being done at Banaras Hindu University, Varanasi. Gum/ Maida and guggulu have been tried as binders. Gum is found to be more convenient for use and gives excellent binding to all the ingredient's and holds it together strongly. Through guggulu has exceptionally good smell and binding property. Still it is not easy to be used on large scale. The suitable binder is the one which gives show and prolong burning along with uniform binding ability. Saw dust is also utilized.

## RESULT

The natural mosquito repellent is more effective, cheap and keeps environment pleasant and health friendly.

## Phytochemistry of Neem leaves

| **Tests** | Methanol | Ethanol | Aqueous | Petroleum ether |
|---|---|---|---|---|
| Alkaloid | + | + | + | + |
| Tannin | + | + | - | - |
| Flavonoid | + | - | + | + |
| Steroids | + | - | - | + |
| phytoerthrin | + | + | - | - |
| Anthroqunin | + | + | - | - |

## Phytochemistry of Cow dung

| **Tests** | Methanol | Ethanol | Aqueous | Petroleum ether |
|---|---|---|---|---|
| Alkaloid | + | + | + | + |
| Tannin | + | + | + | + |
| Flavonoid | + | + | + | + |
| Steroids | + | + | + | + |
| phytoerthrin | - | - | - | - |
| Anthroqunin | - | - | - | - |

Liquid vaporizer (Mosquito) Neem leaves powder + cow dung + Cow urine + Clove oil + fermentation *for 5 days. (1:1)*

## CONCLUSION

The mosquito repellent prepared with above mentioned formulas was given for use by inhabitants of different localities in Sengaon. A survey conducted in a group of maximum people of different social section and different localities in Sengaon. The cow dung based mosquito product is not only mosquito repellent but also hygienic, aesthetic and medicinal. The present product is a source of employment generation rural India.

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