

Tabulation of some mosquito repellent plants at Chitrakoot region

Amita Arjariya and Ruchi Shukla

Government Autonomus Maharaja
P.G. collage Chhatarpur (M.P.)

Abstract:-

There is main aim of study how natural plants [weed] can be useful for human being because in the world wide problem of mosquitoes are very critical. Present work based by natural method in which less money and less energy consumption can by using weed we can get more profit. There is no such work have been done in this area so presently it will be beneficial to human being are research students. There are many preparations from naturally occurring sources that are repellent to certain mosquito. Some of this act as mosquito repellent .While others are only repellent Basil [Ocimum basilicum], castor oil [Ricinus communis], catnip oil [mentha piperita] Eucalyptus, Azadirecta indica, Citrus sinensis, Lavendula angustifolia, etc. There are various natural sources used to mosquito repellent. Plant based repellent have been used for generation in traditional practice as a personal protection against host seeking mosquitoes. Knowledge on traditional repellent plant obtained through ethnobotanical studies is a valuable resource for the development of new natural product. Recently, commercial repellent product containing plant based ingredients have gained increasing popularity among consumers as these are commonly perceived as “safe” in comparison to long established synthetic repellent. This summary of recent information on testing efficacy and safety of plant repellent as well as promising new development in the field. There are 44 plants species have been given for mosquito repellent very common in this area.

Keyword- consumption, beneficial, presently, synthetic repellent, valuable resource, traditional, seeking mosquitoes, etc.

Introduction:-

Day by day as population increasing there is huge change in atmosphere climate, so the populations of micro organisms as well as insects are increasing human density. Usually insects and micro organisms are the important trophic

level of an ecosystem .By detritions chain they are beneficial but due to causing disease they are very harmful and dangerous, mosquitos are one of them which cause many disease like malaria, phylaria etc. There are hundreds of diseases identified in world wide and 40 species occur in India.

In India and abroad so many companies are there which provides mosquito repellent but some of them are very harmful to human. Because products used for mosquito control have varying degrees of effectiveness. Carbon dioxide and lactic acid present in sweat in warm -blooded animals act as an alternative substance for mosquitoes. The perception of the odor is through chemoreceptor's present in the antennae of mosquitoes. Insect repellent work by masking human scent a number of natural and chemical mosquito repellents were studied in this review that work repel mosquito. Chemical mosquito repellents as a remarkable safety profile, but they are toxicity against the skin and nerves system like rashes, swelling, eye irritation and worse problems, through unusual including brain swelling in children, anaphylactic shock and low blood pressure. Hence it was concluded that mosquito repellent were preferred over chemical mosquito repellent. Control of mosquitoes is something of almost importance in the present day with rising number of mosquito borne illness. Deforestation and industrialization farming are also two of the fetors causing an alarming increase in the range of mosquitoes.

The aim of studies are know that how natural plants can be used as mosquito repellent give so many side effect on human health. Present work involved in extensive field collection of those plant which have aromatic properties and bed ouder like member of family Composite, Meliaceae ,Lamiaceae, Varbinaceae ,and Astraceae ,etc. are common easily available in the serve area . There is no work done by any ecologist, botanist, and researcher so the attention has been focus mainly on following aspects.

Serve of site, in collection, information about some ethno ecological plants which have aromatic property an use by tribal people for insecticide and mosquito repellent by natural method.

Identification and collection of ethno ecological plants of area which use in mosquito repellent and preparation of herbaria of mosquito repellent plants.

Material and methods:-

Sr. No.	Botanical name	Local name	Family	Plant parts use
1	Ageratum conyzoides(L.)	Goutweed	Compositae	Leaves
2	Annona squamosa (L.)	Sweetsop	Annonaceae	Leaves

3	<i>Azadirachta indica</i> (L.)	Neem	Meliaceae	Leaves
4	<i>Citrus sinensis</i> (L.)	Orange	Rutaceae	Fruit peels
5	<i>Cymbopogon citratus</i> (L.)	Lemon grass	Poaceae	Leaves
6	<i>Hyptis suaveolens</i> (L.)	Bush tea	Lamiaceae	Leaves
7	<i>Lantana camara</i> (L.)	Wild sage	Verbinaceae	Leaves
8	<i>Ocimum gratissimum</i> (L.)	Basil	Lamiaceae	Leaves
9	<i>Solanum nigrum</i> (L.)	Black night shade	Solanaceae	Leaves
10	<i>Tridax procumbens</i> (L.)	Coat buttons	Astraceae	Leaves
11	<i>Jatropha curcas</i> (L.)	Ratonee	Euphorbiaceae	Leaves
12	<i>Ocimum americanum</i> (L.)	Tulsi	Lamiaceae	Leaves
13	<i>Zingiber officinale</i> (L.)	Adrak	Zingiberaceae	Whole herb use
14	<i>Curcuma aromatica</i> (L.)	Turmeric	Zingiberaceae	Whole herb use
15	<i>Vitex negundo</i> (L.)	Five leaf chaste	Verbinaceae	Leaves
16	<i>Cassia fistula</i> (L.)	Purging cassia	Caesalpiniaceae	Leaves
17	<i>Mentha piperita</i> (L.)	Peppermint	Lamiaceae	Leaves
18	<i>Tagetes erecta</i> (L.)	marigold	Asteraceae	Yellow, and orange flower are use
19	<i>Psidium guajava</i> (L.)	Guava	Myrtaceae	Leaves
20	<i>Ficus benghalensis</i> (L.)	Banyan tree	Moraceae	Leaves
21	<i>Tribulus terrestris</i> (L.)	Small caltrops	Zygophyllaceae	Leaves
22	<i>Eclipta alba</i> (L.)	Trailing eclipta	Asteraceae	Leaves
23	<i>Piper nigrum</i> (L.)	Black pepper	Piperaceae	Leaves
24	<i>Ricinus communis</i> (L.)	Castor oil plant	Euphorbiaceae	Fruit peels
25	<i>Trachyspermum ammi</i> (L.)	Ajowan	Apiaceae	Whole herb use
26	<i>Sassafras albidum</i> (L.)	Nees	Lauraceae	Essential oil
27	<i>Mentha pulegium</i> (L.)	Pennyroyal	Lamiaceae	Leaves
28	<i>Rosemarinus officinalis</i> (L.)	Rosemary	Lamiaceae	Leaves

29	<i>Artemisia arborescens</i> (L.)	Worm wood	Asteraceae	Leaves
30	<i>Artemisia abrotanum</i> (L.)	Southern wood	Asteraceae	Leaves
31	<i>Salvia officinalis</i> (L.)	Sage	Lamiaceae	Leaves
32	<i>Santolina chamaecyparissos</i> (L.)	Santolina	Asteraceae	Leaves
33	<i>Lavendula angustifolia</i> (L.)	English lavender	Lamiaceae	Fresh and dried Flower are used as well as an essential oil.
34	<i>Clinopodium nepeta</i> (L.)	Calamint	Lamiaceae	Whole herb has a sweet aromatic odour and an infusion of the dried leaves.
35	<i>Calamintha acinos</i> (L.)	Thyme basil	Lamiaceae	Whole herb use
36	<i>Colotropis procera</i> (L.)	Oak	Asclepiadaceae	Leaves
37	<i>Cymbopogon nardus</i> (L.)	Citronella	Poaceae	The stem is cut of at ground level and the oil is extracted.
38	<i>Eucalyptus globules</i> (L.)	Eucalyptus	Myrtaceae	The mature Leaves and essential oil.
39	<i>Monarda punctata</i> (L.)	Horse mint	Lamiaceae	Leaves
40	<i>Allium sativem</i> (L.)	Garlic plant	Alliaceae	The bulbs are used and an essential oil is also extracted.
41	<i>Vetiveria zinanoides</i> (L.)	Vetiver grass	Poaceae	The root and essential oil are use.
42	<i>Eugenia carypphyllata</i> (L.)	Clove	Myrtaceae	Undeveloped flowers.
43	<i>Tanacetum cinerarifolium</i> (L.)	Pyrethrum	Asteraceae	Flower
44	<i>Jacobaea vulgris</i> (L.)	Tansy	Asteraceae	Leaves and flower

Collection of plant materials:-

Fresh leaves and fruit peels of test plant were collection at the serve area. Identified in the plant .This work for a investigated the repellent activity of crude extracts of various indigenous plant species.

Table-profile of test plant parts used, Family Local name, Botanical name and the collection of serve area

Result and discussion:-

There are 44 plants species given which have highly aromatic smell and some of them are soluble in alcohol or in benzene, some used directly on dry cow dung. The smoke of cow dung with leaves of plants “*Ageratum conyzoides* (L.), *Annona squamosa* (L.), *Azadirecta indica* (L.), *Cymbopogom citrates* (L.),

Hyptis suaveolens (L.), Lantana camara (L.), Ocimum gratissimum (L.), Solanum nigrum (L.), Tridax procumbens (L.), Jatropha curcas (L.), Ocimum americanum (L.), Vitex negundo (L.), Cassia fistula (L.), Mentha piperita (L.), Mentha pulegium (L.), Rosmarinus officinalis (L.), Artemisia arborescens (L.), Artemisia abrotanum (L.), Salvia officinalis (L.), Santolina chamaecyparissos (L.), Psidium guajava (L.), Ficus benghalensis (L.), Tribulus terrestris (L.), Eclipta alba (L.)” are very effective for mosquitoes rest of the plants parts can be used by other methods.

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