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Fluoride Toxicity and Its Control – A Review

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Water is an essential natural resource for sustaining life and environment which we have always thought to be available in abundance and free gift of nature. However, chemical composition of surface or subsurface, geothermal or non-thermal is one of the prime factors on which the suitability of the water for domestic, industrial or agricultural purpose depends. Ground water forms a major source of drinking water in urban as well as in rural areas. More than 90% of the rural population use groundwater for domestic purposes. Potable and safe drinking water means that the water should be free from chemical substance, pleasant to taste and fit for domestic life. More than 50% of illness in India is due to unprotected drinking water alone.

Among minerals, fluoride is one of the contaminents of water. Fluoride is an essential trace element for human beings and animals. Fluoride is the 13th most abundant element present in the earth's crust. It belongs to the halogen group of elements and is found naturally in water, soil, animals, and plants. Fluoride is one of the most reactive and ubiquitously present in nature. It is present in trace amounts in all mineralized tissues of the body such as enamel, dentin, and bone. In small amounts fluoride is beneficial as it is believed to impart stability to bone and enamel, thereby preventing dental carries and osteoporosis to some extent but its higher concentration is highly toxic to humans and animals alike. The permissible limits of fluoride in drinking water as suggested by Bureau of Indian Standards (BIS)(1) varies between 0.6 to 1.2 ppm and World Health organization (WHO)(2) permits a maximum of 1.5 ppm of it. As fluoride is found in small quantities in almost all foods, it enters the human body mainly through the oral route along with food and water. It can be rapidly absorbed by passive diffusion through stomach, small intestine, mouth, lungs and skin (3). Chronic exposure to fluoride above the permissible limits, it causes a disease called "Fluorosis". Fluorosis in an important clinical and public health problem in several parts of the world. The global prevalence of fluorosis has been reported to be about 32% (4). There are several million people in

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Importance of honey bees in ecosystem – causes for their deterioration – review

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Abstract
Biodiversity defines the abundance of terrestrial life from all sources and the interspecies relations. It is about relation between animals, plants, persons and organisms of all kinds. Pollination is a valuable ecosystem service and also of high economic value through enhanced agricultural production especially. Honey bees are the most important pollinator species in natural habitats in the world and a major contributor to the functions of natural ecosystems. The decline in pollinator population and diversity happening worldwide in the recent years are mainly due to the decline in the habitat, deforestation, urbanization, industrialization, use of chemical fertilizers and pesticides and electromagnetic Radiation.

Keywords: honey bees, ecosystem, deterioration

Introduction

Biodiversity is important in that we depend on biodiversity to Food, Medicine, Safe climate and High-level biodiversity has less risk of natural disasters. The Loss of Biodiversity is becoming a global issue because, declining every day at least 16,928 species worldwide are threatened with extinction. Although the population of all species has decreased over the past few decades, the drastic decrease in the bee population has become particularly alarming due to their important position as pollinators. Without bees, many of the most valuable crops in the world will fail and have a direct impact on human food supply and many other animals. Honey bees are one of the world's most significant species and it would be nearly difficult to survive without them. Albert Einstein said that "if the bee vanished from the surface of the globe, man would have only four years to live". There has been a big concern in recent years with the worldwide declining bee populations. The population of bees in the United Kingdom fell 17 percent, and nearly 30 percent in the United States.

Bees are important pollinators for most ecosystems. There are 369,000 flowering plant species, and 90% of them rely on insect pollination [1]. A honeybee can typically visit 50-1000 flowers in one trip. Therefore, if each bee takes ten trips a day, 25,000 forager bees in a colony will pollinate 250 million flowers a day [2]. There are more than 20,000 distinct bee species worldwide, including more than 4,000 in the United States alone. Beekeepers, mainly in the United States and Europe, have been recording annual hive losses of 30 percent or higher for most of the past ten years, considerably more than is considered natural or sustainable [3]. Also, one in four wild bee species in the United States is at risk of extinction [4].

Bee Taxonomy

Nearly 17,000 species of bees have been formally described, and as many as 30,000 are estimated worldwide [5, 6]. Although other species are often more efficient pollinators than are honey bees on a flower-by-flower basis, honey bees are, for many reasons, the pollinator of choice for most North American crops. A. mellifera is highly suitable as a commercial pollinator because of its biology [7, 8].

The current view of bee taxonomy is as follows, according to Michener [5], all bee species are classified within seven major families and one of these is the family Apidae. Apidae contains three subfamilies: Xylocopinae, Nomadinae, and Apinae. There are 19 tribes in the Apinae subfamily including Apini (honeybees), Meliponini (including stingless bees), and Bombini (including bumblebees). The Meliponini tribe are the stingless bees found in the tropical and southern subtropical regions worldwide

There is only one species in the Apini tribe, the Apis and these are the true honeybees. It is the collective function of these bees, storing vast quantities of honey for the colony to survive periods of dearth, which means that human communities today have been and are still being exploited to their honey stores. There are very few honeybee species here. There are currently only four species in most beekeeping textbooks: Apis mellifera, Apis cerana, Apis florea, and Apis dorsata [9].

Single combs Species

Apis andreniformis and Apis florea These are very small-sized species of bees, and their single comb nests are small too: often no larger than 150-200 cm wide. Other names include the little honeybee. These bee species build a single-comb nest, usually fairly low down in bushes, or in the open, suspended from a branch or (for Apis florea) rock surface. Apis andreniformis has been identified in South East Asia, Borneo, the Philippines and the southern Chinese peninsula, while Apis florea is indigenous from Oman spreading southeast through Asia as far as some of the islands of Indonesia and the Philippines.

Apis dorsata, other names for Apis dorsata are the rock bee, the giant honeybee, or the cliff bee. On the western edge of its distribution, Apis dorsata is found only as far as Afghanistan but its southeast occurrence extends east of Bali. Its northern distribution is limited by the Himalayas. Apis dorsata bees are large, and their nests consist of single large combs suspended from a branch, cliff face or building.

Apis binghami and Apis breviligula, Apis binghami occurs

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PROTECTIVE ROLE OF MAGNESIUM MALATE AND VITAMINE E AGAINST ALUMINIUM CHLORIDE TOXICITY ON ANTIOXIDANT ENZYMEACTIVITY IN ALBINO RATS.

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Abstract

The study was aimed to assess the possible protective effect of vitamin E (vit. E) and magnesium malate against aluminium chloride ($AlCl_3$) toxicity on antioxidant enzymes xanthine oxidase (XOD), super oxide dismutase (SOD) and catalase (CAT)activities in liver tissues of albino rats. Rats were divided in to five groups, group I received normal saline, group II administered orally with $AlCl_3$ (7.5 mg kg bw), group III was received magnesium malate(5.0 mg/ kg bw), group IV was received with $AlCl_3$ and vitamin E(10 mg kg bw) and group V was administered with $AlCl_3$, Magnesium malate and vit E. The antioxidant enzyme XOD activity levels were increased in $AlCl_3$ treated animals and gradual decrease was observed in magnesium malate and vit. E treated animals, SOD activity was decreased in AlCl3 treated animals where increase was observed in magnesium malate and vitamin E (Vit-E) treated animals, the catalase (CAT) activity was decreased in AlCl3 treated animals where increase was observed in magnesium malate and vitamin E (vit-E) treated animals. The results indicated that the toxic effect of $AlCl_3$ could be mediated through modifying antioxidant enzyme activity in rat liver which may lead to impaired function. The combined treatment with magnesium malate and vit E was effective in the restoring the studied parameters near to the normal.

Key Words

AlCl3; magnesium malate, vitamin E, antioxidant enzymes, Ach content, liver, albino rats

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Synergistic Effect of Cypermethrin and Sodium Fluoride on Liver Histo Pathology of Albino Mice

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Abstract

The present study was aimed to investigate the hepatotoxicity induced by cypermethrin and sodium fluoride (NaF) separately and combined in albino mice. Albino mice were treated at 48-hr intervals with cypermethrin and sodium fluoride (NaF), separately and in combination, for 15 and 30 days with 1/10th of the LD_{50} dosage of cypermethrin and NaF for individual administration by oral gavage (i.e., 8.5 mg/kg bw and 5.6 mg/kg bw, respectively) and 1/20th of the LD_{50} dose of cypermethrin and NaF for combined administration (i.e., 4.25 mg/kg bw and 2.8 mg/kg bw, respectively). Separate or combined treatment resulted in histopathological changes in the liver tissue such as cytoplasmic degeneration, cellular disarray, binucleated condition, vacuolar and nuclear degeneration in the hepatocytes were observed. The changes were greater in combination than individual treatment, this may be because of a synergistic effect of cypermethrin and NaF.

Key Words: Synergism, Cypermethrin, Sodium fluoride, Liver, Albino mice

Introduction

Water is the most precious natural resource that exists on our planet. It is a key component in determining the quality of our lives. Today, people are concerned about the quality of the water they drink. Water dissolves numerous substances in large amounts, pure water rarely occurs in nature. Pesticides are one of the most common causes of water pollution. Pesticides from farms and individual home owners run off into streams and rivers. Among minerals, fluoride is one of the contaminants of water. Fluoride is an essential trace element for human beings and animals. In small amounts fluoride is beneficial as it is believed to impart stability to bone and enamel, thereby preventing dental carries and osteoporosis to some extent but its higher concentration is highly toxic to humans and animals alike. Chronic exposure to fluoride above the permissible limits, it causes a disease called "Fluorosis". Fluorosis is an important clinical and public health problem in several parts of the world. Exposure higher than permissible levels of fluoride (>1.5 mg/L) may lead to serious health problems (WHO, 2017). Vital organs such as liver, kidney, reproductive organs and endocrine glands are reported to be adversely affected by high fluoride intake (Chinoy, 1991; ATSDR 2001). Some metabolic activities are also disturbed due to alteration in regulatory enzymes and biomolecules after exposure to fluoride (Kumar et al., 2007). Tripathi et al. (2009) has describe of severity of fluorosis.

The study of abnormal cells and tissues is histopathology (Aughey and Frye, 2001). It is a structural science and serves to compliment the knowledge gained from the anatomy, physiology and pathology and it gives insight into the functioning of tissues and organs. Histopathology helps in diagnosing the damages of the tissues of an animal subjected to toxic stress. The knowledge of the histology is useful to distinguish normal cells from abnormal or diseased ones, which helps in diagnosis of many diseases (Majumdar, 1980). Even though biochemical studies may give an idea of the pathological state of the animal, a clear picture of cytoarchitectural changes produced during the chemical intoxication can be produced during the chemical intoxication can be traced by histopathological studies.

Several workers reported on the pesticides and fluoride toxicity separately, the present study was designed to investigate the synergistic effects of cypermethrin and sodium fluoride (NaF) on hepatic histological architecture in albino mice.

Materials And Methods

Test chemicals: Cypermethrin technical (92% purity; cis:trans isomers ratio 40:60) was obtained from Tagros Chemicals India Limited, Chennai. Sodium fluoride (NaF) (99%) was supplied by BDH Chemical Division, Bombay.

Animal model: Healthy adult male albino mice of the same 75±5-day age group and weight (35 g) were taken from parental stock obtained from the Veterinary College, Bangalore and maintained as a colony. They were kept in well-cleaned and sterilized cages and were

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Ameliorative Effect of Red Grape Seed Extract (*Vitis vinifera* L.) on Memory Deficits and Acetylcholinesterase Activity in D-Galactose-Induced Albino Rat

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Abstract: The objective of this study was to see how administration of Red Grape Seed Extract (RGSE) affected memory and Acetylcholinesterase (AChE) activity in D-Galactose-induced Albino rats' Cerebellum, Cerebral Cortex, Hippocampus, and Pons Medulla. Four groups of six animals were formed. D-Galactose, RGSE, and D-Gal+ RGSE groups were studied. After 30 days of RGSE therapy, the animals were subjected to behavioural tests before being euthanized and their brain structures and blood were collected. The D-Galactose group demonstrated a decrease in step-down latency. D-Galactose-induced memory impairment was prevented by the RGSE group. In the open field test, there were no discernible differences between the groups. When compared to the control group, the D-galactose group displayed significantly higher AChE activity in all regions of the brain. However, AChE activity decreased significantly in the RGSE groups in the Cerebellum, Cerebral cortex, Hippocampus, and Pons medulla, whereas no significant alterations were seen in the combined therapy groups in any brain tissue when compared to the control group. Finally, the current data revealed that RGSE therapy inhibits the increase in AChE activity and, as a result, memory impairment in Albino rats, suggesting that this molecule can alter cholinergic neurotransmission and, as a result, improve cognition.

Keywords: Red Grape Seed Extract, Memory, Acetylcholinesterase, D-Galactose, Albino Rats, Cerebellum, Cerebral cortex, Hippocampus, Pons medulla

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Introduction

Cholinergic neuron degeneration in the cerebral cortex and subcortical regions is regarded to be the root cause of neurological diseases and cognitive impairments (Francis and Craig, 2020).

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Significant Impact of Ginger Extract on Oxidative stress Markers and Lipid Peroxidation in Diabetic Male Albino Rats

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ABSTRACT: The role of oxidative stress has been reported in various diabetes complications. This study's objective was to determine whether ginger supplementation at a dose of 200 mg/kg body weight was beneficial at protecting diabetic rats produced by the drug streptozotocin (STZ). Adult male albino rats weighing 180–200 g were given STZ (40 mg/kg body weight) intraperitoneally to develop diabetes. Glibenclamide (600 g/kg body weight) was the recommended medication. Blood glucose, uric acid, MDA concentration, and Xanthine oxidase (XOD) activity were all greater in diabetic rats' brain homogenates. They found that the brain tissue had lower amounts of ascorbic acid, glutathione, and GST activity. We found that diabetic rats given oral supplementation of ginger extracts and glibenclamide had lower MDA, uric acid content, XOD activity and higher levels of GST, ascorbic acid, and GSH in the brain as well as higher body weight. Since ancient times, ginger or *Zingiber officinale* has been used as a herbal remedy to cure a variety of diseases. Recent research has shown ginger's promise as a diabetic mellitus therapy. These finding suggest that ginger extract therapy has a protective effect against the progression of diabetes through reducing oxidative stress and brain oxidative stress.

Keywords: Ginger, STZ, Diabetes, Blood glucose, XOD, GST, Brain.

INTRODUCTION

The global prevalence of diabetes in adults according to a report published in 2013 by the IDF 382 million people, the number is expected to rise beyond 592 million by 2035 with a global prevalence (Preguiça *et al.*, 2020). Diabetes mellitus-related hyperglycemia is an endocrine disease that is either brought on by insulin resistance or by insufficient insulin release by pancreatic cells (Vats *et al.*, 2004). In persons with diabetes mellitus, prolonged hyperglycemia increases the production of free radicals (Szkudelski, 2001) by non-enzymatic protein glycation and glucose oxidation, which impairs cellular processes and damages membranes through oxidation (Valko *et al.*, 2007). Reactive oxygen species (ROS) generation and STZ-induced diabetes mellitus work hand in hand and result in oxidative damage (Cade, 2008). Chronic and persistent hyperglycemia causes high levels of oxidative stress in diabetics and experimental animal models, which impairs the immune system's antioxidative defenses, promotes poor GSH metabolism, and lowers ascorbic acid levels (Rajasekaran *et al.*, 2005). Recent reports indicate that diabetic complications are associated with overproduction of free radicals and accumulation of lipid peroxidation by-products (Mancino *et al.*, 2011). In therapeutic plants, antioxidants, tannins, and flavonoids are usually found in high quantities. Most of this research focuses on naturally derived products of plant origin which are capable of reducing blood glucose levels (Patel *et al.*, 2012). The current study suggests that plant medicines' capacity to function as antioxidants may be essential to their capacity to have a hypoglycemic impact on persons with diabetes mellitus. One of the most well-known spices in the world, ginger has been used for its health benefits since ancient times. Ginger has been recommended for usage in Ayurveda as a analgesic effect (Young *et al.*, 2005) digestive aid, anti-inflammatory agent, circulatory stimulant, diaphoretic, astringent, appetite stimulant, and diuretic Jiang *et al.* (2006). Ginger is reported to have

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Advances in Bioresearch

ORIGINAL ARTICLE

A significant role of Skill Development Training on Mushroom Cultivation in Loyola Degree College (YSRR) Pulivendula YSR Kadapa District of Andhra Pradesh

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ABSTRACT

Mushroom production is simple and low-cost and it helps to alleviate poverty and create job opportunities for educated unemployed youth in rural and semi-urban areas. The current study aimed to assess the impact of training on knowledge gain about mushroom production as a business/self-employment. The mushroom production training programme was designed for Loyola Degree College (YSRR) Graduate and Post-graduate students interested in self-employment. A total of 86 participants received in-depth instruction on various aspects of mushroom production in relation to cultivation techniques, preparation of spawn, substrate preparation, marketing of fresh product, preservation and value addition, etc. Pre and post evaluation testing was used to evaluate the training's effectiveness in terms of knowledge gains for several metrics. After training, it was found that 58.13, 47.67 and 44.18% of the trainees had different understanding of the different types of mushrooms, preservation methods and the significance of casing. Thus, it can be concluded that respondents' understanding of all the sub-components of mushroom production had raised as a result of exposure to training. Therefore, it can be said that after receiving training in mushroom production, learners were successful in learning new information.

Key Words: *Gaining Knowledge in Mushroom Cultivation, Entrepreneurs, Training.*

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INTRODUCTION

India is mainly an agricultural nation because of the variety of soil types and climatic conditions that allow for the development of a wide range of crops throughout the nation. Due to the abundance of raw materials and the ideal climate, there is also a significant potential for the growing of mushrooms [4]. Mushrooms have been suggested by FAO as a food that can improve the protein intake of poor nations [12]. In a nation like India, where vegetarianism is highly prevalent, an effort should be made to make a plant-based protein source like the mushroom described by Bahl more well known [13]. Growing mushrooms has been recognised as a technically viable and profitable business activity, and it is widely regarded as a beneficial initiative for increased income, job creation, and rural development by educators [4]. However, the appropriate use of industrial and agricultural waste can greatly benefit from mushroom cultivation [1]. Additionally, it can significantly reduce poverty and create job opportunities for educated

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Preparation of Hand-Made Chocolates and the Nutritional Composition of its Ingredients

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ABSTRACT: Chocolate is an incredibly stable substance that, under normal circumstances, will last forever. The physical-chemical characteristics of chocolate made from native cocoa beans were compared to those of commercial chocolate, and the physical-chemical characteristics of cocoa beans were investigated after fermentation, drying, roasting and grinding. We looked at the sample nibs' moisture, ash, fat, fiber, protein and tannin content. India's chocolate sector has made significant progress. India is home to numerous cocoa producers that provide a wide range of industrial and domestically produced chocolate-based goods. For the purpose of producing chocolate, cocoa beans are used to make cocoa powder and its byproducts. Therefore, their disposal could cause problems with the environment and the economy. For novel and useful dishes, cocoa powder may be a valuable component or additive. In the context of a circular economy, the value-adding of food byproducts is more important. A source of fiber (around 50% w/w), proteins, minerals, vitamins, and a wide variety of polyphenols., cocoa beans are also a possible supply. The purpose of this review is to examine the chemical and nutritive makeup of cocoa bean powder used in the production of chocolates and to re-evaluate the numerous uses that have been suggested in order to maximize the value of this byproduct for use in food, livestock feed, industrial applications, as well as critical care medicine. Studies reporting the bio-functional potential of cocoa powder for human health, such as antibacterial, antiviral, anti-carcinogenic, anti-diabetic, or neuroprotective activity, benefits for the cardiovascular system, or an anti-inflammatory capability, will receive particular attention.

Keywords: Chocolates, Cocoa by-product, Human health bioactivity, Flavonoids.

INTRODUCTION

Cocoa beans are the foundation of chocolate and related products. The cocoa bean, the plant's seed, is grown in tropical regions (Agus *et al.*, 2018). In the first edition of "Species Plantarum," which was published in 1753, the Swedish scientist Linnaeus gave the name "Theorem Cocoa." It belongs to the Sterculiaceae genus of plants (Diomande *et al.*, 2015). Botanically, there are two major groups: the white seeded Criollo, which is less common but produces high-quality cocoa with a mild flavor, and the purple seeded Forester, which provides the majority of the world's chocolate (Agus *et al.*, 2018). The seeds, or cocoa beans, of the obroma cocoa trees, which are indigenous to South and Central America, are used to make both cocoa and chocolate. After being separated from the pods, the bean must undergo microbiologic and enzymatic fermentation in order to remove the pulp or mucilage coating and to enhance flavor (Badrie *et al.*, 2015). Cocoa beans are dried to lower the moisture content to an acceptable level for storage and shipping without compromising bean quality. The beans must be dried at a temperature between 45 and 60 degrees Celsius. To offer the beans a good keeping quality, they are machine- or sun-dried to a moisture content of around 7% (Diomande *et al.*, 2015). Roasting dried cocoa beans releases the bitter volatile compounds while enhancing the distinctive flavor and scent of chocolate. The shell is loosened while the nib is dry. Then, using a grinder, the powdered roasted nibs were produced (Diomande *et al.*, 2015). To make dark "eating (solid)" chocolate, sugar and ground, roasted beans were combined with cocoa butter. Cocoa in the milk. Around 1876 Swiss scientists

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Beneficial effect of *Bacopa monnieri* against alcohol induced cardiac toxicity in albino rats

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Abstract

The current investigation has been conducted to investigate the influence of *Bacopa monnieri* on cardiac tissue antioxidant enzymes system in Alcohol treated rats. Alcohol significantly decreased the Superoxide dismutase, catalase, Glutathione peroxidase, Glutathione reductase activities and Glutathione content were estimated in the cardiac tissue. This effect was reversed by a treatment with *Bacopa monnieri* for 4 weeks in rats by improved antioxidant status which suggest that treatment of *Bacopa monnieri* may have protective role against the Alcohol induced myocardial toxicity.

Keywords: Alcohol, *Bacopa monnieri*, antioxidant enzymes, cardiac tissue, rats

Introduction

Chronic alcohol consumption has been reported to have detrimental effect on behavior and cognitive processes such as learning and memory. Myocardial infarction (MI) is an acute condition of necrosis of the myocardium that occurs as a result of sudden or persistent interruption of blood supply to the demand of myocardium [1]. Every year, worldwide more than 7 million people have been affected with MI [2]. However, the occurrence of myocardial damage is mainly due to hyperlipidemia, loss of plasma membrane integrity and membrane peroxidation [3]. Alcohol is one of the major risk factors for incidence of myocardial damage, and chronic alcohol consumption has been reported to have J or U shaped relationship with myocardial damage [4]. Wannamethee and Shaper [5] reported a strong correlation between alcohol intake and sudden cardiac death. An oxidative stress may represent a fundamental mechanism in the production of myocardial injury [6]. The increased conversion of XD into XO that has been detected in the heart after administration of a single ethanol dose, may contribute to this lipid peroxidation [7].

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"Mahasweta Devi a great literary icon: A Study"

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Introduction:

India has a rich literary tradition, and there are numerous talented women writers who have made significant contributions to Indian literature. Indian women writers have made significant contributions to literature, showcasing their unique perspectives, experiences, and voices. From historical novels to contemporary fiction, poetry to social commentary, these writers have shaped the literary landscape of India and have gained international recognition for their works.

Indian women writers have often explored themes of identity, gender, social issues, cultural diversity, and the complexities of relationships. They have challenged traditional norms, pushed boundaries, and brought to light the experiences of women and marginalized communities. Here are some prominent Indian women writers across various genres.

1. **Anita Desai:** A renowned novelist, Desai has received several accolades, including being shortlisted for the Booker Prize multiple times. Her works often examine themes of family, gender, and the clash between traditional and modern values.

2. **Arundhati Roy:** An essayist, political activist, and novelist, Roy's non-fiction writings tackle a wide range of social and political issues, including human rights, environmental degradation, and political corruption in India. Known for her novel "The God of Small Things," which won the Man Booker Prize in 1997, Roy's writing is characterized by its lyrical prose and exploration of social and political issues.

3. **Kiran Desai:** The daughter of Anita Desai, Kiran Desai won the Man Booker Prize in 2006 for her novel "The Inheritance of Loss." Her writing explores themes of cultural identity, displacement, and globalization.

4. **Meena Kandasamy:** A poet, novelist, and activist, Kandasamy's work addresses themes of caste, gender, and social justice. Her notable works include the novel "When I Hit You: Or, A Portrait of the Writer as a Young Wife."

5. **Kamala Das:** A prominent Indian poet and writer, Das is known for her bold and confessional poetry. Her works often challenge societal norms and explore themes of love, desire, and female sexuality.

6. **Mahasweta Devi:** A Bengali writer and social activist, Devi's writings highlight the struggles and oppression faced by marginalized communities, particularly tribal people and women. Her works include novels, short stories, and plays.

These are just a few examples of the many talented Indian women writers who have left an indelible mark on the literary landscape. Each writer brings her unique perspective and storytelling prowess, making Indian literature a vibrant and diverse field. Among Indian women writers Mahasweta Devi was a highly regarded Indian writer and social activist, primarily known for her works in Bengali literature.

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భావవీణ

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కాళీపట్నం రామారావు కథలు - సామాజికత

- డా॥ కె. ఎన్. సుందరేశ్వరరెడ్డి, తెలుగుశాఖాధ్యక్షులు, యస్.సి.యన్.ఆర్. ప్రభుత్వ డిగ్రీ కళాశాల, ప్రొద్దుటూరు, కడప జిల్లా.

కాళీపట్నం రామారావు గారు తెలుగు కథారచయితల్లో అగ్రశ్రేణి రచయితగా పేరుగాంచారు. వర్తమాన సామాజిక విలువల్ని, వాటి మూలాన్ని ప్రశ్నించి చర్చకు పెట్టడం గురజాడ సాహిత్యతత్వమైతే, సమాజంలోని అట్టడుగు వర్గాల సమస్యలను, అందుకు గల కారణాలను, కొంతవరకు పరిష్కారాలను చూపడం కాళీపట్నం రామారావు రచనల స్వభావంగా కనిపిస్తుంది. దాదాపు తన ఉద్యోగ, రచనా జీవితాలను విశాఖపట్నం కేంద్రంగా కొనసాగించిన కా.రా., రావిశాస్త్రి లాంటి సీనియర్ రచయితల, కొంతమంది మార్క్సిస్టు ఆలోచనాపరుల సాంగత్యంలో సాహిత్యప్రయోజనాన్ని, సామాజిక స్వరూపాన్ని అవగతం చేసుకునే ప్రయత్నం చేశారు.

కా.రా. కథలలో ప్రధానపాత్రలు అట్టడుగు వర్గాలకు చెందినవి. వారి భౌతికావసరాలకు, సమాజానికి మధ్య సంబంధం కా.రా కథలో స్పష్టంగా కనబడుతుంది. మధ్యతరగతి, అట్టడుగు వర్గాల ప్రజల జీవితంతోబాటు కా.రా., 'పారిశ్రామిక సంబంధాలను, గ్రామీణ జీవనంలో వస్తున్న మార్పులను' తన కథల్లో వస్తువుగా గ్రహించారు.

కా.రా.కథలు-మార్క్సిస్టు దృక్పథం :

సాధారణంగా అభ్యుదయ రచయితలుగా చెప్పబడుతున్న వారిలో ఎక్కువ భాగం మార్క్సిస్టు దృక్పథంతో కథలు రాసినవారు గానే కనిపిస్తారు. మార్క్సిస్టు సిద్ధాంతం ప్రకారం-సమాజంలో ధనస్వామ్య, శ్రామిక అనే రెండు వర్గాలుంటాయి. ఈ రెండింటి మధ్య ఎల్లప్పుడు సంఘర్షణ జరుగుతూనే ఉంటుంది. రచయితలు ఈ రెండు వర్గాలను నిశితంగా పరిశీలిస్తూ, శ్రామికవర్గ పక్షపాతంతో రచనలు చేయాలి. కా.రా. ఈ నియమాన్ని పాటించినట్లు కనిపించదు. తాను గమనించిన గ్రామీణ, పట్టణ ప్రజల జీవితాలను వాస్తవికమైన పరిస్థితులతో సమన్వయిస్తూ 'సామాజికత' ప్రధాన కేంద్రంగా ఆయన కథలు రాశారు. తన కథల్లో 'యజ్ఞం' (1964) నుండి 'కుట్ర' (1972) వరకు అట్టడుగు వర్గాల్లోని జీవిత సంఘర్షణలు, వారి ఆర్థికదుస్థితిని చక్కగా చిత్రించారు.

'శాంతి'లోని అశాంతిని, చావే నయమనిపించే బ్రతుకుని, నీటికి కూడా నోచుకోని నిరుపేదల కష్టాలను చిత్రించిన కథల్లో 'శాంతి, చావు, జీవధార' ముఖ్యమైనవి. నిత్యజీవితం లోని సామాన్యుల వాస్తవిక సమస్యలు ఈ కథల్లో చిత్రించబడ్డాయి.

జీవితంలో అన్నీ అమరిన వాడికీ, లేదా, అన్నీ అమర్చుకునే అవకాశాలు ఉన్నవాడికీ శాంతి కావాలి. వాడి ఉనికికీ, యథాతథ స్థితికి శాంతి అవసరం. రెక్కాడితే గాని, డొక్కాడని కూలీకి జీవితంలో నిత్యం అశాంతే. ఈ సామాజిక దోపిడి కొనసాగాలంటే శాంతి అవసరం. ఈ పీడన కొనసాగాలంటే శాంతి జపం చేయాలి. ఇలా ఒకవర్గం మాత్రం శాంతిగా ఉంటే, మిగిలిన శ్రమజీవుల మాటేమిటి? అని కా.రా. 'శాంతి' కథలో ప్రశ్నిస్తాడు. "మిల్లు యజమాని పట్టాభిరామయ్య ఉన్నతవర్గం మనిషి. అన్ని సుఖాలు అనుభవించే పట్టాభిరామయ్య, వ్యవస్థకు కొమ్ముకాసే కలెక్టరు, శాంతిని కాపాడే పోలీసు ఆఫీసరు - వీరందరికీ శాంతి కావాలి. కార్మికులు, మిల్లు యజమానుల ప్రయోజనాలు పర్వర విరుద్ధాలు. వాటి మధ్య సంఘర్షణే తప్ప, సామరస్యం, పొత్తు లేవు.

'చావు' కథలో పూర్తిగా గ్రామీణ వాతావరణం కనిపిస్తుంది. అన్నీ వాస్తవిక జీవితంలోని పాత్రలే. శ్రామిక జనం, మోతుబరులు ఇందులోని పాత్రలు. బ్రతికుండగా ఒంటినిండా బట్టకైనా నోచుకోని ముసలమ్మ నారమ్మ జీవిత గాథ ఇందులో కనిపిస్తుంది. చలికాలంలో పేదల

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మూసీ మాసపత్రిక ప్రత్యేక సంచిక సంపుటి -25 : సంచిక - 13
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భారత జాతీయోద్యమం - 'కథ' పాత్ర

డా. కె. ఎస్. సుందరేశ్వర రావు, ఆంధ్రశాఖ అధ్యక్షులు, ఎస్.సి.ఎస్.ఆర్. ప్రభుత్వ డిగ్రీ కళాశాల, ప్రొద్దుటూరు

1. చారిత్రిక నేపథ్యం

'జాతీయత' అనే భావన భారతీయులతో పాటు, ప్రపంచ ప్రజలందరికీ ఆధునికకాలంలోనే కలిగింది. 18వ శతాబ్దంనాటి ఫ్రెంచి విప్లవం 'స్వేచ్ఛ, సమానత్వం, సౌభ్రాతృత్వం' అనే మూడు భావనల్ని అందించింది. రామాయణ, భారతకాలం నుండి 'జాతీయత' అనే భావన ఉన్నా, అది స్పష్టంగా, ఆధునికకాలంలోనే బయటపడింది. నిజానికి ఈ 'జాతీయత' అనే భావన భారతదేశంలో పుట్టడానికి ఆంగ్లేయులే పరోక్షకారకులని కొందరి భావన. అందుకు వారు చెప్పే కారణం - శతాబ్దాలుగా ఉన్న భారతీయ సమాజాన్ని (అన్ని ప్రాంతీయ రాజ్యాలను) ఆంగ్లేయులు ఒకే తాటిమీదకు తెచ్చి, రాజకీయంగా ఏకంచేశారు. అది వా పరిపాలనా సౌలభ్యానికి తాత్కాలికంగా ఉపయోగపడినా, భారతీయులు మేల్కొనడానికి, వారిలో జాతీయతాభావన పుట్టడా కారణమైనాయి. భారతీయుల సంపదను కొల్లగొట్టడం, జాతివివక్షను ప్రదర్శించడం వంటి దుర్మార్గాలకు పాల్పడడంతో భారతీయుల్లో చైతన్యం వచ్చి జాతీయోద్యమానికి దారితీసింది.

భారతదేశచరిత్రలో జాతీయోద్యమం ఒక విశిష్టఘట్టం. ఎందుకంటే దేశచరిత్రలోనే మొదటిసారిగా అధిక సంఖ్యలో ప్రజలు పాల్గొన్న ఉద్యమమిదే. ఆంగ్లేయులు ప్రవేశపెట్టిన ఆధునిక ఆర్థిక, రాజకీయ, విద్యా విధానాలు భారతీయులను చైతన్యవంతుల్ని చేశాయి. అందుకు మత,సాంఘిక ఉద్యమాలు, వార్తాపత్రికలు, ఆంగ్లవిద్య, ఆర్థికపరిస్థితులు ప్రముఖపాత్ర వహించాయి. అప్పటికి సతీసహగమనం, బహుభార్యాత్వం, బాల్య-వృద్ధ-కన్యాశుల్క వివాహాలు, మూఢనమ్మకాలు భారతీయసమాజాన్ని పీడిస్తూ ఉండాయి. రాజా రామ్మోహనరాయ్ సంఘసంస్కరణకు పిలుపునివ్వడంతో సంఘసంస్కరణ మొదలైంది. భారతదేశమంతా ఒక్కసారిగా మేలుకొంది. ఎందరో మేధావులు దేశమంతా విరివిగా చైతన్యవంతులైనారు. ఆర్య సమాజం, దివ్యజ్ఞాన సమాజం, రామకృష్ణమిషన్ లాంటి సంస్థల వల్ల మతసంస్కరణ జరిగింది. 1780 నాటి బెంగాల్‌గెజిట్, తర్వాతి కాలంలో కేసరి, అమృతబజార్ మొదలగు పత్రికలు జాతీయోద్యమవ్యాప్తికి కృషిచేశాయి.

3.4 జాతీయోద్యమం - కథాసాహిత్యం

భారతజాతీయోద్యమంలోని వివిధదశలను, వివిధ పార్శ్వాలను, స్థానిక, రాష్ట్రీయ, జాతీయ పరిణామాలను ప్రతిబింబించడంలో 'కథానిక' తనదైన ముద్రను చూపింది. ఏ ఒక్క దశ, అంశాన్నైనా ఒక దృశ్యఖండంగా మార్చగల శక్తి 'కథానిక'కు ఉంది. అలా 'కథానిక', భారతజాతీయోద్యమాన్ని అన్వేషిస్తూ, ఉద్యమతీవ్రతను ప్రతిఫలిస్తూ, ఉద్యమంలో స్త్రీల ప్రవేశాన్ని విమర్శిస్తూ, భారత జాతీయోద్యమంలో బహుముఖ ప్రతిభను కనబరిచింది. కవులుగా, నవలాకారులుగా ప్రసిద్ధులైనవాళ్ళే ఎక్కువగా జాతీయోద్యమ కాలంలో కథానికలు రాశారు. అయితే ప్రసిద్ధకవులు, నవలాకారులు, కేవలం కథారచయితలు, అప్రసిద్ధులు 'కథానిక' ప్రక్రియలో రచనలు చేయడం వల్లనో ఏమో, వాటి జాతీయోద్యమ కథకు రావలసినంత గుర్తింపు రాలేదు. అసలు ఈ కథలున్నట్లు చాలామందికి తెలియదు. అలా జాతీయోద్యమ కథానికలు అపూర్వమైన అధ్యాయాన్ని సృష్టించాయి.

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మూసీ మాసపత్రిక ప్రత్యేక సంచిక సంపుటి-26 : సంచిక -3(2) హైదరాబాద్ జనవరి - 2023

జాతీయోద్యమం - పత్రికల కృషి

టి. హజరతయ్య, తెలుగు ఉపన్యాసకులు, ప్రభుత్వ పురుషుల కళాశాల (స్వయంప్రతిపత్తి), కడప.

వార్తలు తెలుసుకోవడం మానవ సంస్కృతిలో ఒక భాగం. నిత్య నూతనమైన అంశాల్ని తెలుసుకోవడానికి మానవులు కూడా ఎల్లప్పుడూ ఆసక్తిని కనబరుస్తూ ఉంటారు. నార్త్, ఈస్ట్, వెస్ట్, సౌత్ అనే పదాలు నుండి 'న్యూస్' అనే పదం ఏర్పడిందని అంటారు. 'వార్తలు' అనే పదం ప్రాచీన కాలం నుండి వినబడుతున్నప్పటికీ, వార్తా పత్రికలు మాత్రం ఆధునిక యుగంలో పుట్టినాయి. ఈ రోజుల్లో మనం చూస్తున్న పత్రికలు బ్రిటిష్ వారితోనే దేశంలోకి వచ్చినాయి. మొదటి వార్తాపత్రిక 'బెంగాల్ గెజిట్' లేదా 'కలకత్తా గెజిట్' ను 1780లో జేమ్స్ అగస్టీన్ ప్రారంభించగా, 1818లో 'కలకత్తా జర్నల్' పత్రికను జేమ్స్ బకింగ్ హామ్ ప్రారంభించినాడు. బ్రిటిష్ వారి ప్రయోజనాలకు వ్యతిరేకంగా, ధైర్యంతో వార్తలను ప్రచురిస్తున్నందువల్ల బ్రిటిష్ ప్రభుత్వం వీరిని అదుపు చేయడానికి థామస్ మన్రో సూచనలు అనుసరించి పత్రికల్ని అదుపు చేసే చట్టాన్ని తీసుకొచ్చింది. "పత్రికా స్వాతంత్ర్యం, విదేశీ పాలన అనునవి - ఒక దానికొకటి విరుద్ధమైనవి. అవి ఎప్పుడూ సఖ్యంగా సహజీవనం కొనసాగించవు" అనే ఉద్దేశంతో మన్రో అప్పటి బ్రిటిష్ ప్రభుత్వానికి కొన్ని సూచనలు చేసినాడు. ఆ సూచనలతో ఏర్పడిన పత్రికా చట్టాల్ని రాజా రామ్‌మోహన్ రాయ్, ద్వారకానాథ్ ఠాగూర్ మొదలైన వారు నిరసించారు. తర్వాతికాలంలో వచ్చిన చార్లెస్ మెట్కాఫ్ పత్రికలకు పూర్తి స్వాతంత్ర్యాన్ని ప్రకటించి 'భారత పత్రికలకు స్వాతంత్ర్యాన్ని ప్రసాదించిన వాడు' గా పేరు పొందినాడు.

ఆంగ్లేయ పత్రికా యాజమాన్యం సంపాదకులు, పత్రికా స్వేచ్ఛకు పోరాటం సల్పుతున్న కాలంలోనే, భారతీయ సామాజిక వ్యవస్థను ప్రక్షాళన చేసే ఉద్దేశంతో రాజారామమోహన్ రాయ్ తన మిత్రుడు గంగా కిషోర్ భట్టాచార్యతో కలిసి 'వంగల్ గజిట్' మాస పత్రికను స్థాపించినారు. దీనికి పోటీగా క్రైస్తవ మత ప్రచారం కోసం సమాచార దర్పన్ ఏర్పడింది. బ్రిటిష్ పత్రికలు పరస్పర విరుద్ధ ప్రయోజనాలకై పోరాటం జరుపుతున్న రోజుల్లోనే ఆంగ్లేయులకి బకింగ్ హామ్ ఆదర్శం, రాజారామమోహన్ రాయ్ సంస్కరణాభిలాష దేశీయ పత్రికల ఆవిర్భావానికి దోహదం చేసింది.

పత్రికా రంగం ఆవిర్భవించిన తొలి రోజుల్లో దాదాబాయ్ నౌరోజీ 'ది ఇండియన్ ఎకనమిస్ట్' అనే పత్రిక ద్వారా బ్రిటిష్ వారి ఆర్థిక దోపిడి విధానాన్ని ఎండగట్టినాడు. భారత దేశం నుంచి బ్రిటిష్ పాలకులు ఎలా సంపదను దోచుకుంటున్నారో దాదాభాయ్ పత్రిక ద్వారా విరుచుకుపడినాడు. ప్రజల్లో అవగాహన పెరిగి బ్రిటిష్ వారిపై తిరుగుబాటు మొదలైంది.

"స్వరాజ్యంకు సంపాదకుడు కావలెను జీతం రెండు ఎండిపోయిన రొట్టెలు, ఒక గ్లాసు చల్లని నీరు ప్రతి సంపాదకీయానికి పది సంవత్సరాల జైలు జీవితాన్ని జీతంగా ప్రకటిస్తున్నాయి". ప్రపంచంలోకి అరుదైన ప్రకటన ఇది. అప్పటి కాలంలో భారతదేశంలోని పత్రికలు, ప్రజలు ఎలాంటి గడ్డు పరిస్థితులను ఎదుర్కొంటున్నారో అర్థమవుతుంది. ఆ రోజుల్లో భారతీయులు వార్తా పత్రికను ప్రచురించడమంటే చాలా ధైర్యమైన పని అని అర్థం కంపెనీ పాలకులకు వ్యతిరేకంగా వార్తలు ఉన్నాయని భావించిన భారతీయుల పత్రికలపై ఉక్కుపాదం మోపేవారు.

రాజారామమోహన్ రాయ్ తత్వబోధిని పత్రిక ద్వారా మూఢాచారాలపై, ఆంగ్లపాలకుల దౌష్ట్యాలపై

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Role of Regional Rural Banks (RRBs) in Agricultural Finance in India

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ABSTRACT

This article explores the vital role of RRBs in agricultural finance in India, their contributions, challenges, and the way forward. This is where Regional Rural Banks (RRBs) play a pivotal role. Established with the objective of ensuring sufficient institutional credit for agriculture and other rural sectors, RRBs have been instrumental in promoting financial inclusion and fostering agricultural growth. This study is significant as it addresses the critical role of Regional Rural Banks (RRBs) in enhancing agricultural finance and promoting rural economic development in India. Data collected from RRB annual reports, the Reserve Bank of India (RBI) reports, NABARD annual reports, Government publications and websites. It is concluded that Regional Rural Banks are crucial for the development of agriculture and rural sectors in India. By providing tailored financial services, promoting financial inclusion, and supporting agricultural development, RRBs play a pivotal role in transforming rural economies. Addressing the challenges they face and implementing strategic measures will ensure that RRBs continue to be a cornerstone of agricultural finance in India, driving growth and prosperity in rural areas.

Key Words: *Regional Rural Banks (RRBs), Rural sectors, Reserve Bank of India (RBI), NABARD*

Introduction

Agriculture is the backbone of India's economy, providing livelihood to nearly 60% of the population and contributing around 15-18% to the GDP. Despite its critical importance, the sector faces numerous challenges, particularly in terms of access to adequate and timely financial services. Nearly 70% of India's population lives in rural areas, significantly

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A STUDY OF EFFECTIVENESS OF BRAND PREFERENCE ON CONSUMERS WITH REFERENCE TO TVS MOTORS

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ABSTRACT

Automobile is one of the largest industries in global market. Being the leader in product and process technologies in the manufacturing sector, it has been recognized as one of the drivers of economic growth. During the last decade, well-directed efforts have been made to provide a new look to the automobile policy for realizing the sector's full potential for the economy. Steps like abolition of licensing, removal of quantitative restrictions and initiatives to bring the policy framework in consonance with WTO requirements have set the industry in a progressive track. Removal of the restrictive environment has helped restructuring, and enabled industry to absorb new technologies, aligning itself with the global development and also to realize its potential in the country. The liberalization policies have led to continuous increase in competition which has ultimately resulted in modernization in line with the global standards as well as in substantial cut in prices. Aggressive marketing by the auto finance companies have also played a significant role in boosting automobile demand, especially from the population in the middle income group. These papers address the fundamentals of the brand image of TVS motors and it also holds the opinion of the consumers about a company and its vehicles.

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WILEY

RESEARCH ARTICLE

An efficient trust inference model in online social networks using fuzzy petri nets

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Summary

Sharing and exchanging of information among the group of users is the objective of social networks. With the growing popularity of the internet applications, many of the interactions are among the unknown users. Estimation of the user trustworthiness prior to conversation with him can increase the confidence level of a person in taking right decisions. Facebook, Twitter, LinkedIn, Instagram and Google+ are some of the most popular social networks, where the similar kinds of users share their messages and photos. In this article, the proposed method "Trust Inference Model in Online Social Networks Using Fuzzy Petri Nets (TMFPN)" computes the user trust value through two phases, that is, direct and indirect using twitter user data set. The direct trust of a user is evaluated based on his social activities like (follower count, listed count, mentions received, re tweets received, and posts) using fuzzy inference model. For the users those are not in direct interaction, indirect trust is computed. Proposed method-TMFPN gathers network information through trust propagation and models the social network as a fuzzy petri net. Where users and interactions are considered as places and transitions, respectively. Here the concurrent reasoning algorithm (CRA) is applied over the converted FPN, for the selection of reliable trustworthy paths between two users at multiple hops distance. Performance of the proposed method is verified theoretically and practically. In the experiment results, performance of TMFPN is compared with existing trust computing methods in computation of indirect trust of multihop away users.

KEYWORDS

fuzzy petri net, online social network, trust, Twitter

1 | INTRODUCTION

People get connected with others in online social networks (OSN)[1,2] using either mobiles or networking sites like Twitter, Instagram, Facebook and Google+. In a survey on social network users published in comScore,[3] users from America spending 90% of their internet access time on Instagram using mobile phones and this score is 86% for the Twitter users.

Users on social networking site may be a known user or an unknown user. Strangers on social networking sites can use the available user data for any kind of cybercrimes or for anti-social activities.[4] This may lead to cyber bullying by which the user has to face emotional trauma. Social networking sites are occasionally used for social emotional harassments by posting their private photos or by posting statements that emotionally affect the user. It is very important to provide protection for the online social networking users and for the personal data provided by them with the help of trustworthy mechanisms. Social networks with lakhs of users will generate huge data in the form of tweets and photos, where it is not trivial

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A Comprehensive Review of Phytochemical Investigation and Therapeutic Approaches to Flaxseed Oils with Support from Traditional Medicine

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Abstract:

This paper presents a comprehensive exploration of the phytochemical composition of flaxseed oil, highlighting its abundance in bioactive compounds such as lignans, antioxidants, and omega-3 fatty acids. These constituents contribute to the oil's notable anti-inflammatory, antioxidant, and cardiovascular benefits. The review endeavors to narrow the divide between traditional medicine and contemporary scientific understanding by investigating the therapeutic potential of flaxseed oil. Through an examination of historical uses and traditional knowledge, the study seeks to establish a connection between ancient wisdom and current research. The paper evaluates the existing scientific evidence supporting the role of flaxseed oil in the treatment and prevention of various diseases. By delving into ongoing clinical trials and emerging research trends, the study offers insights into the evolving landscape of therapeutic applications for flaxseed oil. The synthesis of traditional medicinal practices with modern scientific findings underscores the versatility of flaxseed oil in promoting preventative and therapeutic healthcare strategies. This review aims to contribute to the growing body of knowledge surrounding flaxseed oil, advocating for its integration into mainstream healthcare practices based on its holistic potential.

Keywords: Flaxseed oils, Phytochemicals, Traditional Medicine, Bioactive compounds, Therapeutic Approaches.

Introduction:

Flaxseed, also known as linseed, is a plant in the Linaceae family and has been used for centuries for various purposes, including drying oil in painting and treating respiratory disorders [1]. It typically yields 35-45% oil, with 9-10% saturated fatty acids, 20% monounsaturated fatty acids and over 70% α-linoleic acid. Linseed oil is high in -linolenic acid (ALA), making it a good source of ALA in the human diet[2]. Linseed seed contains 33-47% oil, 5.5% Linolenic acid, 20.3% protein, 38% fat, 29% carbohydrate, 4.8% fibre, and

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A-REVIEW OF PHYTOCHEMICAL, MEDICINAL AND NUTRITIONAL SIGNIFICANCE OF COLEUS AMBOINICUS WITH REFERENCE OF AYURVEDA

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Abstract

Coleus amboinicus is one of the important aromatic plant amongst the *Coleus* family (Lamiaceae), which is grown as a garden-plant in India. A review of the records in both folkloric and scientific literatures indicates that *Coleus amboinicus* has been used in variety of diseases in traditional system of medicine in India and the use of the leaf juice as an antiepileptic, cough, fiver and other communicable diseases. In the present study an attempt has been made to validate information of *Coleus* extracts of leaf, stem and root extracts separately pointed to various health issues. On morpho-anatomical observation, the leaf and stem showed presence of numerous multicellular covering and glandular trichomes, whereas thin-walled phellogen is the distinct character of root. On physicochemical aspects, leaf shows higher extractive values, ash value, and moisture content compared to stem and root parts. All the three extracts on phytochemical screening showed the presence of alkaloids, flavonoids, saponins, tannins, triterpenoids, and only leaf and stem extracts have shown the presence of carotenoids in addition. The anticonvulsant potency was found to be more with leaf extract than stem extract and least in root extract. Total phenolics, flavonoids, alkaloids and saponin contents were also found to be more in the leaf extract compared to stem extract and least in root extract. Results from these studies provide a significant rationale for the traditional use of this plant as an anticonvulsant. The leaf extract shown to be more prominent in all the aspects.

Key words: *Coleus amboinicus;* morpho-anatomy; antioxidant; anticonvulsant.

Introduction:

Coleus amboinicus is a well-known member of the Lamiaceae family. It can be found practically everywhere in India. It is a medicinal herb that has been utilised in folklore medicines (syrup) for therapy[2]. It can also be used to treat other conditions such as the flu, pneumonia, and epilepsy. According to photochemical analysis, it contains flavonoids such as apigenin, luteolin, and salvigenin [1].

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THE BIOLOGICAL CHARACTERISTICS AND POTENTIAL SOURCES OF NOVEL DRUGS OF INDIAN MEDICINAL PLANTS. A REVIEW

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Abstract:

Ayurveda is a traditional herbal medicine system with a lengthy history and solid foundation in India. In both preventing and treating human illnesses, herbal plants are crucial. Traditional human medicine has been derived from plants since ancient times. Throughout history, plants have played a significant role in shaping human civilization. Yet, it is thought that plants are abundant in the phytochemical components necessary for their therapeutic benefits. It may be possible to create novel herbal medications by using medicinal plants. Today, the pharmacological properties of medicinal plants are seen to be a promising new class of drug or medication for the treatment of medical conditions. Rediscovered medicinal plants have piqued curiosity as a possible source of novel drugs in recent years. Thus, the current review's goal is to comprehend our current understanding of medicinal plants as a potential source for herbal medications in the future.

Keywords: Ayurveda, Herbal medicine, Medicinal plants, Novel drugs, Phytochemicals.

Introduction:

Ever before the dawn of time, humans have been acquainted with plants and have employed them for a multitude of purposes **[1].** In their quest for sustenance and effective coping mechanisms, early humans learned to discriminate between plants with potent pharmacological effects and those that were suited for medical use **[1].** The use of plants as medicines has increased as a result of the growing link between humans and plants. As our understanding of how to treat illnesses grew, so did the number of novel medications derived from plants **[3]. India has been dubbed the "Medicinal Garden of the World"** due to the vast abundance of medicinal plants that nature has given upon our nation. The therapeutic application of plants listed in Indian Vedas to treat various illnesses **[1].** The conventional medical system is currently widely recognised and used by people all around the world **[4].** At present point, India holds a special place in the globe for having several established traditional medical systems, including **Ayurveda, Siddha, Unani, homoeopathy, yoga and naturopathy [1].** Because medicinal plants contain qualities similar to those of drugs, they have been acknowledged as possible drug candidates **[2].**

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The development and farming of oyster mushrooms (*Pleurotus ostreatus*) and its connection to self-employment economic strategies: A Review

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Abstract:

This study investigates the relationship between self-employment economic methods and oyster mushroom growing (***Pleurotus ostreatus***). It looks at every stage of oyster mushroom development, from preparing the substrate to harvesting methods. The study looks at the financial effects of doing oyster mushroom farming as a side business, emphasizing how flexible and scalable it is. Policymakers, businesspeople and agriculture enthusiasts may use the findings to better understand how oyster mushrooms can be used to boost the economy, support sustainable development, and give people more options for self-employment. Additionally, mushroom cultivation and production was addressed as well as challenges associated with mushroom farming and an assessment of their nutritional content compared to other food consumed by humans. There is a dearth of knowledge in this area of great natural biodiversity, thus more research on the applications of mushrooms should be done in Drought areas of the nations.

Keywords: Policymakers, Agriculture enthusiasts, Oyster mushrooms, self-employment, economic methods

Introduction:

The cultivation of oyster mushrooms (***Pleurotus ostreatus***) has emerged as a dynamic and versatile venture that has piqued the interest of agricultural enthusiasts, entrepreneurs and policymakers alike **[2].** In recent years, oyster mushrooms have garnered attention not only for their gastronomic appeal but also for their economic viability, placing them at the forefront of sustainable agriculture and entrepreneurial endeavors **[12].** Amidst a global upswing in demand for nutritious, locally sourced food, the cultivation of specialty mushrooms, particularly Pleurotus ostreatus, has gained prominence **[3].** Oyster mushrooms stand out for their rapid growth, adaptability to various substrates and a wide range of culinary applications, making them an attractive option for small-scale farmers and aspiring entrepreneurs seeking self-employment opportunities **[11].** Encompassing crucial stages such