




SAROJINI NAIDU VANITA MAHA VIDYALAYA

COLLEGE FOR WOMEN, AFFILIATED TO OSMANIA UNIVERSITY

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NAAC Accredited 3rd Cycle

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| 2 | Prabha Shukla | 1 |
| 3 | Sonam Thakur | 1 |
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THE CHATBOT - “EMOTION INTELLIGENCE”

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Abstract:

Conversational chatbots are Artificial Intelligence (AI)-powered applications that help users with different tasks by responding in natural language and are widely used in a variety of industries. Many chatbots we experience on websites and voice assistants like Google assistant, Alexa and Siri do not express empathy to the user, and their ability to empathise stays underdeveloped. A lack of empathy for the user is not required for a transactional or interactive chatbot, but bots designed to support mental healthcare patients must understand the user's emotional state and customise the conversations accordingly.

Keywords: Chatbot, Artificial Intelligence, Emotions, NLP

1. Introduction:

People with mental illness find it difficult to get professional help because of social disgrace and hesitancy. Because of this situation, it is not easy to support individualized patients with mental disorders. To overcome these problems, mental health professionals are using artificial intelligence-based chatbots, among others, as a first line of defence to meet the needs of individuals affected by mental health issues. When dealing with patients with mental illness, it is important to understand their emotional state and respond with simple micro-interventions such as breathing exercises and suggestions for friendly conversation. It helps to improve the patient's positive mood. The main advantage of these bots is that they provide actionable, evidence-based and compelling digital solutions that can quickly fill professional gaps. Although the development of artificial intelligence has paved the way for many chatbots, three Therapeutic Mental Health chatbots stand out and are widely used. A chatbot programmed to understand emotions can be similarly proactive, holding stories containing patient likes and dislikes, as well as topics that make patients laugh. Chatbots can optionally communicate patient likes and dislikes. Additionally, the adoption of therapeutic chatbots is growing rapidly due to the following benefits:

Manage the patient's mental state and be able to contact a physician in the event of an adverse event.

1. Chat support for all time
2. Smart with reactive actions such as answering questions instantly and giving patients tips on disease prevention and care.



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The Women as a Victim of Marginalisation in Patriarchal Domination in Arundhati Roy's *The God of the Small Things*

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ABSTRACT

**"What comes for them? Not Death.
Just the end of Living "by Arundhati Roy".**

A woman's status and authority are defined by her ability to define differences between the large and the small, and their difficult relationship with men in society. The current literary scene is critically affected by sexism, racism, and economic inequality, as well as trauma centered feminism.

The women characters eagerly share their burdens of pain, fiercely articulating their agonies and hopes in life and striving to redeem them, and their entire lives have been a battle of struggle. As women fight the battle of their health without reminiscing, losing and winning and losing again, and as they fight against the different circumstances of their lives, they never wince nor cry aloud in joy or sorrow, life or death.

The place of the woman, her authority and the challenge of defining differences between the big and small, the difficult relationship between Women and Men, Class issues are the crucial issues in the current literary scene, as well as the thought provoking issues strikingly discussed by a non-expat Indian author Suzanna Arundhati Roy in her Booker prize winning novel in 1997, *"The God of Small Things"*. Her purpose is to highlight the problem faced by women through her novel especially all female characters such as Mammachi, Ammu and Rahel are the inescapably fall victims of the Patriarchal domination and marginalisation due to race, gender identity, sexual orientation, physical ability and unequal power relationships.

The God of the Small Things depicts the helpless and hopeless condition of women as a result of cultural influences. In the village of Ayemenem, the culture and rules (The Love Laws) were represented by Pappachi, a cruel man prone to violence and a traditionalist addicted to self-aggrandizement as well as his only son Chacko, an embodiment of patriarchal values remarkably insensitive towards the state of his sister and her twins is the target of the novelist's intention to attack the dominance that subjected the protagonist (Ammu and Rahel) to untold mental torture occasional humiliations and finally to Ammu emotional breakdown and tragic death. Mammachi, Ammu's mother, is a helpless victim of domestic violence despite being an obedient wife and bearing her husband's cruelties throughout her life. Mammachi is undoubtedly the victim of the patriarchal system; Ammu and Rahel are victims of cultural insensitivity because of the men's insensitivity. Ammu is marginalized and falls in love with Velutha while being marginalized as well. Velutha is a

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ONCE UPON A TIME: A SELF & COMMUNITY LOSS

*MS. SAIRA SIDDIQUI

Abstract

The purpose of this paper is to highlight the cultural change, glorious past of pre-colonial Africa and their hatred attitude towards western culture and how the colonial rule destroyed the geography, socio-cultural identity of Africans and gave rise to racism. How slavery affected the native Africans way of life. All these issues would be focused on through the poem *Once Upon a Time*. It is a conversational poem, published in the year 1978, in which Gabriel Okara laments the loss of Africans' innocence on western lands due to western education. Throughout the poem ironically, the man (presumably a father) addresses the son, telling him in a rather nostalgic manner, how Europeans civilized the colonized people and made the Africans hypocrites. Hence in the Eurocentric view, it advocates that Africans are primitive and uncivilized. The speaker is guilty of having to be like one of 'them' and he wants his life to be filled with innocence and honesty again.

The paper also projects the loss of happiness due to the conflicts between African & Western cultures. The subjugation of the Africans accompanied by loot, rape, and pillage, the loss of identity of the Africans, their homes being devastated, the imposing of the cultural norms of the colonizer on the colonized, and the imposition of the colonizer's language on the colonized. The literature of the Africans talking about their state of freedom in the pre-colonial times, contrasted with their state during the post-colonial times and then the promise of freedom in the deplorable state of affairs holds for them. However, at the end the speaker wants the child to teach the adult roles that are to be reversed. It also describes what happens when a traditional African culture and civilization meets with the western culture.

Keywords: *pre colonial Africans, western education, Eurocentric view, present Africans position, etc.*

INTRODUCTION

In the Nineteenth Century, African literature had been predominantly oral. Some African languages were in written forms and since then the literature came into existence and became more productive in the 20th Century. Due to the popularity & acceptance of foreign languages by Africans in attending to almost all their affairs, their works started getting published in the mid-twentieth century. The narrated stories of African life are before the arrival of British colonial powers, and then the subsequent imperialism. As Africans became literate in their languages, they often reacted against colonial repression in their writing following the themes of Liberation, Nationalism, Tradition, and Rootlessness as

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CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

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MULTILINGUAL COMPOSITION IN TRANSLATED VERSIONS OF PREMCHAND'S SELECTED SHORT STORIES

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ENCHANTRESS OF YORUBAN IN WOLE SOYINKA'S SELECTED PLAYS

*MARIYA SHEEMA

Abstract

The connection between culture and literature is undeniable and constantly the most discussed topic. In most ancient cultures' literature developed out of religion and ritual and artist giving a form of a literary piece. The culture is composed of individual thoughts, emotions and way of living which indirectly constitutes the society. Literature is interpreted as reflecting norms and values as revealing the ethos of culture and certain types of social myths which are given the shape of facts.

This abstract presents the intertwined relationship between Yoruba and Wole Soyinka. Yoruba is the oldest and largest ethnic group in Nigeria. Soyinka formulated the ties between Yoruba culture and his works, mainly in dramas. He has creatively utilized his Western education to create a new kind of African drama. In the history of Nigerian drama, he is a pioneer, having constructed a theoretical framework termed as "Yoruba tragedy". His plays reflect the influence of both traditional African and modern European drama and they invariably contain sharp social criticism based on a sincere understanding of human nature. Soyinka has been a backbone in the development of contemporary Nigerian theatre, often serving as director, producer and actor in professional stage companies that perform in Yoruba language as well as in English. Soyinka's new form of Yoruba tragedy reflect significant changes in ideology, new ways of perceiving social reality and new sets of relationships between the playwright and audience/readers. Soyinka blends traditional dramatic elements-Yoruba mythic figures with Greek mythology.

Keywords: *Yoruba, drama, culture, literature*

INTRODUCTION:

The Yoruba form one of the largest cultural and linguistic groups in Nigeria. The Yoruba live mainly in south-western Nigeria, but are also found in the Republic of Benin, Togo and some parts of Ghana. The name Yoruba was originally given to the Oyo Yoruba¹ by their neighbours, the Hausa Fulani². The original home of the Yoruba is Western Nigeria. G.J Afolabi Ojo a distinguished Yoruba scholar defines Yoruba cultural area as "...the area where Yoruba culture is typical coincides with the six western provinces of Western Nigeria (Oyo, Ibadan, Abeokuta, Ijebu, Ondo, and Lagos); Ilorin Division of Ilorin Province; and Kabba Division of Kabba Province'. As the matter of fact, Yoruba consists of numerous subgroups and referred to themselves as Oyo, Owo, Ketu, Ijebu, Shabe (Ishabe, shave) and Ifonyin in Nigeria.

1. Oyo Yoruba - the empire founded in 1400 AD
2. Hausa Fulani- ethnic group of Sudan in Western Nigeria,

MULTILINGUAL COMPOSITION IN TRANSLATED VERSIONS OF PREMCHAND'S SELECTED SHORT STORIES

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CASE STUDY ON DECISION MAKING AT VIBRANT PAINTS- IS IT RATIONAL?

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Abstract:

The case represents a company named Vibrant Paints who faced a huge loss because of a decision taken by the accounts manager to stop paying transit insurance. It tells about the incident that a company faced and they suffered losses for several years.

One evening Akhil was sitting in his office and was just thinking about the sequence of incidents that had happened a few months ago. He was trying to understand the impact of the decision about transit insurance on the reputation of the company. He was planning to meet his friend Sonu who is the marketing manager to understand the sales growth of the products sold. Just then he got a call from the CEO of the company to meet him.

Introduction

Akhil, a young enthusiastic accounts manager was posted in Vizag, India, to take charge as the new account's manager in Vibrant paints. He was the most sought after candidate as he was edged with a certificate in SAP. Vibrant paints had its manufacturing plant in Rajasthan. The paints were shipped to various centres through roadway across India and were stored in warehouses. These centres then transported the paints to distributors via trucks through roadways. The entire demand and supply were triggered and automated by SAP.

Background

The paint industry in India is over 100 years old. Vibrant paints was the first company which started its operation in 1902 in Kolkata. The major competitors of Vibrant were Asian paints which had a market share of 39% and Berger paints with 12% market share. The domestic Industry in India is estimated to be Rs. 500 billion, with the decorative market constituting 75% and 25% catering to automobile, packaging and protective coatings. Indian per capita consumption of paint stood at 4.1kg in 2019. Supply exceeded demand, shorter festival season and monsoon further decreased the demand, however a wide variety of colours were available to the end users.



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Comparative Study of Three Heavy Metals in the Muscle of Three Edible Fishes

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Abstract: This study aims to know the concentration of heavy metals in the muscle of three species of edible fish collected from Ramnagar market of Hyderabad city and to assess the possible health risks associated with its consumption. In this study, we used Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) to estimate cadmium (Cd), lead (Pb), and mercury (Hg) in different types of fishes, such as Rohu (*Labeo rohita*), Roopchand (*Piaractus brachyomus*) and MilkFish (*Chanos chanos*). The concentration range of heavy metals in this study is cadmium ranges from 0.04-0.05mg/kg, while lead is between 0.04-0.07mg/kg and mercury is 0.05mg/kg. The permissible limit for cadmium is 0.3mg/kg, lead is 1.5mg/kg and mercury is 0.5mg/kg given by FAO/WHO. By comparing the values obtained in the present study with those of permissible limit values, we can conclude that the consumption of these three fishes from the Ramnagar area does not cause any health risk to humans.

Keywords: Heavy metals, cadmium, lead, mercury, edible fishes

I. INTRODUCTION

Heavy metals are metals with chemical elements, each of which has a relatively high density of atomic numbers and atomic masses of > 50 carbon units. Examples: cadmium (Cd), lead (Pb), arsenic (As), mercury (Hg), copper (Cu), zinc (Zn), nickel (Ni), etc., (Spiegel,2002). Among them, Zn, CU, and Ni are essential metals and have normal physiological regulatory functions. The non-essential heavy metals are Cd, Pb, As, and Hg as they are not necessary for metabolic activity. According to the properties of heavy metals Dmitri Mendeleev arranged them in p and d blocks in the periodic table [1]. Worldwide, heavy metal pollution in fish has become a major problem due to heavy consumption of fish by humans because of its nutritional benefits, high protein supply & omega fatty acids without knowing the fish polluted [2], [3]. Cadmium (Cd) is the 7th most toxic heavy metal as per ATSDR (Agency for Toxic Substance and Disease Registry) ranking [4]. Among non-essential heavy metals, Cadmium (Cd) is highly toxic and well recognized for its adverse influence on an enzymatic system of cells & oxidative stress. In the mammalian system, metallothionein plays a major role in determining the metabolism of Cadmium. Cadmium interferes with zinc in the enzyme system. A small dose of Cadmium may inhibit mitochondrial oxidative phosphorylation (Miller, W.J.1971). Lead is a highly toxic metal. It enters the body through ingestion or inhalation. Lead metal cause toxicity in living cells by ionic mechanism and oxidative stress [5]. The mechanism of lead toxicity occurs due to its ionic nature which replaces the bivalent cation like Ca^{+2} , Mg^{+2} , Fe^{+2} and monovalent cations like Na^{+1} which disturbs the biological mechanism of the cell. Lead can substitute Calcium [Ca] [5] which inhibits calcium-dependent events such as Protein- kinase -C [6]. Mercury is a heavy metal belonging to the transition element series of periodic tables [7]. Mercury exists in three forms i.e metallic elements, inorganic salts, and organic compounds (Transande et. al,2005). In human blood, mercury vapor oxidizes to mercuric ions. The ionic mercury is then circulated in the blood, bound mostly to plasma proteins [8]. The molecular mechanism of mercury toxicity is based on chemical activity and oxidative stress. In the cell both mercury and methylmercury form covalent bonds with cysteine residue protein.

The study aims to compare the concentration of the three heavy metals cadmium (Cd), lead (Pb) & mercury (Hg) in the muscle tissue of edible fishes namely Rohu (*Labeo rohita*), Roopchand (*Piaractus brachyomus*) and MilkFish (*Chanos chanos*).

II. METHODOLOGY

Edible fish samples of three different species of fish were collected from Ramnagar Market, Hyderabad, Telangana. The samples were collected in polythene bags and sealed and stored in an ice box and then taken to the laboratory for further analysis.

The procedure followed for the estimation of three heavy metals cadmium (Cd), lead (Pb) & Mercury (Hg) in the muscle of three edible fishes namely Rohu (*Labeo rohita*), Roopchand (*Piaractus brachyomus*) & Milkfish (*Chanos Chanos*) with the help of an Inductively Coupled Plasma Optical Emission Spectroscopy(ICP-OES) machine of the model of AVIO 200. 5gm of muscle tissue from each fish is taken for the estimation of three heavy metals. 5gm of sample digested with super pure nitric acid using 7ml of HNO_3^{+3} ml of H_2O after digestion made up to 25ml. Finally aspirated into ICP-OES against standard references.

Table 1: Scientific, common & local names of fishes

| Scientific name | Common name | Local name |
|-----------------------|-------------|-------------|
| Labeo rohita | Rohu | Sheelavathi |
| Piaractus brachypomus | Pacu | Roopchand |
| Chanos chanos | Milk fish | Pala Bontha |

III. RESULTS

The concentration of three heavy metals Cadmium, Lead & Mercury in the muscle of three edible fishes Rohu (*Labeo rohita*), Roopchand (*Piaractus brachypomus*) & Milkfish (*Chanos chanos*) are tabulated as below

Table 2: Concentration of heavy metals in fish samples

| S. No | Scientific name | Cadmium (Cd) mg/kg | Lead (Pb) mg/kg | Mercury (Hg) mg/kg | Permissible limit (FAO/WHO:1984, 1989) mg/kg |
|-------|----------------------------------|--------------------|-----------------|--------------------|--|
| 1 | Labeo rohita (Rohu) | 0.04 | 0.05 | 0.05 | 0.3 |
| 2 | Piaractus brachypomus(Roopchand) | 0.05 | 0.07 | 0.05 | 1.5 |
| 3 | Chanos chanos (Milk fish) | 0.05 | 0.04 | 0.04 | 0.5 |

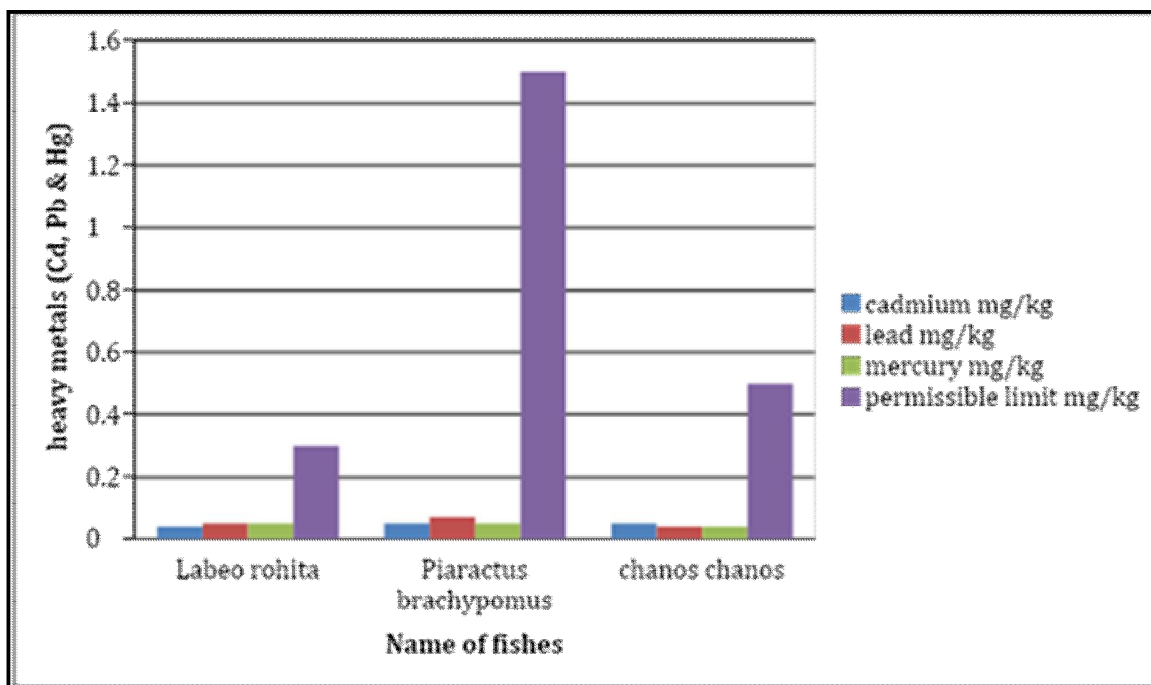


Figure1: Comparative graphical representation of the concentration of heavy metals in the muscle of different edible fishes taken with its permissible limits given by WHO/FAO (1984, 1989)

IV. DISCUSSION

Heavy metals are accumulated in aquatic ecosystems due to urbanization, industrial waste discharge, and agricultural runoff [9]. Aquatic pollution is one of the major rising problems globally and it also affects the total aquatic food. Ingestion of polluted fish and exposure to heavy metal cause health problems in people [10]. But in the current study, the focus is on the concentration of heavy metal in the muscles of the fish, because it is the part most consumed by people. The range of heavy metal concentration in my study is cadmium ranges from 0.04 - 0.05mg/kg while lead ranges from 0.04-0.07mg/kg and mercury ranges in 0.05mg/kg.

The permissible limit of Cadmium is 0.3mg/kg, Lead is 1.5mg/kg & Mercury is 0.5mg/kg is given by FAO/WHO (1984, 1989) [11]. In the present study, we compared heavy metals (Cd, Pb & Hg) in the muscle of three edible fishes namely *Labeo rohita* (Rohu), *Piaractus brachyomus* (Roopchand), and *Chanos chanos* (Milkfish), and found to be less than the permissible limit given by WHO/FAO (1984, 1989).

V. CONCLUSIONS

By comparing the results of this study with permissible values given by FAO/WHO (1984, 1989), we can conclude that the three heavy metals cadmium, lead, and mercury in three different edible fishes seen in the same concentration with a slight difference and by consuming these three fishes namely Rohu (*Labeo rohita*), Roopchand (*Piaractus brachyomus*) & Milkfish (*Chanos chanos*) does not cause any health risk to human.

VI. ACKNOWLEDGMENT

Study design: ASD, CM; Data collection: ASD; Data analysis and interpretation: ASD, and CM; Drafting of the manuscript: ASD and CM; Revising manuscript: ASD, and CM; CM takes responsibility for the integrity of the data analysis. The authors have no conflict of interest.

REFERENCES

- [1] H. Spiegel, "Trace element accumulation in selected bioindicators exposed to emissions along the industrial facilities of Danube Lowland," *Turk. J. Chem.*, vol. 26, no. 6, pp. 815–824, 2002.
- [2] K. Lee, H. Kweon, J. Yeo, S. Woo, S. Han, and J.-H. Kim, "Characterization of tyrosine-rich *Antheraea pernyi* silk fibroin hydrolysate," *Int. J. Biol. Macromol.*, vol. 48, no. 1, pp. 223–226, Jan. 2011, doi: 10.1016/j.ijbiomac.2010.09.020.
- [3] R. M. Macholz, "B. Venugopal und T. D. Luckey: Metal Toxicity in Mammals, Vol. 2: Chemical Toxicity of Metals and Metalloids. X. und 409 Seiten, zahlr. Tab. Plenum Press, New York und London 1978. Preis: 42.00 \$," *Food Nahr.*, vol. 23, no. 9–10, pp. 952–952, 1979, doi: 10.1002/food.19790230921.
- [4] "Toxicological Profile for Lead," p. 583.
- [5] S. J. S. Flora, M. Mittal, and A. Mehta, "Heavy metal induced oxidative stress & its possible reversal by chelation therapy," *Indian J. Med. Res.*, vol. 128, no. 4, pp. 501–523, Oct. 2008.
- [6] G. W. Goldstein, "Evidence that lead acts as a calcium substitute in second messenger metabolism," *Neurotoxicology*, vol. 14, no. 2–3, pp. 97–101, Summer-Fall 1993.
- [7] T. W. Clarkson, L. Magos, and G. J. Myers, "The Toxicology of Mercury — Current Exposures and Clinical Manifestations," *N. Engl. J. Med.*, vol. 349, no. 18, pp. 1731–1737, Oct. 2003, doi: 10.1056/NEJMra022471.
- [8] L. Friberg and J. Vostal, "Mercury in the environment - An epidemiological and toxicological appraisal," Cleveland, Ohio (USA) CRC Press, 1972. Accessed: Aug.30,2022.[Online]. Available: https://scholar.google.com/scholar_lookup?title=Mercury+in+the+environment++An+epidemiological+and+toxicological+appraisal&author=Friberg%2C+L.+%28ed.%29&publication_year=1972
- [9] M. Rahman, A. Molla, and S. Arafat, "Status of pollution around Dhaka export processing zone and its impact on Bangshi River water," *Bangladesh J. Nat. Sci. Sustain. Technol.*, vol. 4, no. 1, pp. 91–110, 2010.
- [10] K. Sobha, A. Poornima, P. Harini, and K. Veeraiah, "A Study on Biochemical Changes in the Fresh Water Fish, *Catla catla* (Hamilton) Exposed to the Heavy Metal Toxicant Cadmium Chloride," *Kathmandu Univ. J. Sci. Eng. Technol.*, vol. 3, no. 2, Art. no. 2, 2007, doi: 10.3126/kuset.v3i2.2890.
- [11] World and regional reviews: sustainable development and natural resource management. Rome: Food and Agriculture Organization of the United Nations, 1989.



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Selection of salinity resistant mutants calli of ICGS-11 and ICGS-44 cultivars of groundnut- *Arachis hypogaea* L

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Abstract

The present scenario of enhanced rates of population growth increases the demand for oil seed crops like groundnut. However, with rapid industrialization and urbanization soil pollution with toxic compounds as well as high levels of salinity act as barrier on cultivation of oil seed crops. In the present study mutant calli of groundnut *Arachis hypogaea* L were developed by gamma irradiation treatment and were selected for salinity resistance. Increased proline levels and decreased water potential are the biochemical and physiological hindrances in the stress conditions like salinity, these two parameters were also taken into study. In the course of study it was observed seed treatment with mutagen, viz; Gamma rays produced maximum number of salinity resistant mutant calli. In salinity conditions the proline accumulation was less in the mutant calli as compared to control and the water potential was nearly normal in the mutants while in the control it decreased significantly. This biochemical marker of decreased proline levels and normal water potential in the mutant calli under salinity stress is a clear indication of development of salinity stress resistant mutants.

Keywords: ICGS-11, ICGS-44, groundnut

Introduction

At the time when rapid rate of population growth places pressure agriculturist to increase the production of food crops. It is highly imperative that the yield traits should be improved by application of recent technology. Among the important food crops groundnut is a protein rich oil seed crop. One of the major breeding objectives in groundnut improvement programmes is to develop varieties with higher and more stable yields. Though the production of groundnut is increasing during last few years however the demand for this oil seed crop is also increasing. Thus, there is an urgent need to generate variability by adopting innovative approaches like *invitro* mutagenesis and stress tolerance. In the present study ground mutant calli were produced by gamma irradiation that were tolerant to salinity stress conditions.

Review of Literature

Mutagenesis is an effective approach in the field of crop improvement. The induction of genetic variation so as to obtain stress tolerant variants will be significant step in the improvement of crop plant. During the course of development and differentiation the cells undergo different types of nuclear and chromosomal changes such as endomitosis, polysomy and mutation (D Amato 1977) ^[1]. Such as situation can be exploited for selection of desirable variants (Skirvin, 1978) ^[26]. Genetic manipulation by mutagens, growth regulators and drugs can bring about additional changes that can be induced and useful variants can be recovered as done in sugarcane (Lieu and Chen, 1976), Heinz *et al* 1977) ^[20, 19].

The concept of mutation was put forth by de Vries (1901) ^[9]. Note worthy studies were taken up by Stadler (1928) ^[27] who used x – rays and gamma rays to induced mutations in barley and maze. Gregory (1955, 1956, 1957, 1965) ^[16, 14, 15] and Gaul (1965) ^[12] reported radiation induced genetic variability of quantitative characters in several crop plants.

In the present study gamma irradiations were used as physical mutagen. As far as the efficacy of gamma irradiations are concerned it was observed by Davies in several crop plants (1968, 1970, 1973) that it depends on the genotype and the stage of growth at which radiation is given.

Rosa *et al* (1980) observed gamma radiations increase percentage of proteins and oils in groundnut. Cheah *et al* (1990) reported increase in the ratio of oleic acid and linoleic acid in oil contents of groundnut mutants obtained by gamma irradiations.

Invitro mutagenesis has been achieved in several species for salt tolerance (Nabors *et al* 1980) ^[24] pathotoxins (Bajaj *et al* 1981 a) ^[2], herbicides (Gressel *et al* 1978) ^[17], Chilling (Dix and Street 1976) ^[10], Viruses (Heinz *et al* 1977) ^[19] and various drugs (Widholm, 1977). The selection of invitro stress resistant mutants have also been reported in the major stress condition that is higher salt levels. Croughan *et al* (1978) ^[5] selected salt tolerant traits of *Alfalfa sp*. However no such work has been reported in groundnut (Bajaj 1984) ^[3]. As such in the present



Original Article : Open Access

Effect of heavy metals on *Boerhavia diffusa* L. and SDS-PAGE profiling of proteinA.K. Abdussalam[♦], P.V. Jyothi^{*}, N. Sarah^{**} and M.K. Ratheesh Narayanan^{***}

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Abstract

Heavy metals are class of elements in which no biological role in plants, at the same time it is imparting toxicity in plants especially metabolic activities. Toxic effect of different concentrations of heavy metals such as cadmium, chromium, mercury and lead was studied by cultivating rooted propagules of *Boerhavia diffusa* L. for a period of twenty days in Hoagland nutrient medium, artificially contaminated with known concentration of those heavy metal ions. Toxic effect of these heavy metals are negatively influencing the metabolic activity of the plants. Protein profiling of root, stem and leaves of *B. diffusa* are traced by using the techniques SDS-PAGE. Protein profiles of cadmium, chromium, mercury and lead stressed proteins showed significant difference when compared each metals and tissues, respectively.

1. Introduction

In recent years, heavy metal (HM) toxicity has become a global concern which always imposing a severe threat to the environment and human health. In the case of plants, a higher concentration of heavy metals, above a threshold, adversely affects cellular metabolism because of the generation of reactive oxygen species which mark the key biological molecules. Moreover, some of the heavy metals such as mercury and arsenic, among others, can directly alter the protein/enzyme activities by targeting their – SH group to further impede the cellular metabolism (Noctor *et al.*, 2012; Shahid *et al.*, 2014; Riyazuddin *et al.*, 2022). *B. diffusa* (Common name-Hogweed) belonging to the family of Nyctaginaceae, is a diffused perennial herbaceous medicinal plant growing prostrate or ascending upward in habitats like grasslands, agricultural fields, fallow lands, wastelands and residential compounds (known also under its traditional name as ‘Punarnava’ in sanskrit and ‘Chuvannathazhuthama’ in malayalam). The plant was named in honour of Herman Boerhaave, a famous Dutch Physcian of the 18th Century (Chopra, 1969). *B. diffusa* plant has a long history of uses in Ayurvedic or natural herbal medicines (Dhar *et al.*, 1968). The major active principle present in the root is alkaloidal and is known as ‘punarvine’. The medicinal value of this plant in the treatment of a large number of human ailments is mentioned in Ayurveda, ‘Charaka Samhita’, and ‘Sushruta Samhita’. About 45 Ayurvedic

preparations inclusive of ‘Dhanvantaaristam’, ‘Chyavana parasam,’ ‘Ashokarishtam’, ‘Punarnavasavam’, ‘Rasanadikasayam’, ‘Narasimharasayam’, *etc.*, contain the roots, leaves or entire plant of *B. diffusa* (Sivarajan and Balachandran, 1994). The roots, leaves or the whole plant of *B. diffusa* have been employed for the treatment of various disorders in the Ayurvedic herbal medicine in India, Nepal, Sri Lanka and China. The root is mainly used to treat gonorrhoea, internal inflammation of all kinds, dyspepsia, odema, jaundice, menstrual disorders, anaemia, liver-gallbladder and kidney disorders, enlargement of spleen, abdominal pain, *etc.* (Kirtikar and Basu, 1956). It was also demonstrated that the drug decreased the albumin urea, increased the serum protein and lowered serum cholesterol level (Ramabhimaiah *et al.*, 1984). Singh and Udupa (1972) reported that the dried root powder showed curative efficiency for the treatment of helminth infection.

B. diffusa is a medicinal plant widely used as an important ingredient of many Ayurvedic preparations. These plants grow profusely as wild plants and are well adapted to polluted areas such as road side, railway track, banks of drainage, vicinities of public comfort station, *etc.* By trial and error experiments, the present author observed that *B. diffusa* plants grow well in Hoagland nutrient medium under hydroponic system. So, simulated experiments were set up to analyse the responses of *B. diffusa* by cultivating rooted propagules in Hoagland solution artificially contaminated with known quantities of cadmium chloride (CdCl₂), potassium dichromate (K₂Cr₂O₇), mercuric chloride (HgCl₂) and lead acetate (CH₃-COO)₂Pb 3H₂O.

Eventhough, effect of Cd, Cr, Hg and Pb have been investigated in a number of plants. Effect of these heavy metals on medicinal plants in general and *B. diffusa* in particular have not yet been

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MULTILINGUAL COMPOSITION IN TRANSLATED VERSIONS OF PREMCHAND'S SELECTED SHORT STORIES

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Research Article

INCIDENCE OF ROOT KNOT NEMATODE (MELOIDOGYNE spp) IN MAJOR SOLANACEOUS CROPS IN RANGA REDDY DISTRICT, TELANGANA STATE

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ABSTRACT

Solanaceous vegetables play an important role in nutrition and also to cope with malnutrition. These vegetables are affected by fungi, bacteria, phytoplasma, phanerogamic parasites and plant parasitic nematodes. Among PPN, root knot nematode *Meloidogyne incognita* is one of the major limiting factors in the production of vegetables in various mandals of Ranga Reddy districts, India. An extensive survey in vegetable growing mandals of Rangareddy districts namely Maheshwar Mandal, Moinabad Mandal and Chevella Mandal revealed the incidence of root knot nematode in all the major vegetable growing areas. During this period a total of 46 root samples (tomato, brinjal and chilli) were collected from farmer's fields. Out of the 46 collected root samples, 24 samples were infected with root knot nematodes and the overall distribution of the disease was 52.17%. It was clear that infected samples collected from Maheshwar Mandal showed the maximum number of galls per root system (78.57) followed by Moinabad Mandal (43.75) while the lowest number of galls (37.5) were found in Chevella Mandal. The maximum mean RKI (3.66) was observed in the Maheshwar Mandal followed by the Moinabad manual (3.5) and the least mean RKI was observed in Chevella Mandal (2.0).

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INTRODUCTION

The successful raising of vegetable crops is constrained by the attack of plant parasitic nematodes. Root-knot nematodes which belong to the genus *Meloidogyne* are one of the most economically damaging genera of plant-parasitic nematodes on field crops. Plant parasitic nematodes are considered as one of the important limiting factors in the production of vegetable crops because of their remarkable host range, worldwide distribution and devastating host range (Wajid khan and Ahmad khan 1998). Among the PPN, Root knot nematodes (*Meloidogyne* spp) are an economically important group (Perry *et al*, 2009).

Root knot nematodes, *Meloidogyne* spp, are one of the major economically damaging plant genera of parasitic nematodes on vegetable crops, especially Solanaceous vegetables. Root knot nematodes are obligate parasites of the roots of many plant species, and more than 3000 plant species are parasitized by the Root knot nematodes (Hussey and Janssen 2002). Among the varied crops vegetables are worst affected, barely any vegetable crop escapes the infection (Sharma *et al.*, 2006; Anwar *et al.*, 2007; Singh and Khurma, 2007). Root knot disease is caused

by different species of *Meloidogyne*. In India, there are several species of RKN found 3 including *M.incognita*, *M.javanica*, *M.arenaria* and *M.hapla*.

The damage caused by root knot nematodes has been estimated to be about \$150 billion worldwide. In India, it has been estimated an average national loss of 21,068.73 million rupees is due to plant-parasitic nematodes (NIPHM Rajendra Nagar).

Solanaceous vegetable crops play an important role in nutrition and also to cope with malnutrition, especially as sources of vitamins like vitamin A, C, E, thiamine, niacin, folacin, pyridoxine, minerals and dietary fibre. Besides these supplies many nutrients, these vegetables provide diversity to the diet and also make the food attractive with their flavor, colour and texture. They are called Protective Foods as they are rich sources of vitamins, minerals and phytonutrients. Phytochemicals found in these vegetables like lycopene in peppers and tomato, nasunin in brinjal are powerful antioxidants and are important in reducing the risk of chronic diseases by protecting against the free radical damage, by changing metabolic activation and also detoxification of carcinogens and even by influencing processes which alter the

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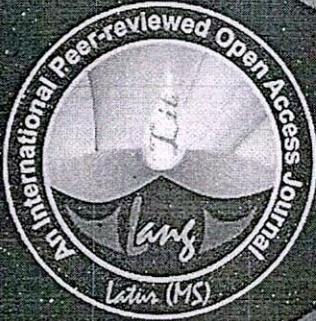
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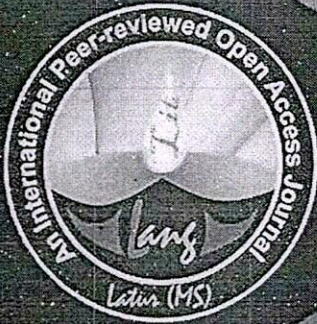
Indian Writers of English Literature: Provenance of Varied Ideologies

Edited by Dr. Adi Ramesh Babu

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A Special Issue on

Indian Writers of English Literature Provenance of Varied Ideologies

| Editor |

Dr. Adi Ramesh Babu



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**PORTRAYAL OF NEW WOMEN IN SHOBHAA DE'S SOCIALITE EVENINGS****Nikhat Fatima**

Lecturer, Dept of English

Sarojini Naidu Vanita Maha Vidyalaya
Hyderabad**ABSTRACT**

Feminism means the advocacy of women's rights on the grounds of equality and gender both in family as well as in the society. It challenges patriarchal thoughts in the society. In literary terms "Feminism" means challenging the patriarchal cannon deconstructing the phallogocentric creative and critical discourse; Feminist theory studies the structural inequality of women caused by social injustice and portrays the issues faced by the women in their writings. The women novelists have awareness which comes because of their acquaintance with the life of East as well as West. Their high education and intellectual strands has sharpened their observation of life and have imparted a psychological depth of the writing. Women writers have often raised their voice against social and cultural inequality that constrained women liberty. This paper profoundly observes the work of Shobhaa De, who presents the concept of new women who totally ridicule the traditional way of life, in the novels "Socialite Evenings". Basically De's works projects women as a creative force that controls the dynamics of the society. Her women oppose three Ms; Marriage, Motherhood, Monotony.

Key words: Feminism; patriarchy, new woman, socio-cultural inequality, liberty.

Feminism is a collection of movements aimed at defining, establishing, and defending equal political rights, seeks to establish equal opportunities for women in education and employment. A feminist is a "person whose beliefs and behavior are based on feminism." The subjugation of women is the central fact of history and it is the main cause of all the psychological disorders in society. Feminism aims to understand the power structures in the society, male domination, social practices and social institutions, which are instrumental in assigning a marginalized position to women. Feminist theory, which emerged from these feminist movements, aims to understand the nature of gender inequality by examining women's social roles and lived experience; it has developed theories in a variety of disciplines in order to respond to issues such as the social construction of sex and gender. Some of the earlier forms of feminism have been criticized for taking into account only white, middle-class, educated perspectives. This led to the creation of ethically-specific of multi-cultural forms of feminism.

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CITIZEN'S PERCEPTION ON INFORMATION AND COMMUNICATION TECHNOLOGY-A CASE STUDY OF TELANGNA STATE

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ABSTRACT

Majority of the rural and urban people are ignorant of ICT and delivery of public services. Hence, there is need to creating awareness about computerization of services in rural areas. The broadcasting both print as well as electronic can play an significant role in creating awareness in the rural society. The following methods shall be followed i.e., conduct meeting, awareness programmes, distribution of pamphlets, publicity through media and local TV Channel etc. are the key role in awareness of the citizens. It is prepared based on primary data and secondary data. The primary data was collected from the citizens in selected districts of telangna state. The samples are selected from 10 districts of Telangana sate; each district 60 citizens were selected.

Keywords: ICT, Citizens, Telangna, Satisfaction and Districts

INTRODUCTION

Public sector is collectively the world's largest service provider and measures to improve service delivery have received considerable attention in the last decade. Public sector leaders today face the challenge of satisfying their customers who expect the service delivery to match that delivered by private players. Accustomed to largely meeting the social objectives mandated by the legislation, public sector and its employees now face the formidable challenge of simultaneous achievement of equity, access, fairness, affordability, efficiency and sustainability. Differences in public and private sector services that exist have an impact on how the quality of the services delivered should be defined and assessed. Private sector's focus on choosing its target customer segments, developing services to meet the specific needs of the identified segments, increasing consumption, tackling competition for market share or revenue share, and nature of services itself are the differences that exist. Models of service quality are developed for private sector and are therefore not directly applicable in public sector contexts.

INFORMATION AND COMMUNICATION TECHNOLOGY

The study entailed in-depth analysis of an organization that delivers public services on e-mode, is innovative, has proven work record, collaborates with multiple diverse institutions to deliver services, and has a sufficient scale of operations. ICT was selected and its purpose, services, operational model, customer feedback, and stakeholder views were studied in detail. The basis for selecting Me-seva was that it is heralded as the most innovative e-governance project in India. It has received several awards such as "Gold Award at National e-governance Awards,2013" "Outstanding Performance in Citizen Centric Service Delivery",

Indian Writers of English Literature: Provenance of Varied Ideologies

Indian writing in English occupied a prominent place in Indian Literature. Indian writers gave refulgence to historical, cultural, philosophical, and other themes that encompass the mankind. Philosophy was the whole and sole stream in the writings of Rabindranath Tagore, Raja Ram Mohan Roy & Aurobindo. Cultural & historical aspects were hardly found entry in the writings of first generation. Indian English Literature of second generation witnessed social realism & revolution in the genre of novel after the First World War. Freedom struggle occupied the thoughts of entire nation irrespective of politicians, great thinkers, patriots, and Indian English writers like Mulk Raj Anand, R.K. Narayan, & Raja Rao, the trinity of Indian writing in English. Women writers like Kamala Markandaya, Anita Desai, Ruth Prwar Jhabvala, Nayantara Sahgal, Shashi Deshpande, Santha Rama Rau, Bharati Mukherjee, Kamala Das, Veena Nagpal, Arundhati Roy & Kiran Desai emerged as great writers in the recent Indian Literature. This special issue focuses on a variety of themes from the works of Indian English writers.



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A STUDY ON EMERGING ERIC MARKETING STRATEGIES - EVENT, RELATIONSHIP, INTERNET AND CONTENT MARKETING

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Abstract:

Increase in globalization of markets is also leading to increase in competition across diversified industries, to remain competitive in the market the marketers needs to use various marketing strategies. Marketing strategies are powerful tools which helps the survival of organizations and strengthens the market share. The study aims at presenting the various facets of emerging marketing strategies which includes – Event, Relationship, Internet and Content marketing. In a globally diversified world, to improve the business performance and profitability, to meet the competition, to achieve customer satisfaction and retention, and for reaching the target markets, marketing strategies are found to be an effective tool.

Keywords: Marketing strategies, Target markets, Organization's prospects.

Introduction:

American Marketing Association has defined marketing as “the activity, set of institutions and processes for creating, communicating, delivering and exchange offerings that have value for customers, clients, partners and society at large.”

Marketing strategies refers to the tactics used by business for reaching potential customers, for accomplishing business goals, for building market share, brand positioning and to meet the competition. Marketing strategies consists of 4 p's of marketing which is product, Price Place and Promotion, 4 P's are the key elements of marketing.

Marketing strategies proves to be an effective tool for improving overall business performance, strengthening market share and to create customer value. In an evolving environment it becomes essential for organizations to adopt to the various marketing strategies to cater to the needs of themselves as well as of potential customers.

An organization can use a variety of marketing strategies, some of the emerging marketing strategies are Event, Relationship, Internet and Content Marketing. Identification of right marketing strategy is essential to reach the target customers, to achieve over all business goals, to gain competitive advantage in the market, for earning of profits, for increasing sales and for facilitating supply and demand chain.

Research Objective:

The objectives of the study are

1. To determine the significance of various emerging marketing strategies.
2. To study the implications of marketing strategies in overall business goal attainment.

Review Of Literature:

Susanne Schwarzl and Monika Grabowska (2015) In an evolving world to reach the customer loyalty, constant development of the strategies is essential, the strategies to be used depends on upon the behavior of potential buyer and company's ability to understand their actions. Hence the companies has to create a clear defined brand which represents it's values, strengths and helps in catching the offline as well as online potential buyer's and loyal consumer's attention.

Research Methodology:

The present study is descriptive in nature. The study is based on Secondary data and data has been collected from journals, articles and websites.

Implications of Eric Marketing Strategies:

The implications of ERIC [Event, Relationship, Internet and Content] marketing strategies are

1. Event Marketing:

Event Marketing is a promotional marketing strategy which involves conducting of an event for the purpose of promotion of