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To Provide

Doctorate of Philosophy

In Biotechnology

To

Amit Rastogi

Certificate

This is to certify that this work is completely original submitted by Amit Rastogi. Also any part of this work is/was not uses/used for any diploma or degree by Amit Rastogi Anywhere.

Director Executive/ CEO

Declaration

Director Executive/CEO Biogeosciences declare here this Docrorate of Philosophy was done under his supervision By Amit Rastogi where Amit Rastogi supervise his own Doctorate of Philosophy due to the lack of Supervisor because Biogeosciences R & D is single Person R & D. This type of Doctorate of Philosophy is First Time in India also Nationally, Worldwide, Globally. Now Amit Rastogi is Authorised Doctorate and will be called Dr. Amit Rastogi.

Director Executive/ CEO

Introduction

Present Study was done in The Nitche of cultivation Horticulture of Guava small sized plant where five parameter were considered viz. Date and Time, Stem Length (All three Stem), Leaves per Stem, Stem Diameter, Leaf Colour. Others Scientists also carried out these Studies Including Experimental Studies on Morphological and physiological characterization of guava (Psidium guajava) under hot-arid zone of Rajasthan were taken out by Singh et al in 2016. Morphological and Anatomical Study of Psidium guajava linn. (guava) was carried out by Toma et al in 2019.

After Morphological Studies Guava Small Sized Plant was wraped in Baas Paper to made their Fossils to be used in Future.

Also Present study includes Allium sativum sp. & Capsicum sp. Germination to isolate Antimicrobial from Germinated Seed lings Fossils in Future & from prepared soil in which Allium sativum sp. & Capsicum sp. was Germinated. Further Biological Thermodynamics in Buds or Seed Germination of Allium sativum sp. & Capsicum sp. is Discussed in Dissertation. Antibiotics Preparation Bio-Strategy Septermber 2023 is also Discussed in Dissertation.

First Preceeding of Advanced Diploma Doctorate of Philosophy One Year includes Discussion on Anti-Microbial Ocimum sp. Preparation cum Development. Also one pot was Prepared with two Ocimum sp. which has discussion on Morphology of Both plantlets with Antibiotics Preparation Strategy.

First Preceeding also Includes Bio-Eco-Bio BioPreparation of Antimicrobial Bi-Metallic BioNanoparticles For MDR Isolates to Inhibit THEM & to BioDevelop BioNanomedicines & to Overcome Wilt Disease is also Discussed in Dissertation. Furthermore, A gernalised discussion on Biochemistry of Fossils is discussed in dissertation too. Additionally Micropropagation Discussion Towards to Anacardium occidentale Cashu Nut was also included in Dissertation.
Second Preceeding Advanced Doctorate Of Philosophy One Year Diploma In The Nitche of Advanced Botany Towards To Bio-Eco-Bio BioDevelopment of Fruit Variety Citrus sinensis & Capsicum sp. Desi Rose Flower Variety & Grapes Variety For Various Purposes From 2023 to 2029 is Discussed in Dissertation where BioPrepared Variety in 2024 were Kept in Room by wraped them for Further Bioanalysis of Biopharmaceutical in Future.

Here First Preceeding & Second Preceeding with Advanced Doctorate Of Philosophy One Year Diploma makes its to Provides to Amit Rastogi by Director Executive Biogeosciences R & D in December 2024 From August 2023.

Review of Literature

Guava (*Psidium guajava*) is economical medicinal plant of Myrtaceae family with high nutraceutical value and is considered to be adopted to tolerate conditions like tolerate frost, drought and salinity. It is widely used as food and in folk medicine all around the world. Guava contains many times higher vitamin C than any other fruits which are rich in vitamin C. The high concentrations of pectin content in guava fruit plays important in cholesterol mentaining to losses the cardiovascular diseases risk. It is low in calories and fats with several antioxidant polyphenolic and flavonoid compounds Morphological characterization of various cultivars of Guava (Psidium guajava. L) Under western U.P Conditions was done carried out by Shukla et al in the year 2022.

Morphological characterisation of guava based on fruit traits in Taita Taveta County of Kenya was done by Ndoro et al in 2023.

Morphological and Chemical Characterization of Psidium Species was done carried out by Sharma et al in 2010.

Studies on Morphological Characterization of Guava Cultivar's under Semi-arid Ecosystem of Haryana was done Carried out by Parveen et al. in 2023.

Studies on Morphological and Physiological Characterization of Different Guava Cultivar's under Semi-arid Zone of Haryana was done carried out by Praveen et al. in 2023.

To overcome the threat of antimicrobial resistance, it is important to introduced innovative and effective new antimicrobials. Garlic has antimicrobial qualities which has botanical name Allium sativum is a plant species used as a spice in food and also used as a medicine both Studies on Antibacterial properties of *Allium sativum* L. against the most emerging multidrug-resistant bacteria and its synergy with antibiotics was carried out by Magryś et al in 2021.

Studies on Antibacterial activity of garlic (*Allium sativum*) extract and molecular docking studies of allicin was done carried out by Cahayani et al in 2019.

Studies on Antimicrobial Activity of Aqueous Garlic Extract (Allium sativum) Against Porphyro-monas gingivalis: An In-Vitro Study was done carried out by Alirezaei et al in 2019.

Studies on Antibacterial Activities of the Extracts of Allium sativum (Garlic) and Alliumcepa(Onion) Against Selected Pathogenic Bacteria was carried out by Enejiyon et al in 2020.

Studies on Investigating the effect of garlic (Allium sativum) essential oil on foodborne pathogenic microorganisms was done carried out by Yasin et al in 2022.

Studies on Evaluation of antibacterial efficacy of garlic (*Allium sativum*) and ginger (*Zingiber officinale*) crude extract against multidrug-resistant (MDR) poultry pathogen was carried out by Noman et al in 2023.

Studies on the antimicrobial effects of garlic (Allium sativum Linn), ginger (Zingiber officinale Roscoe) and lime (Citrus aurantifolia Linn) was done carried out by Onyeagba et al in 2004.

Studies on Inhibitory effect of Allium sativum and Zingiber officinale extracts on clinically important drug resistant pathogenic bacteria was done carried out by Gull et al in 2012.

Studies on Exploring the antimicrobial potential of crude peptide extracts from Allium sativum and Allium oschaninii against antibiotic-resistant bacterial strains was done Carried out by Swangsri et al in 2024.

Studies on Diallylthiosulfinate (Allicin), a Volatile Antimicrobial from Garlic (Allium sativum), Kills Human Lung Pathogenic Bacteria, Including MDR Strains, as a Vapor was done carried out by Reiter et al in 2017.

Studies on Antimicrobial properties of hydrophobic compounds in garlic: Allicin, vinyldithiin, ajoene and diallyl polysulfides (Review) was done Discussed by Nakamoto et al in 2019.

Studies on Effects of garlic (allium sativum) and chloramphenicol on growth performance, physiological parameters and survival of nile tilapia (oreochromis niloticus) was done carried out by Shalaby et al in 2006.

Studies on Antimicrobial activity of Allium sativum against multidrug resistant Acinetobacter baumannii was done carried out by Ramos et al in 2021.

Studies on Garlic (Allium sativum L.) as an antibiotic alternative determining the hygienic quality of cow's milk from organic farms was done carried out by Bochenek et al in 2019.

Studies on In-vitro antibacterial activity of Kodai hill garlic(Allium sativum) aqueous extract against woundinfection pathogens including MRSA was done carried out by Nandhini et al in 2024.

Studies on Phytochemical Compound of Garlic (Allium sativum) as an Antibacterial to Staphylococcus aureus Growth was done carried out by Yunus et al in 2021.

Scientific Study were carried out to study the inhibitory effect of garlic (Allium sativum) extracts at 5%, 10%, 20%, 30%, 40%, 50% level in vitro on E.coli and S.aureus. Garlic extract exhibited bacteriostatic effect against both the test organisms. It was Showed that the inhibitory effect increased with the increase in the concentration of extracts. Also it was found that garlic extract was more effective against S.aureus than E.coli. Phytochemical studies of the different extracts showed that garlic contains important compounds such as carbohydrates, reducing sugars, lipids, flavonoids, ketones, alkaloids, and Tannins in the extracts.

Efficacy of Antimicrobial Activity of Aqueous Extract of Garlic (Allium sativum) against different bacterial species was done carried out by Sikrodia et al in 2018.

Studies on Antimicrobial effects of garlic (Allium sativumL.) was done carried out by Strika et al in 2017.

Capsaicin is a biochemical found in Chili plant (Capsicum sp.) Capsaicin is an alkyl vanillylamine (capsaicinoid) having chemical formula C18H27NO3. Red Chilli is known to provides potential new antimicrobials. Capsaicin and related compounds (called capsaicinoids) are potential metabolites of Red Chilli to demonstrate various pharmacological and physiological properties According to Molina-Torres et al. exibits capsaicin provides a strong inhibitory effect towards B. Subtilis MIC 25 μg/ml. Also capsaicin at concentrations up to 200 or 300 μg/ml Provides inhibitory effects only to the growth of E. Coli.

Studies on Phytochemical screening and antimicrobial Capsicum activity of Capsicum chinense Jacq.was done carried out by Gayathri et al in 2016.

Studies on Capsicum fruits as functional ingredients with antimicrobial activity: an emphasis on mechanisms of action was done carried out by Luna et al in 2023.

Das et al carried out the study to determine the effect of different concentration of extracts of Capsicum chinense on selected bacteria (Staphylococcus aureus, Escherichia coli). In the study they found that the extracts were effective against the test bacteria. Further, the extract from Capsicum chinense var. Noga Bhut showed a higher antibacterial activity against Staphylococcus aureus than from Capsicum chinense var. Roja Bhut. Furthermore, the extract from Capsicum chinense var. Roja Bhut showed a higher antibacterial activity against Escherichia coli than the one from Capsicum chinense var. Noga Bhut. Moreover, higher antibacterial activity was observed with 75% extract of Capsicum chinense variety CA1 against Escherichia coli with12 mm zone of inhibition. Also, the75% extract of Capsicum chinense variety CC2 showed maximum 11 mm zone against Staphylococcus aureus. The extract from higher percentages of concentration were associated with higher antibacterial property).

Periferakis et al stated that capsaicin, a phytochemical derived from plants of the genus Capsicum may be subjected to intensive phytochemical research due to its numerous physiological and therapeutical effects, including its important antimicrobial properties. Depending on the concentration and the strain of the bacterium, capsaicin can exhibit either bacteriostatic or even bactericidal effects against a wide range of both Gram-positive and Gram-negative bacteria, while in certain cases it can reduce their pathogenicity by a variety of mechanisms such as mitigating the release of toxins or inhibiting biofilm formation. Further, capsaicin has been shown to be effective against fungal pathogens, particularly Candida spp., where it interferes with biofilm formation. Also, the parasites Toxoplasma gondi and Trypanosoma cruzi have been found to be susceptible to the action of this compound. Among the most encouraging findings are the prospects for future development, especially using new formulations and drug delivery mechanisms. Finally, the influence of capsaicin in somatostatin and substance P secretion and action, offers an interesting array of possibilities given that these physiologically secreted compounds modulate inflammation and immune response to a significant extent.

Studies on Antibacterial and Therapeutic Potentials of the *Capsicum annuum* Extract against Infected Wound in a Rat Model with Its Mechanisms of Antibacterial Action was carried out by Ekom et al in 2021.

Studies on Antibacterial activity of Capsicum extract against selected strains of bacteria and micromycetes was carried out by Popelka et al in 2017.

Peppers are among the spices possessing a wide range of biological properties due to their excellent supply of health-related metabolites. *Capsicum annuum* L. (Solanaceae) is cultivated throughout Tunisia, and there is a shortage of information on the identification of the secondary metabolites in the seeds of this species as well as on their biological activities. The chemical profile was evaluated by RP-HPLC-DAD-QTOF-MS/MS, whereas the antimicrobial activities were determined in in vitro assays. In this work, 45 compounds belonging to various phytochemical classes, such as organic acids (2), phenolic compounds (4 phenolic acids and 5 flavonoids), capsaicinoids (3), capsianosides (5), fatty acids (13), amino acids (1), sphingolipids (10), and steroids (2) were identified in the hydro-methanolic seed extract of *C. annuum*. The hydro-methanolic seed extract showed an important antimicrobial activity against seven bacterial and four fungal strains. Further, the inhibition zones (IZs) for bacteria ranged from 9.00 ± 1.00 mm to 12.00 ± 0.00 mm & for fungi, the IZs ranged from 12.66 ± 0.57 mm to 13.66 ± 0.57 mm were found. The minimal inhibition concentration and minimal bactericidal concentration values showed that the extract was more effective against fungi than bacteria.

Studies on Chemical composition and antifungal activity of *Capsicum* pepper aqueous extracts against plant pathogens and food spoilage fungi was carried out by Sepulveda et al in 2024.

Studies on Antibacterial activity of jalapeño pepper (*Capsicum annuum* var. *annuum*) extract fractions against select foodborne pathogens was carried out by Bacon et al in 2017.

Studies on inhibitory effect of aqueous and alcoholic extract of red pepper on some isolated pathogenic bacteria from different areas of human body was carried out by Yaseen et al in 2021.

Studies on Antibacterial Activity of Two Bell Pepper Extracts: Capsicum annuum L. and Capsicum frutescens was carried out by Nevry et al in 2012.

Studies on Antibacterial Effect of Pepper and Chilli against Staphylococcus Aureus: A Comparative Study was done carried out by Anju et al in 2019.

Studies on Antibacterial and phytochemical Analysis of Capsicum annum (chili pepper BSS-859 F1 Hybrid) against foodborne Pathogens was carried out by Saranya et al in 2021. The present study was carried out to determine the effect of crude extract and fractions of Capsicum annum on selected food borne pathogens (Salmonella spp., Staphylococcus aureus, Shigella, Bacillus cereus). The methanolic extract of chili pepper (BSS-859 F1 hybrid) showed good activity against Staphylococcus aureus and Bacillus spp. as compared to crude extract and four fractions from chili extract tested. Chili pepper

extract showed the greatest activity against gram positive and gram-negative enteric pathogens but the gram-negative bacteria showed less activity than gram positive bacteria.

Studies on the Effect of Antimicrobial Properties of Pepper Fruits on SomeSpoilage Organism of Sudanese Wet-Salted Fermented Fish (Fassiekh) Product was done carried out by Sulieman et al in 2012.

Antibacterial activity of oleoresin from two *Capsicum annuum* L. types (curly red and big red chilli) was investigated by Nurjanah et al in 2016. Oleoresin was extracted with ethanol, and its antibacterial activity against pathogenic bacteria (Gram-positive bacteria: *Staphylococcus aureus, Staphylococcus epidermis,* and Gram-negative bacteria: *Escherichia coli, Pseudomonas aeruginosa*) was investigated. Resistance pattern was examined using an in vitro disc diffusion method. The study showed that the inhibition zone of curly red chilli oleoresin for *S. aureus, S. epidermis, E coli,* and *P. aeruginosa* were 18.25, 17, 24 and 2.9 mm, respectively, while that of big red chilli oleoresin for the same bacteria were 2.86, 2.02, 1.06 and 1.65 mm, respectively. Based on the result, *C. annuum* L. oleoresin can be considered as a potential natural antibacterial product.

Studies on Antifungal activity of three different varieties of *Capsicum annuum* against clinical isolates of *Candida* species was carried out by Moghadam et al in 2023. In the Present Study, Aqueous and alcoholic extracts of *Capsicum annum* showed a minimum inhibitory concentration (MIC) range of more than 512 µg/ml against clinical and reference strains of *Candida*. There was no justifiable difference between the effects of these extracts on *Candida* species.

Studies on Antimicrobial and Antioxidant Properties of Fruits of Capsicum annuum var. cerasiforme(Mill.) Irish and Heracleum nepalense D. Don was carried out by Pramila et al in 2017.

Studies on Assessing the Antibacterial Activity and Phytochemical Screening of Capsicum Varieties from Côte d'Ivoire was carried out by Kouassi et al in 2010.

Studies on Antifungal efficacy of Capsicum frutescens L. extracts against some prevalent fungal strains associated with groundnut storage was carried out by Soumya et al in 2012.

Studies on Antibacterial Effect of Hot Peppers (Capsicum annuum, Capsicum annuum var globriusculum, Capsicum frutescens) on Some Arcobacter, Campylobacter and Helicobacter Species was done carried out by Dogan et al in 2018.

Studies on Phytochemical screening and antibacterial properties of selected Nigerian long pepper (Capsicum frutescens) fruits was done carried out by Bello et al in 2015.

Studies on Evaluation of phytochemical and antimicrobial activity of Ocimum spp. was done carried out by Dixit et al in 2021. The study showed that all the three species possess varied amounts of phytochemicals qualitatively and the best antibacterial activity was shown against Bacillus subtilis by Ocimum tenuiflorum. The results confirm validity of the use of Ocimum spp. as medicine in ancient medicinal traditions and suggest that some of the plant extracts possess compounds with antimicrobial properties that can be used as antimicrobial agents in new drugs for the therapy of infectious diseases caused by pathogens.

Studies on Antimicrobial Activity of Ocimum Species of Karnataka against Clinical Isolates was done carried out by Kumari et al in 2019.

Studies on Phytochemical estimation and Antimicrobial activity of Aqueous and Methanolic extract of Ocimum Sanctum L. was done carried out by Singh et al in 2013.

Studies on Antibacterial Properties of Ocimum Spp. (Ocimum Basilicum L. andOcimum Basilicum Var. Purpurascens) Against Selected Bacteria was done carried out by Salleh et al in 2021.

Studies on Comparison of Methods of Extraction and Antimicrobial Activity of Six Ocimum Species against Human Pathogens was done carried out by Bomma et al in 2018. Extracts from plants have vital

source of medicines, Ocimum, (family Labiatae) is well known for treatment of a wide range of human illnesses. This study evaluates the extraction methods best suited for the determination of the antimicrobial potential of basil. The methanolic extract of O. gratissimum species had the highest yield (1.48±1.48%), while the essential oil of O. tenuiflorum had the lowest (0.19±0.30%). Comparison of methanolic extracts of different accessions, O.tenuiflorum (MSR1), O.basilicum (PI 172996) showed a growth reduction of 74%, for S. pyogenes, 91% for E. coli respectively; while essential oils of O. basilicum (PI 358472) had a growth reduction of 57% for S. pyogenes, 72% for E. coli. The chloroform extracts exhibited little or no inhibitory effects. In conclusion, the methanolic extracts, and essential oils were equally effective against the tested bacteria. Ocimum species may be used as an alternative source in the search for agents to treat bacteria.

Studies on Antifungal activity of *Ocimum sanctum* Linn. (Lamiaceae) on clinically isolated dermatophytic fungi was done carried out by Balakumar et al in 2011.

Studies on Antibacterial activity of tulsi (Ocimum spp.) against plant pathogenic bacteria was done carried out by Nath et al in 2024.

Studies on Major Compounds from Ocimum basilicum L and their Antimicrobial Activity against Methicillin-Resistant Staphylococcus aureus was done carried out by Taechowisan et al in 2018.

Studies on Antifungal Activity of Leaf Extracts of Ocimum sanctum against Fungal Pathogens was done carried out by Sharma et al in 2019.

Studies on Antimicrobial effects of Citrus sinensis peel extracts against dental caries bacteria: An in vitro study was done carried out by Shetty et al in 2016.

Studies on Antimicrobial activities of sweet orange (Citrus sinensis) juice on isolated Staphylococcus aureus, Escherichia coli, Pseudomonas spp, and Klebsiella spp. was done carried out by Iwuji et al in 2022.

Studies on Antimicrobial Activity and Phytochemical Analysis of Citrus Sinensis Leaves Extracts was done carried out by Kori et al in 2020.

Studies on Antibacterial activity of sweet orange (Citrus sinensis) juice extract on selected bacteria was done carried out by Hassan et al in 2020.

Studies on Antimicrobial effects of Citrus sinensis peel extracts against periodontopathic bacteria: an in vitro study was done carried out by Hussain et al in 2015.

Studies on Chemical Composition and Antibacterial Activity of Orange (Citrus sinensis) Essential Oils Obtained by Hydrodistillation and Solvent free Microwave Extraction was done carried out by Ngan et al in 2020.

Studies on Antimicrobial Properties of Orange (Citrus reticulata var. Kinnow) Peel Extracts against Pathogenic Bacteria was done carried out by Yashaswini et al in 2018.

Studies on Antibacterial Activity of Sweet Orange Citrus sinensis on some Clinical Bacteria Species Isolated from Wounds was done carried out by Baba et al in 2018.

Studies on Comparison of Antibacterial Activity in Ethanol Extract and Essential Oil of Citrus sinensis (L.) Peels Obtained by Sohxlet and Distillation Methods was done carried out by Kusrini et al in 2018.

Studies on Evaluating The Antimicrobial Properties Of Citrus Sinensis Extracts: Insights From A Comparative Review Of Five Studies was done carried out by Kirubhavathy et al in 2024.

Studies on Antibacterial activity of sweet orange (Citrus sinensis) on Staphylococcus aureus and Escherichia coli isolate from wound infections was done carried out by Pathak et al in 2021.

Research work at A study on effectiveness of sweet orange against bacterial wound isolates was done carried out by Anitha et al in 2016.

Research work at Antimicrobial activity of bioactive components of essential oils from Citrus sinensis against important pathogens was done carried out by Naveed et al in 2020.

Research work at Phytochemical analysis and antibacterial activity of leaf and stem bark extracts of Citrus sinensis (Sweet Orange) was done carried out by Ishwa et al in 2023.

Research work at Antibacterial Activity of Citrus sinensis (Orange) Peel on Bacterial Isolates from Wound was done carried out by Abalaka et al in 2016.

Research work at Anti-Bacterial and Anti-Fungal Activities of Citrus sinensis Leaves Extracts was done carried out by Mohammed et al in 2021.

Research work at Antibacterial Activity of Epicarp of Sweet Orange (Citrus sinensis) against Bacterial Isolates from Wound Infections was done carried out by kashari et al in 2019.

Research work at Antibacterial activity of citrus sinensis peel against enteric pathogens was done carried out by Nisha et al in 2013.

Research work at Screening Of Phytochemical Constituted, Antimicrobial And Antioxidant Activities Of Orange Peel (Citrus Sinensis) Extract was done carried out by Hany et al in 2015.

Research work at Antimicrobial properties of black grape(Vitis viniferaL.) peelextracts against antibiotic-resistant pathogenic bacteria and toxin producing molds was done carried out by Yadav et al in 2016.

Research work at Antioxidant and antimicrobial effects of grape pomace extracts was done carried out by Luchian in 2019.In the Present study, antibacterial activity against different pathogenic Strain (Escherichia coli ATCC 25922, Candida albicans ATCC 90028, Pseudomonas aeruginosa ATCC 27853 and Staphylococcus aureus ATCC 25923) was studied. The analysed samples exhibited insignificant antibacterial activity and the method requires optimization.

Studies on The Antimicrobial Activity of Peel and Seeds Extracts of Red Grapes was done carried out by Yaseen et al in 2017.The results showed that the seed and peel extracts inhibited the growth of microorganisms. B. Cereus was found sensitive for peel and seed extracts. Whereas, P. aeroginose and K. Pneumoniae showed the lowest sensitivity against seed and peel extracts. Furthermore, regarding the minimum inhibitory activity, the data showed that the gram positive bacteria were more sensitive to the seed and peel extracts. But, the fungal species was found to be resisting the phenolic compounds in peel and seed extracts.

Research work at The Antibacterial and Phytochemical Evaluation of Extracts of Grape (Vitis Vinifera) Seeds was done carried out by Omoya et al in 2023.

Research work at Antimicrobial activities of grape (Vitis vinifera L.) pomace polyphenols as a source of naturally occurring bioactive components was done carried out by Kabir et al in 2015.

Studies on Antimicrobial activities of ethanol extract of black grape was done carried out by Abtahi et al in 2020.

Studies on Effectiveness of Grape (Vitis Vinifera L.) Seed Extracts on Fungi and Bacteria Management was done carried out by KARA et al in 2018.

Research work at The Effectiveness of the Functional Components of Grape (Vitis vinifera) Pomace as Antioxidant, Antimicrobial, and Antiviral Agents was done carried out by Gaafar et al in 2019.

Research work at Grape Phenolic Extract Potentially Useful in the Control of Antibiotic Resistant Strains of Campylobacter was done carried by Mingo et al in 2013.

Research work at Antimicrobial properties of white malaga grape grown in Malaysia was done carried out by Samad et al in 2012.

Studies at Antimicrobial Activity of Grape Pomace Extracts Against Different Species of Microorganisms was done carried out by Sabo et al in 2024.

Research work at The Antimicrobial Activity of Grape Seed Extract against Two Important Oral Pathogens was done carried out by Mirkarimi et al in 2012.

Research work at Bactericidal effect of grape seed extract on methicillin-resistant *Staphylococcus aureus* (MRSA) was done carried out by Al-Habib et al in 2010.

Research work at Antibacterial Effects of Grape Extracts on Helicobacter pylori was done carried out by Brown et al in 2009.

Research work on A Systematic Quantitative Determination of the Antimicrobial Efficacy of Grape Seed Extract against Foodborne Bacterial Pathogenswas done carried out by Kitsiou et al in 2023.

Research work at The Effects of the Grape Seed Extract on Streptococcus mutans and Candida albicans : An In Vitro Study was done carried out by Aslanimehr et al in 2020. The results showed that GSE inhibits the growth of S. mutans and C. albicans. . Further, the MIC and MBC of the extract against S. mutans and C. albicans were 2 and 8 mg/mL, as well as 32 and 64 mg/mL respectively.

Plants have been recognished as a source or content of natural medicines for human health from the long period of time in which some plants show antimicrobial properties. The most important thing of using plant derived medicines is that they are low priced, readily available and showing minor side effect with lost cost. The present study shows the antibacterial potential of crude extracts of petals of Rosa indica through agar disk diffusion method. In this study, Petals were collected, dried and its crude extract was obtained. Methanol and acetone were used as the extraction solvent. These extract were examined against two gram-positive (Staphylococcus aureus, Bacillus cereus) and two gram-negative (E-coli, Salmonella typhi) bacteria. Extracts prepared by all solvents showed antimicrobial Potential and shows established zone(s) of inhibition. By performing phytochemical tests we have observed positive results for flavanoid, tannin and alkaloid. These phytochemical have capability to inhibit the growth of microorganism or can fight against pathogenic microorganism. Rich source of compounds have been obtained in this particular plant. For inhibition of multiple drug resistant microorganisms, this extract can be tested. For making herbal drugs, extract of Rosa indica may prove to be useful as an advance step in future (Pathak et al, 2019).

Antibacterial activity of the rose extract was studied in this study where Rose extract has shown maximum inhibitory effects against Staphylococcus aureus whereas the inhibitory effects against Bacillus cereus Bacillus subtilis and Klebsiella pneumoniaewere not satisfactory. In the study it was observed that Vibrio cholera also showed sensitivity to rose extract whereas E.coli and Pseudomonasaureginosa gave intermediate zones, therefore it can be suggested that we can use rose extract against S. aureus E.coli, Pseudomonas aureginosa and Vibrio cholera by Safdar et al, 2020.

Method & Materials

Morphological studies of guava small sized plant

For Morphological studies of guava small sized guava plant was purchased from Moradabad Plant Nursery. In Morphological studies of Guava small sized plant five parameter were considered viz. Date and Day, Stem Length (All three Stem), Leaves per Stem, Stem Diameter, Leaf Colour. A Table 5 in to 4 was formed to defined experimental data. Experimental day was selected Tuesday dated 22/8/23.

Preparation of Antimicrobial seedlings from Allium sativum sp. Buds & Capsicum sp. Seeds

For the preparation of Antimicrobial seedlings from Allium sativum sp. Buds & Capsicum sp. Seeds different antibiotics was used which discussion will be in the Result & Discussion Section. Of which some germinated Allium sativum sp. Buds and Capsicum sp. Seeds was done wrapped & stroed to Prepare Fossil for further Bioanalysis.

Amit Rastogi Theory for Biological Thermodynamics in Buds or Seed Germination of Allium sativum sp. & Capsicum sp.

Theory for Biological Thermodynamics in Buds or Seed Germination of Allium sativum sp. & Capsicum sp. was discussed by Amit Rastogi in terms of free Energy, Entropy & Enthalpy.

Antibiotics Preparation Bio-Strategy Septermber 2023

Antibiotics Preparation Bio-Strategy Septermber 2023 was done with different antibiotics & with Preprepared Al_2O_3 Bionanoparticles enriched Soil which discussion will be in the Result & Discussion.

First Preceeding Advanced Diploma Doctorate of Philosophy

First Preceeding Advanced Diploma Doctorate of Philosophy includes Experimental Research Discussion on Anti-Microbial Ocimum sp. Preparation cum Development with Theoritical Discussion on BioPreparation cum BioDevelopment of Bio- Eco- Bio Ocimum sp. which discussion will be in the Result & Discussion Section. Further, Theoritical Discussion on Bio-Eco-Bio BioPreparation of Antimicrobial Bi -Metallic BioNanoparticles For MDR Isolates to Inhibit THEM to BioDevelop BioNanomedicines & to Overcome Wilt Disease wil also be discussed in Result & Discussion Section. Furthermore, First Preceeding Includes Theoritical Discussion on Bio-Eco-Bio BioPreparation of Antimicrobial BioSolution For MultiDrug Resistant Bacteria which discussion will be in Result & Discussion Section. Moreover, First Preceeding Includes Theoritical Discussion on BiogeoSciences & Biogeochemistry Towards to Fossils with Micropropagation Discussion Towards to Anacardium occidentale Cashu Nut which discussion will be in Result & Discussion Section.

Second Preceeding Advanced Diploma Doctorate of Philosophy

Second Preceeding Advanced Doctorate Of Philosophy One Year Diploma Includes Bio-Eco-Bio BioDevelopment of Fruit Variety Citrus sinensis & Capsicum sp. Desi Rose Flower Variety & Grapes Variety For Various Purposes From 2023 to 2029. However Second Preceeding Work was Bind at 2024 where All Four plant variety was Purchased from Moradabad Nursery in which Morphological Studies of Two Plant variety was done including Citrus sinensis & Capsicum sp. Second Preceeding Advanced Doctorate Of Philosophy One Year Diploma Includes Theoritical Discussion on All Four Plant Varieties BioDevelopment which discussion will be in the Result & Discussion Section.

Result & Discussion

Morphological studies of guava small sized plant

In cultivation Horticulture of Guava small sized plant five parameter were considered viz. Date and Day, Stem Length (All three Stem), Leaves per Stem, Stem Diameter, Leaf Colour. A Table 5 in to 4 was formed to defined experimental data. Experimental day was selected Tuesday dated 22/8/23.

TABLE: 1 EXPERIMENTAL HORTICULTURAL EXPLANATION OF GUAVA SMALL SIZED PLANT

Date and Day	Stem Length (All three Stem)	Leaves per Stem	Stem Diameter	Leaf Colour
22/8/23 and Tuesday	76 cm	40 Leaves / Stem	0.5 Inch	Green
22/8/23 and Tuesday	25 cm	1 Leaves/Stem	0.9 Inch	Green
22/8/23 and Tuesday	22 cm	4 Leaves / Stem	0.2 Inch	Green

There were three stem was/is in Guava plant having stem length 76 cm, 25 cm, 22 cm. Leaves per stem was/is 40 Leaves / Stem with stem length 76 cm, 1 Leaves/Stem with 25 stem length, 4 Leaves / Stem was/is with stem length 22 cm where stem diameter was considered 0.5 Inch, 0.9 Inch, 0.2 Inch respectively. Leaf colour was considered as Green with all three stem. Such guava plant will be considered for Biotechnology, Nanobiotechnology & Biopharmaceutical experimental design which includes Chlorophill & Phytochemical Bioanalysis, Bionanoparticles Bioanalysis, Micropropagation Studies. Such above discussed guava plant was selected because of guava plant is rich in Phytochemical, Biopharmaceuticals to preceed our research till discussed above findings.

Preparation of Antimicrobial seedlings from Allium sativum sp. Buds & Capsicum sp. Seeds

For pot preparation 13 cm Pot was selected. To which simple soil till 6 cm was added. At which Approximate 10gm NaCl was spreaded. At which Prepared soil was added till 13 Inch. To which Allium sativum sp. Buds & Capsicum sp. Seeds was Added & Covered with prepared Soil at 31/8/23. At which 1 Fluconazole & 2 Cetrazine tablet solution in 10 ml water was added at 31/8/23 to Prepare antimicrobial Seedlings from Allium sativum sp. Buds & Capsicum sp. Seeds. Also soil will be subjected to Antimicrobial Bioanalysis. At 2/8/23 Soil at till NaCl added was did of pot & NaCl was mixed properly in Soil to which Upper soil was mix with 250 mg Amoxicilin Cloxacilin & Lactic Acid medicinal capsule Powder of Moxbil- LB was added & heated for 5 minutes. However, *Allium sativum* sp. Buds & *Capsicum* sp. Seeds were took out side. After cooling to 35 -40 Degree Centegrate of Soil, it was added to Pot & *Allium sativum* sp. Buds & *Capsicum* sp. Seed was Spreaded to Soil to which simple soil was added at to their upper of Seeds both. Also Approximate 20 gm Green Methi Seed was added to the pot & Pot was kept in Dark by wraping with Baas Newspaper (Business Standered) & Kept till Germination with day by day germination identification checking of Pot.

Future Research Outcome & Further Research cum Experimental Design and Bioanalysis

Isolation of Antibiotics Solutions From Soil & Its Minimum Inhibitory Concentration with Microbes

Preparation of Seedlings cum Small Sized Plant & Their Fossil Preparation

Isolation of Antibiotics from Fossils & Its Minimum Inhibitory Concentration with Microbes

Antibiotics Compound Detection & Its Structure Determination & Its Comparison with Anothers Antibiotics Structures

Also Structure identification of Selected Microbes in accordance to decides MIC with All Antibiotics Solutions

Select One High MIC Solution with Selected Microbes at which it considered

Also Inhibited Microbes with Selected Original Microbes are Sent to 16S rRNA Analysis Both Analysis submitted to NCBI. Also Both Microbes Inhibited Microbes with Selected Original Microbes are Cultured Together invitro at Nutrient Agar supplemented with 100 mg /50 ml for 6 Months After 6 Month Fusion of Both Microbes Further Cultured in Selected Broth Media for 5 days Cultured Media then Centrifugate at 10000 rpm & Supernatant will be collected for Further Bioanalysis.

Amit Rastogi Theory for Biological Thermodynamics in Buds or Seed Germination of Allium sativum sp. & Capsicum sp.

Bud of *Allium sativum sp*. is approximate 2 to 4 cm in length & 2 to 5 cm in diameter which is required high amount of Water Molecules to absorbe to be germinated with micro & macro nutrient from pot soil. There is need to identify germination Energy Entropy & Enthalpy for Bud & seed germination. Also oxygen uptake & oxygen libration identification is also necessary. Hydrogen from water molecule can combat with others uptake nutrient (Macro & Micro) form other bionutrient for seed germination. Also Entropy of hydrogen changes in to enthalpy to germinate Bud & seed of *Allium sativum sp*. & *Capsicum sp*. respectively. Also Micronutrient uptake by Bud & seed produced Free Energy to provides Entropy change to Enthalpy to germinate with water molecules from Pot Soil. Microflora in Soil (Moistured Soil) also provides Micronutrients & Macronutrients to the Buds & Seed to Germinate by changing from Entropy to Enthalpy. There is requirement to observe Entropy & Enthalpy Both Enery to Germinate by in term of Physical or BioPhysical Chemistry Unit. Environment Air with its microflora in which pot with Seed & Bud is placed with its temperature also play an bio Eco Bio Role in the Germination of Seed & Bud. Also Seed & Bud quality is necessary for germination. Here, Quality is in term of Healthy Seed in term of its Biochemical content such as Fat Protein Charbohydrate & Phytochemicals. Provided Antibiotics can check or slow Germination in terms of days. However, here Amit Rastogi is not discussed Methi Seed added to Pot of their Germination. For its Further Theory will be Introduced in upcoming or Upfurther Research Review Paper. As it is Theory Explanation Research Review Paper for Seed Germination From Buds & Seeds of ***Allium sativum sp. & Capsicum sp.***

Antibiotics Preparation Bio-Strategy Septermber 2023

10 ml water was boiled at till 40 – 50 Degree Centrigrate to which 1 gm Al_2O_3 Bionanoparticles enriched prepared Soil was added with 1 Ofloxacin & Lactic Acid tablet 1 Paracitamole Tablet 1 Cetrazine Tablet 1 Vitamin E Capsule was added & kept till 30 minutes at which 4 to 5 months old 1 mg Dry antibiotics solution was added with 5 ml water. 100 mg prepared & Dry Ocimum was added in 10 ml water was added & boiled & cooled it till 50 Degree Centigrate & was added to above solution & mixed. Of which First half of prepared solution was Added to Pot Soil & after 3 hour half solution was added to pot soil. Further Pot with soil with Buds & seeds was kept for as Preparation Bio-Strategy.

Future Research Outcome & Further Research cum Experimental Design and Bioanalysis

Isolation of Antibiotics Solutions From Soil & Its Minimum Inhibitory Concentration with Microbes. Preparation of Seedlings cum Small Sized Plant & Their Fossil Preparation. Isolation of Antibiotics from Fossils & Its Minimum Inhibitory Concentration with Microbes. Antibiotics Compound Detection & Its Structure Determination & Its Comparison with Anothers Antibiotics Structures. Also Structure identification of Selected Microbes in accordance to decides MIC with All Antibiotics Solutions. Select One High MIC Solution with Selected Microbes at which it considered. Also Inhibited Microbes with Selected Original Microbes are Sent to 16S rRNA Analysis. Both Analysis submitted to NCBI. Also Both Microbes Inhibited Microbes with Selected Original Microbes are Cultured Together invitro at Nutrient Agar supplemented with 100 mg /50 ml for 6 Months After 6 Month Fusion of Both Microbes Further Cultured in Selected Broth Media for 5 days Cultured Media then Centrifugate at 10000 rpm & Supernatant will be collected for Further Bioanalysis.

Antibiotics Preparation Bio-Strategy Septermber 2023

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First Preceeding Towards To Advanced Doctorate Of Philosophy Seven Months Diploma in Bio-Eco- Bio cum Bio-Eco-Bio Biotechnological Sciences cum Bio-Eco-Bio Plant Sciences cum Advanced & Applied Bio Plant Sciences (Bio-Eco-Bio Edible Herbal)

Anti-Microbial Ocimum sp. Preparation cum Development: A Research Paper in the Niche of Bio-Eco- Bio Biopharmaceutical Development

Fine developed roots with root hairs absorbs water in Ocimum Sp. & pull it to stem till apical shoot with auxiliary leaf too. In the present study antimicrobial Ocimum sp. preparation cum Development was done by Root –Water Pull Theory where an Ocumum sp. medium -small sized plant was shocked in Antimicrobial & NaCl Solution in Approximately 10 ml water. Root Water Pull Theory Explanation as Accordance to Anti-Microbial Ocimum sp. Preparation cum Development In the Present Anti-Microbial Ocimum sp. Preparation cum Development Approximately 10 ml water was taken & added to 100 ml steel bootle. In which One Floxacin tablet Antimicrobial with 500 mg NaCl was added & mix well. To which medium-small sized Ocimum sp. Plant with root was added for approximately Five hour at 21/9/23. Anti-Microbial Ocimum sp. Preparation cum Development in the this experiment was based at/on Root Water Pull Theory in which Antibiotic solution with NaCl was absorbed cum uptake by root hair & root and transferred to Apical & Axillury leaf with stem too with the help of xylem. It is also called Transpiration pull to develop Anti-Microbial Ocimum sp. Prepared Ocimum sp. then transferred to pot with 500 gm soil & kept for 6months. Also Antibiotics Solution was kept for Further Bioanalysis.

BioPreparation cum BioDevelopment of Bio-Eco-Bio Another Two Ocimum sp.

For this study **Pot with 18.1 Inch Diameter & 4.1 Length was Selected. However Pot was made from Soil. First Small sized Ocimum sp. has Main Branch 14.7 Inch Length with 13 Auxillary Bud where Second Small sized Ocimum sp.has Main Branch 15.1 Inch with 13 Auxillary Branch. Further,** Add 200 gm Fresh Soil in the Pot & then add Antimicrobial Prepared Soil 100 gm at it with Methi Bioseed 10 gm & Then Planted Two Ocimum Sp. Small Sized Plant in the Pot & Cover them with Soil Layer & Then Add Solution of Multivitamin Capsule Solution Little Bit to the Soil Upper layer Multivitamin Syrup 2ml at Upper Layer of Soil in Pot & Add 1 gm Coffee at Upper layer at Pot Soil Planted with Ocimum sps. & Cover Pot with Fresh Soil for Further Bionalysis have to Performed in vitro after 4-5 Years.

Bio-Eco-Bio BioPreparation of Antimicrobial BioSolution For MultiDrug Resistant Bacteria

Took Soil 20 gm & add 10 gm Methi BioSeed 10 gm Desi Red Rose Flower & Add 10 ml Water in it & Mix well Took All those for 15 days in Glass Pot Covered with Muslin Cloth to Let Methi Germinate towards to Find Bio-Eco-Bio Antibiotics Biosolution as Accordance to Procedure Given Below

At Day 10 add 2 gm Amoxicilin 500 mg Cetrazine 500 mg Folic Acid Tablets/ 10 ml water Solution to the Pot Soil by to Wraped up & Mix Took it For 5 days & Add Colecalciferol 1 gm in the Soil & Mix it & Wraped it Took It for Next 15 days by covering Aluminium Foil After 15 days Took out Biosoil from Glass Pot Took BioSoil in 500 ml Flask with 200 ml water & mix it Properly. Isolate BioMedicine By Steam Distilation Method by which Collect BioSolution For Further use as Biopahrmaceuticals & Antibacterial Bio-Eco-Bio Biowater For Multidrug Resistant Bacteria Before to use it First have to

Decide Bio-Eco-Bio Biowater BioViability towards to Multidrug Resistant Bacteria By Agar Spreading Plate Method & Then By Broth Inoculation Method. Also Dilutions of Biowater with others Antibiotics such as Low Spectrum Antibiotics have Prepare at accordance to from 10 mg 100mg to Perform Agar Spreading Plate Method & Then By Broth Inoculation Method. Also Both Biowater & Dilutions have to took in test tube at 10 ml accordance & have to Multidrug Resistant Bacterial 100 mg to 1gm to Each Test Tube & Each Test Tube have to covered Cotton Bud than them have with Beaker in which Test Tube to Kept have to placed in Orbital Shaker at rpm 20 & 28 Degree Centigrate for 1-10 days. Also by Both Bioprocesses Collect Bacteria For Further Study.

BiogeoSciences & Biogeochemistry Towards to Fossils

Fossils From Biogeographic Location Nationally Internationally Worldwide Globally are the Source of Bioinformation about the BioGoeEnvironment Such as Oxygen Nitogen &Carbon Species & Biosources & Bionutrients For Food Materials where Biogeochemistry is the understanding & to Develop extraction of All those things for Synergetic & healthy Lifestyle. Studies of stable Oxygen Carbon & Nitrogen species from Fossils is necessary towards to Bio-Eco-Bio life spans & to study Environment Conditions in which Fossil was. Oxygen species Such as ^{18} O and ^{16}O are studied numeriously where ^{18} O BioDeveloped in Ancient oceans & Sources of 18O Species are Sea (Ancient Oceans) Ancient Mountains near Ancient Oceans Fresh Rivers near Ancient Oceans towards to Flora &Fauna & where ^{16} O as a part of a Drinking water molecule which is evaporative &Comes at Earth by Water Cycle which is the Part of Biogeochemical Sciences. ^{14}C ^{13}C ^{12}C species are studied by Group of Scientist Nantionally Alien Island Country Internationally Worldwide Globally to Identify Biological Life of Earth & Sign of life on Earth in terms of Microbes From Fossils. Here we have to understand the Definition of Fossil to identify ^{14} C ^{13}C ^{12}4C species for Earth Biospan Biolife to Decide it towards to Fossil must be From Ancient Places & must be Carores of years old where the definition of towards to decide is Microbiological cum Bioinformatics cum Biogeoinformatics.

Micropropagation Discussion Towards to *Anacardium occidentale* Cashu Nut

For the Micropropagation of Bio-Eco-Bio Edible cum Economic BioPlantbAnacardium occidentale Axillary shoot-bud have to Proliferate at Modified MS Micropropagation Medium & Ingredients of MS Medium must obtained from URL. Where MS Medium Supplemented with BioComponents concentration PVP 500 mg per Liter & Thiadiazuron TDZ per Liter Concentration have to add to MS Micropropagation Medium to Modify it with Phytagel 1gm Per Liter Concentrartion to MS Medium For Micropropagation Towards to Anacardium occidentale Cashu Nut. Also Add AgNO3 500 mg /Liter to the Modify MS Medium to avoid Microbial Contamination in the Anacardium occidentale Culture where CashuNut Auxillary Bioshoot have to Micropropageate at Plant Tissue Cultute & Biotechnology Laboratory. At Plant Tissue Culture & Biotechnology Laboratory Glassware & Equipments Must be sterilised. Furthermore Explant CashuNut AxillaryBioshoot-bud Must be Surface Sterilised First with Tween 20 for 5 minutes at Plant Tissue Cultute & Biotechnology Laboratory then after use AgNO3 200 mg / 100 ml to Sterilise Explant at Laminar Air Flow in the Laboratory. For Micropropagation Glassware must be Surface Sterilise. Before Inoculation of Explant CashuNut Anacardium occidentale Auxillary Shoot Bud to Modified MS medium at Plant Tissue Culture & Biotechnology Laboratory Required Fumagation to Avoid Microbial Contamination in The Cultures & at Per

15 days Plant Tissue Culture & Biotechnology Laboratory Required Fumagation. Also Biocomponents of MS Mediumwith Supplimented Biocomponent must be of Analytical Grade. Also Modified MS Micropropagation Medium Required Plant Growth Homones such as IAA NAA IBA BAP at Low concentration such as 10 mg/100 ml For Better Explant Growth in Plant Micropropagation Laboratory in the Separate Culture to Prepared Culture Pool with Different Plant Hormones Concentration. Where Modified MS Micropropagation Medium with Plant Hormones Must be Seperate with Modified MS Micropropagation Medium. Also Modified MS Micropropagation Medium must be prepared 200 ml 200 ml 200ml 200ml as accordance to Plant Growth Hormones IAA NAA IBA BAP. Also Sterilised Glassware Must Towards to Micropropagation. Add 20 ml Modified MS Micropropagation Medium to 100 ml Sterilised Flask in Quantity10 nos. in theMicropropagation Laboratory For Each Plant Hormone Prepare 100 ml Sterilised Flask in Quantity 10 nos 10 nos. 10 nos. 10 nos. For IAA NAA IBA BAP Plant Hormones. Where Plant Hormone in Modified MS Micropropagation Medium Must add After Autoclave

in the Sterilised Laminar Air Flow. Analytical Grade Agar 4.5 gm have to add in Modified Micropropagation Medium Before autoclave. Before Adding Agar to the Modified Micropropagated Medium Modified MS Medium pH have to adjust 5.8. Then Agar have to Add in the Modified Micropropagation Medium & Autoclave have to Perform. Also as Discussed Above Pour 20 ml Modified Micropropagation Medium to Flask in Laminar Air Flow Modified Micropropagation Medium have to Solidify before Inoculation of Explant Anacardium occidentale Cashu Nut Auxillary Bioshoot Bud in the Micropropagation Laboratory. Took Micropropagated Explant Culture at Micropropagation Laboratory for 15-20 days & Observe Explant Anacardium occidentale Cashu Nut Auxillary Bioshoot Bud Fundamental Growth at Per day & write it at Practical Notebook & Also at Quantum Computer at Word File too. Where Plant Hormones Solution Preparation Must be with NaOH Solution 10 /mg /100 ml NaOH Solution where NaOH Solution with Distilled water as accordance to 1 mg/ml.

Second Preceeding Advanced Doctorate Of Philosophy Seven Months Diploma In The Nitche of Advanced Botany Towards To Bio-Eco-Bio BioDevelopment of Fruit Variety Citrus sinensis & Capsicum sp. Desi Rose Flower Variety & Grapes Variety For Various Purposes From 2023 to 2029

Grapes are one of the world most widely cultivated Variety or you can say horticultural crop. Grapes are enriched in phenolic compounds such as triterpenoid acids, oleanolic and betulinic acids, stilbenoid, daucosterol, E-resveratrol, catechin and Flavanols gallo-catechin. Citrus sinensis is a rich source of secondary metabolites. Also Citrus sinensis contains flavonoids steroids hydroxyamides alkanes fatty acids Coumarins peptides carbohydrates carbamates alkylamines carotenoids volatile compounds and nutritional elements such as potassium, magnesium, calcium and sodium. Chilli Capsicum annuum is a vegetable and spice crop with aroma & flavour. Desi Red Rose Flower is enriched with zinc, magnesium and calcium content with Flavonoids & Beneficiary Phenolic Componds & Sterols. Also Tannins content is found in Desi Red Rose Flower.

Method & Materials with Further Twelth Months To Five Years Research Prospect & With Present Research Procedure Discussion

Method & Materials with Further Twelth Months to Five Years Research Prospect & With Present Research Procedure Discussion is given below with special reference to Citrus sinensis & Capsicum sp. Desi Rose Variety Rosa indica & Graps Vitis sp. Variety.

Horticultural Bioanalysis of Citrus sinensis Hybrid Fruit Plantlet & Bio-Eco-Bio BioDevelopment of Fruit Variety From Amino Acid Multivitamin & Folic Acid Tablet To BioDevelop Synergetic Fruit

Plantlet Citrus sinensis Selected was having Main Branch 12.2 Inch Length with one Auxillary Branch having 9.5 Inch Length. Both Main was having Auxillary Branch too. Where Plantlet Upper Soil was Enriched with one Multivitamin Capsule in 10 ml water. Also Upper Soil of Plantlet was Enriched with 5 ml Amino Acid Multivitamin Antioxidant Syrup. Then After 1 Certrazine 5 Tablet Disprin 10 Tablet Folic Acid was Dissolved in 10 ml water & this Solution was added in at Upper Soil of Plantlet in Pot. Then After Upper Soil was Covered with 20 gm Methi Bioseed & Pot will be Kept For 12 Months as it is.

Discription of Small Sized Capsicum sp. Bio-Eco-Bio BioPlant cum Plantlets & BioPreparation cum BioDevelopment of Bio-Eco-Bio Capsicum sp. For Further Bioanalysis BY BioFossil Formation

Main Branch having Capsicum sp. was 17.4 Inch in Length with one Auxillary Branch with 14.5 Inch Length. Cpsicum sp. Small Sized Plantlet was Planted in Small Sized Pot Enriched with Approximately 20 gm Germinated Methi Bioseeds & Round Cereals Bioseed Appximately 20 gm where Bio Soil of Pot was enriched with Antibiotics & Al2O3 Bionanoprticles. After Plantation of Capsicum sp. Plantlet In Pot 500 mg Amoxicillin & 300 mg Fluconazole was Added to The Pot at Upper layer of Soil at 16/12/23 where Fluconaconazole was added in water 10 ml/300 Fluconazole as Solution to the Pot at Upper layer of Soil. At 17/12/23 Pot with Plantlet was Placed in Dark for 3-5 Years For Further Bioanalysis.

Bio-Eco-Bio Biodevelopment of Desi Rose Variety To Isolate AntiMicrobial BioSolution From Desi Red Rose Flower

Took 500 gm Fresh Soil & Mix with 500 gm Germinated Methi Bio Seed. Also add 500mg Amoxicilin to the Soil Prepared. Put this Bio Prepared Soil to 5 Inch Pot. Planted Desi Rose Variety Bio-Edible Plantlet to the Pot with BioPrepared Soil. Add 50 mg/100 ml water at Per 30 days For 24 Months to the Pot Planted with Desi Rose Variety Plantlet. After 24 Months Took Collect 100 gm Desi Rose Flower Bio Edible & Dry Them & Make Powder & Mix with 100 mg $AgNO_3$ Soild & 100 mg $AuCl_3$ Solid & Make Powder. Add this Powder to the 10 /100 v/v Alcohol & water & Make Solution. Perform Steam Distillation & Isolate Antimicrobial BioSolution & Perform AntiMicrobial Activity From Isolated BioSolution by Agar Plate Method & Broth Method.

BioPrepare cum BioDevelopment of Grapes Variety BY Horticultural Botany cum Advanced BotanyHorticultural Bioanalysis of Graps Small Sized Plant cum Plantlet

Took Small Sized Plant cum Plantlet of Grapes & Potted it with Prepared Soil. For this Purpose took small sized Pot for to BioDevelop Grape Variety. BioPreparation of Bio-Eco-Bio BioSoil Grapes Small Sized Plant cum Plantlet For this Purpose First Biosoil have to prepared towards to plantation of Grape small sized Plant cum Plantlet in the Small Sized Pot To prepare Biosoil took 700 gm Soil & Mix it with one Egg unboiled with Approximately 40 gm Methi Bioseed & Took Soil in the Pot & Planted Small Sized Grape Plant cum Plantlet in the Pot &Then after Spread 20 ml water of to it & It is necessary to Enriched Upper Biosoil with MultivitaminCapsule Solution in water 300 mg/ 10 ml water. Here Amit Rastogi is not Disclosing Multivitamin Capsule Name. It is at was at 9/12/2023. Grapes Plant cum Plantlet Horticulture Parameter as Accordance to Horticulture Botany At 9/12/23 Horticulture Parameter towards to Develop Grape Variety was taken where Main Stem Diameter was 0.5 Inch Length of 3.9 Inch Main Stem was Observed where Main Stem has Three Auxillay Branches. Also Leaf was Green in Colour. At 16/12/23 Germinated Methi Seed Approximately 10 to 20 gm were isolated & was Transferred to another Pot.

Bio-Eco-Bio BioDevelopment of Grape Variety

At 16/12/23 Grapes Planted Prepared Pot was enriched with Approximately 5 ml Aminoacid Multivitamin & Antioxidant Syrup. Also Multivitamin Capsule Approximately 100 mg/10 ml water was added to Pot. Also 4 Tablet Folic Acid with 1 Tablet Fluconazole was added to the Pot & Pot must kept for 20 days as it is to Proceed Further or Next Preceeding.

Result of Research Findings & Discussion with Concluding Remarks

Within 12 Months Citrus sinensis Plantlet will Produce Synergetic Citrus Fruit where as Capsicum sp. was kept in Dark for 3 to 5 Years to Isolate Antibiotics After Five Years. However after Three Years Antibiotics Development will be done cum BioDevelop in the Pot by Bacterial & Fungal Isolate During 2027-2029. Further Desi Rose Flower will be Significantly used to Biodevelop Bi-Metallic Bionanoparticles BioSolution to Inhibit Pathogenic Bacterial & Fungal Isolate & to Treat or you can say Bacterial & Fungal origin Plant Diseases. Also within Three to Five Grape Plantlet will Produce Synergetic Grapes.

Conclusion

In cultivation Horticulture of Guava small sized plant five parameter were considered viz. Date and Time, Stem Length (All three Stem), Leaves per Stem, Stem Diameter, Leaf Colour. There were three stem was/is in Guava plant having stem length 76 cm, 25 cm, 22 cm. Leaves per stem was/is 40 Leaves / Stem with stem length 76 cm, 1 Leaves/Stem with 25 stem length, 4 Leaves / Stem was/is with stem length 22 cm where stem diameter was considered 0.5 Inch, 0.9 Inch, 0.2 Inch respectively. Leaf colour was considered as Green with all three stem. Such guava plant will be considered for Biotechnology, Nanobiotechnology & Biopharmaceutical experimental design which includes Chlorophill & Phytochemical Bioanalysis, Bionanoparticles Bioanalysis, Micropropagation Studies. Such above

discussed guava plant was selected because of guava plant is rich in Phytochemical, Biopharmaceuticals to preceed our research till discussed above findings.

For Theoritical Explanation, Theory for Biological Thermodynamics in Buds or Seed Germination of Allium sativum sp. and Capsicum sp. is also discussed in above.

Antimicrobial compound (Antibiotics) preparation strategy is discussed above with medicines and Allium sativum sp. Buds & Capsicum sp. Where Isolation of Antibiotics Solutions From Soil & Its Minimum Inhibitory Concentration with Microbes and Preparation of Seedlings cum Small Sized Plant & Their Fossil Preparation is discussed here for further Bioanalysis. Isolation of Antibiotics from Fossils & Its Minimum Inhibitory Concentration with Microbes is also discussed above. Also Antibiotics Preparation Bio-Strategy Septermber 2023 is discussed above.

First Preceeding Towards To Advanced Doctorate Of Philosophy One Year Diploma in Bio-Eco- Bio cum Bio-Eco-Bio Biotechnological Sciences cum Bio-Eco-Bio Plant Sciences cum Advanced & Applied Bio Plant Sciences (Bio-Eco-Bio Edible Herbal) includes Anti-Microbial Ocimum sp. Preparation cum Development in the Niche of Bio- Eco-Bio Biopharmaceutical Development. Also First Preceeding Includes Bio-Eco-Bio BioPreparation of Antimicrobial Bi-Metallic BioNanoparticles For MDR Isolates to Inhibit

THEM to BioDevelop BioNanomedicines & to Overcome Wilt Disease. Further First Preceeding Includes Bio-Eco-Bio BioPreparation of Antimicrobial BioSolution For MultiDrug Resistant Bacteria. Furthermore, First Preceeding Includes BiogeoSciences & Biogeochemistry Towards to Fossils and Micropropagation Discussion Towards to *Anacardium occidentale* Cashu Nut.

Second Preceeding Advanced Doctorate Of Philosophy One Year Diploma In The Nitche of Advanced Botany Towards To Bio-Eco-Bio BioDevelopment of Fruit Variety *Citrus sinensis* and *Capsicum sp*. Desi Rose Flower Variety & Grapes Variety For Various Purposes is discussed above.

References

1. https://www.cabidigitallibrary.org/doi/pdf/10.5555/20203272145
2. https://krishi.icar.gov.in/jspui/bitstream/123456789/26925/1/Paper%20on%20Guava.pdf
3. https://ijariie.com/manuscript/22293
4. https://ijrar.org/viewfull.php?&p_id=IJRAR23D2514
5. https://ijcrt.org/viewfull.php?&p_id=IJCRT2409604
6. https://www.iosrjournals.org/iosr-javs/papers/Vol10-issue7/Version-2/E1007022835.pdf
7. https://www.thepharmajournal.com/archives/2022/vol11issue8/PartW/11-8-343-132.pdf
8. https://www.ajol.info/index.php/acsj/article/view/246826
9. Anshu SHARMA, Surinder Kumar SEHRAWAT, Ran Singh SINGHROT, Ajinath TELE, Morphological and Chemical Characterization of Psidium Species Not. Bot. Hort. Agrobot. Cluj,2010, 38 (1) : 28-32.
10. Parveen , Chetna , Om Prakash Jitarwal , and Deepak Sangwan Morphological Characterization of Guava Cultivar's under Semi-arid Ecosystem of Haryana International Journal of Education & Management Studies, 2023, 13(1) : 53-56.
11. Parveen, Chetna, Om Prakash Jitarwal, Deepak Sangwan, Satpal Baloda Morphological and Physiological Characterization of Different Guava Cultivar's under Semi-arid Zone of Haryana Environment and Ecology, 2023, 41 (3C) : 1941—1946.
12. https://www.mdpi.com/2076-3417/12/7/3491
13. https://pmc.ncbi.nlm.nih.gov/articles/PMC8205873/
14. https://pubs.aip.org/aip/acp/article-abstract/2108/1/020045/748447/Antibacterial-activity-of-garlic-Allium-sativum?redirectedFrom=PDF
15. S. Alirezaei, H. Godarzi, N. Moezi Ghadim, A Maheri, Antimicrobial Activity of Aqueous Garlic Extract (Allium sativum) Against Porphyro-monas gingivalis: An In-Vitro, J Res Dent maxillofac Sci 2019, 4(4) : 17-22
16. Sherifat O. Enejiyon , Al-Hassan A. Abdulrahman, Abdulameen S. Adedeji, Ramatu Abdulsalam and Mary U. Oyedum Antibacterial Activities of the Extracts of Allium sativum (Garlic) and

Alliumcepa(Onion) Against Selected Pathogenic Bacteria Tanz. J. Sci., 2020, Vol. 46(3) : 914-922.
17. https://www.scielo.br/j/cta/a/NmrZV9SsbLd7FC3bGqYntrw/?format=pdf&lang=en
18. https://pmc.ncbi.nlm.nih.gov/articles/PMC10390675/
19. https://tspace.library.utoronto.ca/bitstream/1807/6551/1/jb04110.pdf
20. https://ann-clinmicrob.biomedcentral.com/articles/10.1186/1476-0711-11-8
21. https://www.tandfonline.com/doi/pdf/10.1080/13880209.2024.2395517
22. https://www.mdpi.com/1420-3049/22/10/1711
23. https://www.spandidos-publications.com/10.3892/etm.2019.8388
24. https://www.scielo.br/j/jvatitd/a/5fQFMp3k9c7fm7PK8WqqcXd/?format=pdf&lang=en
25. https://www.sbpmed.org.br/admin/files/papers/file_u5mFayK8R2Qy.pdf
26. Aleksandra Bochenek, Beata Kuczyńska, Garlic (Allium sativum L.) as an antibiotic alternative determining the hygienic quality of cow's milk from organic farms, Annals of Warsaw University of Life Sciences – SGGW Animal Science No., 2019, 58 (2) : 105–113.
27. https://www.phytojournal.com/archives/2024/vol13issue1/PartD/13-1-62-377.pdf
28. https://iopscience.iop.org/article/10.1088/1757-899X/1053/1/012041/pdf
29. http://www.ijirset.com/upload/2018/may/112_STUDIES.pdf
30. https://www.ijcmas.com/7-9-2018/Ravi%20Sikrodia,%20et%20al.pdf
31. https://www.ijrar.org/papers/IJRAR1944311.pdf
32. https://pubmed.ncbi.nlm.nih.gov/10363839/
33. (https://core.ac.uk/reader/335078010).
34. https://pmc.ncbi.nlm.nih.gov/articles/PMC9441016/
35. https://www.ijrar.org/papers/IJRAR1944311.pdf
36. https://www.mdpi.com/2072-6643/15/19/4097
37. https://onlinelibrary.wiley.com/doi/10.1155/2021/4303902
38. https://potravinarstvo.com/journal1/index.php/potravinarstvo/article/view/731
39. https://pmc.ncbi.nlm.nih.gov/articles/PMC10489744/
40. https://www.frontiersin.org/journals/cellular-and-infection microbiology/articles/10.3389/fcimb.2024.1451287/full
41. https://onlinelibrary.wiley.com/doi/full/10.1002/fsn3.453
42. https://www.revistabionatura.com/files/NN2021.06.04.21.pdf
43. https://www.tandfonline.com/doi/pdf/10.1080/10942912.2010.509896
44. https://medwinpublishers.com/IJBP/IJBP16000162.pdf
45. https://ijcrt.org/papers/IJCRT2108206.pdf
46. https://wvj.science-line.com/attachments/article/11/WVJ,%20B2,%2005-10.pdf
47. https://www.actahort.org/members/showpdf?booknrarnr=1125_23
48. https://tdtmvjournal.biomedcentral.com/articles/10.1186/s40794-023-00194-w
49. http://impactfactor.org/PDF/IJTPR/9/IJTPR,Vol9,Issue2,Article4.pdf
50. http://www.globalsciencebooks.info/Online/GSBOnline/images/2010/FOOD_4(1)/FOOD_4(1)27-32o.pdf
51. http://www.ijat-aatsea.com/pdf/v8_n2_12_March/29_IJAT%202012_8_2__S.L.pdf
52. http://www.pvj.com.pk/pdf-files/38_3/266-270.pdf
53. https://academicjournals.org/journal/AJMR/article-full-text-pdf/1C3CADE55841
54. https://www.oatext.com/pdf/IFNM-8-299.pdf
55. https://www.ijpab.com/form/2019%20Volume%207,%20issue%204/IJPAB-2019-7-4-245-254.pdf
56. https://www.scholarsresearchlibrary.com/articles/phytochemical-estimation-and-antimicrobial-activity-of-aqueous-andmethanolic-extract-of-ocimum-sanctum-l.pdf
57. Nurul Nadia Salleh, Hafiza Yahya, Norlelawati Ariffin, Hanis Nadia Yahya, Antibacterial Properties of Ocimum Spp. (Ocimum Basilicum L. andOcimum Basilicum Var. Purpurascens) Against Selected Bacteria, East African Scholars J Agri Life Sci., 2021, Vol-4, Iss-10 , Dec : 194-200.
58. https://jalsnet.com/journals/Vol_5_No_2_December_2018/10.pdf
59. https://www.sciencedirect.com/science/article/pii/S1995764511601661
60. http://www.ukaazpublications.com/publications/wp-content/uploads/2024/July/78.pdf
61. https://biomedres.us/pdfs/BJSTR.MS.ID.000910.pdf
62. https://www.ijcmas.com/8-4-2019/Satish%20Sharma,%20et%20al.pdf

63. http://www.medicinaoral.com/medoralfree01/aop/52493.pdf
64. J C Iwuji, S C Chukwuemeka, E C Ogbodo, E E Ogbonye, A K Amah, I O Uduchi, A O Okezie, A A Okebalama, Antimicrobial activities of sweet orange (Citrus sinensis) juice on isolated Staphylococcus aureus, Escherichia coli, Pseudomonas spp, and Klebsiella spp., International Journal of Clinical Biochemistry and Research 2022, 9(3) : 246–249.
65. https://www.ijsr.net/archive/v9i7/SR20626162332.pdf
66. https://academicjournals.org/journal/AJMR/article-full-text-pdf/5EC9EFC66590
67. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=58d54c5df4b9a0839e01f40776b707eb980c35cb
68. https://iopscience.iop.org/article/10.1088/1757-899X/991/1/012023/pdf
69. https://www.ijcmas.com/7-3-2018/P.%20Yashaswini%20and%20Arvind.pdf
70. https://www.jscimedcentral.com/public/assets/articles/familymedicine-5-1154.pdf
71. https://iopscience.iop.org/article/10.1088/1757-899X/440/1/012028/pdf
72. https://ijcrt.org/papers/IJCRT2408451.pdf
73. https://www.jetir.org/papers/JETIR2107209.pdf
74. https://www.fortunejournals.com/ijpaes/admin/php/uploads/980_pdf.pdf
75. http://www.ifrj.upm.edu.my/28%20(01)%202021/DONE%20-%2019%20-%20IFRJ20084.R1.pdf
76. https://jhhhm.halal.ac.ir/article_184061_c0ae2fbb5e5339fbe76e7142b081bfea.pdf
77. https://staff.futminna.edu.ng/MCB/content/journal/PF1393/4.pdf
78. https://www.isroset.org/pub_paper/IJSRBS/1-ISROSET-IJSRBS-06922.pdf
79. https://www.ijaar.org/articles/Volume5-Number8/Sciences-Technology-Engineering/ijaar-ste-v5n8-aug19-p2.pdf
80. https://arastirmax.com/en/system/files/dergiler/57636/makaleler/2/5/arastirmax-antibacterial-activity-citrus-sinensis-peel-against-enteric-pathogens.pdf
81. https://bepls.com/may2015bepls/14a.pdf
82. Devbrat Yadav, Arvind Kumar, Pramod Kumar, Diwaker Mishra, Antimicrobial properties of black grape(Vitis viniferaL.) peelextracts against antibiotic-resistant pathogenic bacteria and toxin producing molds, Indian Journal of Pharmacology, December 2015, Vol 47, Issue 6 : PP-663-667.
83. https://www.bio-conferences.org/articles/bioconf/pdf/2019/04/bioconf-oiv2019_04006.pdfYaseen M. Galali, Khalid I. Aziz and Salar Ali, The Antimicrobial Activity of Peel and Seeds Extracts of Red Grapes, Journal Tikrit Univ. For Agri. Sci., 2017, Vol. (17) No.(3) : PP- 36-40.
84. https://eajournals.org/ijcabg/wp-content/uploads/sites/44/2023/11/The-Antibacterial.pdf
85. Faisal Kabir , Mosammad Shahin Sultana and Heri Kurnianta, Antimicrobial activities of grape (Vitis vinifera L.) pomace polyphenols as a source of naturally occurring bioactive components, Afr. J. Biotechnol., 2015, Vol. 14(26), pp. : 2157 -2161.
86. https://www.internationalscholarsjournals.com/articles/antimicrobial-activities-of-ethanol-extract-of-black-grape.pdf
87. https://www.cabidigitallibrary.org/doi/pdf/10.5555/20193337575
88. https://jjbs.hu.edu.jo/files/vol12/n5/Paper%20Number%2014.pdf
89. https://digital.csic.es/bitstream/10261/100029/1/Grape%20Phenolic%20Extract.pdf
90. https://ir.uitm.edu.my/id/eprint/5938/2/5938.pdf
91. https://intapi.sciendo.com/pdf/10.2478/ahr-2024-0018
92. https://brieflands.com/articles/zjrms-93147.pdf
93. https://www.jstage.jst.go.jp/article/jts/35/3/35_3_357/_article
94. https://journals.asm.org/doi/pdf/10.1128/aem.01595-08
95. https://centaur.reading.ac.uk/111929/3/foods-12-00929.pdf
96. Masoumeh Aslanimehr , Ashraf Alizadeh , Faezeh Azmoudeh, The Effects of the Grape Seed Extract on Streptococcus mutans and Candida albicans : An In Vitro Study, Avicenna J Dent Res. 2020 ,June, 12(2) : 35-39.
97. Deepika Pathak, Kruti M Dave and Luluaa Aliasgar, Antimicrobial Properties of Rosa Indica(A New Start with Nature), Biosci., Biotech. Res. Asia, 2019, Vol. 16(2) : p. 403-409.
98. Yusra Safdar and Taqdees Malik, Antibacterial activity of the rose extract, Open Acc J Comp & Alt Med, 2020, Volume 2 - Issue 4, 194-201.
99. https://www.iosrjournals.org/iosr-javs/papers/Vol10-issue7/Version-2/E1007022835.pdf
100. https://www.ijrar.org/papers/IJRAR1944311.pdf
101. https://www.mdpi.com/2076-3417/12/7/3491

102. https://www.nature.com/scitable/knowledge/library/water-uptake-and-transport-in-vascular-plants-103016037/
103. https://www.ijfmr.com/research-paper.php?id=6697
104. https://www.ijfmr.com/papers/2023/5/6697.pdf
105. https://www.diagnocine.com/Content/Upload/Product/datasheets/m%20(221).pdf
106. https://www.nature.com/scitable/knowledge/library/water-uptake-and-transport- in-
107. vascular-plants-103016037/
108. https://www.diagnocine.com/Content/Upload/Product/datasheets/m%20(221).pdf
109. https://www.iosrjournals.org/iosr-javs/papers/Vol10-issue7/Version-2/E1007022835.pdf
110. https://www.ijrar.org/papers/IJRAR1944311.pdf
111. https://www.mdpi.com/2076-3417/12/7/3491
112. One Copy of Published Research Paper with its Entitled & Journal Name
113. Morphological Studies of Guava (Psidium guajava) Plant Small Sized: A Research Paper in the Nitche of Botanical Horticulture International Journal of Scientific Research in Engineering and Management
114. Possible Theories in Research Preceding Antimicrobial From Allium sativum sp. Buds & Capsicum sp. Seed & Seedlings Fossils Both: A Review with Theoritical Explanation of Biological Thermodynamics in Buds &Seeds Germination International Journal of Engineering Inventions
115. Research Review Paper Published with its Entitled & Journal Name To Provides Advanced Doctorate Of Philosophy Seven Months Diploma in Bio-Eco-Bio cum Bio-Eco-Bio Biotechnological Bio-Eco-Bio Plant Sciences cum Advanced & Applied Bio Plant Sciences (Bio-Eco-Bio Edible Herbal)
116. Trigonella foenum-graecum Seed Germination Theory: A Theory in as Accordance to Free Energy Entropy & Enthalpy Change in Seed in/with Soil International Journal of Scientific Research in Engineering and Management
117. Preparation of Guava (Psidium guajava) Fossil from Guava (Psidium guajava) Plant Small Sized: A Research Paper in the Nitche of Fermentation Biotechnology & Biopharmaceutical Soil International Journal of Scientific Research in Engineering and Management