



# The University of Burdwan

## WORKSHOP ON SOCIAL AWARENESS

**BROAD TOPIC: PLANT PHYSIOLOGY PARADIGM FOR AUGMENTING  
CROP PRODUCTIVITY UNDER CLIMATE CHANGE IN POST GREEN  
REVOLUTION PERIOD**

**SUB TOPIC: ALTERNATE MEDICINAL PLANT AS POTENTIAL  
CASH CROP AT RARH WEST BENGAL**

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Class: - M.Sc. Semester III

Specialization in "Plant physiology and biochemistry"

Roll No.- BUR/BOT/2021/043

Reg No- 201801043261 of 2018-19

Course Code- MSBO307

Supervised by: - Prof. Soumen Bhattacharjee

Department of Botany, The University of Burdwan

*[Handwritten signature]*  
5/6/20

## ACKNOWLEDGEMENTS

- The project report presented hereby has the efforts of a many hands put together, all of who have my sincerest respect and gratitude.
- I would like to start by thanking my teacher, Prof. Soumen Bhattacharjee, Professor & Coordinator, UGC Centre of Advanced Study, Department of Botany, The University of Burdwan, Purba Bardhaman, West Bengal, for allowing me to do a project seminar on the given topic. I also thank him for helping me choose the topic and guiding me wherever needed.
- I also thank the Head of the Department, Department of Botany, The University of Burdwan and all the teaching and non-teaching staff for the constant encouragement.
- I would also thank to the Panchayat Pradhan of Rayan 1 no. gram panchayat for granting our permission and allowing the programme to do so.
- I pay my warmest regards to all the audiences and thank them heartily for patiently hearing me throughout my lecture. I thank them for actively interacting with me and help me delve deeper into the subject studied here.
- Last but not the least, I thank my parents, friends and classmates for their utmost faith in me and relentless support through all thick and thin.

## VENUE AND DATE OF THE PROGRAMME

VENUE — Rayan 1 NO. Gram Panchayat, Rayan, Burdwan, West Bengal  
,713104.



DATE- 24<sup>th</sup> February 2023



## PARTICIPANTS

Audience member including Panchayat Pradhan, Official staffs, Local farmers of Rayan 1 No. Gram Panchayat.



Rayan - 1 No. G.P. - Misty Hall.

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- 1) Gantam Hando - Rayan - 24/2/2023.
- 2) Sirir Nandj - "
- 3) Sudip Roy - Wari
- 4) Prosanta Nandi - " 24.2.2023
- 5) ସାବୁନାମାଳିକା - ବ୍ରହ୍ମାଣ୍ଡ ୨୫.୨.୨୩
- 6) ବ୍ରହ୍ମାଣ୍ଡ ନାମ - ବ୍ରହ୍ମାଣ୍ଡ ୨୫.୨.୨୩
- 7) ବ୍ରହ୍ମାଣ୍ଡ ନାମ - ବ୍ରହ୍ମାଣ୍ଡ ୨୫.୨.୨୩
- 8) Arbis Kumar Bera. Rayan - 1 G.P.
- 9) Arbis Kr. Mondal - Rayan - 1 G.P.
- 10) Arbis Mondal - " 24/2/2023
- 11) Aloke Banerji - " 24/2/2023

## **PROCEDURE**

Firstly, we took an application form from our respected teacher, **Prof. Soumen Bhattacharjee** containing the students name and roll number. Then, we submitted it to Rayan 1 No. Gram Panchayat Office for the appreciation of **Pradhan**. Pradhan signed the application and date of the programme was fixed accordingly. Then we went to fulfill our curriculum on 24th February 2023. We met with the farmers and discussed our topics and lastly, we provided them a handout presentation related to our discussion.

## **AIMS AND OBJECTIVES**

The basic aims and objectives of conducting this sensitization programme is-

- To work for development of local awareness of the value of medicinal Plants as well as the need for their conservation and bringing the benefits of medicinal Plants to support local health care systems and livelihoods & the efficacious of herbal drugs.
- To educate, encourage and assist people for value addition, processing and manufacture of Herbal medicines, Cosmetics and other related by-products from the Medicinal Plants.
- To develop awareness for utilization of herbal medicines for home remedies.



## INTRODUCTION

- Plants play one of the most important roles in providing nutrition and therapeutics to human beings and animals. So, the world now focusing on the food content and medicinal value of plants. In rural areas the herbal products are the main source of medication for all type of disease.
- Medicinal crops are designated as cultivated or semicultivated plants for treatment of human & animal disease. As our lifestyle is now getting techno-savvy, we are moving away from nature. As the crops or herbs are the natural product, they are free from side effects, they are comparatively safe, eco-friendly and locally available. There is need to promote them to save the human lives.
- Recently WHO estimated that 80% of people worldwide rely on herbal medicines for some extent of their Primary Health Care need.
- Population rises, inadequate supply of drugs, prohibitive cost of treatment, side effects of several synthetic drugs and development of resistant to use drug for infectious diseases have led to increased emphasis on use the plant material as source of medicine for wide variety of human ailment.
- The golden fact is that use of herbal treatment is independent of any age group and sexes.
- Global climate change reflected by the alteration in temperature, wind, precipitation and anthropogenic factors has considerably threatening effects on the vegetation and forest. Medicinal plants which are a source of traditional medicine are likewise expected to get affected by the changes in the parameters of global climate. It is very important to increase cultivation and conserve the medicinally important plants in our traditional rich heritage.



## **SUB TOPIC COVERED AND DISCUSSED:**

### **ALTERNATE MEDICINAL PLANT AS POTENTIAL CASH CROP AT RARH WEST BENGAL**

- Rarh is the region that includes of the districts Paschim Medinipur, Purba Medinipur, Murshidabad, Birbhum, Bankura, Purba Burdwan, Paschim Burdwan.
- There are several alternative Medicinal plants that can be grown as potential cash crop in rarh region of West Bengal -
- **Brahmi** (*Bacopa monnieri*): - Brahmi is a popular Ayurvedic Herb that is used to improve brain function and memory. The plant is easy to grow can be cultivated in both small and large scale. The leaves of the plant are used in Medicine, food supplement and cosmetic.
- **Aloe Vera** (*Aloe vera*): - Aloe Vera is a popular medicinal plant with a range of health benefits. Aloe Vera gel is widely used as cosmetics, medicine, and food supplement.
- **Ashwagandha** (*Withania somnifera*): - Ashwagandha is a popular ayurvedic herb that is used to treat a range of health issue such as relieves stress and anxiety, lowers blood sugar etc. The root and leaves of the plant are used as medicine, food supplement, cosmetics.
- **Stevia** (*Stevia rebaudiana*): - Stevia is a natural sweetener that is gaining popularity as an alternative artificial sweetener. The leaves of the plant are much sweeter than sugar.
- **Pudina** (*Mentha sp*): - Leaf extract is used to treat headache. It is analgesic, anti-vomiting, antioxidant.
- **Dhoney** (*Coriandrum sativum*): - Fruit is used as digestive stimulant.
- **Arhar** (*Cajanus cajan*): - Leaf decoction is beneficial for jaundice.

- **Kulekhara** (*Hygrophila auriculata*): - Used in treatment of anemia and diabetes.
- **Amrul** (*Oxalis corniculata*): - Leaf is used in indigestion scurvy treatment and dysentery.
- **Thankuni** (*Centella asiatica*): - Medicines for anxiety. Treatment for heart disease and respiratory illness like bronchitis.
- These are just few examples of alternative medicinal plants that can be grown as cash crop at rarh region of West Bengal.

### **Conclusions and Future perspectives: -**

- These herbal medicines and are the symbol of safety in contrast to synthetic drugs that are regarded as unsafe to human being and environment. We must cultivate these herbs. Although herbs have been priced for their medicinal, flavouring, and aromatic qualities for centuries.
- Hence these medicinal plants are cultivated as alternative cash crops. Besides, after cultivation of such herbs various pharmaceuticals companies buy the products such as-
- “Dabur” company buys medicinal plants such as Basak, Tulsi, Ashwagandha etc. directly from the farmers.
- “Rakshit Phytopharma” donates Rs 30 crore for medicinal crop cultivation in West Bengal. So, there is no possibility of loss.
- As a result, we do not have to be dependent on a certain number of known medicinal plants. Even if the production of certain known medicinal plants decreases later due to climate change, we will still have alternative herbal materials available for the future.
- People have been using this herb for centuries but the synthetic product of modern age surpassed their importance for a while. However, the blind

dependence on artificial products and medicines is over and peoples are turning back to the natural products for safety and security.

- Day by day the use of this natural product is increasing. So, we must increase production of these herbs. So, for the good of ourselves and environment we need to increase the use of such herbs and products and it should be promoted worldwide.



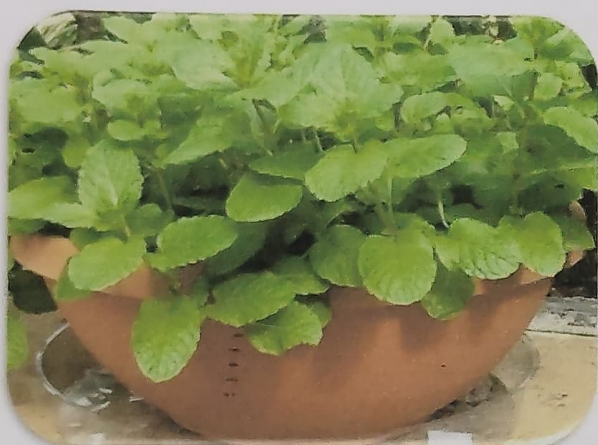
## SOME MEDICINALLY IMPORTANT PLANTS



Brahmi



Ashwagandha



Pudina



Aloe vera



Kulekhara



Stevia



# THE UNIVERSITY OF BURDWAN



বিষয়:- পশ্চিমবঙ্গের রাঢ় অঞ্চলে সম্ভাব্য অর্থকারী ফসল হিসাবে ব্যবহৃত বিকল্প ঔষধি  
উদ্ভিদ

উপস্থাপনায়:- সৌম্যদীপ নন্দী

রোল নং:- BUR/ BOT / 2021/ 043

রেজিস্ট্রেশন নং:- 201801643261 OF 2018-19

M.Sc. semester-III, Department of Botany

**আলোচ্য বিষয় :** মানুষ ও প্রাণীদের পুষ্টি ও চিকিৎসা প্রদানের ক্ষেত্রে উদ্ভিদ সবচেয়ে ভূমিকা পালন করে। তাই, বিশ্ব এখন উদ্ভিদের খাদ্য- গুরুত্বপূর্ণ সামগ্রী এবং ঔষধি মূল্যের উপর দৃষ্টি নিবদ্ধ করেছে। পুর এলাকায় ভেষজ পণ্য সব ধরনের রোগের জন্য ঔষধের প্রধান উৎস।

মানব ও পশুরোগের চিকিৎসার জন্য ঔষধি ফসলের চাষ করা হয়। এই ভেষজ ফসলগুলি পার্শ্বপ্রতিক্রিয়া থেকে মুক্ত। এরা তুলনামূলকভাবে নিরাপদ পরিবেশবান্ধব এবং স্থানীয়ভাবে উপলব্ধ। আধুনিক চিকিৎসাপদ্ধতি অনেক ক্ষেত্রেই ব্যাপকভাবে অনুশীলন করা অব্যাহত রয়েছে। জনসংখ্যা বৃদ্ধি, ঔষধের অপরিাপ্ত সরবরাহ, অত্যধিক খরচ এবং পার্শ্বপ্রতিক্রিয়ার জন্যই উদ্ভিদ সামগ্রীর ব্যবহারের উপর জোর দেওয়া হয়েছে। এই ভেষজ ঔষধ ও চিকিৎসা যেকোনো বয়সের গোষ্ঠী ও লিঙ্গের জন্যই নিরাপদে ব্যবহার করা যেতে পারে। জনসংখ্যা বৃদ্ধির সঙ্গে আমাদের এই ধরনের অর্থকারী ভেষজ উদ্ভিদের উৎপাদন বৃদ্ধি করতে হবে। ফলে, অল্প কিছু ভেষজ উদ্ভিদের উপর নির্ভরশীল হতে হবে না।

পশ্চিমবঙ্গের রাঢ় অঞ্চল মুর্শিদাবাদ, বীরভূম, বাঁকুড়া, পূর্ব বর্ধমান, পশ্চিম বর্ধমান, পূর্ব মেদিনীপুর এবং পশ্চিম মেদিনীপুর জেলার অন্তর্ভুক্ত। পশ্চিমবঙ্গের রাঢ় অঞ্চলে ব্যবহৃত অর্থকারী ফসল যেটি বিকল্প ভেষজ উদ্ভিদ হিসেবে ব্যবহৃত হয় তাদের উদাহরণ- "