



DEPARTMENT OF BOTANY ORGANIZES
**ONE DAY NATIONAL WEBINAR ON
CURRENT PROGRESS IN PLANT
BIOLOGY: IMPLICATIONS TOWARDS
CROP IMPROVEMENT**

JULY 10, 2021 3PM ONWARDS



03:15

PROF. NARAYAN CHANDRA MANDAL

**MECHANISM OF FUNGAL DISEASE CONTROL BY PLANT
GROWTH PROMOTING MICROORGANISMS**

Professor & H.O.D., Department of Botany, Siksha-Bhavana, Visva-Bharati,
Santiniketan, Birbhum, West Bengal-731235
E-Mail:- mandalnc@rediffmail.com

03:45

DR. SANJEEV PANDEY

**CRISPR-Cas: " A MAGIC TOOL FOR CROP
IMPROVEMENT"**

Associate Professor & H.O.D., Department of Botany, Banwarilal
Bhalotia College, Asansol, Paschim Bardhaman, West Bengal-713303.
E-Mail:- spbot.bbc.asn@gmail.com



04:15

MR. UDAY SANKAR RAY

**PRESENT SCENARIO, CHALLENGES AND
ADVANCEMENT IN RICE DEVELOPMENT**

Assistant Botanist, WBAS (Research), Zonal Drought Resistant Paddy
Research Station, Hathwara, Purulia, West Bengal-723147
E-Mail:- uday_rmp@rediffmail.com

04:45

DR. KRISHNENDU PRAMANIK

**PHYTOBENEFICIAL RHIZOBACTERIA: A BOON FOR THE
BANE OF HEAVY METAL(LOID) CONTAMINATION IN CROPS**

UGC-Dr. D.S.Kothari Postdoctoral Fellow, Department of Botany,
Siksha-Bhavana, Visva-Bharati, Santiniketan, Birbhum, West Bengal-731235
E-Mail:- dr.krishnendupramanik@gmail.com



Organizing Committee

Chief Patron: Dr. Falguni Mukhopadhyay, Principal, Bidhan Chandra College

Conveners: Kasturi Chatterjee, Anvesha Bandyopadhyay, Department of Botany, Bidhan Chandra College

Coordinator: Dr. Amit Banerjee, Assistant Professor, Bidhan Chandra College

Advisory Group: Department of Zoology, Bidhan Chandra College

WEBINAR SUMMARY

Since 2020 we are in covid 19 pandemic era and facing a massive socio economic crisis as an impact of that pandemic. The detrimental effects of environmental pollution and global climate change along with the augmented increase in human population and decrease in arable land have put a substantial impact on agriculture and thus, emphasis has now been given towards ensuring long-term food supply and security for a sustainable future.

Raising some awareness, we had chosen our webinar title – “ CURRENT PROGRESS IN PLANT BIOLOGY : IMPLICATIONS TOWARDS CROP IMPROVEMENT.”

We were honoured to have our esteemed speakers with us.

Our first keynote speaker was Prof. Narayan Chandra Mandal , Professor & H.O.D., Department of Botany, Siksha-Bhavana, Visva-Bharati, Santiniketan.

Our second speaker was Dr. Sanjeev Pandey Associate Professor & H.O.D., Department of Botany, Banwarilal Bhalotia College, Asansol.

Mr. Uday Shankar Ray was our third speaker , Assistant Botanist, WBAS (Research), Zonal Drought Resistant Paddy Research Station, Hathwara, Purulia.

And our fourth speaker was Dr. Krishnendu Pramanik, UGC-Dr. D.S.Kothari Postdoctoral Fellow, Department of Botany, Siksha-Bhavana, Visva-Bharati, Santiniketan

Our Principal sir Dr. Falguni Mukhopadhyay, who is the patron in chief in this webinar

With increased industrialization in residential areas, different materials including heavy metals are discharged into effluent water, which pollute the agricultural lands. Besides this, during random natural calamities the lands present in the vicinity of sea, facing problems of salinity stress, and there are much more problems like that. Along with these, different biotic stress factors including insects and fungal pathogens cause various diseases in field crop and reduce yield of the plants. Among various pathogens, the fungal diseases are more destructive than the diseases caused by other pathogens. As the crop plants are experiencing constant threats from various abiotic and biotic stress factors, a vital route toward maintaining food security is the development of stress-resilient crops. The integration of plant associated beneficial microorganisms may represent a promising solution to develop resistance against various stress factors and improve the agricultural production. Furthermore, different fungi also spoil stored foods, imposing new food-preservation challenges and thus various strategies are now evolving to manage and control these fungi. Our speaker Dr. Krishnendu Pramanik kept his view on the abiotic stress factors and the possible ways to overcome the stress during crop improvement. On the other hand senior Professor Dr. N. C Mandal mainly focused on the biotic factors, the fungal pathogen, the storage process of the crop plants etc.

Conventional plant breeding has been going on for hundreds of years, and is still commonly used today for developing better quality crops with improved traits including higher yield, abiotic stress tolerance and insecticide and pesticide resistance. Our speaker Mr. U.S Ray mainly elaborated the conventional plant breeding methods in the webinar. Although the above mentioned methods were going well ,our demand somehow were not fulfilled on the basis of high yield or quality. So, in past few decades, research is mainly focused on developing various genetic manipulation techniques during crop improvement. So new plant breeding technologies have recently emerged as alternative approaches to speed up the introduction of improved traits. These technologies include precision genome-modification platforms such as CRISPR/Cas and TALEN methodologies. The CRISPR-Cas9 system is a plant breeding innovation that uses site-directed nucleases to target and modify DNA with great accuracy.

Developed in 2012 by scientists from the University of California, Berkeley, CRISPR-Cas9 has received a lot of attention in recent years due to its range of applications, including biological research, breeding and development of agricultural crops. Our esteemed speaker Dr. Sanjeev Pandey delivered his talk on that particular CRISPR-Cas9 system.

Food security is now a big question to the future generation, and our webinar title is a burning issue, so after the lectures and the respective interactive session our students, teachers and other members present at the webinar were very much benefited and enlightened.

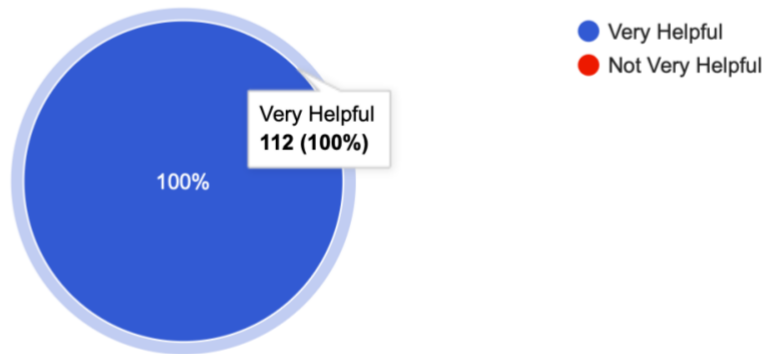


<https://www.youtube.com/watch?v=fAdfZTOel7s&authuser=0>

FEEDBACK RESPONSES

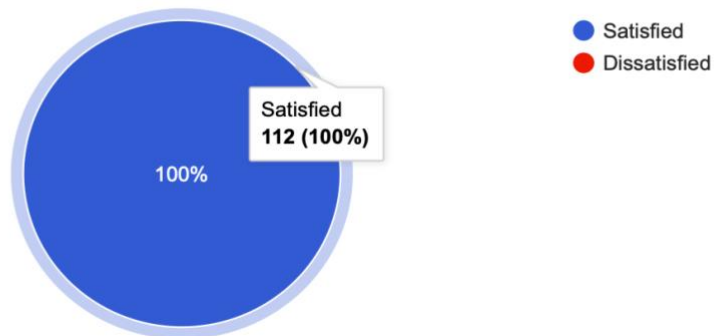
How relevant and helpful do you think it was for improving your idea on the topic

112 responses



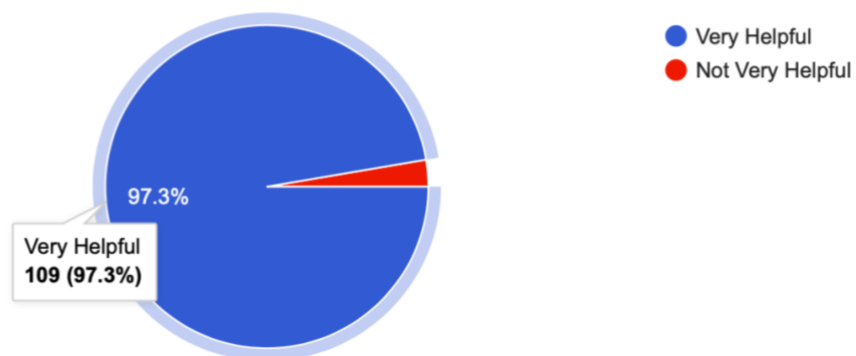
What is your overall feeling about the event ?

112 responses



How satisfied were you with the session technical content?

112 responses



Any additional comments regarding the sessions or overall agenda?

67 responses

This kind of webinars should be conducted frequently

It was extremely helpful.(Excellent Seminar)

It was a very good and informative session

Thank you

Thank you so much madams for arranging this webinar on this topic it is very helpful.

It is a great and wonderful experience for having such precious type of webinar. It enlightens and acknowledge our various thoughts and different ideology among this topic and it also demonstrates the visuality on the cultivation problems nowadays. Thank you to all our respected sir and madams for inviting us... It means a lot for us..

According to me speakers should get a bit more time to explain their views.

Very good organisation by the young faculty of the department. Keep it up.

Very helpful

this webinar required should be organized frequently

Thanks for this webinar

Total session was very helpful and informative for me. Presentation and discussion with seminar topic was also very relevant. Thank you to all to arrange this like seminar.

Gather some important knowledge

It was outstanding and very much informative. Thanks.

I really learned a lot. I would surely find it very applicable in any study.

Very informative session.

I would like to express my gratitude and heartfelt thanks to the organizing committee for arranging such type of colossal and outstanding session and to the eminent speakers.

Very informative and helpful for budding researchers as well as students.

Thank You

Thank you respected sir and ma'am

This kind of webinars should be conducted frequently

It was extremely helpful.(Excellent Seminar)

It was a very good and informative session

Thank you for this webinar it is very helpful for us.

This type of webinar is too much helpful

It was very much productive and interesting event. It helps to make clear idea about such interesting topics.

Good Organization

Helpfull

Very good

Very informative

Very nice

It was an excellent session

This webinar is very very useful.

Thank you for making my knowledge about the respective topics

I am very grateful for this webinar

Its a good initiative of BC College, Asansol

Informative & knowledgeable webinar.

Thanks for this webinar

Total session was very helpful and informative for me. Presentation and discussion with seminar topic was also very relevant. Thank you to all to arrange this like seminar.

Gather some important knowledge

It was outstanding and very much informative. Thanks.

I really learned a lot. I would surely find it very applicable in any study.

Webner has helped a lot, and I've learned a lot from it. Thank You BC college.

Nice session

A great initiative .. hope to see similar endeavors in near future

Very useful this webinar

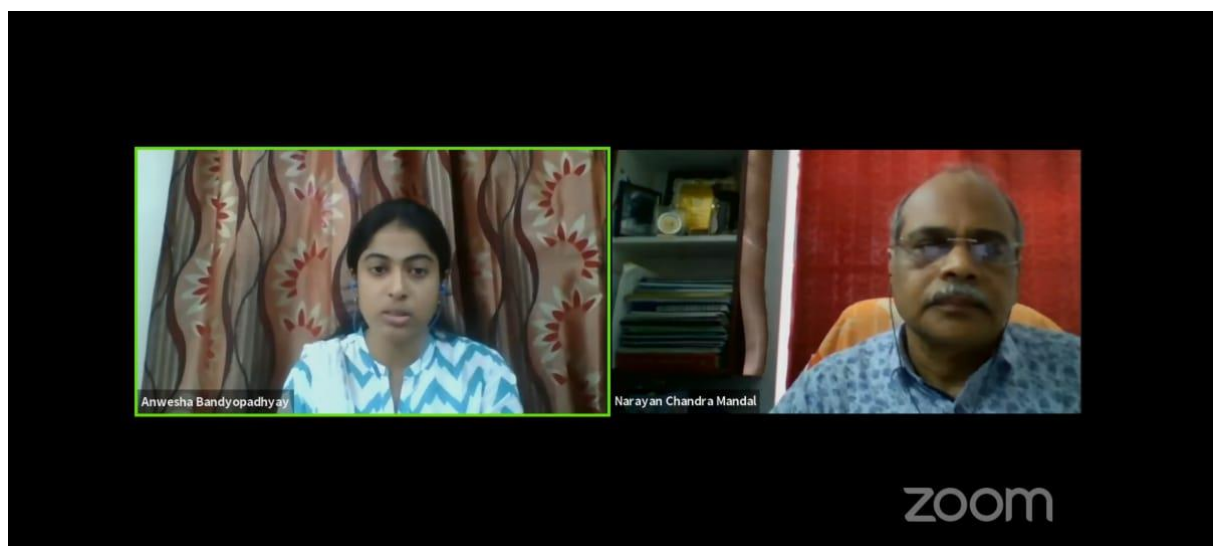
Everything was 100% absolute

It is a good session. I would like to join if you organised another session in future.

The webinar helped me to enrich my knowledge in various unknowing fields..It would be more helpful if it was possible to arrange the seminar offline and students would participate a direct interacting session. Excepts some technical issues everything was fine.. Thanks for considering me as a part of this meeting.

Nice presentation

SCREENSHOTS OF THE WEBINAR



SAMPLE CERTIFICATE OF THE WEBINAR

BIDHAN CHANDRA COLLEGE

Govt. Sponsored & NAAC Accredited
Estd: 1961, Affiliated to Kazi Nazrul University



One Day National Webinar on Current Progress in Plant Biology: Implications Towards Crop Improvement

JULY 10, 2021 3-5 PM IST

CERTIFICATE OF PARTICIPATION

This is to Certify that <<Name>> of <<Institution>> has participated in the One Day National Webinar on Current Progress in Plant Biology:
Implications Towards Crop Improvement, July 10, 2021 3-5 Pm IST
Initiated by Botany Department, Bidhan Chandra College, Asansol.

Dr. Falguni Mukhopadhyay,
Principal,
Bidhan Chandra College

Convener,
Kasturi Chatterjee,
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Anwesha Bandyopadhyay,
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