

## Department of Biotechnology

## आजादी का अमृतमहोत्सव || 75th Anniversary of Indian Independence

A. Department of Forage Crops, Coimbatore			
1.	Name of the Biotech KISAN Hub and its collaborating institutes	:	Hub: Department of Forage Crops, TNAU, Coimbatore <u>Collaborating Institutes</u> 1. Regional Research Station, Virudhunagar 2. Agricultural Research Station, Ramanathapuram 3. Department of Agriculture, Tamil Nadu
2.	Title of the event	:	Importance of green fodder and fodder pellet production
3.	Total number of participants	:	280
4.	Invited experts	:	Dr. K. N. Ganesan, Professor and Head, DFC Dr. T. Ezhilarasi, Assistant Professor, DFC Dr. V. Krishnakumar, Assistant Professor, VAS
5.	Venue and date	:	Department of Forage Crops, Coimbatore, September, 2021
6.	Brief about the programme	:	Though Tamil Nadu ranks fourth in cattle population, its productivity is very low when compared to the potential of livestock due to lack of balanced green fodder supply. To overcome this issue an interactive meeting under <b>Azadi Ka Amrit Mahotsav</b> is planned to impart the knowledge and skill on importance of balanced green fodder supply, cultivation of improved location specific fodder crops and fodder preservation techniques. In this regard, interactive meeting was conducted in collaboration with department of agriculture, Tamil Nadu.
7.	Quotes of speakers and experts attending the event	:	<b>1. Dr. K. N. Ganesan, Professor and Head, DFC</b> The importance of fodder crops in animal productivity, improved location specific varieties

			<p>of grassy fodders, cereal fodders and legume fodders, seed production techniques and entrepreneurship opportunities.</p> <p><b>2. Dr. T. Ezhilarasi, Assistant Professor, DFC</b></p> <p>Fodder production technologies, fodder preservation techniques, hydroponic fodder production technologies, mechanisation in fodder production and green fodder area requirement for the cattle.</p> <p><b>3. Dr. V. Krishnakumar, Assistant Professor, VAS</b></p> <p>Nutritional requirement, location specific breeds of milch animals and goat and livestock management.</p>
8.	Quotes of beneficiaries attending the event	:	Varieties for stress tolerant, low cost implements and machineries for fodder harvesting and combination of fodder pellets.
<b>B. ICAR-KVK, Pappalapatti, Dharmapuri</b>			
1.	Name of the Biotech KISAN Hub and its collaborating institutes	:	<p>Hub: Department of Forage Crops, TNAU, Coimbatore</p> <p><u>Collaborating Institutes</u></p> <p>1. Regional Research Station, Virudhunagar</p> <p>2. Agricultural Research Station, Ramanathapuram</p> <p>3. ICAR-KVK, Pappalapatti, Dharmapuri</p>
2.	Title of the event	:	Sustainable fodder production strategies for enhancing livestock productivity
3.	Total number of participants	:	110
4.	Invited experts	:	<p>Dr. K. N. Ganesan, Professor and Head, DFC</p> <p>Dr. S. D. Sivakumar, Associate professor, DFC</p> <p>Dr. M. Thangadurai, VAS, KVK, Dharmapuri</p>
5.	Venue and date	:	ICAR-KVK, Pappalapatti, Dharmapuri, 28.08.2021
6.	Brief about the programme	:	Though Tamil Nadu ranks fourth in cattle population, its productivity is very low when compared to the potential of livestock due to lack of balanced green fodder supply. To overcome this issue a one day training programme under <b>Azadi Ka Amrit Mahotsav</b>

			is planned to impart the knowledge and skill on importance of balanced green fodder supply and cultivation of improved location specific fodder crops. In this regard, the training was conducted in collaboration with ICAR-KVK, Pappalapatti, Dharmapuri in which the small and marginal farmers 110 beneficiaries were participated.
7.	Quotes of speakers and experts attending the event	:	<p><b>1. Dr. K. N. Ganesan, Professor and Head, DFC</b> The importance of fodder crops in animal productivity, improved location specific varieties of grassy fodders, cereal fodders and legume fodders, seed production techniques and entrepreneurship opportunities.</p> <p><b>2. Dr. S. D. Sivakumar, Associate Professor, DFC</b> Fodder production technologies, fodder preservation techniques, hydroponic fodder production technologies, mechanisation in fodder production and green fodder area requirement for the cattle.</p> <p><b>3. Dr. M. Thangadurai, VAS, KVK, Dharmapuri</b> Nutritional requirement, location specific breeds of milch animals and goat and livestock management.</p>
8.	Quotes of beneficiaries attending the event	:	Impact of red napier and super napier, fodder crops for bunds and borders.
<b>C. ICAR-KVK, Sandhiyur, Salem</b>			
1.	Name of the Biotech KISAN Hub and its collaborating institutes	:	<p>Hub: Department of Forage Crops, TNAU, Coimbatore</p> <p><u>Collaborating Institutes</u></p> <p>1. Regional Research Station, Virudhunagar</p> <p>2. Agricultural Research Station, Ramanathapuram</p> <p>3. ICAR-KVK, Sandhiyur, Salem</p>
2.	Title of the event	:	Sustainable fodder production strategies for enhancing livestock productivity
3.	Total number of participants	:	100

4.	Invited experts	:	Dr. K. N. Ganesan, Professor and Head, DFC Dr. S. D. Sivakumar, Associate professor, DFC Dr. P. Kokila, Assistant Professor (VAS), KVK
5.	Venue and date	:	ICAR-KVK, Sandhiyur, Salem, 29.09.2021
6.	Brief about the programme	:	Though Tamil Nadu ranks fourth in cattle population, its productivity is very low when compared to the potential of livestock due to lack of balanced green fodder supply. To overcome this issue a one day training programme under <b>Azadi Ka Amrit Mahotsav</b> is planned to impart the knowledge and skill on importance of balanced green fodder supply and cultivation of improved location specific fodder crops. In this regard, the training was conducted in collaboration with ICAR-KVK, Sandhiyur, Salem in which the small and marginal farmers of 100 beneficiaries were participated.
7.	Quotes of speakers and experts attending the event	:	<p><b>1. Dr. K. N. Ganesan, Professor and Head, DFC</b> The importance of fodder crops in animal productivity, improved location specific varieties of grassy fodders, cereal fodders and legume fodders, seed production techniques and entrepreneurship opportunities.</p> <p><b>2. Dr. S. D. Sivakumar, Associate Professor, DFC</b> Fodder production technologies, fodder preservation techniques, hydroponic fodder production technologies, mechanisation in fodder production and green fodder area requirement for the cattle.</p> <p><b>3. Dr. P. Kokila, Assistant Professor (VAS), KVK</b> Nutritional requirement, location specific breeds of milch animals and goat and livestock management.</p>
8.	Quotes of beneficiaries attending the event	:	Fodder crops for drought condition and availability of planting materials
<b>D. Renganadhar polytechnic, Auditorium, kovilpalayam, Coimbatore</b>			



1.	<b>Name of the Biotech KISAN Hub and its collaborating institutes</b>	:	Hub: Department of Forage Crops, TNAU, Coimbatore <u>Collaborating Institutes</u> 1. Regional Research Station, Virudhunagar 2. Agricultural Research Station, Ramanathapuram
2.	<b>Title of the event</b>	:	Sustainable fodder production strategies for enhancing livestock productivity
3.	<b>Total number of participants</b>	:	112
4.	<b>Invited experts</b>	:	Dr. S. D. Sivakumar, Associate professor, DFC Dr. M. Thirunavukkarasu, Assistant professor, VAS,
5.	<b>Venue and date</b>	:	Renganadhar polytechnic, Auditorium, kovilpalayam, Coimbatore, 28.08.2021
6.	<b>Brief about the programme</b>	:	Though Tamil Nadu ranks fourth in cattle population, its productivity is very low when compared to the potential of livestock due to lack of balanced green fodder supply. To overcome this issue a one day training programme under <b>Azadi Ka Amrit Mahotsav</b> is planned to impart the knowledge and skill on importance of balanced green fodder supply and cultivation of improved location specific fodder crops. In this regard, the training was conducted in collaboration with rotary club of Coimbatore in which the small and marginal farmers (112 beneficiaries) of Kovilpalayam block were participated.
7.	<b>Quotes of speakers and experts attending the event</b>	:	<b>1. Dr. S. D. Sivakumar, Associate Professor, DFC</b> Fodder production technologies, fodder preservation techniques, hydroponic fodder production technologies, mechanisation in fodder production and green fodder area requirement for the cattle. <b>2. Dr. M. Thirunavukkarasu</b> Nutritional requirement, location specific breeds of milch animals and goat and livestock management.
8.	<b>Quotes of beneficiaries</b>	:	Fodder crops for drought condition and availability of

सशक्त भारत

	attending the event		planting materials
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**Training on 'Sustainable fodder production strategies for enhancing livestock productivity'**  
at ICAR-KVK, Sandhiyur, Salem



सशक्त भारत

**Training on 'Sustainable fodder production strategies for enhancing livestock productivity' at Renganadhar polytechnic, Auditorium, kovilpalayam, Coimbatore**



**Training on 'Sustainable fodder production strategies for enhancing livestock productivity' at ICAR-KVK, Papparayatti, Dharmapuri**







Interactive meeting on “Importance of green fodder and fodder pellet production” held with the farmers from different districts of Tamil Nadu at Department of Forage Crops, Coimbatore



**Department of Biotechnology**

**आजादी का अमृत महोत्सव || 75th Anniversary of Indian Independence**

**Title of the event:** Farmers training on advances in pig rearing and advances in Lathyrus and Linseed crop production technologies

**Name of the organizer:** Krishi Vigyan Kendra, Sonapur-Gadchiroli

**Date and Time:** 1-5 October, 2021 and 10 am to 5 pm (Every Day)

**URL/Registration link (in case of virtual event):** Nil

**Venue (in case of physical event):** KVK, Gadchiroli

**Brief background/purpose of the event:**

1. Production technology on small scale pig rearing, an untapped potential which is favored by tribal dominated aspirational Gadchiroli district farmers.
2. Production technology in Lathyrus and Linseed crop with major focus on improving productivity and profitability of Farmers with focus on doubling the income.
3. Addressing the scientific interventions with small and marginal farmers especially the women farmers for better agriculture productivity by evolving best farming practices suitable in the regional agro-climatic conditions
4. To establish farmer's producers company to sustain the developments in aspiration Gadchiroli district to encourage youth and educated farmers.

**Expected Participants/List of Participants: 100**

**How is the event linked to Azadi ka Amrit Mahotsav:** The event with focus on production technology in Lathyrus and Linseed crop in Rabbi crop with focus on improving productivity and profitability of Farmers, pig rearing will also be helpful for additional income.

**Potential/Expected Impact:**

- With the implementation of the Biotech Kisan Hub in Aspirational district of Gadchiroli it is expected to address the problems of the local farmers with firm solution by developing the linkages for Science & Technology.
- Platform of Biotech-KISAN will improve the working conditions of small and marginal farmers in the Aspirational Gadchiroli District.
- The business concept will be promoted among the farmers community with the establishment of (FPO) farmer's producers company for assured income generation.

**सशक्त भारत**

- Judicious efforts on innovative farming and adoption of allied enterprises like Pig Rearing along with IFS model will enhance the family income of the farming community.

**Department of Biotechnology**

**आजादी का अमृत महोत्सव || 75th Anniversary of Indian Independence**

**Title of the event: Webinar entitled:**

The past present and future of plant agriculture

Speaker: Dr PV Shivaprasad, NCBS-TIFR Bengaluru

**Name of the organizer:** DBT- Institute for Stem Cell Science & Regenerative Medicine

**Date and Time:** 09 October 2021, 10-11AM

**URL/Registration link (in case of virtual event):** Participants have to register to join

**Venue (in case of physical event):** Online

**Brief background/purpose of the event:**

The Science Setu Programme at inStem entitled “Discovering Possibilities” is an effort to create awareness about the importance of science in our lives and encourage the participation of young college students and their teachers in the area of Biology. Through setting up engagements with practitioners of science, this programme aims to provide a view to the excitement and numerous opportunities arising from a career in science.

Each webinar covers a topic in a manner accessible to college students and apart from contemporary cutting-edge research, involves colleagues who have faced challenges and success in allied areas such as science journalism, publishing, communications, history of science, as well engagements with students and interns from our laboratories.

Contact email: [sciencesetu@instem.res.in](mailto:sciencesetu@instem.res.in)

**Expected Participants/List of Participants:**

UG and PG students from Bangalore:

- St Joseph's;
- Maharani's Science College for Women,
- Mount Carmel College
- Autonomous, Indian Academy Degree College,
- Kristu Jayanti College,

Mangalore:

- St. Aloysius College;

Gadag:

- Bipin Chikkatti Degree College, Gadag

Ujire

- Sri Dharmasthala Manjunatheshwara College,

Kollam,

## सशक्त भारत

- St. John's College, Kollam, Anchal Kerala; Chennai:
- Sri Ramachandra Institute of Higher Education & Research: Undergraduate college and Medical School students.

The talk is also open to students from other colleges and institutes on request

### **How is the event linked to Azadi ka Amrit Mahotsav:**

This is the first talk in the series in the field of Plant Biology and Agriculture and is being held on request from the participating colleges. Dr Shivaprasad is a member of the faculty at NCBS and has been understanding strategies adopted by plants in their response to stress in order to learn and devise new approaches with practical applications.

Overall, this talk like the others in the series will highlight the progress and advances laboratories in India have made in the area collectively, over preceding decades and the current contemporary approaches being taken.

### **Potential/Expected Impact:**

We hope to build sustained interactions with participating colleges and partner with them in nurturing the growth of students curious about possibilities in science as well foster career advancement of exceptional students who would like to venture into science as a career.



## Department of Biotechnology

## आज़ादी का अमृतमहोत्सव || 75th Anniversary of Indian Independence

**Title of the event:** Farmer Entrepreneurship in Small Enterprises for Income Generation

**Name of the organizer:** Biotech-KISAN Hub, Agri Biotech Foundation, Hyderabad.

**Date and Time:** 12<sup>th</sup> October 2021, 10.00 am to 4.00 p.m.

**URL/Registration link (in case of virtual event):** NA

**Venue (in case of physical event):** Agri Biotech Foundation, Rajendranagar, Hyderabad

**Brief background/purpose of the event:**

Agriculture remains a key sector of the Indian economy accounting for around 25 percent share in the gross domestic product. Increased number of people and unemployed graduates living in rural areas are migrating to urban areas in search of jobs. Extremely poor infrastructure and facilities in rural areas aggravated the population pressure on the urban infrastructure. In this situation making agricultural entrepreneurship as a career is the solution. Also, the potential of agriculture for local entrepreneurs is a way of success and as a condition of accomplishing the level of well-being. Agri entrepreneur may be farm level producers or service provider or input producers. The need is combined, and is based on the basic principle, rural employment provider shaping the profile of local entrepreneurs which increases the income level and employment opportunities in rural as well as urban areas.

To induce productivity gains and to create employment opportunities to rural youth and smallholder farmers, small scale Biotech enterprises such as shade net houses, On-Farm Trichoderma production units, backyard poultry for income generation and fodder and slip production for additional income were established by ABF Biotech-KISAN Hub. For parallel spread of these enterprises and to create awareness among farmers about the Entrepreneurship in Small Enterprises for Income Generation the event is conducted.

**Expected Participants/List of Participants:**

**No. of Participants:** 46

**Programme Schedule**

Time	Programme
9:00 – 10:00am	: Registration
10:00 – 10:15am	: Welcome Address by Dr.Vishnu Vardhan Reddy, Director, ABF, Hyderabad.
10:15 – 10:25am	: Genesis and Role of ABF Biotech-KISAN Hub by Dr.V.Sandhya, Project

## सशक्त भारत

	Coordinator, ABF Biotech-KISAN Hub, Hyderabad.
10:25 – 10:35am	: Livelihood Improvement of Small Scale Farmers by Agri Enterprise by Dr.P.Gidda Reddy, Consultant, ABF, Hyderabad.
10:35 – 11:00am	: Tea & Snacks
11:00 – 11:30am	: <i>Theory</i> : Mushroom Production as a Small Scale Enterprise by Dr.M.Prameela, Senior Scientist, PJTSAU, Hyderabad.
11:30 – 12:00pm	: <i>Theory</i> : Livelihood Improvement of Small-Scale Farmers through Protected Vegetable Cultivation by Shri.R.Rama Krishan, Horticulture Officer, Dept. of Horticulture, Medak District.
12:00 – 12:30pm	: <i>Theory</i> : Hydroponic Green Fodder Production – A livelihood Opportunity for Rural Youth – by Dr.Sk.Z.Ali, Co-PI, ABF Biotech-KISAN Hub, Hyderabad.
12:30 – 1:30pm	: Lunch Break
1:30 – 2:00pm	: Demonstration: Hydroponic Green Fodder Production
2:00 – 2:30pm	: Demonstration: Vegetable Seedling Production
2:30 – 3:00pm	: Demonstration: Mushroom Production
3:00 – 3:30pm	: Mushroom Production Unit Visit – PJTSAU, Rajendranagar, Hyderabad
3:30 – 4:00pm	: Shadenet and Polyhouse Vegetable Production Unit Visit - PJTSAU, Rajendranagar, Hyderabad
4:00 – 4:15pm	: Tea and Snacks
4:15 – 4:30pm	: Vote of Thanks and Distribution of Biofertilizers & Biopesticides to farmers

### How is the event linked to AzadikaAmritMahotsav:

In the span of 75 years of Azadi, India has focused on entrepreneurial development and regulated growth of an individual. At present small-scale enterprises contributes more than 80 per cent of the total industrial units in the country, 40 per cent of the total industrial production, 35 per cent of the total exports and nearly 80 per cent of industrial employment

### **सशक्त भारत**

in Indian economy. The share of manufacturing in GDP, which was 9 percent in 1950–1951, rose to 18 percent in 2000–2001.

After independence, the Indian government recognized the importance of developing small scale enterprises which led to the development of enterprises contributing to the GDP. To celebrate the growth, especially farmers as entrepreneurs, an event **“Farmer Entrepreneurship in Small Enterprises for Income Generation”** is conducted under DBT Biotech-KISAN project in the Azadi Ka Amrit Mahotsav.

#### **Potential/Expected Impact:**

Awareness, training and encouraging farmers to take up small scale enterprises for additional income.

## Department of Biotechnology

## आजादी का अमृत महोत्सव || 75th Anniversary of Indian Independence

**Title of the event:** Lab2 Market Campaign

**Name of the organizer:** BIRAC

**Date and Time:** Weekly basis

**URL/Registration link (in case of virtual event):**

**Venue (in case of physical event):** Social Media-BIRAC Twitter and Facebook Handle

**Brief background/purpose of the event:**

Several customized and uniquely positioned initiatives of BIRAC have helped recognize a growing number of the Biotech Entrepreneurship Start-ups & over 165 commercially deployed products. The idea is to initiate a campaign to promote and inspire conversation around the BIRAC supported innovations on the social media platform.



**PathoDetect**  
**RT-PCR Kit For  
The Detection Of  
COVID-19 Viral  
RNA In Samples**

First commercial kit to receive  
approval for COVID-19

Disclaimer: The product/service that are acknowledged here with BIRAC's logo shall not in any way incurr any product or Service-related liability in any manner.

Image - <https://www.the-scientist.com/storybook/inside-the-effort-to-make-india-first-covid-19-test-671996>

 [birac.nic.in](http://birac.nic.in) |  [@birac\\_2012](https://twitter.com/birac_2012)





@BIRAC\_2012 supported innovation PathoDetect is a highly sensitive real-time PCR test for novel coronavirus 2019 detection. Synthetic Positive controls are provided for the validity of the test and internal control for quality check throughout the procedure is also included.  
#AzadiKaAmritMahotsav #IndiaAt75.

@DBTIndia @Drrenuswarup @bhalla\_anju

**How is the event linked to Azadi ka Amrit Mahotsav?**

The event has an overarching tagline **विज्ञान से विकास-प्रौद्योगिकी से प्रगति** under the theme *सशक्त भारत*. All these supported innovations are Make in India innovations that aim to strengthen the Atma Nirbhar Bharat initiative.

**Potential/Expected Impact:**

Outreach of BIRAC supported innovations to the social media audience to make people aware about the innovations that can be helpful to their day to day lives. BIRAC's efforts have resulted in significant changes in the landscape of the Indian biotechnology sector.

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### Performa for reporting AKAM events by Ministries

Particulars	Details												
<b>Name of Department/Agency</b>	Department of Biotechnology												
<b>Name of Ministry</b>	Ministry of Science and Technology												
<b>Name of the AI/PSU</b>	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram												
<b>Name of event</b>	1. Geospatial technology for Sustainable development 2. BIOTECHNOLOGY as a career option of choice 3. Empowerment of tribal communities through value addition of local resources												
<b>Start date of event</b>	02-10-2021 09-10-2021 10-10-2021												
<b>Theme of event (tick one)</b>	<input type="checkbox"/> Freedom Struggle <input type="checkbox"/> Ideas@75 <input checked="" type="checkbox"/> Achievements@75 <input checked="" type="checkbox"/> Actions@75 <input type="checkbox"/> Resolve@75												
<b>Description of event</b>	1. Open Day event on “Geospatial technology for Sustainable development”. Talk delivered by Dr. N.C. Anilkumar, Senior Scientist Kerala State Remote Sensing and Environment Centre, Department of Planning and Economic Affairs, Government of Kerala.  2. Open Day lecture on “BIOTECHNOLOGY as a career option of choice” delivered by Dr. Pradeep Kumar. G, Scientist G, RGCB, Thiruvananthapuram.  3. Training program on the Processing of Wild Honey and distribution of a honey processing machine to the tribal people in Uppukunnu, Idukki.												
<b>Nature of event (tick one)</b>	<input checked="" type="checkbox"/> Jan bhagidari (open to public) <input type="checkbox"/> Only participation from within Department/Ministry (no public)												
<b>Expected number of participants in event</b>	1. 24 participants 2. 68 participants 3. 27 trainees												
<b>VIP attendees (if any)</b>	Nil												
<b>Associate Partners</b>	<table border="1"> <tr> <td><b>Ministry #1:</b></td><td></td><td><b>State/UT #1:</b></td><td></td></tr> <tr> <td><b>Ministry #2:</b></td><td></td><td><b>State/UT #2:</b></td><td></td></tr> <tr> <td><b>Other</b></td><td></td><td><b>Other</b></td><td>Government of Kerala</td></tr> </table>	<b>Ministry #1:</b>		<b>State/UT #1:</b>		<b>Ministry #2:</b>		<b>State/UT #2:</b>		<b>Other</b>		<b>Other</b>	Government of Kerala
<b>Ministry #1:</b>		<b>State/UT #1:</b>											
<b>Ministry #2:</b>		<b>State/UT #2:</b>											
<b>Other</b>		<b>Other</b>	Government of Kerala										

<b>Mode of event</b>	<input checked="" type="checkbox"/> Online event (webinar, virtual event) <input checked="" type="checkbox"/> Offline event (in-person participation) <input type="checkbox"/> Hybrid event (mix of online and offline modes)	
<b>Mode of advertisement of event</b>	<input checked="" type="checkbox"/> Websites <input checked="" type="checkbox"/> Social Media <input type="checkbox"/> Newspaper <input type="checkbox"/> Television media <input type="checkbox"/> Other mode	
<b>Nodal officer</b> (DBT Nodal Officer)	<b>Name:</b>	
	<b>Designation:</b>	
	<b>Email ID:</b>	
	<b>Phone number:</b>	

Add any pictures/videos/additional information here:



## GEOSPATIAL TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT



**Dr. N C Anilkumar**  
Scientist  
Kerala State Remote Sensing  
and Environment Centre  
Department of Planning and Economic Affairs,  
Government of Kerala

**2<sup>nd</sup> OCTOBER**  
**2021**  
**4:00 pm**

Geospatial technologies consists of technologies those deals with spatial data and Remote Sensing, Global Positioning System, Geographical Information Systems etc. These technologies offers a wide range of application to Sustainable Development. The lecture will cover the science and applications of these technologies with special reference to Kerala State. Applications of GPS and GIS will also be briefed with special reference to environmental management, spatial governance and sustainable development.

**Coordinators**  
Dr. E. V. Soniya, Scientist G & Dean  
Dr. Anish N. P., Scientist C & Asst. Registrar  
RGCB






विज्ञान से विकास-प्रौद्योगिकी से प्रगति  
संशक्त भारत





**th  
9 OCTOBER  
2021  
4:00 pm**

**DBT-RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY (RGCB)**  
THIRUVANANTHAPURAM

*invites you to*

**SCIENCE SETU**  
*Bridging through Science*

*"Science Setu" programme was launched by, The Department of Biotechnology under, The Ministry of Science & Technology, which provides a unique opportunity to science students and teaching faculty to get an exposure of the cutting-edge research being carried out at premier research institutes.*

*on*

**BIOTECHNOLOGY  
AS A CAREER OPTION OF CHOICE**



**Dr. Pradeep kumar G**  
Scientist G  
RGCB  
Thiruvananthapuram

Link: <https://global.gotomeeting.com/join/847996837>

Coordinators  
Dr. E. V. Soniya, Scientist G & Dean  
Dr. Manoj P, Assistant General Manager  
RGCB

DBT- RGCB's Tribal heritage team has conducted a training program on the Processing of Wild Honey and distribution of a honey processing machine to the tribal people in Uppukunnu, Idukki on 10th October 2021.





### **Performa for reporting AKAM events by the Ministries**

Particulars	Details
<b>Name of Department</b>	Department of Biotechnology
<b>Name of Ministry</b>	Ministry of Science and Technology
<b>Name of the Organiser</b>	DBT-IBSD
<b>Name of event</b>	Developing Bioeconomy from Bioresources of North East India
<b>Start date of event</b>	18 <sup>th</sup> October 2021
<b>Theme of event (tick one)</b>	Actions@75
<b>Description of event</b>	<p>A National Seminar titled “Developing Bioeconomy from Bioresources of North-East India” to commemorate 75 years of progressive India (Azadi Ka Amrit Mahotsav), was organised by the DBT-IBSD on 18<sup>th</sup> October 2021 at Manipur Film Development Corporation Complex, Palace Compound, Imphal in Manipur under the aegis of its Director, Prof. Pulok K. Mukherjee .</p> <p>Esteemed dignitaries included Shri YumnamJoykumar Singh, Hon’ble Deputy Chief Minister of Manipur &amp; Hon’ble Minister of Science &amp; Technology, Finance, Excise, Taxation, Economics &amp; Statistics, Civil Aviation, Govt. of Manipur, Dr. Rajkumar Ranjan Singh, Hon’ble Union Minister of State, Ministry of External Affairs and Education, Govt. of India, Maharaja LeishembaSanajaoba, Hon’ble Member of Parliament (RAJYA SABHA), Govt. of India , representatives of DBT, Govt. of India, officials of Dept. of Health &amp; Family Welfare, Govt. of Mizoram, apart from academicians , researchers and scientists among others .</p> <p>The attendance of Shri Dr. Jitendra Singh, Hon’ble Union Minister of State (Independent Charge) of the Ministry of Science &amp; Technology, Ministry of Earth Sciences, Union Minister of State in the Prime Minister’s Office, Ministry of Personnel, Public Grievances &amp; Pensions, Minister of State in the Department of Atomic Energy and Department of Space, Govt. of India as the Chief Guest marked the highlight of the event.</p> <p>The Hon’ble Union Minister, who arrived at Imphal around 05:00 PM IST, accompanied by the Director and faculties of</p>

	<p>DBT-IBSD Imphal also called on the Hon'ble Chief Minister, Government of Manipur prior to his scheduled visit of IBSD Campus at Takyelpat, Imphal. To commemorate the occasion, the Hon'ble Union Minister planted tree saplings inside the campus of DBT-IBSD and visited research facilities including the Phytopharmaceutical Laboratory and INSACOG (Indian SARS-CoV-2 Consortium).</p> <p>During the seminar, DBT-IBSD-ILS collaborative programme on "Capacity building &amp; Training for Young Researchers of North East Region on Bio resources management &amp; Advanced Biotechnology" was officially launched, MoU for Covid testing Mobile iLab with Government of Mizoram was signed &amp; quality planting material of sweet mandarin (Citrus sp.), strawberry &amp; Malbhog was distributed to the farmers of Manipur.</p>	
<b>Nature of event (tick one)</b>	Jan bhagidari (open to public)	
<b>VIP attendees(if any)</b>	<p><b>Dr. Jitendra Singh</b> Hon'ble Union Minister of State (Independent Charge) of the Ministry of Science &amp; Technology, Ministry of Earth Sciences</p> <p><b>Shri Yumnam Joykumar Singh</b>, Hon'ble Deputy Chief Minister of Manipur &amp; Hon'ble Minister of Science &amp; Technology, Finance, Excise, Taxation, Economics &amp; Statistics, Civil Aviation, Govt. of Manipur</p> <p><b>Dr. Rajkumar Ranjan Singh</b>, Hon'ble Union Minister of State, Ministry of External Affairs and Education, Govt. of India</p> <p><b>Shri Maharaja Leishemba Sanajaoba</b>, Hon'ble Member of Parliament (RAJYA SABHA)</p>	
<b>Mode of advertisement of event</b>	Social Media	
<b>Nodal officer (DBT Nodal Officer)</b>	<b>Name:</b>	Dr. Vaishali Panjabi,
	<b>Designation:</b>	Scientist E
	<b>Email ID:</b>	vaishalip.dbt@nic.in
	<b>Phone number:</b>	011-24366268
	<b>Name:</b>	Dr. Amit KumarYadav
	<b>Designation:</b>	Scientist C
	<b>Email ID:</b>	yadav.ak@dbt.nic.in
	<b>Phone number:</b>	011-24360295

Add any pictures/videos/additional information here:



Today

# The Sangai Express

www.thesangaiexpress.com

THE LARGEST CIRCULATED ENGLISH DAILY IN MANIPUR

Imphal, October 19, 2021 Tuesday Vol:XXIII/38

₹ 4.50 PAGE:10

**MLA Nemcha Kipgen inaugurating the newly constructed office of the Kangpokpi Auto Owners Association at the district headquarters**

**Chief Minister N Biren receiving Union MoS (Independent charge) for Science and Technology Dr Jitendra with a Langyan Phi**

## One killed in factional clash

**GUWAHATI, Oct 18 :** A militant was killed in a factional clash between two groups of NSCN in Nagaland's Peren district. The firing between NSCN-K (Nika Sumi group) and NSCN-United took place near Khehloi camp area in Peren district on Sunday night.

The deceased militant was identified as Atoka. He worked as an additional secretary of NSCN-K.

A Kohima-based official said that NSCN-U militants had allegedly abducted some cadres of NSCN-K. He added that the clash took place in the area when the deceased along with three other members of NSCN-K were on their way to pick up the abducted colleagues.

In December 2020, the NSCN-K, led by dreaded militant Nika Sumi, had announced a ceasefire and the Centre on September 8 this year entered into a ceasefire agreement with the group for a period of one year.

**Governor wishes**

**IMPHAL, Oct 18 :** Governor La Ganesha has extended his greeting to the people of the State, especially the Muslim community on the auspicious occasion of Milad-Un-Nabi which falls on October 19.

In a message issued today, the Governor appealed to all the people to re-de-

## NE can be hub of bioresources : Dr Jitendra

**By Our Staff Reporter**

**IMPHAL, Oct 18 :** Union Minister of State (Independent charge) for Science & Technology Dr Jitendra has categorically stated that the North East region could be the hub for bioresources.

He was speaking as the chief guest at the National seminar organized by Institute of Bioresources and Sustainable Development (IBSD) on the theme "Developing Bioeconomy from Bioresources of North East region of India" at MFDS Auditorium, Palace Compound, Imphal, today.

The seminar was held as part of the Azadi Ka Amrit Mahotsav.

Saying that India is looking for new resources and means to supplement the economy in the post Covid time, he observed that the entire progress and growth of the North East region is going to be biotechnology related.

While highlighting that the North East region is unexplored, particularly its huge diverse bioresources, Jitendra maintained that the contribution of biotechnology will be very important for Manipur and the North East region as a whole.

Describing Manipur as the nerve for all the biotechnology research and

## IE police seize heroin, recovered

**By Our Staff Reporter**

**IMPHAL, Oct 18 :** A team of Imphal East district commando arrested two drug peddlers and seized arms and ammunitions suspected to be used in the October 11 night firing incident at Andro Mangthel were seized from the drug peddlers, said SP Imphal East N Herojit in a press conference held at SP Imphal East conference hall this afternoon.

Heroin worth around Rs 60 lakh in the international market and arms and ammunition suspected to be used in the October 11 night firing incident at Andro Mangthel were seized from the drug peddlers, said SP Imphal East N Herojit in a press conference held at SP Imphal East conference hall this afternoon.

Briefing media persons, the SP stated that acting on specific information about the presence of some drug peddlers in Hattia area, the team of Imphal East commando carried out a frisking and checking operation at Hattia area near Public hospital under his supervision.

During the operation, one diesel auto coming from the Checkon side toward Minuthong in a suspicious nature was detained for checking and verification at around 3.40 am.

While searching the vehicle, the commando team recovered and seized 40 soap cases containing 600 grams of heroin worth more than Rs 60 lakh in the international market from the roof of the vehicle. Two occupants of the vehicle identified as Ayajuddin Chesam (37) son of (L) Amu Chesam of Sora Makhla leikai and Md Oe Abdullah Khan (27), son of (L) Abdul Khan of Sekmaiin Bazar were arrested on the spot by observing necessary formalities, the SP said.

The arrested persons along with the seized drug items were handed over to Porompat police station for necessary legal action under the NDPS Act, he said.

Today's seizure is a part of the measures taken up to curb the drug menace in the

**67 new cases, no deaths**

## Only Ukhrul reports TPR

**By Our Staff Reporter** Churachandpur (1) and


### Performa for reporting AKAM events by Ministries


Particulars	Details												
Name of Department/Agency	Department of Biotechnology												
Name of Ministry	Ministry of Science and Technology												
Name of the AI/PSU	National Institute of Biomedical Genomics, Kalyani												
Name of event	Science Setu												
Start date of event	22-10-2021												
Theme of event (tick one)	<input type="checkbox"/> Freedom Struggle <input type="checkbox"/> Ideas@75 <input checked="" type="checkbox"/> Achievements@75 <input type="checkbox"/> Actions@75 <input type="checkbox"/> Resolve@75												
Description of event	This event is organised as part of Science Setu program for the DBT STAR colleges. The talk covered insights into the human INF-λ's association with infections and inflammatory diseases.												
Nature of event (tick one)	<input checked="" type="checkbox"/> Jan bhagidari (open to public) <input type="checkbox"/> Only participation from within Department/Ministry (no public)												
Expected number of participants in event	~200												
VIP attendees (if any)													
Associate Partners	<table border="1"> <tr> <td>Ministry #1:</td><td></td><td>State/UT #1:</td><td></td></tr> <tr> <td>Ministry #2:</td><td></td><td>State/UT #2:</td><td></td></tr> <tr> <td>Other</td><td></td><td>Other</td><td></td></tr> </table>	Ministry #1:		State/UT #1:		Ministry #2:		State/UT #2:		Other		Other	
Ministry #1:		State/UT #1:											
Ministry #2:		State/UT #2:											
Other		Other											
Mode of event	<input checked="" type="checkbox"/> Online event (webinar, virtual event) <input type="checkbox"/> Offline event (in-person participation) <input type="checkbox"/> Hybrid event (mix of online and offline modes)												
Mode of advertisement of event	<input checked="" type="checkbox"/> Websites <input checked="" type="checkbox"/> Social Media <input type="checkbox"/> Newspaper <input type="checkbox"/> Television media <input type="checkbox"/> Other mode												
Nodal officer	<table border="1"> <tr> <td>Name:</td><td>Dr. Sandhya Shenoy</td></tr> </table>	Name:	Dr. Sandhya Shenoy										
Name:	Dr. Sandhya Shenoy												





(DBT Nodal Officer)	<b>Designation:</b>	Scientist-F
	<b>Email ID:</b>	sandhya.shenoy@dbt.nic.in
	<b>Phone number:</b>	011-24367192

Add any pictures/videos/additional information here:






## SCIENCE SETU WEBINAR

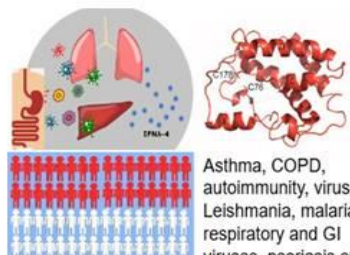



Friday, 22<sup>nd</sup> October, 3 pm onwards

### Causal variants at the **human interferon lambda locus** and their interesting association with infectious and inflammatory diseases

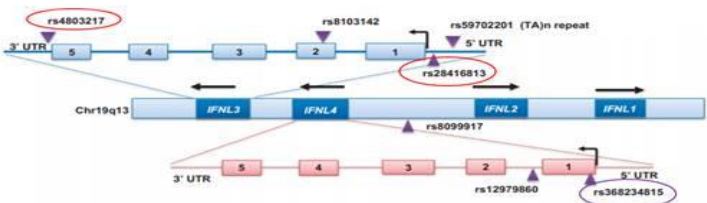


**Dr. Sreedhar Chinnaswamy**  
Associate Professor  
DBT-Wellcome India Alliance  
Intermediate Fellow



Asthma, COPD, autoimmunity, viruses, Leishmania, malaria, respiratory and GI viruses, psoriasis etc.

**IFN-λ4 in human health and disease**  
>50% of Indians harbor IFN-λ4 gene




Please join using the following link  
<https://www.nibmg.ac.in/p/live-event>

### Performa for reporting AKAM events by Ministries

Particulars	Details												
<b>Name of Department/Agency</b>	Department of Biotechnology												
<b>Name of Ministry</b>	Ministry of Science and Technology												
<b>Name of the AI/PSU</b>	Institute for Stem Cell Science & Regenerative Medicine (DBT-inStem)												
<b>Name of event</b>	inStem Science Setu Series : Discovering Possibilities												
<b>Start date of event</b>	Saturday 23 October 2021 (Bimonthly since April 2021)												
<b>Theme of event (tick one)</b>	<input type="checkbox"/> Freedom Struggle <input type="checkbox"/> Ideas@75 <input checked="" type="checkbox"/> <b>√Achievements@75</b> <input type="checkbox"/> Actions@75 <input type="checkbox"/> Resolve@75												
<b>Description of event</b>	<p>The Science Setu program events at inStem cover research in contemporary areas, highlighting key outcomes in basic research, clinical translation and industry in the country. Further, lectures are planned to discuss career opportunities to UG and PG students. The engagements which began in April 2021 highlight the progress and advances laboratories in India have made in the area collectively, over preceding decades and the current contemporary approaches in our laboratories.</p> <p>Speaker: <b>Prof MS Sheshshayee</b>;            Department of Crop Physiology, University of Agricultural Sciences, Bengaluru.</p> <p>Title: <b>How much water do we EAT? Do we have enough water to produce food for us in future?</b></p> <p>Saturday 10:00 AM; 23 October 2021</p>												
<b>Nature of event (tick one)</b>	<input checked="" type="checkbox"/> <b>√Jan bhagidari (open to public)</b> <input type="checkbox"/> Only participation from within Department/Ministry (no public)												
<b>Expected number of participants in event</b>	150-200 UG and PG students and their science teachers from Bangalore, Mangalore, Ujire, Gadag in Karnataka; Chennai and Anchal (Kerala).												
<b>VIP attendees (if any)</b>													
<b>Associate Partners</b>	<table border="1"> <tr> <td><b>Ministry #1:</b></td><td>NIL</td><td><b>State/UT #1:</b></td><td></td></tr> <tr> <td><b>Ministry #2:</b></td><td>NIL</td><td><b>State/UT #2:</b></td><td></td></tr> <tr> <td><b>Other</b></td><td></td><td><b>Other</b></td><td></td></tr> </table>	<b>Ministry #1:</b>	NIL	<b>State/UT #1:</b>		<b>Ministry #2:</b>	NIL	<b>State/UT #2:</b>		<b>Other</b>		<b>Other</b>	
<b>Ministry #1:</b>	NIL	<b>State/UT #1:</b>											
<b>Ministry #2:</b>	NIL	<b>State/UT #2:</b>											
<b>Other</b>		<b>Other</b>											


<b>Mode of event</b>	<input type="checkbox"/> ✓Online event (webinar, virtual event) <input type="checkbox"/> Offline event (in-person participation) <input type="checkbox"/> Hybrid event (mix of online and offline modes)	
<b>Mode of advertisement of event</b>	<input type="checkbox"/> ✓Websites <a href="https://www.instem.res.in/dbt-instem-science-setu">https://www.instem.res.in/dbt-instem-science-setu</a> <input type="checkbox"/> ✓Social Media DBT Sci Comm; Soc Media account <input type="checkbox"/> Newspaper <input type="checkbox"/> Television media <input type="checkbox"/> ✓Other mode (email from dedicated account)	
<b>Nodal officer</b> (DBT Nodal Officer)	<b>Name:</b>	
	<b>Designation:</b>	
	<b>Email ID:</b>	
	<b>Phone number:</b>	


Add any pictures/videos/additional information here:



SCIENCE  
SETU

Discovering Possibilities  
Atmanirbhar Bharat






## How much water do we EAT?

## Do we have enough water to produce food for us in future?

▶ SATURDAY, 23RD OCT-2021

▶ 10 AM



PROF MS SHESHSHAYEE

**Registered Participants**

St. Joseph's College, Bengaluru  
 Mount Carmel College Autonomous, Bengaluru  
 Maharani's Science College for Women, Bengaluru  
 Indian Academy Degree College, Bengaluru  
 Kristu Jayanti College, Bengaluru  
 Sri Dharmasthala Manjunatheshwara College, Ujire  
 Bipin Chikkatti Degree College, Gadag  
 St. Aloysius College, Mangalore  
 Sri Ramachandra Institute of Higher Education & Research, Chennai  
 St. John's College, Anchal, Kollam

Department of Crop Physiology,  
University of Agricultural  
Sciences, Bengaluru

▶ Registration Required

### Performa for reporting AKAM events by Ministries

Particulars	Details												
<b>Name of Department/Agency</b>	Department of Biotechnology												
<b>Name of Ministry</b>	Ministry of Science and Technology												
<b>Name of the AI/PSU</b>	International Centre for Genetic Engineering and Biotechnology												
<b>Name of event</b>	Biofortification of crops through Genetic Engineering: Focus on Banana												
<b>Start date of event</b>	28 <sup>th</sup> September 2021												
<b>Theme of event (tick one)</b>	<input type="checkbox"/> Freedom Struggle <input type="checkbox"/> Ideas@75 <input type="checkbox"/> Achievements@75 <input checked="" type="checkbox"/> Actions@75 <input type="checkbox"/> Resolve@75												
<b>Description of event</b>	The lecture was organised under the Science Setu Programme to educate the young minds from 13 colleges assigned to ICGEB about methods of Plant Transformation with special reference to Banana.												
<b>Nature of event (tick one)</b>	<input checked="" type="checkbox"/> Jan bhagidari (open to public) <input type="checkbox"/> Only participation from within Department/Ministry (no public)												
<b>Expected number of participants in event</b>	80												
<b>VIP attendees (if any)</b>	No												
<b>Associate Partners</b>	<table border="1"> <tr> <td><b>Ministry #1:</b></td><td>-</td><td><b>State/UT #1:</b></td><td>-</td></tr> <tr> <td><b>Ministry #2:</b></td><td>-</td><td><b>State/UT #2:</b></td><td>-</td></tr> <tr> <td><b>Other</b></td><td>-</td><td><b>Other</b></td><td>-</td></tr> </table>	<b>Ministry #1:</b>	-	<b>State/UT #1:</b>	-	<b>Ministry #2:</b>	-	<b>State/UT #2:</b>	-	<b>Other</b>	-	<b>Other</b>	-
<b>Ministry #1:</b>	-	<b>State/UT #1:</b>	-										
<b>Ministry #2:</b>	-	<b>State/UT #2:</b>	-										
<b>Other</b>	-	<b>Other</b>	-										
<b>Mode of event</b>	<input checked="" type="checkbox"/> Online event (webinar, virtual event) <input type="checkbox"/> Offline event (in-person participation) <input type="checkbox"/> Hybrid event (mix of online and offline modes)												
<b>Mode of advertisement of event</b>	<input type="checkbox"/> Websites <input type="checkbox"/> Social Media <input type="checkbox"/> Newspaper <input type="checkbox"/> Television media <input checked="" type="checkbox"/> Other mode												
<b>Nodal officer</b>	<table border="1"> <tr> <td><b>Name:</b></td><td>-</td></tr> </table>	<b>Name:</b>	-										
<b>Name:</b>	-												

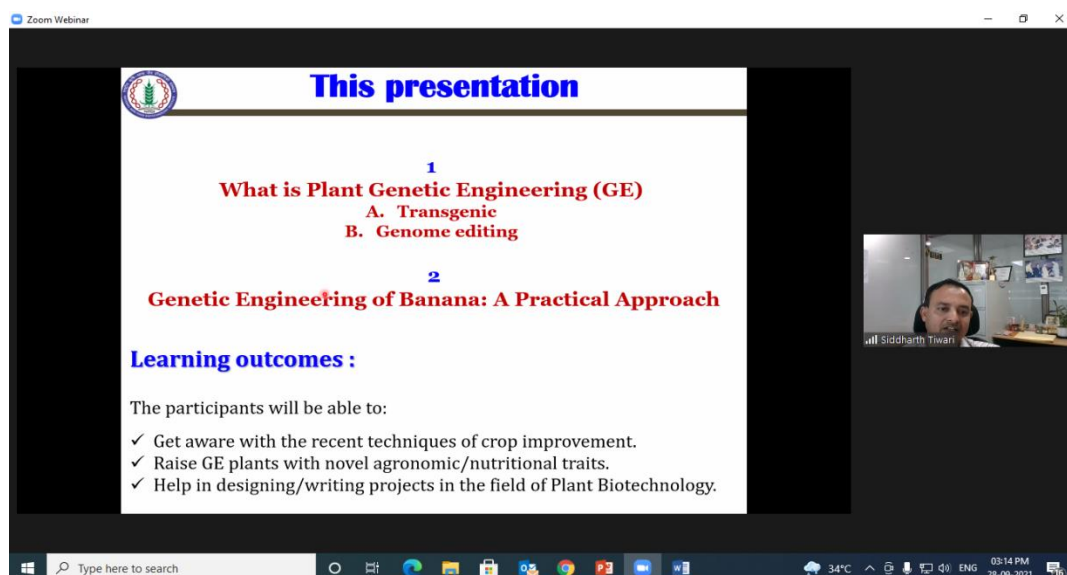


(DBT Nodal Officer)	Designation:	-
	Email ID:	-
	Phone number:	-

**Add any pictures/videos/additional information here:**

The lecture was organised under the Science Setu Programme to educate the young minds from 13 colleges assigned to ICGEB about methods of Plant transformation with special reference to Banana. The lecture highlighted the Biofortification of crops through Genetic Engineering. This talk must have sensitized participant's minds about the important issue of the food security and latest development in the field of Genetic Engineering of Plant.

**Pictures:**



**This presentation**

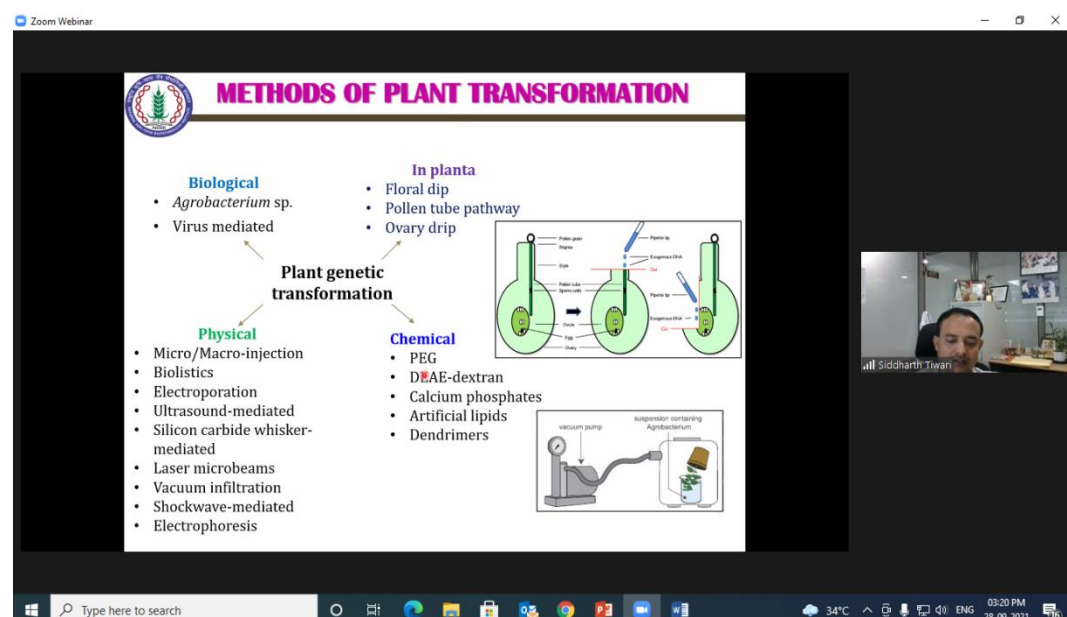
**1**  
**What is Plant Genetic Engineering (GE)**  
A. Transgenic  
B. Genome editing

**2**  
**Genetic Engineering of Banana: A Practical Approach**

**Learning outcomes :**

The participants will be able to:

- ✓ Get aware with the recent techniques of crop improvement.
- ✓ Raise GE plants with novel agronomic/nutritional traits.
- ✓ Help in designing/writing projects in the field of Plant Biotechnology.



**METHODS OF PLANT TRANSFORMATION**

**Biological**

- Agrobacterium sp.
- Virus mediated

**In planta**

- Floral dip
- Pollen tube pathway
- Ovary drip

**Physical**

- Micro/Macro-injection
- Biolistics
- Electroporation
- Ultrasound-mediated
- Silicon carbide whisker-mediated
- Laser microbeams
- Vacuum infiltration
- Shockwave-mediated
- Electrophoresis

**Chemical**

- PEG
- DAE-dextran
- Calcium phosphates
- Artificial lipids
- Dendrimers

**Plant genetic transformation**

The slide includes two diagrams: one showing the process of floral dip and pollen tube pathway in a plant, and another showing the process of vacuum infiltration using a vacuum pump and a suspension containing Agrobacterium.

### Performa for reporting AKAM events by Ministries

Particulars	Details
Name of Department	Department of Biotechnology
Name of Ministry	Ministry of Science and Technology
Name of the Organiser	ICAR- IARI, PUSA
Name of event	<b>Farmer-Scientist Mega connect under the DBT-Biotech-Krishi Innovation Science Application Network (Biotech-KISAN)</b>
Start date of event	28 <sup>th</sup> October 2021
Theme of event (tick one)	Actions@75
Description of event	<p>A Mega-event <b>“Farmers-Scientists Connect Meet”</b> under “Azadi ka Amrit Mahotsav” will be organized from 11:30 AM to 12:30 PM on <b>October 28</b>, 2021 (both in physical and virtual mode) under the Biotech-KISAN Hub established at ICAR-IARI, Pusa, New Delhi. It is planned to connect the scientists with 75,000 farmers from 75 Aspirational Districts in the country through virtual mode, where Biotech-KISAN activities are under implementation.</p> <p>The Inaugural Session of the event will be organized at ICAR-IARI, Pusa, New Delhi campus in physical mode from 11:30 AM to 12:30 PM, Hon’ble Minister for S&amp;T and ES, will be the Chief Guest. 100 beneficiary farmers associated with Biotech-KISAN Hub at ICAR-IARI, New Delhi have been invited. After the Inaugural Session for one hour, the event will continue with the lectures from scientists and sharing of experience by farmers till 3:00 PM same day.</p>
Nature of event (tick one)	Jan bhagidari (open to public)
Expected number of participants in event	75,000
VIP attendees (if any)	<p><b>Dr. Jitendra Singh</b>, Hon’ble Union Minister of State (Independent Charge) of the Ministry of Science &amp; Technology, Ministry of Earth Sciences</p> <p><b>Dr. Renu Swarup</b>, Secretary, DBT &amp; DST</p>

	<b>Dr. Shekhar C. Mande</b> , Secretary DSIR <b>Dr. M. Ravichandran</b> , Secretary, MoES <b>Dr. Trilochan Mohapatra</b> , Secretary DARE & DG, ICAR <b>Dr. A. K. Singh</b> , Director ICAR-IARI			
<b>Associate Partners</b>	<b>Ministry #1:</b>	MoES, DARE	<b>State/UT #1:</b>	
<b>Mode of event</b>	Hybrid event (mix of online and offline modes)			
<b>Mode of advertisement of event</b>	Social Media			
<b>Nodal officer</b> (DBT Nodal Officer)	<b>Name:</b>	Dr. Vaishali Panjabi,		
	<b>Designation:</b>	Scientist E		
	<b>Email ID:</b>	vaishalip.dbt@nic.in		
	<b>Phone number:</b>	011-24366268		
	<b>Name:</b>	Dr. Amit KumarYadav		
	<b>Designation:</b>	Scientist C		
	<b>Email ID:</b>	yadav.ak@dbt.nic.in		
	<b>Phone number:</b>	011-24360295		