



# CHF NEWSLETTER

April-June, 2016

Volume 02, Issue 02

## WORLD ENVIRONMENT DAY

The College of Horticulture & Forestry, Pasighat observed 45<sup>th</sup> World Environment Day on 5<sup>th</sup> June, 2016 with full ecstasy and fervor. The programme

Reforms Project, New Delhi. The theme of this year's World Environment Day was "Go Wild for Life", emphasizing importance on native species of animals and plants which are diminishing due to illegal poaching and trading worldwide and resulting in extinction of some very valuable species from the planet.

During deliberation while giving the detail account of India's ecosystem, Shri Balmukund Pandey lamented that the native species of animals and plants are diminishing due to worldwide illegal poaching and trading. On this occasion, NSS Unit of College of



NSS volunteers receiving prizes

commenced with planting of saplings by Guests of the occasion Shri Kento Rina, MLA Nari-Koyu, Shri Kaling Moyong, MLA, Pasighat and Shri Balmukund



Planting of saplings at College of Horticulture & Forestry, Pasighat, A.P.



At College of Agriculture, Pasighat, A.P.

Horticulture and Forestry, Pasighat also organized an Essay writing competition on the topic "India's Promises to Paris Conference is achievable and how?". Around 110 NSS volunteers participated in the competition. Ms Biri Jumsi, B. Sc. Horticulture 2<sup>nd</sup> year, Mr. Sumit Kumar Das, B.Sc. Forestry 2<sup>nd</sup> Year and Ms Y Percy Devi, B.Sc. Horticulture 2<sup>nd</sup> Year received First, Second and Third prizes respectively from Prof. B. Singh, Special Invitee and Dean, NERIST, Nirjuli, Itanagar .

Pandey, Organizing Secretary, All India History

## INTERNATIONAL DAY OF YOGA

As 21 June has been declared as Yoga Diwas by the General Assembly of United Nations, College of Horticulture and Forestry, Pasighat organized a programme on Yoga in its College campus for the benefit of all the teaching and non-teaching staff along with their family members and students. While initiating the programme, Dean, CHF highlighted the importance of Yoga and said that Yoga and meditation have the power to improve your intuitive ability so that you effortlessly realize what needs to be done, when and how, to yield positive results.



Programme on Yoga

## AQUACULTURE TRAINING FOR RURAL YOUTH

Krishi Vigyan Kendra, East Siang, College of Horticulture and Forestry, Central Agricultural University, Pasighat, Arunachal Pradesh in collaboration with Women Against Social Evils (WASE), Pasighat organized a day long hands on training cum demonstration programme on Aquaculture on 20<sup>th</sup> June, 2016. Subject Matter Specialist, Fisheries, S. M. Hussain delivered lecture on different areas of Aquaculture practices and highlighted on integrated farming practices for income generation. Mr. Toge Riba discussed about the culture practices of honeybee. During the

programme, altogether 21 rural youth and farm women



Hands on training cum demonstration programme on Aquaculture

were trained. The General Secretary of WASE Mrs. Jaya Tasung Moyong expressed gratitude to the KVK for conducting such type of training programme.

## NSS CAMP

One week Special NSS Camp was organized at



Special NSS Camp at Berung village

Berung village by NSS unit of College of Horticulture and Forestry, Central Agricultural University, Pasighat on 16<sup>th</sup> June, 2016. The motto of the camp was 'Youth for Smart Farming'. The College selected the village as the most progressive village which has also been adopted by Shri Ninong Ering, Hon'ble Member of Parliament, Govt. of India under *Sansaad Adarsh Gram Yojana*. While inaugurating the camp, Dr. A.K Pandey, Dean,



College of Horticulture and Forestry said that during camp programme we get an opportunity to work together in group for the welfare of the society. This not only provides us 'we feeling' but also brings the sense of responsibility. He further said that students should inculcate such habit and working attitude for the community's wellbeing. Program coordinator Dr K S Tomar informed that 65 students participated in the special camp. Further he outlined various activities like free health checkup, mass cleanliness drive, street play on education, whitewashing of public places, training on fish farming, mushroom cultivation, mass plantation, training on value addition of fruits and vegetables, *shramdan*, yoga, awareness on pest management and diseases of crops, knowledge about various govt. schemes including soft loans for farmers, etc. During the programme, a good number of saplings of various fruit trees and road side avenue trees were distributed among the villagers.

## NEWS

### Raw bamboo shoot consumption can be life threatening

A research team of Department of Basic Sciences & Humanities, College of Horticulture & Forestry, led

by Mr. Siddhartha Singh, Assistant Professor (Biochemistry), found that the raw bamboo shoot consumed in different cuisines by the tribes of Arunachal Pradesh and other North-Eastern states are not ideal for consumption and can be life threatening. The raw bamboo shoot contains varying amounts of cyanogenic glycosides called taxiphyllin. The  $\beta$ -glycosidase released in damaged tissues acts on taxiphyllin to produce harmful hydrogen cyanide which may lead to cyanide poisoning and even death. The research team mentioned a case of cyanide poisoning of a 14 years old female with a history of consumption of bamboo shoot juice in JSS Hospital, Mysore, India. The research revealed that fermentation leads to decrease in cyanide content and hence are more suitable for consumption as compared to raw bamboo shoot.

### Plant Beneficial Endophytic *Pseudomonas fluorescens* from "Vulnerable" *Coptis teeta* of Eastern Himalaya, India

*Coptis teeta* (Ranunculaceae), is an endangered, high altitude temperate and alpine ethno-medicinal herb. The plant is reported to found only in northwest Yunnan and northeast India. In India it is only reported from Mishmi Hills of Arunachal Pradesh and considered to be endangered. The Chinese used it as a traditional medicine as an antibacterial and as an anti-inflammatory from ancient times. Although *Coptis teeta* was considered under threatened and endangered plant species having a lot of medicinal importance, but studies of their associated microbes were untapped. The aim of this study is to characterize and formulate the new inocula from the *Coptis teeta* associated unexplored endophytic *Pseudomonas fluorescens* of Eastern Himalayan province for plant beneficial attributes. Isolates were characterized by biochemical and molecular (16S rDNA amplification with a set of primers PS 16 r and PS 16 f) methods for *Pseudomonas fluorescens*. Genetic variability of isolates was assessed by BOX PCR analysis of repetitive sequence by using

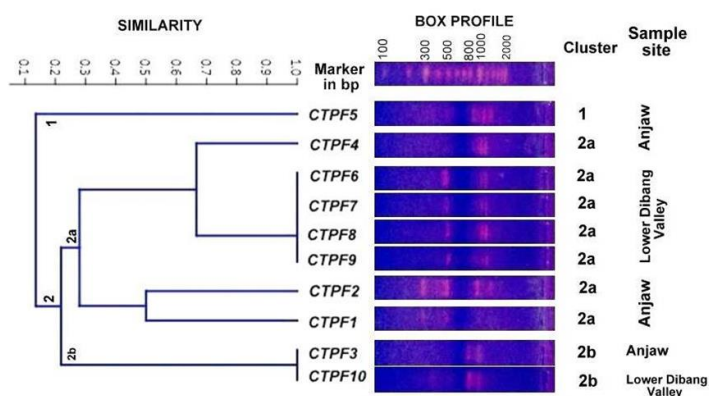


Bamboo shoot



*Coptis teeta* whole plant, leaf and rhizome.

BOX A1R primer. The characterized endophytic strains were screened for their various plant growth promoting traits *viz.*, Indole acetic acid, Gibberellic acid, Siderophore, HCN, Exo-polysaccharide production, phosphate solubilizing ability and their growth ability on nitrogen free medium. Endophytic *Pseudomonas fluorescens* strains CTPF5 and CTPF4 were identified as



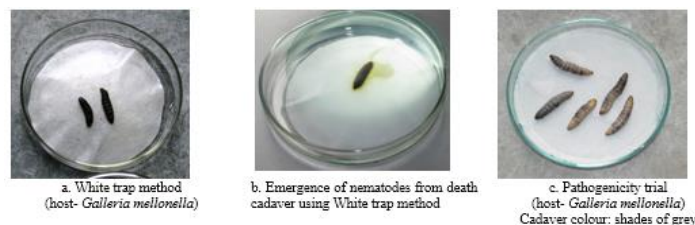
**Dendrogram, BOX PCR Profile, Cluster generated and Sample site.** Dendrogram was generated by the method of UPGMA and Jaccard similarity index with cophen. corr. value of 0.9579.

a unique and promising strain of the endemic *Coptis teeta* on the basis of 16S rDNA amplification and BOX PCR profiling and various plant beneficial attributes analysis. Furthermore, this study will provide a better insight for understanding the endophytic association

with the host plant and will also be a novel pavement in the endophytic research.

### Different Isolates of EPNs collected from CHF campus

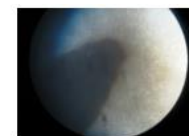
Survey works on EPNs were carried out during June- September in CHF forest areas. Soil collected were baited using greater wax moth larvae for EPN isolation.



After 2-3 days, larvae were found to be dead with change

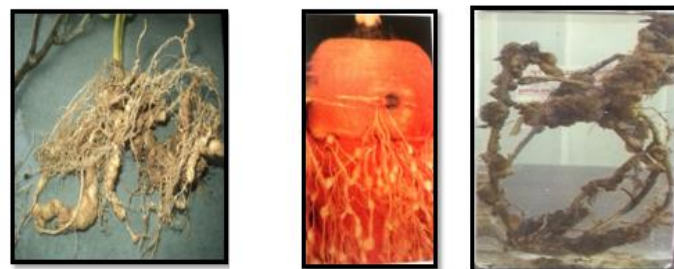


in the cadaver colour ranging from pink, creamish, grey and black which are the indications marked for *Steinernema* infection. White trap methods were used for extraction of EPNs from the dead cadaver. Further, the pathogenicity trials were conducted and confirmed that the EPNs isolates were of different species of same genus *Steinernema*.



h. Emergence of EPN from cadaver

### Report of Root-Knot Nematodes in Vegetables, Spice and Temperate Fruit



A. Tomato

B. Carrot

C. Sponge gourd



Survey was carried out in the month of June-Oct, 2016 in CHF campus for different vegetable crops affected by root-knot nematode. Vegetables like okra, sponge gourd, tomato, brinjal, carrot, beans, chilli were found to be affected by root-knot nematode. Formation of galls or knots on their roots with reduced root system was found. In severe infestation, rotting of roots takes place. Spices like false coriander with galls were collected from Pasighat market. Root-knot diseases were also found in chestnut and walnut from Bomdila, West Kameng district of Arunachal Pradesh.



D. Walnut



E. Chestnut



F. False Coriander

### Campaign on Management of Citrus Trunk Borer

In and around East Siang district of Arunachal Pradesh heavy infestation of trunk borer in citrus orchard has been observed during this year and it was estimated that 50 – 80 % plants were infested with citrus trunk borers in the region. This insect is very common in North East region. It bores near the base of the trunk and makes



Stem injection of insecticide

easy access inside the plant and lay their eggs. It makes zigzag galleries beneath the bark and tunnel into the

trunk or main stem, and as a result feed on the internal tissues. The attacked branches wither away and die.

For the effective management of this noxious pest, an awareness campaign was organised in Silile Korong area, Mirem, Miglung, Bilat and Ledum villages to sensitise the growers in the month of July to September. The campaign was supervised by Dr. L. Wangchu, Dr. M. M. Kumawat, Mr. Toge Riba and Dr. R.C. Shakywar. As an immediate step, the team suggested in its observation, smearing of trunk upto 1 meter height with a mixture of endosulfan + lime + water (1:10:100) or monocrotophos + lime + water (1:10:100) or 3ml of monocrotophos 36 SL in 1L of enamel paint two times during April to June. Stem injection @ 10ml/ hole with monocrotophos (0.07%) or dichlorvos (0.05%) or petrol at the bore holes during October to January and after injection the holes should be plugged with mud.

### Performance of CHF Students in ICAR-All India Entrance Examination of Agriculture (AIEEA) PGS – 2016

Sl. No	Name of the Student	Subject	Rank		ICAR-JRF/ Any Other Exam	Name of University
			All India	Categ ory		
1.	Mr. Fornestar Lyngkhoi	Horti	10 <sup>th</sup>	ST - 1 <sup>st</sup>	ICAR-JRF	M. Sc. in Veg. Sc. IARI, New, Delhi
2.	Mr. Panchaal Bhattacharjee	Horti	21 <sup>st</sup>	UPS - 1 <sup>st</sup>	ICAR-JRF	M. Sc. in in Veg.Sc. KRCCH, UH, Bagalkot
3.	Ms. Jakirmre Ch. Momin	Horti	197 <sup>th</sup>	ST - 3 <sup>rd</sup>	ICAR-JRF	M. Sc. Horti.,IGK V, Raipur, Chhattisgarh
4.	Ms. Damayanti Prajapati	Biotech nology	23 <sup>rd</sup>	OBC- 10 <sup>th</sup>	Through JNU- Biotech. Exam	GBPAUT Pantanagar
5.	Mr. Sunil Ningombam	Biotech nology	76 <sup>th</sup>	UPS - 1 <sup>st</sup>	ICAR-JRF	IARI, New, Delhi



## HUMAN RESOURCE DEVELOPMENT

1. Dr. A.K. Pandey, Dean, College of Horticulture and Forestry, CAU, Pasighat attended Senior Officers Meeting of Central Agricultural University, on 21<sup>st</sup> April, 2016 at College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim.

2. Dr. A.K. Pandey, Dean, College of Horticulture and Forestry, CAU, Pasighat acted as Co-Chairman of Vegetable Production session during 34<sup>th</sup> AICRP Group Meeting at organized at Indian Agricultural Research Institute, Pusa, New Delhi on 11<sup>th</sup> May, 2016.

## APPOINTMENT

### NON-TEACHING STAFF

#### A. Horticulture Assistant

1. Mr. Archan Rabha has joined the post of Horticulture Assistant in the Department of Fruit Science on 04<sup>th</sup> April, 2016.

#### B. Computer Operator

1. Ms. Simpi Dutta has joined the post of Computer Operator on 04<sup>th</sup> April, 2016.

#### C. Farm/Live Stock Assistant

1. Dr. Maryom Ringu has joined the post of Farm/Livestock Assistant on 04<sup>th</sup> April, 2016.
2. Dr. Daniel Kakki has joined the post of Farm/Livestock Assistant on 06<sup>th</sup> April, 2016.
3. Ms. Anu Taloh has joined the post of Farm/Livestock Assistant on 19<sup>th</sup> April, 2016.

#### D. Field cum Lab. Assistant

Following Field cum- Lab Assistant has joined this college during the period of report (April-June, 2016).

SL. No.	Name	Date of Joining
1)	Mr. Nabin Kumar Mahato	04 <sup>th</sup> April, 2016.
2)	Mr. Pramod Kumar Pandey	04 <sup>th</sup> April, 2016.
3)	Mr. Arun Kumar Singh	04 <sup>th</sup> April, 2016.
4)	Mrs. Jayashree Mohanty	04 <sup>th</sup> April, 2016.
5)	Ms. Sudipta Bhowmik	04 <sup>th</sup> April, 2016.
6)	Mr. Santosh Gupta	04 <sup>th</sup> April, 2016.
7)	Ms. Reema Longjam	04 <sup>th</sup> April, 2016.
8)	Mr. Karton Kartek	04 <sup>th</sup> April, 2016.
9)	Mr. Amon Sangma	04 <sup>th</sup> April, 2016.
10)	Mr. Kumar Chetri	06 <sup>th</sup> April, 2016.
11)	Ms. Anjela Moyong	06 <sup>th</sup> April, 2016.
12)	Mr. Kaushlesh Kumar	11 <sup>th</sup> April, 2016.
13)	Ms. Rini Pertin	13 <sup>th</sup> April, 2016.
14)	Mr. Hage Kani	15 <sup>th</sup> April, 2016.

#### E. Plumber

1. Mr. Baneswar Basumatary has joined as plumber on 04<sup>th</sup> April, 2016.

#### F. Security Guard

1. Mr. Anurudh Sahani has joined as Security Guard on 04<sup>th</sup> April, 2016.

#### G. Multi-Tasking Staff

Following candidates were appointed as Multi-Tasking Staff at College of Horticulture and Forestry

SL. No.	Name	Date of Joining
1)	Dinesh Kumar Pandit	04 <sup>th</sup> April, 2016.

2)	Mr. Vikash Sharma	04 <sup>th</sup> April, 2016
3)	Ms. Gegul Borang	04 <sup>th</sup> April, 2016
4)	Ms. Yateng Gao	04 <sup>th</sup> April, 2016
5)	Mr. Kamal Rai	04 <sup>th</sup> April, 2016
6)	Mr. Raj Kumar Maharaj	04 <sup>th</sup> April, 2016
7)	Ms. Priyanka Sharma	04 <sup>th</sup> April, 2016
8)	Ms. Nangko Mize	04 <sup>th</sup> April, 2016
9)	Ms. Nung Taggu	04 <sup>th</sup> April, 2016
10)	Mr. Tajong Tangu	04 <sup>th</sup> April, 2016
11)	Mr. Nirmal Mochahary	04 <sup>th</sup> April, 2016
12)	Mr. Onong Mengu	04 <sup>th</sup> April, 2016
13)	Mr. Phanindra Tamang	04 <sup>th</sup> April, 2016
14)	Ms. Gaby Gao	04 <sup>th</sup> April, 2016
15)	Ms. Lalita Balmiki	04 <sup>th</sup> April, 2016
16)	Mr. Norbu Lama	08 <sup>th</sup> April, 2016
17)	Mr. Kyyi Tabi	19 <sup>th</sup> April, 2016

#### H. KVK Staff

1. Dr. Brij Mohan Singh has joined as a Farm Manager in the KVK on 07<sup>th</sup> April, 2016.
2. Mr. Ratan Kumar Singh has joined as Driver in the KVK on 04<sup>th</sup> April, 2016.
3. Mr. Bharat Bahadur Sonar has joined as Driver in the KVK on 04<sup>th</sup> April, 2016.

#### DISTINGUISHED VISITORS

Sl. No	Dignitaries	Date of Visit
01	Prof. M. Premjit Singh Hon'ble Vice Chancellor, Central Agricultural University, Imphal, Manipur	April 23, 2016
02	Mr. Kento Rina, Hon'ble MLA, Nari-Koyu Constituency	June 05, 2016
03	Mr. Kaling Moyong, Hon'ble MLA, 38 Pasighat East Constituency	June 05, 2016
04	Shri Balmukund Pandey Organizing Secretary, All India History Reforms Project, New Delhi	June 05, 2016
05	Prof. Binay Singh, Dean, NERIST, Nirjuli, Itanagar	June 05, 2016
06	Shri Ninong Ering, Hon'ble MP (LS), Government of India	June 16, 2016
07	Dr. Major Singh, Co-ordinator, AICRP (VC), IIVR, Varanasi	
08	Dr. T. Chaubey, Principal Scientist, IIVR, Varanasi	

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