

Half yearly e-Newsletter of

# Krishi Vigyan Kendra, Wokha



Indian Council of Agricultural Research

भारतीय कृषि अनुसंधान परिषद  
ICAR Research Complex for NEH Region



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# CONTENTS

Technology Week

PPV and FRA

FLD on Biofertilizer

Farmers Scientist Interaction cum  
Animal Health camp

Participation in Exhibitions

ZECC & Sponsored Programmes

On Farm Trials

On going OFT

Training Achievements, FLD and other  
Extension activities

Frontline Demonstrations

Trainings and Seminars Attended

Photo Gallery

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# Editorial

*Dear Reader*

It gives me great pleasure indeed to present the second edition of KVK, Wokha half yearly e-newsletter commencing from the month of October,2009 to March, 2010. The centre celebrated the “Technology Week” from 23<sup>rd</sup> of October to 28<sup>th</sup> of October, 2009 with a series of activities such as Animal Health Camp, Film shows, Farmers Scientist Interaction and Training for extension personnels which concluded on 28<sup>th</sup> of October,2009 where Farmers Fair cum Exhibition programme conducted at ICAR, Nagaland Centre with Dr.Chumben Murry, Minister of Agriculture, Govt. of Nagaland as the Chief Guest.

Another important programme was the Awareness and Sensitization programme on PPV & FRA which aimed at bringing awareness about the Act to the farmers as well as to the District Officers.

Keeping in view the reducing yield of jhum paddy due to low soil nutrient status, the centre conducted large scale demonstration on the use of Biofertilizer in which five villages was covered and total of 300 farmers was provided with free inputs.

Apart from these programmes, the centre has been successfully conducting the mandatory activities such as OFT, FLD and other extension activities, of which, the programmes are presented in this issue.

Khumdemo Ezung

**“TECHNOLOGY WEEK” CONDUCTED FROM 23<sup>rd</sup> OCTOBER TO 28<sup>th</sup> OCTOBER, 2009 AT KVK(ICAR), WOKHA, NAGALAND**



**Shri.Ramo, DAO during inaugural programme**



**Dr.Chumben Murry, Hon'ble Minister, Agriculture inaugurating Farmers' Fair Cum Exhibition programme at ICAR, Nagaland Centre**

“Technology Week” was conducted from 23<sup>rd</sup> of October to 28<sup>th</sup> of October, 2009. The “Technology Week” was inaugurated by Mr. Ramo Lotha, District Agriculture Officer, Wokha as Chief Guest on 23<sup>rd</sup> of October, 2009 at KVK Conference Hall where he spoke on the importance of the latest technology available with the research institutes in the field of Agri. and allied activities.

On the same day the Chief Guest also inaugurated the day long training programme on the topic “Improved Agricultural Practices for Sustainable Agriculture” for Extension Personnel's. Programmes such as Free animal health camp,

Farmers' Scientist Interaction and Film show programme and demonstrations on improved tools and implements was conducted during the entire week.

On the concluding day of the Technology Week, Farmers' fair cum Exhibition was organized at ICAR, Jharnapani on 28<sup>th</sup> of October, 2009, where Dr.Chumben Murry, Hon'ble Minister of Agriculture, Govt. of Nagaland was the Chief Guest. Stalls from Agriculture Deptt., ICAR(Mithun), ICAR, KVK's, SHG's and Local Entrepreneur were put up for display. During the programme inputs such as winter vegetable seeds and kuroiler chicks were also distributed free of cost to the participating farmers.



**KVK-Wokha, ICAR, Nagaland Centre, conducted Training cum Awareness and Sensitization programme on Protection of Plant Varieties and Farmers Right Act.**



**Dr.B.P.Bhatt, Joint Director, ICAR, Nagaland Centre, interaction with the participants**

The Krishi Vigyan Kendra, Wokha, ICAR Research Complex for NEH Region, Nagaland Centre conducted training cum awareness and sensitization programme on Protection of Plant Varieties and Farmers Right Act on 11<sup>th</sup> of March, 2010 at LTC Hall Wokha sponsored by Protection of Plant Varieties and Farmers Right Authority, New Delhi. The programme was inaugurated by Shri. Vyasan R. IAS, SDO(C), Wokha as the Chief Guest, where he spoke on the importance of the Act and the benefits that a farming community could gain. The resource persons for the programme includes, Dr.B.P.Bhatt, Joint Director, ICAR, Nagaland Centre, , spoke on the topic “Types of intellectual property rights - The PPV&FRA” who deliberated thoroughly about the Act and the registering procedure. Ms.Chumbeni Odyou spoke on the topic “Diversity of Rice in Wokha District”, who deliberated on the existing promising rice

germplasm of the district. Mr.Orenthung Odyuo of Nagaland Bio Resources, Department of Land Resources delivered lecture on the topic “Potentiality of Medicinal and Aromatic Plants in Wokha District” who discussed in detail about the cultivation practices of the medicinal and aromatic plants. The programme ended with panel discussion, where the participants actively participated and put up various queries about the Act and were satisfactorily clarified. Earlier in the inaugural session, the welcome address was delivered by N. Khumdemo Ezung, Programme Coordinator(i/c), objective of the training programme by Dr.B.P.Bhatt and vote of thanks by Ms.Megokhono Meyase. Altogether there were about 100 participants including District Agriculture and allied officers, ATMA, Village Council Chairman and members and GB of nearby villages.

## KVK(ICAR) Wokha conducts Frontline Demonstration on Biofertilizer for Jhum Paddy



**Resource person N.Khumdemo Ezung, Programme Coordinator(i/c) interacting with the participants (inset) farmers actively participating in the demonstration**

Keeping in view the low nutrient status of the Jhum field particularly Nitrogen and Phosphorus due to soil erosion resulting in lower grain yield, particularly paddy, the Krishi Vigyan Kendra, Wokha, ICAR Research Complex for NEH Region, Nagaland Centre conducted large scale Frontline Demonstration on Biofertilizer known as *Azospirillum* and *Phosphotika* for jhum paddy at five different villages viz. Yimkha, Longsachung, Longsa, N.Longidang and Okhye Yan of Wokha District on 02/03/10, 03/03/10, 12/03/10, 15/03/10 and 16/03/10 respectively covering more than 300 farmers. The resource person for the demonstration programme was N.Khumdemo Ezung, Programme Coordinator(i/c), KVK, Wokha and SMS(Agronomy) who deliberated in detail about the beneficial effect of biofertilizer.

Different methods of application such as seed treatment, seedling root dipping, drenching and soil treatment were discussed.

The programme was mainly targeted to the Jhum paddy farmers who does not adopt any nutrient management practices, but solely rely on the nutrients that is being added to the soil during the fallow period. However, as the jhum cycle is very short, the nutrients becomes insufficient, thereby, resulting in lower crop yield. Therefore, the KVK Wokha took the initiative and incorporated this small technological intervention into their existing system of cultivation practices so that the deficient nutrients such as Nitrogen and Phosphorus will be supplied and the farmers gets comparatively higher yield.

The Frontline Demonstration programme was taken up as a follow up measure of successful OFT that was conducted during the kharif season of 2009 at Wokha district. Free inputs of *Azospirillum* and *Phosphotika* biofertilizer sponsored by ATMA Wokha and KVK, Wokha was distributed to all the participating farmers.

## FARMERS' SCIENTIST INTERACTION CUM ANIMAL HEALTH CAMP CONDUCTED AT YIMKHA VILLAGE



Participants during the interaction programme (inset) Animal Health Camp in progress

Farmers' Scientist Interaction Programme cum Animal Health Camp was conducted at Yimkha Village on 16<sup>th</sup> January, 2010 organised by Krishi Vigyan Kendra(ICAR), Wokha sponsored by ATMA, Wokha. The programme was divided into two sessions. The first session includes Interactions on Health care and Management of farm animals conducted by Dr. Moa, SMS(Animal Science) and Safe and Judicious use of Bio pesticides and Chemical pesticides undertaken by Ms. Lireni

Kikon, Program Asst., Plant Protection. Many interesting queries were put up and interacted.

The second session includes Animal Health Camp which was undertaken by Dr.Moa Sangtam, in which animals such as pigs, dogs, poultry and cattle were treated. Medicines for the major diseases as well as vitamins and minerals were distributed to the participants free of cost. Altogether around 50 farmers participated in the day long programme.



## PARTICIPATION IN EXHIBITIONS



**KVK stall at ICAR, Barapani**



**KVK stall at NRCM, Jharnapani**

The centre participated in two days Mela entitle **“The Showcasing of Agricultural Technologies”** organized by ICAR (RC) for NEH Region, Umiam Barapani, Meghalaya on the 19<sup>th</sup> and 20<sup>th</sup> March 2010. The Chief Guest of the Programme was Dr. A.K. Gogoi, Zonal Project Director, Zone-III, Barapani. The centre was represented by Er.L.K.Singh, SMS(SWCE) and Ms.Jessica Dohtdong, Prog. Asst.(Home Science).

found suitable in the district based on On Farm Trials were also put up as a measure for technology dissemination.

The centre also participated in one day Exhibition cum Farmers Training Programme organized by State Bank of India on 01/02/2010 at National Research Centre on Mithun.



**Exhibits at the stall**

In both the exhibition programmes, rich local germplasm of jhum paddy and maize were put up including locally consumed fruits and vegetables. The technologies conducted which are

## “Zero Energy Cool Chamber”, A Low Cost Technology for Storage of Fruits and Vegetables



Fifteen units of ZECC is being sponsored by NABARD for implementation at Wokha district, Nagaland. In the first phase, five units of Zero Energy Cool Chamber had been constructed at three different villages. Two units were constructed at Wokha Village, two units at Pongitong Village and one unit at Longsa Village. Besides, one training programme was also conducted on March 16, 2010 for the beneficiaries in order to provide them with the needed technical back up so that the technology will be efficiently disseminated through them.

### SPONSORED PROGRAMMES CONDUCTED DURING OCTOBER 2009 TO MARCH, 2010

Title/Programme	Sponsoring Agency	Amount of fund received (Rs.)
Farmers' Scientist Interaction Cum Animal Health Camp Conducted At Yimkha Village	ATMA	12000
Demonstration cum training on Biofertilizers	ATMA	4000/-
Training cum awareness Programme on PPV and FRA	PPV and FRA, New Delhi	60,000/--
Training cum demonstration (15 units)on Zero Energy Cool Chamber	NABARD	77,125/-
Field Day on Pea	ATMA	5080/-
Training cum Demonstration on orange	ATMA	10,000/-
Demonstration on application of <i>Trichoderma</i> on ginger	ATMA	8000/-



## ON FARM TRIALS

### On Farm Trial on System of Rice Intensification



**Table: Average observation from SRI and Farmers practice conducted at Longsachung Village, Wokha District**

SRI(RCM-5)		Farmers Practice(Local variety)	
Ave. height(cm)	165.48	Ave. height(cm)	125.66
Number of grains/panicle	225	Number of grains/panicle	138
Numbers of effective tillers/hill	26	Numbers of effective tillers/hill	6
Panicle length(cm)	26.5	Panicle length(cm)	23.5
Test weight(gm)	32	Test weight(gm)	24
Grain yield(qt/ha)	46.42	Grain yield(qt/ha)	21.42

### On farm Trial on Rabbit farming



**Table: Average data on various parameters**

<b>No. of farmers</b>	4		
<b>Total no. of rabbit</b>	40		
<b>Technology</b>	Rabbit farming (NW, SC, GG)		
<b>Maturity period</b>	24 weeks		
<b>Mortality</b>	10%		
	<b>NW</b>	<b>SC</b>	<b>GG</b>
<b>Body weight gain(kg)</b>	Male-2.6 Female- 3.0	Male-2.7 Female- 2.9	Male-2.9 Female- 2.8
<b>B:C</b>	4.77	4.76	4.80

\*NW- New Zealand White : SC- Souviet Chinchilla: GG- Grey Giant

## ON GOING ON FARM TRIALS

Title of On Farm Trials
Trial on cultivation of liliun cv. Samur and Ercoleno in Wokha District
Varietal trial on tomato cv. MT-2 and MT-10.
Varietal trial on Brinjal cv. RCMBHL-1 and RCMBHL-2
Evaluation on local cultivars of colocasia at Wokha district
Trial on cultivation of Shiitake mushroom
Management of bacterial wilt in tomato cv. Manikhamnu using <i>Trochoderma viridi</i> and <i>Pseudomonas flourescens</i>
Trial on application of <i>Trichoderma viridi</i> and Bavistin(1%) as seed treatment on disease management with relation to germination, growth and yield of mandarin orange
Trial on TPS in Wokha district



## TRAINING ACHIEVEMENTS

Category	Particulars	Achievements
1. Practicing Farmers	1.a. No. of Trainings	40
	1.b. No. of participants	1352
2. Rural Youth	2.a. No. of Trainings	6
	2.b. No. of participants	165
3. Extension Functionaries	3.a. No. of Trainings	2
	3.b. No. of participants	125

## FRONTLINE DEMONSTRATIONS

Crop/Variety/Breed	Particulars	Achievements
1. Oilseeds(M-27)	1.a. Area in hectares	25 ha
	1.b. No. of demonstrations	10 SHG's
2. Pulses(Arkel)	2.a. Area in hectares	0.50 ha
	2.b. No. of demonstrations	1 SHG
3. Kuroiler	3.a. Area in hectares	500 nos of kuroiler chicks
	3.b. No. of demonstrations	10 SHG's
4. Biofertilizer	4.a. Area in hectares	5 ha
	4.b. No. of demonstrations	5(300 farmers)
5. Mushroom(Oyster)	5.a. Area in hectares	3 units
	5.b. No. of demonstrations	3
6. ZECC	6.a. Area in hectares	5 Units
	6.b. No. of demonstrations	5
7. Cucumber(Mokokchung Local)	7.a. Area in hectares	1
	7.b. No. of demonstrations	3

## OTHER EXTENSION ACTIVITIES

Activities	Particulars	Achievements
1. Field days	1.a. Numbers	1
	1.b. Participants	20
2. Diagnostic Services	2.a. Numbers	11
	2.b Participants	20
3. Animal Health Camp	3.a. Numbers	2
	3.b Beneficiaries	100
4. Exhibition	4.a. Numbers	3
	4.b Number of farmers	-
5. Radio Talk		10
6. Publications		4
7. Newspaper coverage		7
8. Farmers scientist Interaction		2



## FRONTLINE DEMONSTRATIONS

### PEA



Area (ha)	:	1 ha
No. of farmers involved	:	30
Technology demonstrated	:	Pea
Variety	:	Arkel
yield (qt/ha)	:	12.52
Yield of local check (qt/ha)	:	7.00
Increase in yield (%)	:	79%
Cost of cultivation (Rs.)	:	21200
Gross return(Rs.)	:	50080
Net return (Rs.)	:	28800
B:C ratio	:	1.35:1

### Mustard and Oilseeds



Area (ha)	:	25 ha
No. of farmers involved	:	100(10 SHG's)
Technology demonstrated	:	Mustard and Rapeseed
Variety	:	M-27
yield (qt/ha)	:	8.00
Yield of local check (qt/ha)	:	5.00
Increase in yield (%)	:	60%
Cost of cultivation (Rs.)	:	10000
Gross return(Rs.)	:	32000
Net return (Rs.)	:	22000
B:C ratio	:	2.20:1

### Poultry Farming



No. of chicks	:	500 nos.
No. of farmers involved	:	10 SHG's
Technology demonstrated	:	Kuroiler farming
Variety/Breed	:	Kuroiler
Average body weight(kg)	:	3.20 kg
Average body weight(kg) of Local bird	:	1.70 kg
Increase in yield (%) /unit	:	88%
Cost of farming (Rs.)	:	7625/-
Gross return(Rs.)	:	23040/-
Net return (Rs.)	:	15415/-
B:C ratio	:	3.02

## TRAININGS, SEMINARS, WORKSHOPS ATTENDED

Name & Designation	Seminar/Training/Workshop	Date
Mr. Khumdemo Ezung, Programme Coordinator(i/c)	KVK Review meeting held during at ICAR Research Complex for NEH Region, Umiam	Oct 13-14, 2009.
Mr. Khumdemo Ezung, Programme Coordinator(i/c)	National Conference at TNAU, Coimbatore, Tamil Nadu	6 <sup>th</sup> to 8 <sup>th</sup> November, 2009
Mr. Khumdemo Ezung Programme Coordinator(i/c)	Documentation of Farmers' Varieties/Land races in Rice at ICAR, Jharnapani	21 <sup>st</sup> to 22 <sup>nd</sup> January, 2010
Mr. Khumdemo Ezung Programme Coordinator(i/c)	Training on Commodity Interest Groups and Farmers Federation at NIRD, Guwahati	February 15-19, 2010
Miss Megokhono Meyase SMS(Horti)	Training on Apiculture at AAU Jorhat	16 <sup>th</sup> to 21 <sup>st</sup> November, 2009
Miss Megokhono Meyase SMS(Horti)	Training programme on Water Resource Management and Planning for Horticulture Crops in Hilly Area of North Eastern Region at ICAR Umiam,	10 <sup>th</sup> to 23 <sup>rd</sup> February, 2010
Miss Megokhono Meyase SMS(Horti)	Documentation of farmers varieties/land races in rice at ICAR Nagaland Centre	21 <sup>st</sup> to 22 <sup>nd</sup> January 2010
Miss Megokhono Meyase SMS(Horti)	Awareness cum training programme on impact of weather and climate of the farming region on crop production at ICAR, Nagaland Centre	27 <sup>th</sup> March, 2010
Er.L.K.Singh SMS(SWCE)	Training programme improved toola, implemnts and equipment for Hill Agriculture and Horitculture and entrepreneurship development at CIAE, Bhopal	from January 5 <sup>th</sup> to 14 <sup>th</sup> January, 2010
Dr.H.Moaakum Sangtam SMS(A/Sc.)	Attended 21 days winter school "Recent Development in Post-Harvest Processing and Value Addition to Livestock Produce" at CIPHET, Ludhiana.	Oct. 22 to Nov. 11, 2009
Ms.Lireni Kikon Prog. Asst(PP)	Awareness cum training programme on impact of weather and climate of the farming region on crop production on	27.03.10, ICAR, Nagaland Centre
Ms.Lireni Kikon Prog. Asst(PP)	Documentation of farmers varieties/land races in rice at ICAR Nagaland Centre	21 <sup>st</sup> to 22 <sup>nd</sup> January 2010,



**Construction of Administrative Block in progress**



**Automatic Weather Station for Weather based advisory services**



## PHOTO GALLERY



**Demonstration on Ground nut Decorticator to  
Extension Personnel**



**Animal Health Camp conducted at  
Longsachung Village, Wokha Nagaland**



**Demonstration on value addition**



**Farmers participants in the Film show  
programme at Pongidong Village, Wokha  
Nagaland**



**Soil conservation structure using bamboo at  
KVK demonstration farm**



**Distribution of Kuroiler birds**