

April - September 2016

KYK NEWSLEMNE

KRISHI VIGYAN KENDRA, RI-BHOI ICAR RESEARCH COMPLEX FOR NEH REGION UMROI ROAD, UMIAM – 793103 (MEGHALAYA) Tel Fax: +91364-2570011 e-mail: <u>pckvkribhoi@gmail.com</u>



Vol. III Issue 1

From the Editor's Desk

Agriculture and allied sectors employ about 50,955 people as cultivators and 14,216 as agricultural labour (Census, 2011) in Ri-Bhoi district of Meghalaya. Today, agriculture is facing challenges like detraction from agriculture avocation and to address this issue, KVKs directly links the technologies developed by research institutes to the farming community through on-farm testing (OFTs), front line demonstration (FLDs), farm-



ers-scientist interaction and capacity building programmes for the farmers, farm women, rural youths, school drop outs and grass root level extension personnel. The technology dissemination of different aspects of agriculture and allied production system is undertaken by Front Line Extension System based on the principles of " learning by doing and practising" to cope the needs of the farming communities in the district.

This issue of KVK Newsletter is to provide the highlights of the work done by KVK Ri-Bhoi in the form of On Farm Trials, Frontline Demonstrations, Trainings, Seed production of paddy, maize, pulses (like Pea, Blackgram etc.). Externally funded projects like NICRA, TSP, and MGMG are also being implemented in different villages of Ri-Bhoi district for the benefit of the farmers. The authors would like to express their sincere gratitude to all the staff of KVK, Ri Bhoi who have directly or indirectly contributed to the successful compilation of this edition of KVK Newsletter.

We would like to dedicate this publication to the farming community of Ri Bhoi District and we hope that it will make a difference in the lives of the farmers.

> Dr. M. Mokídul Islam Seníor Scientíst & Head ICAR- KVK Rí-Bhoí

CONTENTS

- ON FARM TESTING
- FRONT LINE DEMONSTRATIONS
- THEMATIC AREA WISE TRAINING PROGRAMME
- DISCIPLINE WISE TRAINING PRO-GRAMME
- SPONSORED TRAINING PRO-GRAMME
- AWARENESS PROGRAMME
- FARMERS'S FAIR OF PMFBY
- PARTHENIUM AWARENESS WEEK
- NATIONAL INNOVATION ON CLIMATE RESILIENT AGRICULTURE (NICRA)
- TIBAL SUB-PLAN (TSP) PRO-GRAMME
- MERA GAON MERA GAURAV(MGMG)
- PUBLICATIONS
- OTHER EXTENSION ACTIVITIES



ACKNOWLEDGEMENT

We sincerely acknowledge the support and guidance of Dr. S.V. Ngachan, Director, ICAR Research Complex for NEH Region, Umiam and Dr. B. C. Deka, Director, Agriculture Technology Application Research Institute (ATARI), Zone– III, Umiam ,Meghalaya along with all the Scientists and other staffs of ICAR & ATARI in bringing out of this issue of KVK Ri-Bhoi Newsletter.

ON FARM TESTING (OFT)

Management of fruit fly in bottle gourd using plastic bottle based Methyl Eugenol trap (RC fruit fly trap 1)

An intervention was undertaken during kharif 2016 in 5 different farmers field during kharif 2016 on RC Fruit Fly Trap 1 on bottle gourd to reduce the attack of fruit fly for higher and quality production. The average trapping intensity was found to be 90 fruit fly /trap. Due to the control of the fruit fly through plastic bottle based Methyl Eugenol trap, the insect incidence reduced to 3-5% from 70-80% while the yield increased to 180q/ha from 110q/ha. The BC ratio in turn increased from 1.13 to 1.89.



Fruit Fly Trap-1 in Bottole gourd System of Rice Intensification (SRI) in Paddy var. RCM 10

An On Farm Testing was conducted in 5 farmers field during kharif 2016 on SRI paddy using RCM 10 variety with single seedlings transplanting of 10 days old in 25 x 25 cm spacing in comparison to traditional practices of 35-45 days old seedling with 4-5 seedlings/hill. The growth and yield parameters recorded in SRI methods are plant height 79.8 cm, effective tillers 232 nos and panicle length 21.2 cm as compared to conventional methods with plant height 98.8 cm, effective tillers 183 nos and panicle length 12.5 cm . The farmers are expected to harvest atleast 30-35% more yield in SRI method as compared to conventional method.

Drudgery reduction in farm women using long handle weeders (4 blade & garden rake)

An OFT was conducted during kharif 2016 to use long handled weeders for weeding. Results showed that the time was saved for weeding by using 4 blade as compared to garden rake.





	TROUTLINE DEMONSTRATION (FLD)						
SI. No	Details of Technology	Venue	No. of Demo	Area (ha)	Benefici- aries		
1	Low cost Vermicompost production	Mawbri	12	-	12		
2	Rainwater harvesting through Jalkund	Kyrdem	3	-	3		
3	Paddy (RCM 10,11)-pea cropping system	Kyrdem	18	24	55		
4	Promotion of Biofertilizer in Paddy for higher pro- ductivity Paddy(RCM7)	Kdonghu lu	8	6	8		
5	Popularization of HYV of Blackgram(KU301)	Marngar, Umeit, Kyrdem	8	4	15		
6	Productivity enhance- ment of growing of HYV of Maize (RCM 1-3)	Kyrdem	15	5	45		
7	Soil amelioration through liming in Maize to en- hance productivity	Kyrdem	10	2	10		
8	Popularization of HYV of Groundnut var.ICGS-76	Umeit	12	2	15		
9	Popularization of Bee Hive briquettes in rural areas	Kdonghu lu	2	-	10		
10	Scientific management practices of Ginger var. Nadia	Kyrdem	7	0.58	3		
11	Popularization of Tur- meric var. Megha Tur- meric-1	Kyrdem	7	0.97	25		
12	Promotion of community vegetable nursery under low cost polyhouse	Umden Mission	10	500 m ²	90		
13	Nursery raising and culti- vation of vegetables under protected condition	Umden Mission	5	500 m ²	20		

EDONITI INE DEMONSTRATION (ELD)

THEMATIC AREA WISE TRAINING PROGRAMME

Thomatic Area	No. of	Beneficiaries			
Thematic Area	courses	Male	Female	Total	
Seed Production	11	99	109	208	
Soil health	1	10	22	32	
Mushroom Cultivation	1	4	6	10	
Value addition	7	3	129	132	
Biological Control	1	5	8	13	
IPM	2	10	12	22	
IDM	1	4	8	12	
INM	1	15	19	34	
Organic input produc- tion	2	23	37	60	
Income generation	2	8	20	28	
Vegetable production	1	1	9	10	
Drudgery reduction	2	2	28	30	
Kitchen gardening	1	1	21	22	
Spice Production	2	13	33	46	
Total	35	198	461	659	

DISCIPLINE WISE TRAINING PROGRAMME

	No. of	Beneficiaries			
Discipline	courses	Male	Female	Total	
Agronomy	11	99	109	208	
Soil Science	4	48	78	126	
Horticulture	4	20	54	74	
Plant Protection	5	23	34	57	
Home Science	11	8	186	194	
Sponsored trainings	11	96	213	309	
Total	45	294	674	968	

SPONSORED TRAINING PROGRAMME

Title of the training	Thematic area	Cate- gory	Dura- tion (days)	Bene- ficiari es	Spon- soring agency
Vermicompost- ing	Production and use of organic inputs	PF	1	21	NICRA
Integrated Farming Sys- tem (Pig cum Fish)	IFS	PF	1	12	NICRA
System of Rice Intensification	Integrated crop manage- ment	PF	1	15	NICRA
Productivity enhancement for growing HYV of Black- gram	Seed Produc- tion	PF	1	20	NICRA
Nursery raising and vegetable cultivation under poly- house	Nursery rais- ing	PF	1	32	NICRA
Scientific pack- age of prac- tices for French bean cultivation	Vegetable Production	PF	1	50	TSP
Introduction of HYV of Black- gram	Seed Produc- tion	PF	1	10	TSP
Introduction of Blackgram (Maize followed by Blackgram)	Seed Produc- tion	PF	1	15	NICRA
Popularization of HYV of Blackgram (var. Tripura/ Mash- kalai/Kalindi)	Seed Produc- tion	PF	2	34	TSP
Productivity enhancement of Blackgram by using lime	Management of Problematic soils	PF	2	68	TSP
Productivity enhancement for growing HYV of Black- oram	Seed Produc- tion	PF	1	31	TSP

AWARENESS CUM TRAINING PROGRAMME ON PULSES (TSP)

A one day Awareness-cum- Training Programme on Pulses (TSP) was organised by KVK Ri-Bhoi on 9th August 2016 to enhance the pulses production and productivity in Ri-Bhoi district. The Chief Guest of the programme, Dr. A. K. Tripathi, Nodal Officer of KVKs, encouraged the farmers to cultivate pulse crops for enhancing of pulse productivity and soil fertility. He also urged the KVK specialists to organise programme on value addition to pulses for nutritional security. He also expressed his happiness for organising such programme on pulses production by KVK Ri-Bhoi.

Dr. Mokidul Islam, Programme Coordinator, KVK Ri-Bhoi welcomed all the farmers to the programme and briefed about the importance of pulse crops and their nutritional and food security benefits. He also expressed his views to cover 40 ha area under pulses like Blackgram, French Bean, Lentil and Pea during 2016-17 under TSP. A total of 50 nos. of farmers from 10 villages of Ri-Bhoi district participated in the programme. A total of 194 kgs of French bean seeds and 15 kgs of Trichoderma powder were distributed among the participating farmers during the programme. A training programme on scientific package and practice for French bean cultivation was also conducted for the farmers by Dr. Utpal Barua, SMS (Horticulture). During the training programme, a method demonstration on Trichoderma application for seed treatment was showed to the farmer by Mrs. Mousumi G. Das, SMS (Plant Protection).



Participants of Awareness cum Training Programme on Pulses



Training programme on Trichoderma application for seed treatment



Distribution of French bean seeds to the farmers

FARMERS' FAIR CUM AWARENESS PROGRAMME ON PRADHAN MANTRI FASAL BEEMA YOJANA (PMFBY)

A one day Farmers Fair Cum Awareness Programme On Pradhan Mantri Fasal Beema Yojana (PMFBY) was organized by KVK, Ri-Bhoi on 5th April, 2016 at Dr. M. S. Swaminathan Seminar Hall, ICAR Complex, Umiam. At the beginning of the programme, Dr. M. Mokidul Islam, Programme Coordinator, KVK Ri-Bhoi welcomed all dignitaries,



MP Shillong, Shri. Vincent H. Pala addressing the Gathering

guests as well as farmers of the district and requested to insure their crops under PMFBY by paying lowest premium @ 1.5 % for Kharif crops, 2% for Rabi crops and 5% for commercial/ horticultural crops. Dr. A. K. Tripathi, Director In-Charge, ICAR Umiam and Nodal Officer of KVKs requested the farmers of Ri Bhoi District to avail the benefits of the scheme. Dr. B. C. Deka, Director, ATARI Zone-III, ICAR Umiam explain the scheme in detail and urged them to play a more proactive role for ensuring their financial upliftment and insure their crops. Father James, Director, RRTC Umran in his speech list out the various benefits of the scheme to the farmers. The Chief Guest, Shri Vincent H.



Pala, H'ble Member of Parliament, Shillong inaugurated the PMFBY and emphasized on the importance of the Crop Insurance Scheme under PMFBY. He encouraged the farmers to take full benefit of the Scheme that will provide insurance coverage and financial support in time for the loses of crops due to natural

MP Shillong, Shri. Vincent H. Pala & other dignitaries on the dais

calamities or pest and diseases. He also stressed upon the fact that the farmers should shift their mode of thinking and should be more well-informed about various schemes which are meant to provide assistance to the farmers for their benefit in the long run due to climate change and aberrant weather conditions. The programme was attended by Jt. Director, Directorate of Agriculture and Horticulture, Government of Meghalaya, Project Director ATMA, DDM, NABARD, representatives of different Insurance Companies, Scientists and Staff of ICAR, Umiam as well as about 300 farmers of Ri Bhoi District. Farmers-Scientist Interaction was also organized to aware different agricultural

schemes, benefits of soil health cards, production of organic inputs, etc. An Exhibition was also organized and displayed live materials, demonstrations of various improved technologies and practices for crops and livestock technologies and products by SHGs, NGOs, KVK, ICAR and Directorate of Agriculture and Horticulture, Government of Meghalaya.



Farmers visiting the Exhibition

XITH PARTHENIUM AWARENESS WEEK (16-22 AUGUST)

An Awareness Programme on Parthenium was organised on the 22nd August 2016 by KVK Ri-Bhoi to make the farmers aware about the hazardous effects of the weed. The Chief Guest of the programme, Dr. Satish Chandra, Director In-Charge, ICAR Research Complex for NEH Region, Umiam,

informed the farmers about the harmful effects of the parthenium on plants, animals and humans. He also expressed his happiness for organising such programme by KVK Ri-Bhoi. Dr. Mokidul Islam, Programme Coordinator, KVK Ri-Bhoi welcomed all the farmers to the programme and briefed the farmers about the impact of



Dr. Subhash Babu, Scientist, Division of NRM explaining the farmers about the importance of parthe-

Parthenium on environment, biodiversity, agriculture production, livestock and human being and its management and control measures. Dr. Subhash Babu, Scientist, Division of NRM, ICAR Research Complex for NEH Region, Umiam, spoke in detail about the threats of Parthenium weed on the health of



human, livestock and plants and he also informed the farmers about the proper time and method to control the weed. A total of 25 nos. of farmers from 3 villages of Ri-Bhoi district participated in the programme. The programme ended with a vote of thanks by Mr. P. Jana, Programme Assistant, KVK Ri-

Parthenium plant being shown gran during the programme to the Bhoi. farmers

NATIONAL INNOVATION ON CLIMATE RESIL-IENT AGRICULTURE (NICRA)

Maize-blackgram cropping system

An intervention on maize var. RCM – 76 followed by blackgram var. Kalindi cropping system was undertaken with full package and practices with 15 farmers covering 1.0 ha

during Kharif season of 2016. The result showed that the yield of maize alone was 37.8 q/ha while the yield of blackgram was 7.5 q/ha. Maize equivalent yield was 63.98 q/ ha.

The Gross Cost, Gross Return, Net Return for 1 ha was found to be Rs. 28,875, Rs. 84,772 and Rs. 55,897 respectively. BC ratio was found to be 2.93.



Maize var RCM-76 at farmer's field

Integrated Farming System (Pig-cum-fish) Model:

To effectively utilize the ponds available in the village 2 numbers of pig cum fish integrated farming system units were established at Kyrdem village. The selected ponds covering an area of 0.2 ha were stocked with Indian carp (Catla, Rohu and Mrigal) at a stocking density of 8000 fingerlings/ ha and a total of 6 numbers



Integrated Pig cum Fish Integrated farming system unit

of Hampshire cross piglets (2 male + 4 females) was distributed to the two farmers. The average body weight of the pigs after 8 months of age was found to be 50-60 kg. Pig waste (pig sty washings including pig dung, urine and spilled feed were channeled into the pond as manure. Fish yield after 6 months was found to be 95 Kgs from each pond. This venture fetched the farmers an amount of Rs. 26000 from selling of fish and piglets after the weaning age.

Mulching in Cabbage and Broccoli:

Technology demonstration was conducted on the production of broccoli in 10 different farmers' field covering 1.5 ha area. The seeds were sown in the 1st week of November in low cost polyhouse. Raised beds of size 20 cm height, 1m width were prepared keeping 30 cm gap between each bed. Well



Training on Mulching in Cabbage and Broccoli

established 20 days old crops were mulched with 5 cm thick paddy straw and locally available materials, which prevented evaporation loss and reduced irrigation requirement during its main growth phase in the month of Nov-Dec and reduced the weed growth and the decomposing mulch adds nutrient-rich organic matter to the soil. The demonstration is still ongoing and the crop will be ready for harvesting at 90 days after transplant-

Resource conservation through SRI paddy var. RCM-10

The technology of SRI on Paddy was demonstrated at 10 farmer's field covering 1.0 ha area during 2016-17 to mitigate the late onset of monsoon and low yield due to traditional method of cultivation. About 10-12 days old seedlings were transplanted. Single seedling was transplanted per hill using square spacing of 25 cm x 25 cm. The yield of paddy was 38.55/ha. The Gross Cost was Rs. 20,500 Gross Return was Rs. 53,956 for 1 ha. A field day was organized to spread awareness about the technology to the neighbouring farmers and villages by showing the SRI paddy field in comparison with their traditional practices.



SRI Unit farmer's field



Training cum Method Demonstration on SRI at farmer's field

TRIBAL SUB - PLAN (TSP)

Popularization of Rajmah (Var. Tripura Sel 1)

There is a huge gap of demand and supply of pulses in India and that leads to import of good quantity of pulses. Under the Prime Ministers Pulse programme a demonstration was undertaken in 10 villages of the district covering an area of 5 ha and 115 beneficiaries. Rajmah var. Tripura Sel-1, a popular variety widely adopted and popularized by ICAR NEH, Lembucherra centre, Tripura was selected for the demonstration under TSP Pulse programme. Proper on and off campus training and method demonstration programmes were conducted to bring confidence among the farmers as the crop was new in their farming system. The seeds were treated with Trichoderma and sown on 15th to 20th August 2016. The flowering commenced on 12th September with an average plant height of 45 cm. The total average seed yield obtained was 120 q/ha with B: C ratio: 1.8.



Rajmah crop at farmer's field

Field Day on Rajmah Cultivation

Promotion of HYV of paddy (RCM-7) by using organic nutrients for soil health and higher productivity

The farmers harvest lower rice yield due to improper fertility management. Most of the organic sources of nutrients can be prepared by the farmers at lower cost and can be used along with chemical fertilizer to improve the productivity of crop and maintain the soil health. Hence, FLD



Demonstrations HYV of paddy (RCM-7) by using organic nutrients

programme entitled "Promotion of HYV of Paddy (RCM 7) by using Organic nutrients for soil health and higher productivity" was carried out in the farmer's field of Kdonghulu, Mawbri, Liarkhla and Mawlasnai village of Ri-Bhoi District. As a part of the FLD programme, two numbers of training programmes were carried out to make them aware about the organic sources of nutrients and the production technology of organic fertilizers for application in the rice crop. The programme was conducted by covering an area of 6 ha of land for the benefit of 8 farmers/ farm women. The average yield was 36.50 q /ha with comparisons to local check of 23.50 q/ha with a B: C ratio of 1.44.

Productivity enhancement of Blackgram by using lime

The application of organic and inorganic fertilizer are very limited mainly due to lack of awareness of recent developments in agriculture and economic backwardness of the rural farmers. Hence, Integrated nutrient supply approach involving organic and inorganic fertiliz-



Training on cultivation of Blackgram by using Lime

ers are helpful to increase the productivity of the pulses crop. The soil of Ri-Bhoi District is acidic in nature. The Black gram yield can be improved by maintaining the acidity of the soil by application of Lime. Keeping the above in view, a FLD programme entitled "Productivity enhancement of Blackgram by

using Lime" was carried out in the farmer's field of Marngar and Umden Mission village of Ri-Bhoi District. As a part of the FLD programme, two numbers of training programmes was conducted in both the villages to make aware of the farmers regarding the Soil Testing, Liming and the culti-



Demonstration plot on Blackgram by using lime

vation practices of Black gram for improve the productivity of the crops to fulfil the demands of increasing population and for sustainable development. The programme was conducted by covering 3.3 ha of land and 35 numbers of beneficiaries. The average yield was 7.52 q/ha with a B: C ratio of 1.29.

Popularization of HYV Blackgram Var. Kalindi & Tripura Mashkolai

To promote pulse production in Ri-Bhoi district of Meghalaya and to increase the cropping intensity in the region blackgram was introduced as pulse crop which could fix the atmospheric nitrogen and provide cheap but abundant protein in the dietary of the tribal people. The pulses pays and important role for development of sustainable agriculture. Hence , demonstration on blackgram var. Kalindi & Tripura Mashkolai was undertaken in 4 villages of Ri-Bhoi district covering 10 ha area and 48 numbers of farmers. The training on cultivation of blackgram was also conducted in the villages. The average seed yield obtained was 7.3 q/ha with B: C ratio of 2.08.



Demonstration on Blackgram



Field day on Blackgram

MERA GAON MERA GAURAV (MGMG) PROGRAMME (My Village My Pride)

KVK Ri-Bhoi adopted 5 numbers of villages from Umsning block of Ri-Bhoi district viz. **Thadnongiaw, Mawbri, Kdonghulu, Khweng and Liarkhla** under the Mera Gaon Mera Gaurav (MGMG) scheme introduced by Hon'ble Prime Minister Shri Narendra



Modi. The implementation of MGMG programme was started in five selected villages with the benchmark survey in October 2015. Works to strengthen interface with farmers, to update farmers in knowledge and skills on agro-techniques and to provide best technologies for adoption in farmer's field for enhancement of income for the livelihood improvement of farming community.





Technologies Demonstrated under MGMG

SI. No.	Crop/Variety/Technology	No. of Farmers	Area covered (ha.)
1	Low cost vermicompost production	12	3 units
2	Integrated nutrient management in Tomato	5	0.15
3	Promotion of biofertilizer in Paddy for higher productivity	8	6
4	Groundnut /ICGS-76/ Production technology of growing HYV of Groundnut	12	1.0
5	Paddy/ RCM-10/ Package of prac- tices for growing HYV of paddy	35	10
6	Low cost polyhouse for vegetables production	15	300m²
7	Turmeric/ Megha Turmeric 1/ Popu- larization of Turmeric var, Megha Turmeric-1	25	0.64
8	Ginger/ Nadia/ Scientific manage- ment practices of Ginger var. Nadia	32	0.64

General Awareness Created under MGMG

SI. No.	Subject matter	Number of beneficiaries
1	Awareness cum Training Programme on Pulses (TSP) was organised by KVK Ri-Bhoi on 9th Au- gust 2016 to enhance the pulses production and productivity in Ri-Bhoi district.	15
2	Farmers Fair Cum Awareness Programme On Pradhan Mantri Fasal Beema Yojana (PMFBY) on 5th April, 2016	152
3	Awareness Programme on <i>Parthenium</i> was organ- ised on the 22nd August 2016	15

Dura-Thematic Cate-Benefi-Title of the training tion area ciaries gory (days) Seed Pro-Introduction of paddy PF 1 13 var. RCM-10 duction Performance of paddy Seed Pro-RY 1 34 var. RCM-10 duction Popularization of HYV Seed Pro-PF 1 15 of Groundnut duction Package and practices Seed Profor growing HVY of PF 1 11 duction groundnut Package and practices Seed Profor growing HVY of PF 1 16 duction Soybean Blackgram- Maize Cropping PF 1 15 cropping system system Promotion of biofertil-INM PF 2 32 izer in Sali paddy for higher productivity Cultivation of rice by PF using organic sources INM 1 31 of nutrients

Trainings Conducted under MGMG

PUBLICATIONS:

Research Paper:

- Islam, Mokidul M. and Kalita, D.C. (2016); Weed dynamics and productivity of wetland rice as influenced by establishment methods and integrated weed management; Bangladesh Journal of Botany, 45(1):9-16,
- Gogoi, B., Das, R.P., Barua, U. and Baruah, R.(2016); Ethno-botanical survey of Garcinia Species of Assam; International Journal of Bio-resource and Stress Management. 7(4) Special: 752-755.
- Gogoi, B., Das, R.P. and Barua, U.(2016); Antioxidant activity of *Garcinia* species of Assam;*International Journal of Agriculture Sciences*. 8(29): 1611-1612.
- Barua, U., Das, R.P. and Gogoi, B. (2016). Chlorophyll estimation in some minor fruits of Assam; *Ecology, Environment and Conservation*. 22(4): 215-217.
- Gogoi, B., Das, R.P. and Barua, U. (2016). Morphological characters and floral biology of *Garcinia* species of Assam; *Ecology, Environment and Conservation*. 22(4): 361 -365.
- Islam, Mokidul and Samajdar, T. and Nath, L.K. (2016): Gap analysis of rapeseed cultivation in West Garo Hills of Meghalaya; *Journal of Global Agriculture and Ecology*, 4 (2): 79-83.
- <u>Islam, Mokidul</u> and D.C. Kalita (2016): Studies on root phenology, productivity and economics of wetland rice (Oryza sativa L.) as influenced by establishment methods and weed management practices; *Indian Journal of Agricultural Research*, **50**(4):358-361.
- Mitra, Biplab, Samajdar, T. and <u>Islam, Mokidul</u> (21st April 2016 –online): Effect of weed control measures in jute under Terai Zone of West Bengal, India;*Environment and Ecology*, **35**(1): 84-87(Print: Jan-Mar 2017).

Book Chapter

 Sweet potato based feeding system for pig in Ri-Bhoi district of Meghalaya; S.K. Baishya and U. Barua; in Promotion of improved cultivation practices in agri and allied sector for food and nutritional security; ICAR NEH, Nagaland Centre, Medziphema, Nagaland.

Training Manual

 Productivity enhancement technology of agriculture and allied sector in Ri-Bhoi district of Meghalaya; Mokidul Islam, Utpal Barua, Meghna Sarma, Mousumi G. Das, Eliza C. Syiemlieh, A.K. Tripathi, Sharmila Rai, Genialda Nongtdu, B.U. Choudhury and P. Bordoloi; KVK, Ri-Bhoi, ICAR RC for NEH Region, Umiam, Meghalaya.

Technical Bulletin

 Samajdar, T, <u>Islam, Mokidul,</u> Das, T.K., Singh, N.A.K. and Hajong, Rashmi (2016): Enhancing Lentil production for nutritional security and sustainable rice-based production system in Garo Hills districts of Meghalaya under NFSM-Pulses project. The Director, ICAR Research Complex for NEH Region, Umiam, Meghalaya.pp.1-34.

<u>Folder</u>

 Choudhury, B.U., Moirangthem, P., Verma, B.C., <u>Islam,</u> <u>Mokidul</u>, M., Kumar, Savita, Saikia, P. and Hazarika, S. (2016): Rural composting in hilly ecosystem- an ecofriendly disposal of bio-degradable wastes and restoration of soil health for sustaining crop productivity. Folder. Director, ICAR Research Complex for NEH Region, Umiam, Meghalaya

	No. of	Beneficiaries		
Name of Activity	pro-	Total		Total
	(Achieved)	М	F	
Diagnostic visit	64	64	79	143
Scientist visit to farmer's field	77	75	108	183
Farmers visit to KVK	51	46	102	146
Exhibition	2	156	224	380
Advisory /helpline service	32	38	50	88
Leaflets	1	121	159	280
Technical bulletin	4	-	-	-
Research Publication	8	-	-	-
Book chapters	1	-	-	-
Folder	1	-	-	-
Method demonstration	19	55	176	231
Group discussion	1	7	12	19
Field Days	2	11	27	38
TV Programme	1			
Lecture delivered	2	121	159	280
Soil	530	I	-	-
News paper coverage / E- publication	3	-	-	-
Radio Talk	2	-	-	-
Grand Total	801	694	1096	1788

OTHER EXTENSION ACTIVITIES



EDITORIAL BOARD

Chairman: Dr. A.K. Tripathi, Nodal Officer KVKs Editor:

Dr. Md. Mokidul Islam,

Senior Scientist & Head

Content:

Dr. Utpal Barua ,SMS (Horticulture) Ms. Meghna Sarma ,SMS(Agronomy) Mrs. Mousumi G. Das ,SMS (Plant Protection) Mrs. Eliza C. Syiemlieh ,SMS (Home Science) Dr (Mrs). Popiha Bordoloi, SMS (Soil Science) Shri Alberson L War, Farm Manager Ms Genialda Nongtdu, SRF NICRA Project **Compilation and Layout design:** Shri. Pynshaitbor Jana, Programme Assistant (Computer)

Dr (Ms) Sharmila Rai, Office Assistant (Contract

Designed and Printed at: *Print 21*, Ambikanagar, R.G. Barua Road, Guwahati-7810024, Assam

