



Krishi Tarang

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(ICAR RESEARCH COMPLEX FOR NEH REGION)

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Newsletter, KVK Hailakandi (ICAR)

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From the Chief Editor's Desk

With the ever increasing population, change in climatic condition and shrinking land, the agricultural production faces several challenges. To meet the ever increasing demand of food grains and animal products new varieties/breeds and technologies needs to be adopted by the farming community. In this regard KVK has taken initiative in the district to disseminate location specific and climate resilient technologies to the famers through OFTs, FLDs, demonstrations and training programmes.

I hope that this effort in the form of publication in a systematic and organized manner will surely help the farmers, extension functionaries, research workers, agro entrepreneurs, bankers and all other stake holders to put valuable convergence in the process of improvement of livelihood in the district.

Dr. Sk. Md. Azizur Rahman
Senior Scientist & Head



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Highlights of KVK activities

Activity	No.	Beneficiaries
	2017	2017
Trainings	62	1634
Field days	10	253
Diagnostic visits	131	487
Scientist visit to farmers' field	163	595
Farmers visit to KVK	-	2955
Group discussion	30	391
Advisory services	208	822
Method demonstration	33	827
Lecture delivered	18	471
Awareness camp	5	218
Film show	21	589
Mahila Mandal Convener	5	142
Soil analysis	50	500
Extension literature distributed	6	1266
Kisan Gosthi	2	56
Ex-trainee samelan	2	53
Newspaper coverage	06	-

- Adopted three villages namely Dholai part VI & Nawriarpar under Mera Gaon Mera Gaurav programme and Nunkhuli under Doubling Farmers' Income by 2022.
- Organized Sankalp Se Siddhi on 29th August 2017.
- Conducted Swachhta Hi Sewa from 15th September to 2nd October 2017.
- Organized World Soil Day 2018 on 5th December, 2017 and also distributed 500 nos. of Soil Health Cards.
- Organized Mahila Kisan Divas, an awareness programme for women only on 15th October, 2017.
- Actively involved in participating Barak Namami 2017 by displaying exhibits with stall at Panchgram, Hailakandi on 18-19th November 2017.
- Attended One Day Awareness Programme on "Climate Change: Agriculture Adaptation and Mitigation Strategies in Mizoram" under NICRA organised by ICAR RC for NEH Region, Mizoram Centre Kolasib 796081 on 22nd January 2018
- Attended North Eastern Zone Regional Agriculture Fair 2017-18 at ICAR Research Complex for NEH Region, Umiam from 06-09th January 2018.



North Eastern Zone Regional Agriculture Fair 2017-18



World Soil Day 2017



Barak Namami 2017 by displaying exhibits with stall



Sankalp Se Siddhi 2017

On Farm Trials (OFTs)

OFTs during 2017

- Nutrient management in Arecanut
- Management of red ant (*Dorylus orientalis*) in potato
- Low cost poly tunnel for round the year the production
- Processing and preservation of Banana pseudostem as neutraceutical beverage

Glimpses of On Farm Trials (OFTs)



Nutrient management in Arecanut



Processing and preservation of Banana pseudostem as neutraceutical beverage

Front Line Demonstrations (FLDs)

FLDs during 2017

- Evaluation of chili (variety Arka Kyati) with recommended transplanting system during kharif season.
- Popularization of Radish (var. Early White Long) with Sowing on ridges).
- Performance of Knol-khol Var- Early White.
- Low cost drip irrigation on chilli.
- Pedal operated paddy thresher.
- Hand operated winnower.
- Popularisation of improvised paddy storage structure.
- Preparation and preservation of ginger as ginger paste

Glimpses of Front Line Demonstrations (FLDs)



Demonstration on Chilli var. Arka Kyati



Demonstration on Radish var. Early White Long



Demonstration on Knol-khol var. Early White



Demonstration on Hand operated winnower



Distribution of Vanaraja chicks for FLD under Integrated Fish-poultry culture



Demonstration on Drudgery reduction in maize shelling through maize sheller

Glimpses of Trainings



Training of women SHGs



Training on soil testing & SHC



Training on women & child care



Training cum seed distribution



Training on micro irrigation



Training on value addition



Training of extension personnel



Vocational training



Vocational training

Publications

Research Article published in National/ International Journals

- Boopathi, T., Singh, S.B., Manju, T., Chowdhury, S., Singh, A.R., Dutta, S.K., Dayal, V., Behere, G.T., Ngachan, S.V., Hararika, S. and Rahman, S.M.A. First report of economic injury to tomato due to *Zeugodacus tau* (Diptera: Tephritidae): relative abundance and effects of cultivar and season on injury. *Journal of Florida Entomologist*

Training manual/ Bulletins/ Leaflet Published

- Misra Deepak A.D., Rahman Sk. Md. Azizur, Singh S.B. and Tripathi A.K., Ngachan S.V. 2016. Scientific flower cultivation
- Abhishek Kumar, Sk. Md. A. Rahman, S.B. Singh, A. K. Tripathi, S. V. Ngachan. 2017. Common issues on Protection of Plant Varieties & Farmers Right Act, 2001 for the farmers.
- Rahman Sk. Azizur, Sarma Saurabh, Singh S.B., Tripathi A.K, Ngachan S.V 2017. Safe use of pesticides.

Newsletter Published

- Rahman Sk. Md. A., Sarma S., Singh S.B., Tripathi A.K., Ngachan S.V., Kumar A., Mukhim B., Misra A.A.D., Senzeba K.T., and Sarma K.C., *Krishi Tarang* Volume 4.

Abstract Published

- Senzeba, K. T., Rahman, S. M. A., Misra, A. D. D., Mukhim, B., and Singh, S.B. Yield and economic return of tomato under low cost drip irrigation system. Book of Abstract - 8th National Seminar on "Potential, Prospects and Strategies for Doubling Farmers' Income: Multi-stakeholder Convergence" at College of Veterinary Science, AAU, Khanapara, Guwahati, Assam on 9 – 11 November 2017

Poster Presented

- Kabita C. sarma, Saurabh Sarma, Sk. Md. Azizur Rahman, , S.B Singh. "Indigenous fruits of Hailakandi District and its ethnomedical uses".
- Kabita C. sarma, Saurabh Sarma, Sk. Md. Azizur Rahman, , S.B Singh. "Ethnomedical plants used by people of Hailakandi district, Assam.
- K. T. Senzeba; Sk. Md. Azizur Rahman; A. D. Deepak Misra; Bankitkumar Mukhim; S.B. Singh. "Yield and economic return of tomato under low cost drip irrigation system" on "Smart Farming for Enhancing Input use efficiency Income and Environmental Security (SFEIES – 2017)" from 19th to 21st September 2017 at ICAR Research Complex for NEH Region, Umiam.

Trainings/ Seminars Attended

- SMS Horticulture and Programme Assistant Food Sc. / Home Sc. Participated and acted as Judge in the flower show exhibition at Deputy Commissioner's residence organized by District Authority, Agriculture Department & KVK Hailakandi (Sponsored by NRLM Hailakandi) on 31st January, 2017.
- Senior Scientist & Head attended Review meeting of ICAR KVKs in presence of ADG (Extn.), Director (ICAR for NEH Region, Umiam), ATARI Director & Nodal Officer, KVKs on 3rd February, 2017.
- Senior Scientist & Head attended meeting on NFSM & NMOOP of KVKs in presence of DDG (Extn.) and ATARI Director on 7th to 8th February, 2017.
- Senior Scientist & Head, SMS (Plant Breeding), SMS (Fishery Sc.) and SMS (SWCE.) attended Workshop cum exhibition on Traditional Farming & Indigenous food in NE at ICAR Research Complex for NEH Region, Umiam, Meghalaya during 25th to 27th February, 2017.
- Senior Scientist & Head participated in Annual Zonal Workshop at Agartala from 21st to 23rd April, 2017.
- Programme Assistant (Food Sc./ Home Sc.) attended one day workshop on "Doubling Farmers Income by 2022" at KVK Kamrup, organised by ATARI Zone III, Umiam and AAU Jorhat on 30th April. 2017.
- Senior Scientist & Head attended Review meeting with Hon'ble Chief Minister, Assam, Chief Secretary, all MLAs of Barak Valley and all heads of department of the district on 2nd May, 2017.
- KVK participated with the exhibition organized by PHE department at Nazrul Sadan, Hailakandi on the occasion on Hailakandi Swachh Mela on 25th May, 2017.
- Programme Assistant (Food Sc./ Home Sc.) attended national seminar on "Nutrition sensitive agriculture" at ICAR Research Complex for NEH Region, Umiam from 23rd to 24th June, 2017 and also presented two nos. of posters viz. "Indigenous fruits of Hailakandi District and its ethnomedical uses" and "Ethnomedical plants used by people of Hailakandi district, Assam".
- Programme Assistant (Food Sc./ Home Sc.) participated in exhibition on "Nutritious Thali" organised at " at ICAR Research Complex for NEH Region, Umiam from 23rd to 24th June, 2017.
- SMS – Soil & Water Conservation Engineering attended "Summer School training programme on: Organic Farming and Conservation Agriculture for Sustainable Management of Natural Resources, Environment, Energy and Livelihood Security" at College of Post Graduate Studies, CAU, Umiam (Meghalaya) from 5th to 25th August, 2017.
- SMS – Soil & Water Conservation Engineering participated and presented poster on National Seminar on "Smart Farming for Enhancing Input use efficiency Income and Environmental Security (SFEIES – 2017)" at ICAR Research Complex for NEH Region, Umiam (Meghalaya) from 19th to 21st September, 2017.

- SMS – Soil & Water Conservation Engineering participated and presented paper in oral session at 8th National Seminar on “Potential, Prospects and Strategies for Doubling Farmers’ Income: Multi-stakeholder Convergence” at College of Veterinary Science, AAU, Khanapara, Guwahati, Assam from 9th to 11th November, 2017.
- KVK participated in Barak Namami 2017 by displaying exhibits with stall at Panchgram, Hailakandi on 18th to 19th November, 2017.
- SMS – Soil & Water Conservation Engineering attended one day workshop on midterm evaluation of agricultural plans for all districts of Assam at AAU, Jorhat on 15th December, 2017.

Advisory for next 12 months

January

- ✓ Collection of soil samples for analysis after harvesting of vegetables crops.
- ✓ Spraying of fungicide on both sides of potato and tomato leaves to control blight disease.
- ✓ Cultivation and management of oyster mushroom.
- ✓ Value addition of matured olivr.
- ✓ Preparation of main field for transplanting of *Rabi* paddy.
- ✓ Harvesting of winter vegetables, ginger and turmeric.
- ✓ Vaccination of the poultry birds against Ranikhet disease.
- ✓ Maintenance & feeding of I.M.C breeders.

February

- ✓ Preparation of land for transplanting of *Ahu*, apply FYM @ 10t/ha i.e. 15q/bigha at the time of land preparation.
- ✓ Rearing of honey bee.
- ✓ Applying neem based pesticides to control cabbage butterfly.
- ✓ Harvesting and threshing of mustard.
- ✓ Storage of ginger and turmeric in pit.
- ✓ Daily recording of physical & chemical parameters of pond water.

March

- ✓ Final ploughing of land for *Ahu*, apply 6 kg urea, 17 kg Single Super Phosphate and 2 kg potash at the time of final ploughing.
- ✓ Applying fungicide and insecticides to control insect pests and diseases in summer vegetables and *Rabi* paddy.
- ✓ Preparation of field for maize and *Sali* paddy.
- ✓ Sowing of summer vegetables like cucurbits.
- ✓ Pit making for fruit crop cultivation.
- ✓ Collection of raw mango for making pickles.
- ✓ Intensive care & feeding of I.M.C brood stock.

April

- ✓ Preparing land for sowing of Black gram/ Green gram.
- ✓ Sucker root deep treatment of banana with fungicide before transplanting.
- ✓ Applying fungicide and insecticides to control insect pests and diseases in summer vegetables.
- ✓ Sowing of maize seeds and harvesting *Rabi* paddy.
- ✓ Sowing of ginger and turmeric.
- ✓ Intercultural operations in summer vegetables.
- ✓ Planting of fruit crops.
- ✓ Collection of raw jackfruit for making pickles and chips
- ✓ Vaccinate the animals against FMD

May

- ✓ Sowing of *Dhaincha* seeds in the plots where *Sali* paddy is to be grown
- ✓ Applying fungicide and insecticides to control insect pests and diseases in summer vegetables
- ✓ Nursery management for *Sali* paddy
- ✓ Intercultural operation in fruit crops and staking of cucurbits
- ✓ Vaccination of animals against FMD

June

- ✓ Incorporate *Dhaincha* plants during land preparation for *Sali* paddy
- ✓ Seed treatment of *Sali* paddy seeds with fungicide
- ✓ Transplant *Sali* paddy to the main field

- ✓ Land preparation for cultivation of perennial fodder grasses

July

- ✓ Weeding, hoeing, top dressing, trellising and plant protection for rainy season vegetables like okra, amaranths, brinjal, sem, cowpea, cucurbits etc as and when required.
- ✓ Harvesting of Jackfruit, mango, pineapple, lemon continue.
- ✓ Harvesting and value addition of jack fruit, mango, pineapple, lemon etc.
- ✓ Regular monitoring of paddy field, weeding and applying judicious dose of pesticides.
- ✓ Seed treatment with fungicides and sowing of brinjal, tomato, lady's finger, bitter gourd seed
- ✓ Protect animal from rain and heat
- ✓ Eradication of aquatic insects and weeds from ponds.
- ✓ Aquatic insects & weed control
- ✓ Management of water quality
- ✓ Field should be prepared thoroughly by ploughing 4 to 5 times followed by harrowing and laddering. Ploughing should be started at least 21 days ahead of transplanting so that weeds are dried up/decayed.

August

- ✓ Weeding, hoeing, top dressing, trellising and plant protection for rainy season vegetables like okra, amaranths, brinjal, sem, cowpea, cucurbits etc as and when required.
- ✓ Harvesting of okra, cucurbits, brinjal, amaranths, brinjal, chilli mango, pineapple, jackfruit etc.
- ✓ Raising of winter vegetables nursery.
- ✓ Harvesting and value addition of guava
- ✓ Apply pheromone trap (scirpolure) for management of stem borer in *Sali* paddy
- ✓ Provide extra vitamins to poultry birds to grow new feathers
- ✓ Deworming of sheep, goat and cattle
- ✓ Data recording of behavioural changes of brood fish.
- ✓ The land is to be ploughed 2-3 times followed by leveling for sowing of black gram. The stubbles are to be removed. Surface drains should be provided to facilitate quick removal of excess water from the field

September

- ✓ Harvesting of okra, cucurbits, brinjal, chilli etc.
- ✓ Raising of winter vegetables nursery cole crops, tomato.
- ✓ Land preparation for sowing coriander, French bean, radish, potato, cole crops etc.
- ✓ Prepare nursery land for winter vegetables
- ✓ Apply fungicides in nursery bed to get rid of damping off disease of seedlings
- ✓ Repairing and disinfection of livestock and poultry house
- ✓ Rearing of Seed of different varieties at farm for making brood fish for future use
- ✓ Top dressing of urea should be done at tillering stage and panicle initiation stage.

October

- ✓ Harvesting of okra, cucurbits, brinjal, chilli, sem, cole crops etc.
- ✓ Transplanting of cole crops, tomato etc.

- ✓ Land preparation for sowing coriander, French bean, radish, potato, cole crops, tomato etc.
- ✓ Intercultural operations in winter vegetables.
- ✓ Radish, potato, cole crops, tomato etc.
- ✓ Intercultural operations in winter vegetables.
- ✓ Prepare nursery for winter vegetables
- ✓ Prepare land for transplanting winter vegetables
- ✓ Seed treatment and sowing winter vegetables seed in nursery.
- ✓ Start cultivation of winter Oyster mushroom and rearing of honey bee
- ✓ Vaccinate the birds especially in backyard against Ranikhet disease
- ✓ Cultivation of seasonal winter fodder like Oat
- ✓ Preparation of field should be started for cultivation of rabi crops like mustard, Rabi maize, Lentil, Pea and vegetables.
- ✓ Weeding and top dressing of Sali paddy in low land paddy should be done

November

- ✓ Harvesting of okra, cucurbits, brinjal, chilli, sem, cole crops etc.
- ✓ Transplanting of cole crops, tomato etc.
- ✓ Land preparation for sowing coriander, French bean, radish, potato, cole crops, tomato etc.
- ✓ Intercultural operations in winter vegetables.
- ✓ Prepare nursery for winter vegetables

- ✓ Prepare land for transplanting winter vegetables
- ✓ Seed treatment and sowing winter vegetables seed in nursery.
- ✓ Start cultivation of winter Oyster mushroom and rearing of honey bee
- ✓ Vaccinate the birds especially in backyard against Ranikhet disease
- ✓ Cultivation of seasonal winter fodder like Oat
- ✓ Start harvesting of Sali paddy and sowing of mustard and pea seeds can be done immediately by adopting minimum tillage technology to harvest the soil moisture

December

- ✓ Harvesting of okra, cucurbits, brinjal, chilli, sem, cole crops, coriander, French bean, radish, etc.
- ✓ Harvesting of orange, banana, arecanut, coconut, jalpai.
- ✓ Irrigation in winter vegetables.
- ✓ Intercultural operations in winter vegetables.
- ✓ Intercultural operations in the nutrition garden must be done
- ✓ Protect animals from cold
- ✓ Provide adequate shelter to poultry birds to protect them from cold
- ✓ Maintenance of brood stock
- ✓ Transplanting of Rabi paddy should be started in main field.
- ✓ The Sali paddy harvested seeds should be thoroughly dried before storage.

Overall KVK Activities



Distribution of papaya seedling



Distribution of vegetable seeds



Awareness programme



Celebration of Mahila Kisan Divas



Distribution of GRAINPRO bags



Distribution of vegetable seedling



Plantation on swachhta hi seva



Sport programme at School

Overall KVK Activities



Celebration of World Honey Bee Day



Painting competition on Mahila Kisan Divas



Input distribution under NFSM & MNOOP



French Bean under NFSM



Farmer field under NFSM



French Bean under NFSM



Plantation on swachhta hi seva



Sport programme at School



Jalkund at KVK Farm



Poultry Unit at KVK Farm



Women visit KVK Farm



Student visit KVK Farm

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हर कदम, हर डगर

किसानों का हमसफर

भारतीय कृषि अनुसंधान परिषद

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