



KVK EAST KHASI HILLS NEWSLETTER



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CONTENTS

1. From ZPD's desk
2. Activities of the KVK
3. On Farm Trials
4. Front Line Demonstration
- 5 Farmers Training Conducted
6. Other Extension Activities
- 7 Important events
- 8 Grafting and Budding of Temperate fruits

FROM ZPD'S DESK



It gives me great pleasure to know that Krishi Vigyan Kendra, East Khasi Hills is keeping up the good work by releasing its third issue of KVK Newsletter. I am sure that this newsletter will continue to focus on the activities of KVK, East Khasi Hills for the general awareness of the farmers, extension functionaries, developmental experts, researchers, agro - entrepreneurs, bankers and various marketing agencies that may lead to a convergence approach in the process of agricultural and allied development in the District and the State as a whole.

I would like to convey my heartiest congratulations to the whole team of KVK, East Khasi Hills for their noble endeavor in bringing out this publication and wish them to continue the same effort in future.

(Dr. A.K. Gogoi)
Zonal Project Director
ZPD, Zone-III

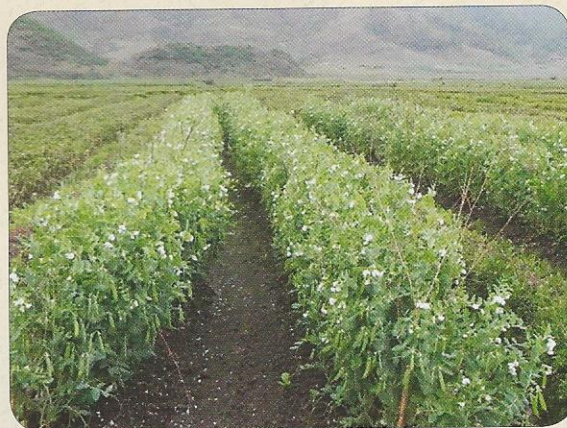
ACTIVITIES OF THE KVK

Our centre with all the available resources strives to help the farming community in all possible ways it can. On farm trials (OFT), front line demonstration (FLD) and extension activities were conducted regularly covering almost all the Community & Rural Development Blocks. The centre tried its best to reach far flung areas of the district where development schemes have not seen the light of the day. The centre aims to have a footnote in all the villages of the district. The centre also wants to acknowledge the help and support of Zonal Project Director (Zone III) and its team. The centre hopes to have a good convergence of schemes with State departments, ATMA and other line departments to uplift the farming community.

ON FARM TRIALS

On farm trials was conducted on Pea crop in Kyiem village with the introduction of an early variety Azad P-1 to escape rust and powdery mildew and also the use of botanicals for increasing yield. The results of the trials were encouraging whereby the yield increases by two fold comparing to the control. Rust and powdery mildew were not observed but there is an occurrence of foot rot which is controlled by spraying *Trichoderma viride* formulation. Another trial on Ginger crop was conducted in Diengpasoh with the use of Bio-organic (GF1) to control soft rot disease. This formulation claims to give better growth, lustrous green leaves, more pseudo stems, and

significantly higher yield than normal crop. In tomato crop a trial was conducted in Nongpiur village for management of bacterial wilt with Biofor Pf-2. The results of these trials are still awaited.



Azad P-1 in the field at Kyiem



Demonstration on use of Bio-organic (GF1) in Diengpasoh

FRONT LINE DEMONSTRATION

Based on the proven technologies available, the Centre decided to take up 42 front line demonstrations in various operational villages. Front line demonstration on potato crop was conducted in Diengpasoh and Kyiem for popularization of HYV and disease resistant varieties viz., Kufri Megha

and Kufri Jyoti to increase yield. The variety showed great acceptance by the farmers as there was significant increase in yield comparing to the local variety. Another demonstration on Ginger crop was conducted in Diengpasoh with the introduction of HYV variety namely Nadia to increase the yield. In maize crop, front line demonstration was conducted in Sadew and Diengpasoh with introduction of hybrid maize variety Dekalb Allrounder and Navjot Composite intercrop with frenchbean (var. Sel 9) to increase productivity and soil fertility. Front line demonstration on nursery raising of cabbage were conducted in Nongpiur, Myllem Lyngkien and Diengpasoh villages to sensitize the

farmers. A new technology for raising seedlings in plastic trays was also introduced in these villages.



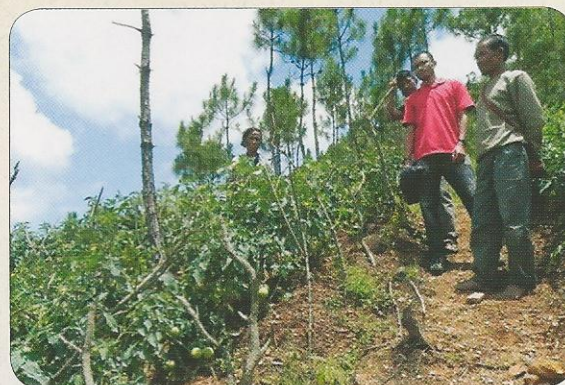
Demonstration on Nursery Raising of Cabbage crop



Kufri Jyoti in the field at Kyiem



Hybrid maize (Dekalb Allrounder) introduced in Sadew



Tomato crop treated with Biofor Pf-2 in the field at Nongpiur village

FARMERS TRAINING CONDUCTED

Trainings are conducted on need based of the farming community in a particular village. Altogether 40 trainings with a total number of 901 farmers were given trainings on different topics of agriculture and allied subjects. On or off campus training were decided on basis of distance of the villages from the centre. Experts from various line departments were invited to deliver their lectures on various aspects relating to their field of expertise.

GLIMPSES OF TRAINING PROGRAMMES



Sohbar



Wahlyngkien



Mawryngkneng



Myllem



Sadew



Mawbeh



Diengpasoh



On campus

OTHER EXTENSION ACTIVITIES

- a. **Field Day:** A 'Field day' with the theme "Scientific package of practices of potato" was conducted at Kyiem, Mawphlang on 15th June, 2011 which was attended by 16 farmers.



Field Day at Kyiem

- b. **Diagnostic Visit:** SMSs of the centre conducted diagnostic visit in field numbering to a number of 26 visits with the intention to rectify farmers' problems at a micro level.



Diagnostic visit



PC visit to farmers field at Laitkynsew

- c. **Publications:** With the aim in mind to address the needs of the farming community two leaflets in vernacular language were published "Ka rukom rep phulkubi" and "Ka rukom rep kubi". The centre has launched its own website <http://www.kvkeast-khasihills.org> and short video clips of 10 minutes duration to highlight the activities of the centre.



Recent Publications

d. **Media Coverage:** Training at Sohbar village on the topic “Kitchen garden” was published in “U Nongsain Hima” on 5th March 2011. Another on campus training on the topic “Nursery Management and IPM of vegetables” given by our SMS was published in “Mawphor” on 25th March, 2011.

e. **Exposure Visits:** From time to time exposure visits were conducted to make the farmers aware of the latest technologies available which can be adopted. One day exposure visit to Kyrdemkulai farm which is under the veterinary department was conducted on 15th January, 2011 which was participated by 45 farmers living near the vicinity of KVK centre. Farmers were exposed to the latest technologies for poultry, piggery rearing, new breeds, etc. The main attraction was the turkey breeds which the farmers expressed their interest to introduce in their own farms.



Exposure trip to Kyrdemkulai farm

f. **Film Shows:** A total of ten film shows were shown in various operational villages on various topics relevant to a particular village with the sole intention to make the farmers aware

of the latest knowhow available. The farmers expressed their gratitude for this step taken from the Centre which was never taken up earlier by any organization.



Film show in progress at Mawryngkneng

g. **Farmers’ Field Schools (FFS):** A total of 35 Farmers’ Field Schools with 25 participants are to be conducted this year in all the rice growing areas. These schools are sponsored by Directorate of Agriculture, Meghalaya. System of rice intensification (SRI), INM and IPM module were the topics to be incorporated in these schools. Trainings and demonstration have already been conducted and results are still awaited.



SRI as one of the module for FFS

h. **Kisan Mobile Advisory Service (KMAS):** Our centre started KMAS from April, 2011 whereby from time to time sms are sent to farmers to help them in improving their farming skills. These sms are sent on a monthly basis according to their needs.

IMPORTANT EVENTS

- ❑ **SAC meeting:** 2nd Scientific Advisory Committee (SAC) was held on 15th April, 2011 which was attended by 15 members. This meeting was chaired by Shri D.W.N. Momin, Director of Agriculture, Govt. of Meghalaya. Action Plan for the year 2011-2012 was presented which was discussed at length and valuable suggestions incorporated in the plan.



SAC meeting at the Centre

- ❑ **KVK Annual Zonal Workshop:** SMSs of the Centre attended the KVK Annual Zonal Workshop which was held at Aizawl, Mizoram from 18th to 20th May, 2011. Progress report for the year 2010-2011 and action plan 2011-2012 was presented in the workshop by SMS (Hort).
- ❑ **Interface meeting:** Interface meeting with DG, ICAR was held on 6th and 7th May, 2011 at ICAR Regional Complex for NEH Region, Barapani. Programme Coordinator i/c and SMSs of the Centre attended the meeting.
- ❑ **DDG (Agril. Extension):** Dr. K. D. Kokate, ICAR, New Delhi visited our centre on the 5th February, 2011 along with Zonal Project Director.

GRAFTING AND BUDDING OF TEMPERATE FRUITS

(A few basic points)

Grafting: Grafting is a vegetative propagation technique whereby two plant parts are joined together in such a manner that they unite and continue their growth as one plant. In this method, the scion twig has more than two buds on it. Grafting is commonly done in pear, peach, plum, almond, mango etc. In temperate fruits like peach, plum and almond grafting is done when the plants are dormant while, in mango it is done when the trees are in active growth. The different methods of grafting are tongue grafting, cleft grafting, approach grafting, side grafting and veneer grafting.

Budding: Budding is a method in which only one bud is inserted in the rootstock. This method is very easy and fast. This method saves bud wood as compared to grafting. As soon as the bark starts slipping both on the stock and scion, this is considered to be the optimum time for budding. This shows that the cambium, which is the tissue responsible for union, is active. This method is generally employed during spring and rainy season. The common methods of budding are T-budding, patch budding, and chip budding.

Some Common Purposes for Budding/ Grafting:

- Produce a fruit tree with several varieties or a different variety.
- Produce a plant with different colors of flowers.

- Shape or change appearance (produce dwarf plants).
- Correct a defect or injury.
- Replace rootstock with one better adapted to soil or climate.

Compatibility: Not all plants can be grafted successfully. In order to produce a good graft union (the growing together of both plants) the plants should be closely related botanically (the stock and scion must be compatible).

The following rules apply:

- Plants of the same genus and species can usually be grafted, even if of a different variety.
- Plants of the same genus but of a different species may or may not unite. If they do unite the union will be of inferior quality.
- Plants of different genera are less successfully grafted.
- Plants of different families will not result in a successful graft.

Some important points in successful budding/grafting are:

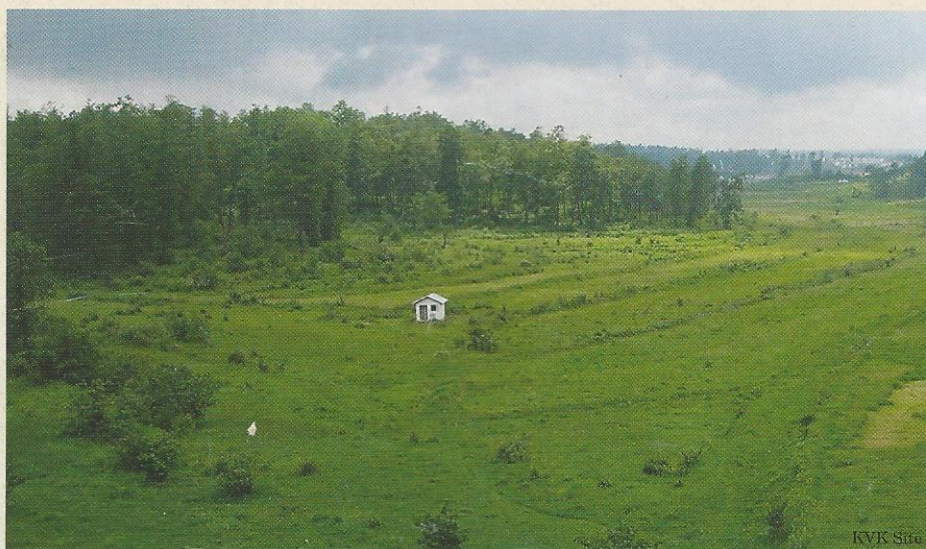
- Selection of scions or buds from healthy plants.
- Proper care of specimens from collection until use.
- Sharp tools for smooth cuts.
- Good contact between cambium on the stock and scion or bud.
- Proper care of plants after budding or grafting.
- It is not necessary to purchase special grafting tools or grafting equipment as excellent results can be obtained with common equipment.

Taking Care of Grafted and Budded Plants

- During the grafting process, be sure to clean and sharpen budding and grafting knives that have been used. The ready graft should be fixed with tape and the wounded surface should be covered with grafting wax in order to keep the scion or bud from losing water and drying up.
- Five days after grafting we need to check the graft and re-wax it if the wax has cracked. Any shoots which grow below the graft on the rootstock should be removed, because they compete with the shoots of the scion.
- Recently grafted trees need a lot of water distributed on a regular basis.
- In the first year after grafting, avoid the application of any fertilizer, manure or compost, because the tree will begin to grow fast prematurely, which will not allow the graft to heal properly.
- Budded plants should be kept under cool conditions until the graft has joined in order to keep the bud from growing prematurely.
- As soon as the growing season starts, cut off the rootstock above the plant with a sloping cut. This will help the bud to begin growing.
- Rub off the buds on the rootstock below the grafted bud as these other buds will only provide unnecessary competition with the grafted bud. This activity should be done on a regular basis until the rootstock buds stop appearing.

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BOOK POST

TO
