



Volume - X No. 1

NEWS LETTER

KRISHI VIGYAN KENDRA - SENAPATI

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From the Desk of Senior Scientist and Head

Dear Readers,

I take this pride in presenting this News letter (Vol. No. X, Issue No. 1) of Krishi Vigyan Kendra- Senapati (KVK), Manipur. It highlights the activities and achievements of KVK made during the period and other important events as well.

The year 2023 has posed a great challenge to the normal pattern of functioning of KVK in the wake of law and order issues since the early part of 2023 in the state of Manipur. In spite of the hardship faced by KVK Staffs, we could, however, manage to achieve activities near to the approved annual targets of the year. I appreciate my entire staff for their commitment and dedication in discharging their responsibilities well.

I also express my gratitude to the editorial team for its diligent effort in bringing out this current News letter in a comprehensive form.

I hope this current issue of News letter will be of great help to the farming communities, students and other stakeholders. I sincerely welcome suggestions and advice from the readers for further improvement in the activities of KVK as well as in the presentation of News letter in future.

Dr. N. Jyotsna
Senior Scientist & Head



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Scientific Advisory Committee (SAC) meeting conducted :

The 28th Scientific Advisory Committee (SAC) Meeting of KVK, Serapatti was held on 9th January 2023 at its conference hall. The following were the salient recommendations of the meeting:

1. To organize Skill training on button mushroom cultivation,
2. To promote / popularize value addition in kiwi fruit and
3. To take up On-farm testing on milllets.

MANDATORY ACTIVITIES CONDUCTED DURING APRIL 2023 TO MARCH 2024:

(A) Training conducted :

- i. Training (Summary):

| Type of training | No. of training | No. of trainee | | Total |
|------------------|-----------------|----------------|------------|------------|
| | | M | F | |
| On- campus | 9 | 92 | 123 | 145 |
| Off - campus | 27 | 235 | 190 | 425 |
| Total | 36 | 327 | 313 | 640 |



| Type of Trainee | Nos. of trainee | | Total |
|-------------------------|-----------------|-------------|------------|
| | On- campus | Off- campus | |
| Farmer & farm women | 60 | 290 | 350 |
| Rural youth | 100 | 80 | 180 |
| Extension functionaries | 50 | 60 | 110 |
| Total | 210 | 420 | 640 |

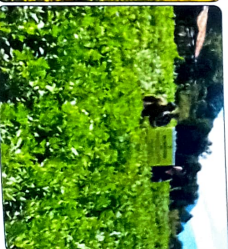


- ii. Summary Vocational Training program for rural youth:

| Training title | Duration (days) | No. Of Participants | | |
|--|-----------------|---------------------|----|----|
| | | M | F | T |
| Different technologies on animal husbandry for farm women | 7 days | - | 20 | 20 |
| Ornamental fish culture and aquascaping technique | 6 days | 10 | 10 | 20 |
| Hydroponic farming system | 6 days | 10 | 10 | 20 |
| Artificial flower making | 6 days | - | 20 | 20 |
| Scientific seed production technique of rabi oilseed and pulses seed | 6 days | 5 | 5 | 10 |
| Value addition of fruits and vegetable for income generation | 6 days | - | 20 | 20 |
| Plant propagation methods and production of planting materials | 6 days | 8 | 12 | 20 |

(B) Summary of Front-Line Demonstration (FLD) and On-Farm Testing (OFT) conducted:

| Items | on crop | on livestock & other | Total |
|--------------------------|---------|----------------------|-------|
| OFT (nos. of technology) | 5 | 5 | 10 |
| FLD (nos. of technology) | 8 | 10 | 18 |



i. Details of FLD & OFT conducted :

(a) FRONT LINE DEMONSTRATIONS (FLD) on Crops conducted:

| Sl. No. | Title of FLD | No./Area (Ha) | No. of Demonstration | % age Increase in yield | Remarks (B:C ratio) |
|---------|---|---------------|----------------------|-------------------------|---------------------|
| 1 | Popularization of seed production technology of paddy var: RC Maniphou 12 | 3 | 12 | 22.5 | 1.88:1 |
| 2 | Popularization of late sown rapeseed var. TS67 in rice fallow | 3 | 12 | 27 | 1.77:1 |
| 3 | Popularization of Broadbean var. Pusa Udit | 1 | 4 | 32.5 | 2.91:1 |
| 4 | Popularization of Tomato Var. Arka Abhad | 1 | 6 | 32.1 | 3.51:1 |
| 5 | Popularization of Frenchbean var. Arka Anoop | 1 | 4 | 37.8 | 2.81:1 |
| 6 | Integrated Pest Management of thrips and mite in Chili | 2 | 8 | 29.7 | 3.48:1 |
| 7 | IPM of FAW on Maize | 2 | 8 | 29.86 | 1.86:1 |
| 8 | Farmers' perception towards natural farming | - | 40 respondents | - | - |

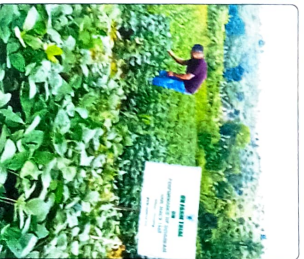
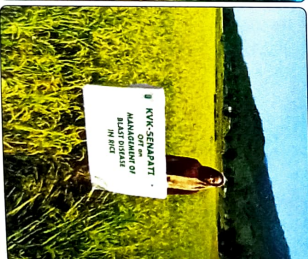
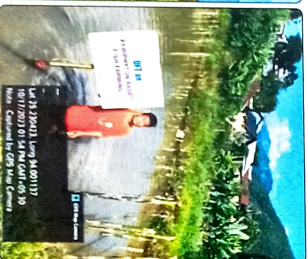
(b) FRONT LINE DEMONSTRATIONS (FLD) on Livestock and Other Entreprises:

| Sl. No. | Title of FLD | No. of Demonstration | Av. Net Return | % change | Remarks (B:C ratio) |
|---------|--|----------------------|----------------|---------------------------------|---------------------|
| 1 | Popularization of Khaki Campbell under backyard rearing system | 10 | 11,245 | - | 2.38:1 |
| 2 | Feeding of growing piglets with AAUVETMIN for enhancing farm income | 10 | - | 30% reduction in mortality rate | - |
| 3 | Deworming of Piglets for increasing income of farmwomen | 5 | - | 27% reduction in mortality rate | - |
| 4 | Popularization of low cost happa breeding of Amur carp | 10 | 25,740 | - | 2.7:1 |
| 5 | Popularization of monosex Tilapia under monoculture system | 10 | 2,71,000 | - | 1.95:1 |
| 6 | Popularization of Pengba in composite fish culture | 10 | 4,70,000 | - | 2.51:1 |
| 7 | Promotion of osmotic dehydration of Pineapple for preparation of candy | 10 | - | 49.12% | 3.20:1 |
| 8 | Popularization of Value addition of Kiwi fruit (Candy & Jam) | 10 | - | 56.36% | 3.33:1 |
| 9 | Introduction of MPTS in existing farming system | 2 | - | - | - |
| 10 | Promotion of Beejamrit and Jeevamrut on cabbage under natural farming | 10 | - | 14.6 | - |



(c) ON FARM TESTING (OFT) conducted on crops, livestock and others:

| Sl. No. | Title of OFT | Technology | Nos. of trials | Remarks (B:C ratio) |
|---------|--|--|----------------|---|
| 1 | Performance of Garden pea var. Kashi Ageti | Garden pea var. Kashi Ageti | 4 | 2.57:1 |
| 2 | Performance of Soybean var. MACS 1460 | Soybean var. MACS 1460 | 4 | 1.72:1 |
| 3 | Performance assessment of rice varieties | Rice var. RC Manihou 15, RC Manihou 16 & RC Manihou 13 | 5 | 1.78:1 (RC Manihou 15) |
| 4 | Management of blast disease in rice | Application of Azoxystrobin + Difenoconazole at 0.1% at tillering and boot stage | 5 | 1.75:1 |
| 5 | Organic management module for insect transmitted virus (aphid/ thrips/whitefly) in king chilli (CVMVV & CMV) | i.) Blue band@ 10/acre ii.) Application of Bioagent (Beuveria bassiana) @ 5ml/l water three times at 10 days interval | 5 | 3.20:1 |
| 6 | Periphyton based fish farming | Substrate for Periphyton : Bamboo pole Spacing of bamboo pole: 3x3 ft, Spreading of bamboo pole :1/3 of pond surface | 5 | 2.30:1 |
| 7 | Introduction of grow-out monoculture of Magur (Clarius batrachus) | Monoculture of Magur Stocking density:50,000/ ha | 5 | 3.00:1 |
| 8 | Performance of Srinidhi for Egg Production | Srinidhi poultry dual purpose, 140-150 eggs per year | 10 | 2.30:1 |
| 9 | Performance of Kamrupa poultry under backyard poultry rearing system | Kamrupa, a multi-coloured bird | 8 | 2.11:1 |
| 10 | Farmer's knowledge and perception toward millets | Interview method | 40 respondents | (i) Knowledge: 71% of the respondents know about millet crops (ii) Perception: 12% of the respondents perceived millet as climate resilient crop |



(C) Seed Materials produced :

| Item | Crop | Variety | Quantity produced (t) | Value (Rs.) | Qty Supplied/ Provided to (No. of farmers) |
|----------|-----------|-----------|-----------------------|-------------|--|
| Cereals | Rice | CAU R1 | 1.3 | 39000 | 1t (48) |
| | Soybean | Dsb 19 | 0.5 | 30000 | 0.4t (24) |
| Oilseeds | Groundnut | ICGS-76 | 0.5 | 40000 | 0.4t(16) |
| | Blackgram | PU 31 | 0.3 | 27000 | 0.2t (10) |
| Pulses | Turneric | Lakkadong | 8.5 | 127500 | 8t (16) |
| | Ginger | Nadia | 4 | 120000 | 3.5 t (7) |
| Total | | | 15.1 t | 383500 | |

(D) Planting Materials produced:

| Item | Crop | Variety | Quantity produced (No) | Value (Rs.) | Qty. Supplied/ Provided to (No. of farmers) |
|---------------|-----------------------|------------------|------------------------|-------------|---|
| Fruits | Pomegranate | Bedena | 1000 | 5000 | 900 (5) |
| | Kiwifruit | Allision, Monty, | 1200 | 36000 | 1000 (10) |
| | Citrus | Aurintifolia | 6000 | 30000 | 5500(15) |
| Spices | Large cardamom | Ramsay & Golsay | 7500 | 75000 | 7000 (30) |
| | Broccoli | KTS-1 & Pushpa | 4500 | 18000 | 4000 (20) |
| Vegetables | Cabbage | Rare ball | 10000 | 20000 | 9000 (30) |
| | Tomato | Arka Rakshak | 6500 | 13000 | 6000 (30) |
| | King Chilli | Local improved | 9000 | 63000 | 8000 (40) |
| Forest sp. | Tactona grandis | MPTS | 600 | 3600 | 500(2) |
| | Cinamomum tamala | MPTS | 2000 | 10000 | 1800(4) |
| | Mirusopus elengii | Ornamental | 1000 | 4000 | 800(8) |
| | Terminalia myriocarpa | MPTS | 1400 | 7000 | 1000(10) |
| | Cassia javanica | Ornamental | 3000 | 15000 | 2500(25) |
| Acacia glouca | Phoebe hainensiana | MPTS | 400 | 800 | 300(8) |
| | Parkia roxburghii | MPTS | 4000 | 20000 | 3600 (35) |
| | Acacia glouca | MPTS | 2000 | 8000 | 1700 (18) |
| Total | | | | 328400 | 53600 (290) |

(E) Publications of KVK:

| Item | Nos. | Title and Name of Journal |
|---------------------------|------|--|
| Research papers | 1 | Study on status of small scale pig rearing in upland tribal areas of North East India, <i>N. Mubhndro Singh</i> . Journal of Livestock Science, 14:47-52 |
| Training manuals | 1 | Training Manual on low cost fish breeding in happa by Dr. Hollienting |
| Popular articles | 3 | IFS Model: An emerging vocation for income generation in the hills, <i>R.S. Telern, N. Jyotsna, Deepak Kumar, Agrigate</i> , 3 (7):50-54 Success Story On Piglets Production: A Lucrative Enterprise, <i>R.S. Telern, N. Mubhndro Singh, N. Jyotsna, Deepak Kumar and Y. Kennedy</i> , Agrigate, 3(8) :88-90 |
| Newspaper coverage | 4 | Anti-Fabies Vaccination Camp, Launching programme of Viksit Bharat Sanklap Yatra, SAC meeting, Swachhta Pakhwada |
| News letters | 1 | KVK Newsletter 2023 |
| | 100 | Seed production of millets by <i>Dr. T. Ratan Singh</i> |
| | 100 | Value addition of millets by <i>Nemnu Hangshing</i> |
| | 100 | Preparation of Mushroom pickles and cookies by <i>Nemnu Hangshing</i> |
| Leaflets/folders (copies) | 100 | Backyard poultry rearing by <i>Dr. N. Mubhndro Singh</i> |
| | 100 | Organic Insect pest management methods by <i>Dr. David Kamei</i> |
| | 100 | Organic manuring in ginger by <i>Kh. Nodiyachand Singh</i> |
| TOTAL | 610 | |

(F) Bio- products produced:

| Name | Products | Quantity (kg) | Value (Rs) |
|-------------------|----------------|---------------|------------|
| Bio- fertilizer | Vermi- compost | 2000 | 60000 |
| Mushroom (Oyster) | Spawn | 600 | 84000 |
| Total | | | 144000 |

(G) Livestock & Fingerling produced:

| Name | Product | Quantity | Value (Rs) |
|-----------|-------------|----------|------------|
| Livestock | Piglets | 38 nos. | 115000 |
| Fish | Fingerlings | 100000 | 150000 |
| Total | | | 275000 |

(H) Extension Activities conducted:

| Programme/ Activity | Nos. | Beneficia-ries (nos.) |
|---|------|-----------------------|
| Advisory services | 235 | 240 |
| Field day | 3 | 120 |
| Group meeting | 12 | 285 |
| Film show | 8 | 260 |
| Scientists visit to farmers fields/Diagnostic visit | 154 | 320 |
| Farmer visit to KVK | 180 | 280 |
| Animal Health camp | 2 | 320 |
| Ex- trainee Sammelan | 3 | |
| Celebration of important days | 6 | 428 |
| Method demonstration | 22 | 210 |
| Exposure visit | 50 | 60 |
| Electronic media (CD/DVD) | 3 | - |
| Extension literature | 7 | - |
| Newspaper coverage | 12 | - |
| Radio talk | 8 | - |
| Soil health camp | 1 | 50 |
| Awareness camp/mela | 2 | 150 |
| Campaign | 2 | 116 |
| Lecture delivered as resource person | 22 | 440 |
| PRA | 4 | 80 |

(I) Status of Revolving Fund (RF):

| Sl. No. | Activities under RF | Opening balance as on 1st January, 2023 | Income during the year (Rs. In Lakhs) | Expenditure during the year (Rs. In Lakhs) | Net In- come (Rs. In Lakhs) | Net balance as on 31st Dec' 2023 |
|---------|----------------------|---|---------------------------------------|--|-----------------------------|----------------------------------|
| i. | Livestock | | 1.15 | 1 | 0.15 | |
| ii. | Fishery | 7.01062 | 1.15 | 1 | 0.15 | 8.0602 |
| iii. | Agri inputs & Others | | 5.75 | 5 | 0.75 | |
| Total | | | 8.0602 | 7 | 1.05 | |

(J) Sponsored programme undertaken by KVK from different sources other than ICAR:

| Activity/ Enterprise | Source(s)/ Funding Agency |
|---|--|
| Participatory piglet production through women SHG in Kangpokpi district, Manipur | NABARD, Manipur |
| Three days training programme on Scientific pig production practices and value addition of pork for pig farmers of Manipur at ICAR-NRC pig, Ran, Guwahati | NABARD, Manipur |
| Skill development and hand holding training programme on Agri Horti Iwellhood activities for displaced person settled at Hengbung relief camp Kangpokpi | MOMA, Dept. of Horti & Soil Conservation, Manipur. |



(K) Special programs undertaken:

(i) Nutri Sensitive Agricultural Resource and Innovation (NARI) :

| Activities | Area / unit | Name of village | Beneficiaries (no) | Remark |
|--|-----------------------------|-----------------------------|--------------------|-----------------------|
| Establishment of Nutri- garden | 6 (3 units in each village) | T. Khullen and Mayang khang | 6 | Kharif -Rabi |
| Demonstration on nutri- gardening | 4 nos | T. Khullen and Mayang khang | 21 | vegetables and fruits |
| Training & Awareness program | 4 nos | T. Khullen and Mayang khang | 80 | |
| Establishment of unit for value addition in fruit & vegetables | 1 unit | T. Khullen | 6 | |
| Demonstration on Value addition in fruit and vegetables | 1 no. | T. Khullen | 21 | |



ii. Mera Gaon Mera Gaurav (MGMG):

| Activities | Nos | Beneficiaries (nos) |
|------------------------------|-----|---------------------|
| Awareness program | 3 | 91 |
| Training | 2 | 56 |
| Farmer meeting | 3 | 47 |
| Demo on Vegetable production | 4 | 4 |
| Demo. On bee- keeping | 5 | 5 |
| Demo. On poultry | 10 | 10 |
| Demo. On fishery | 591 | 5 |



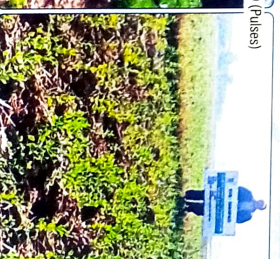
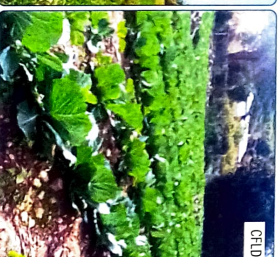
iii. Natural Farming:

| Area covered at KVK farm | Area covered at Farmer's field | Nos. of Demonstration | Crops demonstrated | Yield (g/ha) | Remarks |
|--------------------------|--------------------------------|-----------------------|--------------------|--------------|--|
| | | | | | |
| 1 acre | 5.9 acre | 8 | Cabbage | 162.5 | Considering the farming situation of Senapati district, Natural farming has a huge scope for promotion |

(L) Clustered Front Line Demonstration (Pulses) :

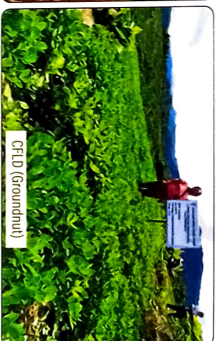
| Crop Enter-prise | Area (ha) | No. of demonstration | Variety | Demonstration Yield (Qt/Ha) | | | Yield of local Check (Qt/ha) | % In-crease % | Gross Cost (Rs/ha) | Gross Return (Rs/ha) | Net Return (Rs/ha) | B:C Ratio (GR/GC) |
|------------------|-----------|----------------------|---------|-----------------------------|-------|------|------------------------------|---------------|--------------------|----------------------|--------------------|-------------------|
| | | | | H | L | A | | | | | | |
| Field pea | 2 | 5 | Aman | 11.82 | 10.63 | 1112 | 9.35 | 21 | 45420 | 83400 | 37980 | 1.83:1 |
| Total | 2 | 5 | | | | | | | | | | |

Activities under Natural Farming



(M) Clustered Front Line Demonstration (Oilseeds) :

| Crop Enter- prise | Area (ha) | No. of dem- on- stra- tion | Variety | Demonstration Yield (Qt/Ha) | | | Yield of local Check (Qt/ha) | % in- crease % | Gross Cost (Rs/ ha) | Gross Return (Rs/ ha) | Net Return (Rs/ha) | B:C Ratio (Gr/ Gc) |
|-------------------------|--------------|---|---------|--------------------------------|-------|-------|---------------------------------------|----------------------|------------------------------|--------------------------------|--------------------------|-----------------------------|
| | | | | H | L | A | | | | | | |
| Soybean | 20 | 50 | Dsb 19 | 15.27 | 10.88 | 14.05 | 11.25 | 25 | 45845 | 84300 | 38455 | 1.84:1 |
| Ground nut | 10 | 25 | ICGS 76 | 12.54 | 10.42 | 11.48 | 8.52 | 34 | 57760 | 97580 | 39820 | 1.7:1 |
| Rapeseed | 20 | 50 | TS37 | 8.22 | 7.56 | 8.12 | 6.32 | 28 | 32456 | 56840 | 24384 | 1.75:1 |
| Total | 50 | 125 | | | | | | | | | | |

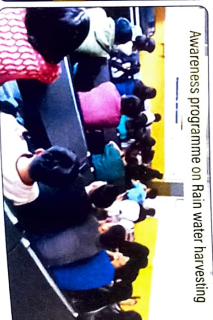


(N) Soil Testing/ Soil Health Cards (SHCs) :

| Sl. No. | Samples tested/ Analysed | Nos. | Farmer beneficiaries | Village covered | SHCs issued to farmers (Nos.) |
|---------|--------------------------|------------|-------------------------|-----------------|----------------------------------|
| 1. | Soil sample | 192 | 395 | | 395 |
| 2. | Water sample | 108 | 65 | | - |
| | Total | 300 | 460 | | 395 |

(O) Activities undertaken under MISSION LIFE:

| Sl.No. | Activities | Date | No. of farmers covered |
|--------|--|-------------|------------------------|
| 1. | Campaign on Soil Health Management | 20/05/2023 | 34 |
| 2. | Workshop on Climate Resilient Crop | 30/ 05/2023 | 30 |
| 3. | Awareness programme on Rain water harvesting | 01/06/2023 | 32 |



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