



भारतीय कृषि अनुसंधान परिषद, नवी दिल्ली पुरस्कृत
श्रमसाफल्य फाँडेशन, अमरावती द्वारा संचालित
कृषि विज्ञान केंद्र

'चिरंतन', मधुबन कॉलनी, कॅम्प, अमरावती-४४४ ६०२
☎ : (०७२१) - २७००३४२ / २६६२६९६

Indian Council Of Agricultural Research, New Delhi Sponsored
Shramsafalya Foundation, Amravati's

KRISHI VIGYAN KENDRA

"Chirantan", Madhuban Colony, Camp, Amravati-444 602
☎ : (0721) - 2700342, 2662696



SSF/KVK/ 981 /08

Date :- 17/09/2008

To,

Dr. N. Sudhakar,
Zonal Co-ordinator,
Zonal Co-ordination Unit
For TOT Project (Zone V),
CRIDA Complex, Santoshnagar,
Hyderabad – 59 (A.P.)
E-Mail : grreddy99@rediffmail.com

Sub : Submission of Impact of KVK activities ... regd.

Respected Sir,

With reference to the subject cited above, find enclosed herewith the details about impact KVK of KVK activity in recent years in the form of success stories of this center.

Submitted for kind information and needful action

Thanking you.

Yours sincerely,

Programme Coordinator,
Krishi Vigyan Kendra,
Ghatkhed, Amravati

FORMATION OF FARNERS CLUB
UNDER VIKAS VOLUNTEER VAHINI PROGRAMME

1. INTRODUCTION:

Today there is an urgent need for formation of Farmer's club at village level for faster dissemination of advance technology developed by various agricultural research institutions in their way for the up-liftment of rural farmers by means of co-ordination of various line department viz. DRDA, State Agril. Dept. NABARD ZP, Panchayat Samiti and Banking Institutions. All the scattered farmers, rural youths and women can be brought together by formation of farmers club at village level to bring under the advantages of various line department schemes. Considering the necessity & importance **KVK, Ghatkhed, Amravati had initiated to form farmers clubs in the district with collaborating NABARD, Pune** with following aims and objectives.

2. OBJECTIVES:

- 2.1 To formulate farmers club at village levels, identify the problems on top priorities and planning to solve them with the co-ordination of various line departments
- 2.2 To maintain the relation with the agriculture and allied departments to solve the various problems that arises in agriculture
- 2.3 To maintain good relation with financial institution & make available loan facility to the needy farmer with awareness among them for reimbursement of loan
- 2.4 Faster dissemination of the advanced technology in a systematic manner through farmers club
- 2.5 To form the self-help group (SHG) at village level to promote village industry on the available resource in the villages
- 2.6 To collect the information of conventional method adopted by farmers at village level and feed back of various training, demonstrations and OFT conducted in the village
- 2.7 To reduce the cost of cultivation by adopting the concept of sustainable dry land agriculture & organic farming
- 2.8 To promote the direct marketing strategies for the purchasing of agriculture input & selling of agriculture produce

3. METHODOLOGY:

The activities of the KVK were planned and chalked out keeping in view the thrust areas identified. The technological solutions available at hand were compared with the resources available. The solutions for the gaps related to technological, extension and research were identified and were prioritized according to severity and assessed needs of the farmers in question.

A number of informal & formal methods were conveniently considered to identify target group for organizing training & conducting demonstration. These are

- 1 Checklist
- 2 Observation
- 3 Personal interview
- 4 Group interview
- 5 Questionnaire

Planning is made to form the Farmers club at village level with the help of **National Bank for Agriculture and Rural Development, Pune**. The villagers in the KVK operational area in selected villages were made aware about functions of farmers group. The interested farmers were trained for identification of problems in agriculture production and allied activities. The farmers were informed about the loan facility available at various financial institutions & the need for reimbursement of the same. Following steps are followed for effective functioning of the farmers club.

3.1: First developed an understanding of the farmers, their farming systems, resources and established rapport with them. Gathered information on cropping system, present level of use of inputs and productivity of major crops, identified the problem and its causes of the area by PRA technique, group discussion, meeting with opinion leaders, individual contact, visiting villages and farms and then a group of farmers having common interest and who are willing to cooperate in the conduct of demonstration were selected. A meeting of interested farmers was organized to spell out the problem and to explain how the demonstration, training will solve the problem. The relevant literature was also distributed among the farmers.

3.2: Conducted SWOT analysis and listed out identified problems on top priority and planned the yearly activities accordingly.

3.3: Sent the proposal of village farmers club to the NABARD for financial assistance.

3.4: Organized need based & problem oriented training programme, Demonstration & exposure visits for the farmers club.

3.5: Contacted various line departments to solve the listed problems of farmers club & implemented the various programmes.

3.6: Take continuous follow up for regulating the clubs, records, and documents of the clubs from time to time.

3.7: Implemented various programmes to enhance confidence & awareness about adoption and innovative technology among the farmers.

3.8: Motivated the farmers clubs for direct marketing approach, adoption of new technology to reduce the cost of cultivation & increase the productivity & innovate the farming community.

4. Thrust areas identified:

Through PRA, Group discussion and field visits identified thrust areas. The exhaustive bench mark survey was carried out for the purpose. The KVK team personally gathered the information through PRA. The secondary data was also collected and analyzed. The outcomes from the discussions held with University Scientists and Extension functionaries were also taken into account. After through discussion with the KVK staff members the thrust area were identified

Major Thrust areas identified

Major crops	Thrust Area
Cotton	1) Technology dissemination through training & extension activities
Soybean	2) Motivation & participation of farmers for in-situ soil & water conservation
Red gram	3) Improving the productivity of Oilseeds & Pulses crop
Bengal gram	4) Production & supply of seeds of improved varieties
Citrus	5) Promotion of IPM technologies to reduce the cost of production in cotton
Goat rearing	6) Promotion of effective pest & diseases management practices to reduce the cost of plant protection measures
Cattle	7) Up gradation of Goats – Adoption of Village & supply of Osmanabadi bucks & monitoring.
	8) Control of mastitis diseases in high yielding cattle
	9) Improving the productivity & quality of citrus – demonstration on IPM INM & IDM
	10) Improving the productivity & storage life in Onion
	11) Demonstration & popularization of farm implements & Machinery
	12) Women empowerment – Establishment of SHG, Entrepreneurship development

5. LIST OF FARMERS CLUB FORMED BY KVK

Sr.N	Name of Club	Village	Taluka	Branch	Bank
1	Dnyaneshwar Krishi Vigyan Mandal, Wadhona	Wadhona	Achalpur	Achalpur Camp	PNB
2	Dnyaneshwar Krishi Vigyan Mandal, Makrampur	Makrampur	Bhatkuli	Purnanagar	BOM
3	Dnyaneshwar Krishi Vigyan Mandal, Wadhona	Naya akola	Amravati	Walgaon	SBI
4	Dnyaneshwar Krishi Vigyan Mandal, Naya akola	Jawara	Bhatkuli	Walgaon	DCCB
5	Dnyaneshwar Krishi Vigyan Mandal, Pimpalkhuta	Pimpalkhuta	Amravati	Tapovan	SBI
6	Dnyaneshwar Krishi Vigyan Mandal, Virul purna	Virul purna	Chandur Bazar	Asegaon	IB
7	Dnyaneshwar Krishi Vigyan Mandal, Dahigaon Purna	Dahigaon Purna	Chandur Bazar	Asegaon	IB
8	Dnyaneshwar Krishi Vigyan Mandal, Talegaon Mohana	Talegaon Mohana	Chandur Bazar	Karasgaon	CB
9	Dnyaneshwar Krishi Vigyan Mandal, Borgaon Mohana	Borgaon Mohana	Chandur Bazar	Karasgaon	CB
10	Dnyaneshwar Krishi Vigyan Mandal, Hiwara Purna	Hiwara Purna	Achalpur	Achalpur Camp	PNB
11	Dnyaneshwar Krishi Vigyan Mandal, Takarkheda	Takarkheda	Bhatkuli	Takarkheda	DCCB
12	Dnyaneshwar Krishi Vigyan Mandal, Takarkheda	Kastura	Amravati	Amravati	DCCB

The above farmers' club members were called on at Krishi Vigyan Kendra for the first time to formally inaugurate their respective clubs in the auspicious presence of Honbl'e Sau. Vasudhatai Deshmukh Ex - State Minister, Maharashtra State, Shri Shilendra Joshi – Assit General Manager, Central Bank of India, Amravati. Shri. J. S. Thakare Deputy Chief Officer, Central Bank of India, Amravati. Shri. N. V. Thakare Sub Divisional Agriculture Officer Amravati. Shri S. D. Raut District Dairy Development Officer Shri. D. N. Mankar Agriculture Officer Panchayat Samiti, Bhatkuli. During inaugural session extension publication in Marathi Language " *Shetkari Mandaladware Krishi Tantradhyan Prasar* " were released & in technical session Base level orientation Programme was organized for the members of Krishi Vigyan Mandal . The main objective of the BLOTP programme was to create awareness among activities of Farmers club & role of Vikas Volunteer Vahini in Agriculture development. Assit. General Manager, NABARD Amravati, Assit. General Manager, Central Bank of India, Amravati, Deputy Chief Officer, Central Bank of India, Amravati, Sub Divisional Agriculture Officer Amravati, District Dairy Development Officer Agriculture Officer Panchayat Samiti, Bhatkuli & KVK Scientist delivered the lectures. The participants had shown a keen interest and raised pertinent questions on the subject.

Other major activities implemented for farmers club:

1. Organized training cum demonstration programme on contour farming at two villages namely Wadhona Tq. Achalpur & Jawara Tq. Bhatkuli
 - Provided Contour marker at Village level
 - Trained five volunteers from each village, these volunteer gave advised to farmers for sowing across the slope and contour farming.
 - In soybean yield was increased in crop grown across the slope by 10 % and crop grown along contour by 12 to 15 % over local check.
2. **Seed Bank programme:** The KVK since last three years running “Seed Bank Programme” with the sole objective to make available the seed of improved varieties at village level. The activity was carried out with the help of Farmers club & group leader selected in village. Initially KVK supplied the seed of improved varieties as critical input to the group. The necessary guidelines were passed on to them through training’s. The consent of beneficiaries to hand over double the quantity of seed they received from KVK to the group leader after the harvest of crop was taken. The programme was monitored and supervised by KVK staff through frequent visits. After harvesting, the beneficiaries handed over double the quantity of seed to the group leader. The group leader was assigned the task of distributing the collected seed to other farmers/beneficiaries in the same village. This activity had helped to make available the good quality improved seed to majority of the farmers in the village.
3. Conducted mass trapping programme to reduce the cost of management of Helicoverpa in cotton at village Makrampur.
 - In Cotton, mass trapping saved Rs.500 to 700 per ha. on Helicoverpa management. The yield level was also increased by 15.90 %. Thus fetching net additional income of Rs.2800/ ha. Whereas in chickpea mass trapping saved Rs.300 to 350 per ha. The yield level was also increased by 16.40 %, thus accruing net income of Rs.2300/ha.
4. Training cum demonstration programme conducted under improved implements
 - Twin wheel hoe weeder – 60 % labour, time & cost saved over traditional practice by khurpi.
 - Power operated grain cleaner – 85 to 90 % labour, time & cost saved
 - Promoted one entrepreneur named M/s. Ajay Industries, MIDC, Amravati for fabricating weeder and power operated grain cleaner.
5. Seed Production programme through farmers club at village Wadhona & Nayaakola
6. Awareness programme i.e. Krishi Din, Kisan Melava, Exposure visit activity,

IMPACT OF VILLAGE SEED PRODUCTION OF SOYBEAN THROUGH FARMERS CLUB FORMED BY KVK AMRAVATI

Selection of Village:

KVK, Amravati had selected village Wadhona Taluka Achalpur district Amravati as its focal village during 2003-04. The village is situated 25 Km away from taluka place & 35 Km from district headquarter. The village comes under assured rainfall zone receiving annual precipitation 800 to 900 mm

The demographic and geological characteristics of the village are as under.

- ✓ Total Population: 490
- ✓ Male Population: 260
- ✓ Female Population: 230
- ✓ Total no of SC: 15
- ✓ No of small farmers: 55
- ✓ No of families identified below poverty level: 14
- ✓ No of artisans:02
- ✓ Literacy %: 98
- ✓ Total cropped area: 475 ha
- ✓ Area under fruit crops: 22ha
- ✓ Area under vegetable crops: 12 ha
- ✓ Irrigated land: 65 ha.

The village was surveyed by employing PRA techniques, check list, personal interview and group discussion.

Accordingly the SWOT analysis was carried out. The groups were formed according to common interest & exiting cropping system. In all 10 groups were formed namely cotton grower, Soybean growers, Green gram growers, Bengal gram growers, Red gram growers, Vegetables growers, Wheat growers, Organic farming, In-situ soil & water conservation, Animal Husbandry.

Farming System Enterprise

Medium to Deep Black Cotton Soil Rainfed	Cotton – Fallow Soybean – Bengal gram Green gram – Bengal gram Black gram – Bengal gram Soybean – Vegetable
Medium to Deep Black Cotton Soil Irrigated	Cotton – Fallow Soybean – Bengal gram Soybean – Wheat Green gram – Wheat - Cowpea Black gram – Bengal gram

Area & Productivity of different crops at village Wadhona

Season	Crop	Area (ha)	Avg. Productivity/ ha (Kg)
Kharif	Cotton	100	225
	Soybean	150	1575
	Green gram	65	460
	Black gram	10	497
	Red gram	70	1120
	Safflower	60	329
	Bengal gram	20	1020

Need Assessment:

The needs were assessed through group discussions and field survey.

The possible technological solutions were identified and finalized in consultation with experts.

Thrusts Areas:

Through PRA, Group discussion and field visits identified thrust areas. The exhaustive bench mark survey was carried out for the purpose. The KVK team personally gathered the information through PRA. The secondary data was also collected and analyzed. The outcomes from the discussions held with University Scientists and Extension functionaries were also taken into account. After through discussion with the KVK staff members the thrust area were identified

Major crops	Thrust Area
Cotton Soybean Redgram Bengalgram Mandarin	➤ Motivating farmers for better quality of life by paying attention to their needs & problems & organize them for group action
	➤ Improving the productivity of Oilseed, Pulses, Cereals and Cotton crop
	➤ To motivate farmers about usefulness & adoption of soil & water conservation practices
	➤ Seed Production at Village level through group formation
	➤ Improving the productivity by promoting of balance use of fertilizers & organic manures.
	➤ Improving the productivity by promoting IPM technology
	➤ Demonstration & popularization of farm implements & Machinery
	➤ Promotion of integrated nutrient management in Mandarin
	➤ Motivation of Krishi Vigyan Mandal for Marketing of Agriculture Produce through groups.

Interventions Planned

Interventions	Year
Crop wise group formation	2003-04
Formation of farmers club	2004-05
Sustainable dry land agriculture <ul style="list-style-type: none">• In-situ soil and water conservation• Promotion of use of bio-control agents in cotton• Organic farming	2004-05
Promotion of organic farming	2004-05
Register & Attached the farmers club (NABARD through VVV programme)	2005-06
FLD on Soybean	2005-06
FLD on improved implements	2005-06
FLD on Cotton production technology	2006-07
Seed production through farmers club	2006-07
FLD on integrated nutrient management in Mandarin	2006-07
FLD on Cotton production technology	2007-08
FLD on improved implements	2007-08

Efficient and economic production of seed on a large scale is very vital for popularization and large scale adoption of any new or improved varieties. However, for a good variety unless it is feasible to produce the seed on a large scale economically and efficiently, it will not reach large number of farmers. Cost effective qualitative seed production technology bridges the gap between technology generation and technology transfer.

The availability of seeds of improved varieties of crops is a common problem in rural areas. The farmers have a general tendency towards adoption of new and improved varieties, but the availability of genuine seed material of improved varieties at village level is a a problem facing majority of the farmers. Hence for availability of genuine seed material of improved varieties & faster dissemination of improved seed KVK motivated Seed production of Soybean through farmers club with following objectives.

Objectives:

1. To educate the farmers in producing their own seed at their own farms
2. To motivate the farmers about seed production of soybean through farmers club at village level.

Methodology:

KVK had selected village Wadhona, Tq. Achalpur, Distt. Amravati during 2003-04. The farmers groups were formed according to common interest and needs. The Krishi Vigyan Mandal was also formed with Mr. Ajabrao Punjaji Kale, aged 56 years as its chief volunteer in the year 2004-05.

The group was technically facilitated by KVK, Amravati. In the Kharif 2006, the KVK encouraged the group to undertake seed production programme on Soybean through farmers club.

The group members wanted to undertake the seed production of improved Soybean. Hence, the variety MAUS – 71 (Breeder Seed) released by MAU, Parbhani was selected. The seed was made available by KVK. The seed production programme was registered at District seed certification. The whole programme was monitored by KVK scientists. The seed production programme was undertaken on an area of 10 ha comprising 10 farmer members of Krishi Vigyan Mandal.

In this way the farmer members of Krishi Vigyan Mandal produced their own seed and processed, graded and bagged the soybean seed and used in next season for marketing and distribution through seed bank programme making the activity self sustainable and also good quality foundation seed was made available to farmers at their own village.

Findings:

This activity was continued in year 2007-08 & 2008-09. The details as under

Table: 1 Seed production through farmers club

S.No	Year	Crop	Variety	No. of farmers	Area (Ha.)	Yield Qt.
1	2006-07 Kharif	Soybean (Breeder)	MAUS-71	10	10	89.10
2	2007-08 Kharif	Soybean (Breeder)	JS-335	10	15	176
	2007-08 Rabi	Bengal gram (Foundation)	Vijay	15	10	225
3	2008-09 Kharif	Soybean (Foundation)	JS-335	11	20	Crop to be harvested

As shown in table 1, Seed production through farmers club revealed that village seed production programme on Soybean (MAUS -71) was started & successfully conducted in Kharif 2006-07 over an area of 10 ha. & the number of participants was 10 & they produced & bagged 89.10 qt. Soybean seed. This activity was continued in Kharif 07-08 in Soybean (JS-335) over an area of 15 ha. and produced as well as bagged 176 qt. of soybean seed. In Rabi 2007-08 the members of farmers club undertaken seed production programme of Bengal gram (Variety Vijay) over an area of 10 ha involving 15 farmers & produced 225qt. of Bengal gram seed.

This indicates that farmers were aware & familiarized about seed production technology through group formation & hence continued the activity from last three years. The area of seed production was also increased. Moreover, the seed production of Bengal gram during Rabi season was also successfully conducted by the farmers group. The farmers in the nearby villages had also shown keen interest but the same model could not be realized till date but in the coming years it may be realized which will very well depict the horizontal spread of technology.

Economic gains:

The participant farmers had earned Rs.2400/qt. of seed produced as against Rs.1500/qt. of marketable soybean in year 2006-07 & Rs 2500.00/qt seed produced as against Rs. 1900/qt. of marketable soybean in the year 2007-08.

Sr. No.	Year/ Season	Crop	Yield (Qt)	Market Rate (Rs./q)	Earned Rate due to seed production (Rs/q)	Net additional income due to Seed production
1	2006-07 Kharif	Soybean (MAUS-71)	89.10	1500	2400	80190.00
2	2007-08 Kharif	Soybean (JS-335)	176.00	1900	2500	105600.00
3	2007-08 Rabi	Bengal gram (Vijay)	225.00	Processing & Bagging activity is going on. Produce yet to be sold		
4	2008-09 Kharif	Soybean (JS-335)	The seed production programme on soybean is under implementation.			

Employment Generation:

The 20 farmers are directly engaged in the seed production activity. This year (Kharif 08) also the farmers had undertaken the seed production programme on soybean variety JS – 335 on area of 20 ha.

SWOT Analysis of the Programme:**Strengths**

- Good quality foundation seed provided to farmers at their door steps.
- Time to time technical backstopping encouraged the farmers to develop their own seed.
- New farmers joined in the seed production activity
- More farmers are emerging to produce their own seed.
- Seed production makes the young farmer to take up agriculture as a profession.
- Quality seed of improved varieties is easily available.

Weakness

- Seed production of only straight varieties is possible
- Processing & bagging facility is not available at Block/ Taluka level

Opportunities:

- Motivation of farmers groups in producing their own seed is possible on large scale
- Opportunity to eliminate middle men in supplying the crucial input to the farmer.

Threats

- Lack of professional skills among the farmers

Horizontal spread:

The members of farmers club at village Naya Akola Tq. Dist. Amravati visited at Wadhona & interacted with the farmers club at village Wadhona about success of seed production technology through group formation & decided to conduct the same activity in their village. During Rabi 2006-07, Seed production programme of Safflower was conducted by the members of farmers club at village Naya Akola over an area of 10.4 ha comprising 12 farmers & they produced good quality of safflower seed 125 qt. at village level. However, the activity was discontinued due to some reasons.



Bagging of Soybean Seed through farmers club, at village Wadhona

Conclusion:

Thus the village seed production technology disseminated by KVK, Amravati through active participation of village level farmer club is economically viable, compatible with the existing cropping pattern and divisible also. Hence, KVK is optimistic to form & recognize more number of farmers groups in the district so that the flow of good quality seed could be channelised properly on one hand and accrue net monetary gains to the other. The KVK in such case may provide technical guidance & monitoring to make the farming business more lucrative.