Outreach of RASS-KVK in Chittoor district







Rashtriya Seva Samithi

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KVK is an institutional project of Indian Council of Agricultural Research (ICAR) to test, demonstrate and disseminate the application of Science and technology input of Agricultural research on the farmers field with the help of a multidisciplinary team of Scientists. Acharya Ranga Krishi Vigyan Kendra under the management of Rashtriya Seva Samithi (RASS) was established in 1992 with headquarters at Tirupati. KVK is an organized mechanism for front line extension programmes and it is an effective tool to help farmers to prepare them fit, to help and cope up with management of scientific agriculture for reaping rich harvest from their farm operations. Thus, this centre serves as a light house for the overall development of agriculture and allied enterprises in Chittoor district.

Mandate and functions of KVK:

To conduct on farm testing to identify location specific technologies (assessment & refinement); front line demonstrations (FLD's) to establish production potential of the latest varieties/ package practices etc.; training programmes to update the skill & Knowledge of farmers; orientation to extension functionaries in frontier technologies; Organize vocational courses in Agriculture & allied sectors for rural youth for generating sustainable self-employment.

Specialists available with KVK:

Six qualified and experienced subject matter specialists specialized in Crop Production, Plant Protection, Agrl. Extension, Horticulture, Sericulture and Home Science are available with KVK for effective transfer of technologies to the farming community in an integrated approach.

Infrastructure available & Demonstration units at KVK:

- Administrative building cum seminar hall with a seating capacity of 500 persons
- Two class rooms
- Three hostels for farmers that can accommodate 100 persons at a time
- Soil and water testing lab for major and micro-nutrient analysis
- Demonstration units of Vermicompost, Azolla, Mushroom and Spirulina
- Nursery of Citrus plants with a production output of 50000 seedlings / year
- Medicinal plants nursery with a production output of 30000 seedlings/saplings of 10 different varieties
- Aloe-vera processing unit producing 9 different herbal products





Technical interventions of KVK to improve productivity in Chittoor district:

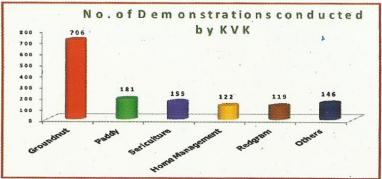
On – farm testing: RASS – ARKVK has conducted on-farm testing of 28 different technologies in crops like Groundnut, Paddy, Sugarcane, Redgram, Mango, Sunflower etc., and in enterprises like silkworm rearing and home management to validate their performance and suitability to the local conditions.



Front line demonstrations:

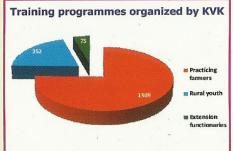
Around 1429 demonstrations on frontier technologies were conducted by KVK in farmers' fields in about 260ha in Chittoor district to create awareness among the farming community about the new crop varieties and latest production technologies of major crops and to generate production data.





Training programmes: So far, KVK has conducted training programmes for practicing farmers and farm women on 1309 courses, 352 income generating vocational courses for rural youth and 75 courses for extension functionaries in the district. Income generating enterprises for rural youth includes nursery

management, vermicomposting, Dairy management, mushroom production, food processing technologies, seed production, tailoring, embroidery arya work and zardosi works on sarees, painting & dyeing etc.





Significant achievements of KVK in the district

"Seed villages" for Groundnut were developed with the intention of assured supply of latest varieties to farmers in the district as well as neighbouring districts. About 10 villages are producing 1200 quintals of groundnut seed annually which not only improved the timely availability of seed to farmers' but also the economic returns to the seed producers.



Integrated Pest Management for leaf miner and Spodoptera pests were demonstrated in large scale in collaboration with ICRISAT to popularize the technologies. Because of this, the farmers of these areas are giving need based pesticide application and reduced the number of sprays.



System of Rice Intensification (SRI) technology was tested and widely popularized in the district through training programmes,

publications, mass media and demonstrations. The beneficiaries were supplied with marker and conoweeder free of cost to use on community basis. The costs of production with SRI averaged about 20 per cent less per hectare. SRI is very attractive to small and marginal farmers



because of higher yields, the lower seed requirement and the relative ease of weed management.

Direct seeding in rice using an eight rowed drumseeder is another successful intervention of KVK widely adopted by small and marginal farmers of the district. This method is becoming increasingly attractive due to less requirement of labour and greater profitability compared



to SRI and conventional methods. Benefit cost ratio by adopting this operation is 2.5.

Transplanting of rice using paddy transplanter is another

intervention of KVK introduced in the district in collaboration with ANGRAU and Department of Agriculture. After assessing the performance of the machine in 8 acres in Rabi 2008, three machines were purchased with the financial support of ATMA, Chittoor for the benefit of farmers. This method requires



nursery preparation different from traditional method and it involves skill. Transplanting operation in one acre is completed in 2.5-3.0 hours with just 2-3 labour while traditional manual planting is completed in 7-8 hours with 20 labour.

Considering the inadequate and acute labour shortage for agricultural operations, KVK has introduced need based machinery in Groundnut. Tractor drawn seed drill for sowing groundnut and groundnut digger for harvesting the crop were purchased from Gujarat with the financial aid of APEDA, Hyderabad and demonstrated in the farmers' fields. Seed drill aided in timely sowing before the moisture in the soil is lost. Tractor drawn groundnut digger performed well when the length of plants is small to medium height. The harvesting operation in 1 acre is





completed in about 1.5 to 2 hrs while in traditional method it takes 6-7hrs with a labour of 15 members. Thus both seed drill and digger are very efficient and effective in performing field operations and reducing labour component by about 50-60%.

RASS-ARKVK initiated household dairy project under STEP in partnership with Department of women and child development, Govt. of India. The following technical services and financial assistance are provided to the beneficiaries:

Calf rearing and feeding; Insurance coverage for the animals; Group saving and thrift programmes; Artificial insemination; Testing of milk for fat and other concentrates; Supply of information on the availability of crossbred animals; Formation of WDCs; Fodder development and establishing



milk collection centres and market linkages; Distribution of RMK loan assistance to SHGs for relending among the women beneficiaries for purchase of milch animals.

Twelve veterinary centres have been established at the rate of one for seven villages. For each centre, a trained veterinary assistant and a fat tester have been appointed to provide necessary service. 567 SHG's in 72 villages and 5010 milch animals are involved in this activity. Milk production increased by an average of 9.1 lts per cow per day when fed from early to late lactation.

KVK has undertaken 12 watershed activities sanctioned by DPAP in soil and moisture conservation, water harvesting, improving percolation and recharge of ground water, improved vegetation, improved milk production, increased man days of work, creating more number of work days and finally all these interactions will improve the overall socio economic conditions of the watershed

villages. Rejuvenation of Swarnamukhi river basin by constructing subsurface dams across the river is first of its kind of moisture conservation activity performed by KVK and its host organization RASS. This has improved the recharging of ground water status in the



nieghbouring villages ensuring adequate irrigation water for 2nd and 3rd crop.

Sericulture is another sustainable enterprise in the district and

KVK has been in forefront in introducing low cost efficient technologies for the benefit of sericulture practitioners in the district. Technologies like V-1 Mulberry variety & spacing schedules, Chawkie rearing trays, H y d r o d y n a m i c incubators, Disinfectants and disinfection method of



rearing rooms, rearing equipment etc., Wet and dry bulb thermometers, shoot rearing technologies, IPM for control of Uzi fly etc., were popularized in the district.

With regard to Home Management, in addition to the income generating vocational courses for rural youth, drudgery reducing tools like bhendi pluckers for vegetable growers, cotton bags for harvesting flowers were popularized among the women.



Services offered:

- · Analysis and interpretation of soil and water samples
- Diagnostic services
- Farm advisory services
- Supply quality seed material of latest varieties of Groundnut and Paddy, Sweet Orange grafts etc.
- · Supply of farm implements and machinery

Literature developed:

- 2000 copies of colour booklet on System of Rice Intensification
- 2000 copies of colour booklet on direct seeding in rice using 8rowed drum seeder
- Pamphlets on different crop production technologies, IPM, INM, Vermicompost preparation, SRI, Direct seeding in rice, Management of Mango Nursery, Azolla as an alternate feed to milch animals etc.
- VCD's on SRI cultivation; Rejuvenation of Swarnamukhi river basin; Direct seeding in rice

Future thrusts:

- Use of ICT in Agriculture
- Strengthening of Commodity groups for major crops especially Groundnut
- Establishment and strengthening of Groundnut technology park with the assistance of APEDA, Hyderabad.
- Emphasizing integrated farming systems to increase productivity as well as to obtain more returns from a unit area.
- Promoting mechanization in all major crops in the district
- Facilitating market information as well as market linkages for major crops in the district.