like raised bed planting and ridges and furrow method of planting with sprinkler irrigation was tried. Incidentally due to extreme drought condition the farmers suffered a heavy loss. However the performance of onion cross was satisfactiory for few farmers with highest yield of 12 tonnes/hectare in a farmer's field. From the trials conducted it can be concluded that after introduction of Cool season vegetables like Cabbage and Cauliflower Kerala, onion is also included for cultivation in the homesteads of Kerala so as to meet the annual requirement of 50 Kg/family/year. It is also noted that Arka Kalyan performed better in the farmer's field compared to Age found dark red. Technical constraints in production of onion include poor nursery management, incidence of pes and disease like Aphids, mites, leaf tip disease, purple blotch, basal blotch and Anthracnose.

## Influence of Dairy Co-operative Societies on Socio-Psychological Status of Members and Non-Members - A Comparative Study

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The study was conducted in four districts of newly formed Telangana State with 120 dairy farmers in which 60 were members of Dairy Co-operative Societies (DCSs)/Milk Producer Institutions (MPIs) and other 60 were non-members. Majority of the member respondents (55.33%) were in middle age (36-50 years) group, high education level (43.33%), low dairy farming experience (46.67%), with high social participation (66.67%). Eighty per cent of member respondents possessed medium to large herd sizes and majority (41.67%) were medium milk producers. Majority (70.00%) of the members were high in rational decision making ability, 45.00 per cem had high information seeking behaviour, 46.67 per cent received high extent of training. Majority (60.00%) had high credit and high economic orientation (80.00%). Whereas, in case of non-members, majority (43.33%) were in old age (>50 years) group, with low education (50.00%). More than one third (36.67%) had low dairy farming experience, low social participation (55.00%), small herd sizes (51.67%) and were low milk producers (56.67%). Lower than three fourths (71.67%) of non-members were low in rational decision making ability, more than half (53.33%) had low information seeking behaviour, three fourths (75.00%) received low extent of training, 40.00 per cent possessed low credit orientation and three fourths (75.00%) of them had low economic orientation. Thus Members were on higher side when compared to non-members regarding their socio-psychological characteristics. The study brought out that the membership in DCSs/MPIs has got much affect on sociopsychological status of dairy farmers and warrants the farmers to become members of DCSs/MPIs for their own welfare.

## Study on Supply Chains on Goats in Northern Kerala

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A study was undertaken to assess the socio-economic status of the goat farmers and various supply chains on goats in the northern part of Kerala. Agriculture remains the major occupation in the area, dominated by small, marginal and homestead farmers. The average land holdings were small with 10-20 cents (Economics and Statistics, 2009). Goat farming was mainly dominated by small and marginal farmers. According to the livestock census 2012, goat population in Kerala was 12.46 lakhs, next to cattle with 13.29 lakhs. The study was conducted during 2015-16 period at five centres centers of the All India Coordinated Research Project (AICRP) for the improvement of Malabari goat viz. Vadakara and Perambra, Taliparamba and Thalassery and Tanur located at Kozhikode, Kannur and Malapuram district, respectively. Information were collected through well-structured pre-tested interview schedule developed at Goat and Sheep farm, College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala. There were around 88 farmers with 306 goats at Taliparamba, 32 farmers with 224 goats at Thalassery, 43 farmers with 230 goats at Vatakara, 62 farmers with 198 goats at Perambra and 133

farmers with 270 goats at Tanur, respectively. Around 90% of the goat farmers in above areas were having land holding less than 30 cents. The participation of women in goat rearing and production was about 65%. Nearly 92% of the heads of the families were educated and 15% of them had high school level education and above the average flock size was around 4.10. Around 85 % farmers follows homestead production system with flock size 4-6, 18-19% farmers follows semi intensive system with average flock size farmers follows and only less than 0.5% follows intensive system with flock size 35-40 goats, most of them rear goats exclusively for meat production. The study also elaborated various supply chains in goat rearing especially in case of goat meat production in the region.

## Skill Development of Self Help Groups: A key to Rural Women **Empowerment**

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Empowerment implies expansion of assets and capabilities of people to influence control and hold accountable institutions that affect their lives. Women face gender specific barriers to access education, health and other benefits. This happens due to their low social status and lack of access to key sources. Access to financial services can and does make important contribution to the economic productivity and social wellbeing of poor women and their households, it does not automatically empower women - any more than do education, political quotas and access to wage work etc. Self Help Groups fulfil four objectives namely - poverty reduction, employment generation, enterprise development and empowerment of women. These SHGs contribute to an increased diversification of household economic activity, increased relevance on productive activities and improved economic security. Keeping this in view, the present study focused on self-help groups constituted and run by rural women of Punjab. The data was collected by using a framed questionnaire targeting self-help groups through personal interview method resulting in collection of qualitative data from different groups. The pattern of the group savings and lending showed that most of the credit was utilized by women for their family needs. Women also used this credit for activities like value addition of local agriculture produce and preparation of utility articles using hand embroidery, crochet and hand knitting. But due to lack of scientific and proper knowledge of value addition and less awareness about preparation of decorative articles through hand craft led to failure and discouragement among the members of the group. For improving the socio-economic status of the rural women, Krishi Vigyan Kendras run by Punjab Agricultural University are playing a vital role by organizing skill development programmes for self-help groups. These skill development programmes significantly enhanced the self-confidence, knowledge, decision making capabilities and leadership qualities of these women. They are engaged in different income generating activities as a vocation for self-employment and are marketing their products in farmer's fairs, SARAS fairs and craft bazars held across India. Results revealed that rural women in self-help groups enhanced their income significantly and are converging to improved socio-economic status thereby leading to their empowerment.

## Nutritional Value and Health Benefits of Coffee

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Coffee is one of the most important commodities in the international trade and is the world second most opular drink, after water. People are drinking coffee for the last thousand years and throughout its history all erts of theories have been advanced on its possible effects. The nutritional profile of 100 ml of coffee depends addition of milk, cream, sugar or other sweeteners to taste. Black coffee contains 1-2 kcal per 100 ml and has significant amounts of the macronutrients, fat, carbohydrate and protein. One hundred ml of black coffee contains a number of micronutrients, notably potassium (92 mg), magnesium (0.05 mg), niacin (0.70 mg) and