ridgegourd, *Fusarium oxyspporum* (fusarium rot) on bittergourd, *Fusarium coeruleum* (dryrot) on potato were sncountered. *Peronospora parasitica* (downy midlew of cauliflower) was the only obligate pathogen recorded.

Host range studies indicated that *Alternaria alternata* from chilli infected tomato and brinjal. Similarly, *Alternaria solani* from tomato infected chilli and brinjal. Further, *Colletotrichum capsici* from chilli infected tomato and brinjal. *Fusarium coeruleum* and *Fusarium oxysporum* from potato and bittergourd respectively infected vice-versa, while *Fusarium semitectum* from ridgegourd infected both bittergourd and potato.

The incidence of various disease was maximum during *kharif* followed by *rabi* in all the markets surveyed. Relative humidity and rainfall showed positive correlation. While, the temperature showed negative correlation with the per cent disease incidence.

Nimbicidin (0.3%) and extract of *Ocimum sanctum* (1:10 dilution) were effective in reducing the spore germination of both *Fusarium coeruleum* and *Alternaria solani*.

SEED SCIENCE AND TECHNOLOGY

Studies on Seed Dormancy and Germination in Sandal (*Santalum album* L.)

KALAYAN RAO. M. BIRADAR 1996 MAJOR ADVISOR : Dr. M. SHEKHARGOUDA

The present investigation entitles "Studies on seed dormancy and germination in sandal (*Santalum album* L.), was undertaken in the department of Seed Science and Technology, University of Agricultural Sciences, Dharwad. The various chemical and physical treatments were imposed at different storage periods (zero to 60 days at an interval of 10 days) and different seed sizes viz., large, medium and small (retained on 7.5, 6.5 and 5.5 mm sieve size, respectively) and control (ungraded) were sown in three media viz., sand, red clay soil and soil mixture (sand/soil/FYM in 1:2:1 proportion).

Among the chemical and phycisal treatments, manual removal of complete seed coat of sixty days stored seeds recorded the highest germination percentage, Bartlett's rate index, germination value and seedling vigour index, whereas seedling parameters viz., shoot length, root length, number of primary leaves, fresh and dry weight of seedlings were the highest in 60 days stored seeds soaked in 0.20 percent GA_3.

Among the variations seed sizes and media, large and medium sized seeds sown in soil mixture (sand/soil/FYM in 1:2:1 proportion) and red clay soil reached the highest seedling growth and germination, respectively.

Standardization of Germination Test Procedure in Some Tropical Tree Species

MD. NASIR MIYAN 1997 MAJOR ADVISOR : S. D. SHASHIDHARA

A study was undertaken to standardize the temperature, medium required for germination and to fix days for first and final count during laboratory test of five tropical tree species. The experiment consisted of ten temperatures (20°C, 25°C, 30°C, 15-25°C, 20-25°C, 20-30°C, 20-35°C and ambient temperature) and four substrata viz., "Top of paper (TP)", "Between paper (BP)", sand (S) and vermiculite.

Among the different temperatures and substrata studied, the maximum germination of Acacia auriculiformis was obtained at constant temperature of 35°C in three substrata viz., vermiculite or "Between paper". The first count and final count can be fixed on the day 10th and 20th, respectively. In Acacia catechu, the combination of 25°C in "Top of paper" and 30°C in vermiculite gave the maximum percent of germination. The third and fifth day can be fixed for the first count and final count, respectively. The constant

temperatures of 25°C or 30°C in "Top of paper" or "Between paper" methods recorded the highest germination percentage in Cassia fistula. In this species fourth and seventh day can be fixed for the first and final count, respectively. In Pithecellobium ducle, the alternate temperature of 20-30°C in "Top of paper" or "Between paper" gave the maximum germination percentage. The day third and seventh can be fixed for first count and final count, respectively. The constant temperature of 30°C and alternating temperatures of 20-30°C and 25-35°C in "Between paper" method recorded the highest germination in Swietenia mahagoni first count and final count can be fixed on 15th and 25th day, respectively.

In all the species, above mentioned temperature and substratum combination not only gave the maximum germination but also the other parameters studied were found to be optimum.

Hybrid Seed Yield and Quality of Sunflower (*Helianthus annus* L.) as Influenced by Branching and Non-Branching Restorer Lines

H. EASWARDHASS 1996 MAJOR ADVISOR : Dr. M. SHEHKARGOUDA

A field experiment was conducted at the Main research Station, UAS, Dharwad during *rabi* 1995, to find the influence of branching and non-branching restorers on the yield and quality of hybrid seeds when crossed with different CMS lines. The experiment was laid out in randomized block design involving 12 crosses between three female parents viz., CMS 234A, CMS 851A x DSF-2, CMS 4546A x DSF-2 and four restorer lines, two of which were branching type (RHA-274 and RLC-2) and other two were non-branching (VI-78 NB and X-13 NB). The total pollen production per plant was highest in branching restorer, RHA-274 (0.941 g) spread over 16 days, whereas it was least in the non-branching restorer VI-78 NB (0.387 g), which was spread over 10 days. Hence non-branching restorer needs to be properly staggered with the female line for proper synchronisation. Significantly highest seed yield per plant (24.11 g) was recorded in the cross, CMS 234A x RHA-274, which was on par with the cross (CMS 4546A x DSF-2) x X-13 NB (23.33 g/plant). The crosses involving branching and non-branching restorers were on par with respect to number of seeds per head and 100 seed weight. The branching restorer RHA-274 and non-branching restorer VI-78 NB crossed to CMS 234A produced superior hybrids and were on par with respect to the germination percentage, seedling vigour index and oil content.

Effect of Different Seed Extraction and Drying Methods on Seed Quality of Brinjal (*Solanum melongena* L.)

M. GIDDA NAIK 1997 MAJOR ADVISOR : S. D. SHASHIDHARA

The present investigation was conducted at the College of Agriculture, Department of Seed Science and Technology, Univeristy of Agricultural Sciences, Dharwad, during 1995-96 to study the effect of different extraction and drying methods on quality of brinjal seeds. The variety selected was composite-2. Extraction methods were fermentation, acid (HCl and H_2SO_4), alkali (NaOH and $NaHCO_3$) and manual extraction (control) and drying methods consisted of sun drying, shade drying, drying at 35°C air temperature, dehumidified air drying and dehumidified air drying with cooling the air.

Out of the extraction methods, acid extracted seeds required less time (25 hours) and less number of washing (5) with highest seed recovery (14.45 g/kg of fruit). Highest time required was in fermentation (78 hours) of extraction, while manual extraction recorded lowest seed recovery (13.00 g/kg

of fruit) and $NaHCO_3$ method was the costliest (Rs. 540.000 qtl of fruit). Extraction of seeds by using H_2SO_4 and HCL recorded highest germination of 88.86 and 87.38 per cent, field emergence of 82.54 and 80.86 oercent and germination rate index of 26.00 and 25.88, respectively. NaOH extracted seeds were on par with acid extracted seeds. The lowest seed quality parameters were observed in $NaHCO_3$ extracted seeds.

Sun drying, shade drying, drying at 35°C air temperature, dehumidified air drying and dehumidified air drying with cooling air took 18, 96, 11, 6 and 9 hours total drying time, respectively to reach the seed moisture content of 8-9 percent. Seeds dried at 35°C recorded highest germination (88.21%) and field emergence (82.45%) with other seed quality parameters. The lowest seed quality parameters were observed in shade drying.

The interaction effect between extraction and drying methods, in most of the seed quality parameters were found to be non-significant. Best seed quality coukd be obtained by acid extraction followed by drying at 35°C air temperature.

Effect of Growth Regulators and Chemicals on Seed Quality, Growth and Seed Yield on Upland Rice (*Oryza sativa* L.)

G. B. P. REVANASIDDAPPA 1997 MAJOR ADVISOR : P. N. UMAPATHY

A study was conducted on upland rice Cv. Amruth at Agricultural Research Station, Mugad, during Kharif 1995 involving *pre*-sowing treatment of seeds with GA_3 (50, 100 and 150 ppm), Cytokinin (10 and 25 ppm), Ethrel (50 ppm), KNO_3 (1%), $CaCl_2$ (2%) for 12 h ; and foliar application of GA_3 (100 ppm) at panicle initiation and salicylic acid (25 ppm) at tillering stage; mud coating, water soaking and a control.

The investigation revealed that, pre-soaking seed treatment either with cytokinin 25ppm or GA_3 150ppm or mud coating of paddy seeds resulted in significantly higher field emergence. Also, these treatments produced more number of productive tillers in that order.

However, higher number of grains were obtained in the treatments involving pre-sowing seed treatment with GA_3 150ppm or cytokinin 25ppm or foliar application of salicyclic acid 25ppm at tillering stage. Pre-sowing seed treatment with cytokinin acid 25ppm or GA_3 150 ppm produced significantly higher seed yield.

Thus, it was inferred that under adverse field conditions, pre-sowing seed treatment either with cytokinin 25ppm or GA_3 150ppm for 12th not only helps in better field emergence of upland rice in shallow soils, but also results in higher number of productive tillers and seed yield which was mainly attributable to the increased photosynthesis, complete ear exsertion and more number of fertile spikelets per ear.

Effect of Foliar Diseases and Harvest Dates on Growth, Seed Yield and Quality of Groundnut Genotypes

LAXMAN B. DANGI 1997 MAJOR ADVISOR : A. S. CHANNAVEERASWAMI

An attempt was made to study the "Effect of Foliar diseases and harvest dates on growth, seed yield and quality of groundnut genotypes". The experiment was laid out in split-split plot design with three replications during *Kharif* 1995-96 at Agricultural College Farm, Dharwad. The treatments comprised of disease protection (D_0-Unprotected against foliar diseases, D_1-Protected against foliar diseases) as main plots, three harvest dates (H_1-early harvest, H_2-Normal harvest, H_3-late harvest) as sub plots and three varieties (V_1-TMV-2, V_2-Dh-8, V_3-ICGV-86590) as sub sub-plots.

The results indicated that plants protected against foliar diseases recorded better field performance, 50% flowering, days to maturity, plant height, number of mature pods per plant, sound mature kernels, hundred seed weight, oil content, yield per ha., harvest loss, shelling percentage, while, significant reduction in growth parameters and yield components were noticed in disease unprotected treatment.

Higher germination, seedling length, seedling dry weight, seedling vigour index, dormancy period were recorded in disease protected treatments. While, Electrical Conductivity (EC) of seed leachate was lowest. Significant reduction in all these parameters were observed in disease unprotected treatments.

The significant differences of yield and yield components were noticed, over harvest dates and were found, highest in the normal harvest, It was followed by the late harvest for all yield components except pod yield, which recorded lowest values. The maximum germination percentage and vigour indices were also recorded in normal harvest and were followed by the late harvest. The significant reduction in all these parameters were observed in early harvest.

Among varieties Dh-8 being tolerant to foliar diseases showed better field performance, pod yield and yield components like shelling percentage, test weight, oil content and germination percentage was also found higher. Significant reduction in pod yield and yield components and germination were noticed in the variety TMV-2.

The interaction effects of disease protection, harvest dates and varieties were found significant for pod yield and yield components like number of mature pods, 100 seed weight, vigour indices and also for EC of seed leachate values. The Dh-8 variety with diseases protection recorded maximum values for most of yield components and seed quality parameters at normal harvest. Significant reduction in both yield and the quality parameters were recorded in TMV-2 grown without disease protection and was harvested late.

Performance of Improved Mulberry Varieties for Shoot Feeding in Transitional Tract of North Karnataka

K. S. BADIGER 1996 MAJOR ADVISOR : Dr. G. M. PATIL

Investigations on the performance of improved mulberry varieties for shoot feeding in transitional tract of north Karnataka were carried out at the sericulture unit, Department of Agril. Entomology, U.A.S., Dharwad during 1995-96. Bivoltine race NB_{18} was reared on commerical scale on S_{41}, S_{54} and M_5 mulberry varieties by both leaf and shoot feeding methods over three seasons.

Among the different mulberry varieties evaluated for shoot feeding, mulberry leaf yield was significantly high in S_{54} (9.68 t ha^{-1} $crop^{-1}$), which was at par with S_{41} (9.21 t ha^{-1} $crop^{-1}$) variety. The variety S_{41} showed more plant height, more number of erect branches, medium internodal length, medium leaf area with optimum leaf yield for shoot feeding as compared to S_{54} and M_5. Among the seasons, all the varieties performed better for cocoon cro performance duriing winter than summer and rainy seasons. Out of three mulberry varieties used for feeding, the S_{41} variety with shoot feeding from brushing to spinning proved significantly superior in reducing total larval duration by 12-36 h over leaf feeding with less disease incidence and reduced pupal duration with better economic traits like highest cocoon weight, shell weight, ERR, cocoon yield, silk parameters, moth emergence, fecundity and hatching percentage.

Among the different methods of applying mulberry leaves of promising S_{41} variety, the shoot feeding from brushing to maturity was significant superior followed by chopped leaves upto chawki rearing, and later shoot feeding with tender flush resulted in reduced larval and pupal duration, better growth and development of silkworm with less disease incidence with increased cocoon yield (0.25 kg per 3 DFL's over leaf feeding) and better economic parameters.

Overall, the S_{41} variety with shoot feeding from brushing to maturity during winter season showed better performance over other varieties to obtain better cocoon yield with high quality silk and egg production.

Large Scale Evaluation of Insect Growth Regular Activity of *Lantana camara* L. and *Clerodendron inermae* G. on *Bombyx mori* L.

G.H. SANTOSHKUMAR 1997 MAJOR ADVISOR : Dr. R. R. PATIL

Investigations were made on dusting *Lantana camara* L. and *Clerodendron inermae* G. (@ 5g/sq. ft. bed area) on two days old fifth instar larvae through commerical rearing with respect to silk and egg yield, food consumption, racial response and effect on protein content of silk gland and cocoon at Department of Sreiculture, UAS, Dharwad during 1995-96. The botanicals were tested on Pure Mysore(PM), NB_{18} and PM x NB_{18} breeds during Winter (Dec-Jan), Summer (May-June) and Rainy (Sept-Oct) seasons. The experiment was laid out in completely randomized block design with four treatments (L. *camara* (5%), C. *inermae* (5%), Lime powder and control) and five replications. Lime powder was considered as control for the comparison of treatment effect of L. *camara* and C. *inermae* throughout the experiment.

Irrespective of the breed tested, the larvae dusted with L. camara produced highest larval, silk gland, cocoon, shell, pupal weight, shell percentage, silk filament length and weight followed by C. *inermae* as compared to lime powder control during all the three seasons. Dusting of larvae with L. *camara* resulted in highest cocoon yield of 23.38, 42.43 and 42.74 kg/100 dfl's followed by C. *inermae* (21.30, 40.03 and 40.72 kg/100 dfl's) as compared to lime powder (28.08, 38.21 and 36.21 kg/100 dfl's) in PM, NB_{18} and PM x NB_{18} breeds respectively during Sept-Oct rearing. Highest fecundity (number and weight) and lowest denier was recorded in the larvae dusted with L. *camara* followed by C. *inermae* as compared to lime powder control.

Of all the breeds tested, PM was most responsive to plant products as compared to PM x NB_{18} and NB_{18} breed irrespective of seasons. The higher cocoon yield produced to higher food consumption and utilization resulted in increased fibroin content in silk gland and cocoon, was recorded in the larvae treated with L. camara followed by C. *inermae* as compared to lime powder control. The additional expenditure due to application of plant products and lime powder was Rs. 31.00 and 15.00 per 100 dfl's. Net profit earned was Rs. 550.00 and 350.00 in PM x NB_{18}, Rs. 447 and 264 in PM and Rs. 350.00 and 202.00 in NB_{18} breeds due to L. *camara* and C. *inermae* application, respectively.

FAMILY RESOURCES MANAGEMENT

An Analytical Study on Dish Washing Activity by the Housewives

NUTAN R. BIRADAR 1996 MAJOR ADVISOR : Dr. P. SUMANGALA

The present study was carried out during the period of 1995-96 both in the laboratory and residential areas of Dharwad city of Northen Karnataka. The purpose was to recoginse the postural practices adopted and existing condition of dish washing area in the households, to know the perceived pain and discomfort, to measure the angles of body bend and energy requirement at standing posture. Purposive sampling technique was adopted to select 90 full time homemakers for household survey and 10 postgraduate students for laboratory study.

The results revealed that, majority of the housewives belonged to small size and nuclear family. Their age ranged between 26 to 43 years, height 148 to 159 cms, elbow height 95 to 100 cms and girth measurement 12 to 95 cms. Average age of the postgraduate students was 22 years, height 156.4 cms, elbow height 97 cms and weight 46 kgs. Majority of the housewives adopted standing posture and cleaned the utensils after each meal, followed rinsing before scrubbing, keeping the cleaned vessels for draining water. During the average time of 25 minutes, the postural change in forward bending of the neck, back and extension of arms in standing and sitting posture were observed. Perceived pain and discomfort was more in the back during the end of the work in both the above mentioned postures. But the percentage was more for sitting.

Association between posture, age, elbow, height and girth measurement revealed a significant association with pain and discomfort. Association between sink height and depth with pain and discomfort at the end of the work was found significant. Fifteen centimeter height from top surface of the sink and length of the tap from wall was found suitable and sink at 10 cms less than elbow height was found to be favourable.

CLOTHING AND TEXTILES

Socio-Economic Status of Handloom Weavers and Impact of Weaving on Their Livelihood

A. MAMATHA 1997 MAJOR ADVISOR : Dr. SHAILAJA D. NAIK

The present study was conducted in Andhra Pradesh during 1995 with the objectives to know the socio-economic conditions of the handloom weavers working independently, working under master weavers and in co-operative societies, their employment pattern and indebtedness and the problems faced by them. The sample comprised 200 weaver households selected randomly from four villages of Prakasam district namely, Chirala, Epurupalem, Jandrapeta and Vetapalem. The respondents were interviewed personally. The results revealed that about three-fourth of the weavers were working under master weavers, 18.5 per cent in co-operative societies and only 10.5 per cent of them were independent weavers. Majority of the weavers belonged to middle adulthood, nuclear type family and middle income group. More than fifty per cent of the weavers were illiterates and had medium family size. It was observed that there was no significant difference in the socio-economic conditions of the weavers according to age, education, size, type and for master weavers were paid wages per piece whereas in co-operative societies the payment was monthly. The total output determined the wages of the independent weavers. About three-fourth of the weavers were found to be indebted. All the weavers workiing for master weavers and in co-operative societies marketed the goods to their respective owners whereas three-fourth of the independent weavers to master weavers. It was observed that the income significantly influenced the problem faced by the weavers.

Preference for Decoratives by College Going Girls on their Apparel

LEENA A. PATIL 1997 MAJOR ADVISOR : Dr. SHAILAJA D.N.

Dress making can be one of the most rewarding forms of handicrafts. Almost anyone can sew pieces of fabric together to make a dess, however it needs good deal of skill, imagination and application to give this basic dress a perfect finish, the finishing touch by way of trimmings can change a simple silhoutte into a distinctive one. The present study on preference for decoratives by college going girls on their apparels, was carried out in Belgaum and Dharwad cities during 1996. The informative data was collected by interviewing hundred and sixty college girls, thirty readymade shopkeepers were iinterviewed to know the awarness of the respondents about the decoratives, preference for flat and embossed decoratives and their care and maintenence. Results revealed that, salwarsuit was the most preferred garment by the respondents. The most commonly known decoratives were chainstitch, bead work, lacework, tie-dyes, buckles and belts. Preference for decoratives was more obvious among traditional college respondents than professional college. Flat decoratives were preferred most on the casual wears by the respondents mainly because of their simplicity, suitability, easy care and maintenence. On the contrary embossed decoratives were preferred for ceremonial and party wear because of their

gorgeons, rich and novelty appearance on the costume. The shopkeepers of the readymade garments opined that customers considered the decoratives sometime only while purchasing, and care instructions for these decorated attires were not provided by the garment manufacturers. Majority of the respondents preferred to dry clean their decorated garments. Some washed after every two wear, pressed from reverse side and hung in the wardrobe using napthaline balls as the moth and mildew repellents.

FOODS AND NUTRITION

Composition of Wheat from Different Locations of North Karnataka and Evaluation of Traditional Products

CHANDRAMATI J. ROKHADE 1996 MAJOR ADVISOR : Dr. MEERA RAO

Wheat variety DWR-162 grown in different locations i.e., Dharwad, Ugar and Arbhavi was analysed for its physical characteristics like size of the grain and thousand kernel weight, proximate principles, minerals, quality characteristics like gluten content and sedimentation value, milling characteristics and dough properities using standard methods. Traditional wheat products like Chapati, Vermicelli, Gulagi, Avare huvu and Savate beeja were perpared and evaluated for their acceptability. Vermicelli was evaluated for its water absorption and solids lost in cooking using standard methods.

The grains of Dharwad location were bold and had highest thousand kernel weight followed Ugar and Arabhavi locations. The variety grown in Arabhavi and Ugar had significantly higher protein, fat, crude fibre, calcuim and iron content compared to Dharwad location. The quality characteristics like wet gluten content, dry gluten content and sedimentation value differed significantly for the variety grown in different locations. Wide variation was observed in the milling characteristics like flour yield, fine semolina yield and coarse semolina yield for the variety grown in different locations. Per cent water absorption of the dough was significantly higher for the variety grown in Arabhavi compared to Dharwad location. Traditional products like Chapati, Vermicelli, Avare huvu and Savate beeja were highly acceptable for the variety grown in Arabhavi compared to other two locations. But Gulgai was highly acceptable for the variety grown in Ugar location. Water absorption of Vermicelli was higher for Ugar and Arabhavi locations compared to Dharwad location. Solid lost in cooking vermicelli was significantly high in the variety grown in Ugar compared to the other two locations. Hence, it was concluded that the variety grown in Arabhavi location was rich in nutrient composition and had highest acceptability for traditional products.

Standardization of Bio-Tea, A Fermented Beverage

VIJAYALAXMI KAMARADI 1997 MAJOR ADVISOR : Dr. RAMA K. NAIK

An investigation was undertaken with an objective of standardizing bio-tea in terms of type and concentration of inoculum, substrate, diluent, flavouring agent, incubation period and keeping quality. Characterization of mothet culture was carried out. A score card with five point scale based on relative grading was developed and provided to 12 trained panel members for organoleptic evaluation. The pH, turbidity, titrable acidity, alcohol and soluble sugars were analysed using standard procedures.

Five ml of fermented broth per 100 ml of tea decoction was adjudged as optimum level of inoculum. Honey

and cane sugar at 10 per cent level were adjudged as the best carbon sources for preparing bio-tea. Tea powder, lemon grass and orange rinds (at 1% level) were found to be highly acceptable flavouring agents for preparing bio-beverage.

Incubating tea decoction for six days at room temperature (25°C) resulted in the best quality followed by fifth, seventh and eighth day of incubation. Increase in incubation period beyond 10 days resulted in decreased acceptability of the beverage.

The standardized bio-tea having pleasant aromatic and mildly acidic flavour yielded the pellicle weight of 15g with pH, TA and alcohol content 3.29, 0.48 and 1.25 per cent, respectively. The total, reducing and non-reducing sugars were found to be 16.32, 6.98 and 9.34 mg per 100 ml, respectively. The moisture content of pellicle varied from 96 to 98 per cent. The micro organisms involved in bio-tea fermentation were confirmed to be yeasts and Acetobacter xylinum.

Under storage studies, pasteurized beverage stored at refrigeration temperature remained unaltered upto two months whereas, the pasteurized beverage stired at ambient temperature was found to be acceptable upto one month indicating the positive impact of pasteurization and refrigeration on bio-tea.

HUMAN DEVELOPMENT

Self-Concept, Study Involvement and Parental Encouragement Among High and Low Achievers

LATA L. PUJAR 1996 MAJOR ADVISOR : Dr. V. GAONKAR

A study on self-concept, study involvement and parental encouragement among high and low achievers was carried out in Dharwad city during 1995-96. One hundred and forty two high achievers (who scored 80 percentage of marks in the final examinations for the previous two years) and 142 low achievers (who scored 50 percentage and below in the final examinations for the previous two years), studying in eighth, ninth and tenth standards were selected from two reputed English medium high school's. Sinha's (1980) self-concept inventory and Indiresan's (1978) study involvement scale were used to assess the self-concept and study involvement of the respondents. To assess the parental encouragement, the scale developed by Shekhar (1980) was used. Correlation co-efficient and "Z" tested were used for analysing the data.

The result of the present investigation indicated that high achievers had better self-concept, study involvement and received more encouragement from their parents than low achievers. Low achieving boys had better self-concept than girls. Further, high achieving girls and low achieving boys received significantly more encouragement from their fathers. As age of the respondents advanced their self-concept and encouragement given by the parents also increased among both the groups. The type of family did not significantly influence any attributes of both high and low achievers. The study involvement among low achievers and parental encouragement among both the groups significantly improved with father's education. Father's occupational level significantly and positively correlated with parental encouragement among high achievers. The percapita income positively and significantly related with the study involvement of high achievers and with parental encouragement of both the groups. The self-concept, study involvement and the parental encouragement were positively and significantly were inter-related.

A Study of Issues Related to Women as Reported in Regional Newspapers

BHARATHI R. BANAKAR 1996 MAJOR ADVISOR : Dr. K. SAROJA

This study examined the coverage of women's issue for a period of four months in 1995 in four selected regional newspaper of Karnataka. All items pertaining to women were selected with the exception of women in politics, sports, films, crime and wives of important persons. Content analysis was used for analysis of categorized data.

Results revealed a disheartening picture of the meagre publication of only 1.6 items per day eventhough women constitute nearly half of the population. It was found that out of the total items on women's issues 88 per cent of items were reported from urban areas and only 12 per cent from rural areas of the reported items, majority were related to atrocities, developmental programmes and conferences. 32.78 percent to 53.16 per cent of women's issues found in seventh and later pages, whereas 10 percent was given the front page coverage. There were very few items with big captioins and newspapers carried few editorials and articles. These findings reveal the scant given to women's issues.

Though the items related to atrocities were found to be published with highest frequency there were very few detailed reports and follow-up reports. Although crimes against girls was increasing, the same were reported rarely. Of the atrocities, murder, suicide, rape and dowry cases were frequently reported. Out of the 16 editorials six trivialized the women's issues. Newspapers carried the articles mainly on the developmental programmes of governmental and non-governmental organisations.

Measures suggested for improving the coverage of women's issue and its quality were that (i) there should be a regular women's page. (ii) it should be edited by person/s with women's perspective to create positive images of women. (iii) all newspaper should devote atleast a regular column to cover news items or issues related to rural women. (iv) newspapers should have a separate service which can feed in depth information related to women highlighting the human interest elements with the women's perspective.

Causes and Prevalence of Divorce in Dharwad District

MANAVVA S. BADIGER 1996 MAJOR ADVISOR : Dr. K. SAROJA

The present study aimed at examininig the causes and prevalence of divorce and socio-demographic profile of divorcees. It also aimed at understanding the process of divorce by conducting case studies. The sample of the study comprised of all the divorce cases (69 cases) decreed in the district civil court of Dharwad during 1986-90. The main source of the data was complete court records. 10 cases were selected from the main sample for the case study. Self structured case data sheet, pretested interview schedule and an interview guide were the tools used. Data were analysed in percentages and frequencies.

Results revealed an increase in divorce from 1986-90. Half of the court records did not contain information about age. However the rest of the court records revealed that majority of females were married below the legal age and 61 per cent of the females were housewives. Sixty per cent and 40 per cent of the female divorces were from urban and rural areas, respectively. A large majority of the sample belonged to nuclear family and were married traditionally (84.06%). Among the divorced couples (70%) were childless. A high per cent of divorcees had led married life only upto 5 years and cohabited for the same period. Almost all couples experienced separation ranging from one to five years prior to dirvorce. Almost all female divorcees with children had the child custody and stayed with parents sans siblings.

Majority of the petitioners were husbands. irritative nature of the spouse, communication gap due to separation and incompatibility were the complaints mentioned by wives in their petitions. The main legal grounds for granting decree were mutual consent, desertion and desertion with curelty. Only four females claimed and obatined maintenance. The case study data revealed that sexual incompatibility coupled with

cruelty and adultery were the main causes of marital conflict leading to divorce. One third of the divorce cases were exparte a cases in which exparte spouse was the wife. 54.4% of the exparte wives were from villages. In 59% of exparte cases the couples were childless.

Results imply the need to create legal awarness among women especially rural women. Findings regarding ecpart a divorce suggest the need to plug loopholes in serving the court notice/s especially to the illiterate rural wives and to make sure that they understand the full socio-legal implications of the divorce.

AGRIL. ECONOMICS

Production and Marketing of Sunflower in Northern Karnataka - An Economic Analysis

N .M. KERUR 1996 MAJOR ADVISOR : DR. BASAVARAJ BANAKAR

The sunflower is one of the most important oilseed crops which has recently occupied a larger area among oilseed crops in Northern Karnataka. In order to maintain the tempo of production of sunflower, it necessiated to study the economics of production and marketing of sunflower which was conducted in Bijapur and Raichur districts. The required data was collected from a total of 150 sample farmers growing sunflower who were selected at random. The samples were drawn from two villages from the selected market hinterlands of Bijapur, Talikot and Raichur market during 1995-96. Similarly, data was collected from market functionaries (90) from the selected markets. The data was analysed using tabular and various statistical techniques.

The results that the growth rates with respect to area and production of sunflower recorded was positive. While, the productivity was negative. The per ha cost of productioin of sunflower was Rs. 5627.88. The average yield obtained was 8.99 q/ha.

The three main channels identified in the sunflower marketing were;

Channel I : Producer - Seller -> Village merchant -> Commission agent -> wholesaler -> oil miller

Channel II : Producer - Seller -> Commission agent -> wholesaler -> oil miller

Channel III : Producer - Seller -> oil miller

The channel III was found to be more efficient from the point of view of better returns to the producer - seller. The total marketing cost incurred per qtl. by the producer-sellers were high, when the produce was sold through channel II. The total marketing margin was higher in channel I as compared to the other channels.

The seasonality in arrivals and prices were found to be high. The coefficients of variation of arrivals indicated that there was no integratioin over a period of time in all the markets and similar were the results found in prices. However, there is a positive spatial integration of markets between Bijapur and Raichur markets. The opinion survey indicated that farmers expressed non-availability of adequate credit, lack of quality seeds besides, fluctuation in the prices of sunflower.

Based on the findings of the study, it was concluded that the tempo of increased production of sunflower can be maintained by improving the management practices of sunflower production by making available the quality seeds and encouraging the co-operativisation of sales, storage and processing of the sunflower.