

FIRST ANNUAL REPORT

1995-96

CENTER OF ADVANCED STUDIES

**DEPARTMENT OF FOODS AND NUTRITION
POST GRADUATE AND RESEARCH CENTER
COLLEGE OF HOME SCIENCE
ANDHRA PRADESH AGRICULTURAL UNIVERSITY
RAJENDRANAGAR, HYDERABAD – 500030**

FIRST ANNUAL REPORT OF CENTRE OF ADVANCED STUDIES FOR
THE YEAR 1995-96

1. Project Title : Centre of Advanced Studies

2. Sanction No. : Proc. No. 37735/H.Sc/A1/94, dt.22-9-1995 of
APAU

3. Report..... Period.....

From 1995 to 1996 Report No.

4. Date of start : 2-11-1995

5. a) Name of Institute/: Andhra Pradesh Agricultural University

b) Station/Division/Department/Section : Post Graduate & Research
Centre, Department Of Foods & Nutrition, Rajendranagar, Hyderabad – 30.

6. a) Technical Programme as approved for the scheme

b) Technical programme approved for the year

c) Technical programme approved for the next year

7. Technical Personnel employed (list vacancy, if any)

Sanctioned Posts	Posts filled	Posts to be filled
1. Steno-cum-typist	JACT against the post of steno-cum-typist	-
2. AVA Operator	-	One
3. Attender	-	One
Name with Designation	Date of joining	Date of leaving
M. R. Vijaya Sarathi	6-12-95	-

8. Total Outlay : 41.25 lakhs

9. Total amount spent in Previous Year : 6,62,843=95(Appendix- II)

10. Total amount sanctioned/spent during the year under report

a) Sanctioned : 14,59.120=00

b) Spent : 6,62,843=95 (Expenditure statement enclosed - AppendixII)

11. Total No. of man-months during the year : 5 months (From Nov. 95 to March 96)

12. Summary : Report objective wise enclosed

SUMMARY REPORT OF WORKDONE (VIDE COLUMN NO. 12) UNDER

CENTRE OF ADVANCED STUDIES

II. OUTPUTS/PROGRAMMES IMPLEMENTED DURING THE CURRENT PLAN PERIOD

OBJECTIVE I

TO SERVE AS A NATIONAL RESOURCE AND TRAINING CENTRE FOR FACULTY IN THE FIELD OF FOODS & NUTRITION IN STATE AGRICULTURAL UNIVERSITIES.

OUTPUT

- a. Short course on 'Recent advances in Therapeutic Nutrition' was organised.
- b. A short course on 'Assessment of Nutritional Status' is scheduled from 8th – 28th July, 1996.
- a. Short course on 'Recent advances in Therapeutic Nutrition' (Program details in Appendix - III)

During the current year i.e. 1996 a short course entitled 'Recent advances in therapeutic nutrition' was organised from 1st February to 20th February, 1996 at P.G and Research Centre, APAU, Rajendranagar, Hyderabad. The duration of the course was 20 days.

Objectives of the short course

- To disseminate the knowledge on recent developments in nutritional management of different disorders to the staff of State Agricultural Universities.

- To equip the staff with the expertise to collect and analyse case histories of patients suffering with different disorders and plan appropriate diets.

Course coordinators Dr. V. Vimala and Dr. Uma Reddy and team of staff members from the department of foods & nutrition monitored the entire programme under the overall supervision of Dr. Vijaya Khader, Director, Centre of advanced Studies.

Keeping the objectives of short course in mind the course content was conceived and synthesized taking the latest developments into consideration. Each topic was given due weightage (programme given in appendix III). Under each topic apart from expert faculty members from the department of Foods & nutrition, few guest speakers were identified to deliver the lectures. Guest faculty included doctors with super specialization in different areas, eminent scientists, administrators from pharmaceutical companies etc.

Seven participants of the cadre of assistant professors and associate professors from Punjab agricultural University, Ludhiana, University of agricultural Sciences, Dharwad; Tamilnadu Agricultural University, Madhurai; Andhra Pradesh Agricultural University, Hyderabad; Osmania university, Hyderabad have attended the programme.

EVALUATION OF THE COURSE BY PARTICIPANTS

At the end of the course, a questionnaire was administered to the participants for evaluation purpose. Participant's remarks are listed below after compilation of questionnaires.

- The participants found the course to be very useful
- Each topic is given due weightage and it is fully covered.
- Treatment of the topic by the speakers was also found to be good.
- There was a suggestion that the following topics should be included in the course.
- In born errors of metabolism.
- Fevers.
- Malnutrition and management.
- Diet in AIDS.
- Burns and trauma.
- Management of dietary department.

- There was also a suggestion to delete topics like radiological examination.
- The trainer and trainee interaction and relationship was excellent.
- There was sufficient opportunity for discussions.
- There teachers were also to grasp some useful tips during the traoining for better management of the course for their students.
- Duration of such training programmes should be 15days.
- A brief sum up by the coordinator at the end of the course would have been very appropriate.
- More books and video cassettes on dietary management should have been provided.
- There should have been more exposure to computer applications.

High ratings were given for the overall assessment of the course by the participants. According to them the planning and organization of the course was excellent and the course was very useful. The printing of resource material of the short course is in progress.

b. Short course scheduled from *th to 28th July, 1996

In continuation of the Ist short course it has been planned to conduct next short course on Assessment of Nutritional status from 8th to 27th July, 1996.

Assessment of nutritional status is an important aspect in the field of nutrition covered both in B.Sc & M.Sc (H.Sc) Curriculum by all Universities in India. For the teachers engaged in teaching and research it is necessary to keep abreast of the advances in nutritional assessment techniques. Hence it is proposed to organise an advanced course an advanced course on ‘Assessment of nutritional statuses from 8th to 27th July, 1996.

OBJECTIVE II

TO UPDATE THE CURRICULUM AND COURSES OF FOODS & NUTRITION AND STRENGTHEN TEACHING AND EVALUATION AT UG AND PG LEVEL.

OUTPUT

- a. Revision of courses for 4 year degree programme
- b. Revision of courses for P.G Programme

c. Development of laboratory manuals

a. Revision of course for 4year degree programme Home Science in Agricultural Universities is an applied area of study which caters to the needs of rural families. This demands resources and technologies on regular basis. To give an integrated training approach, based on the report of IIIrd Dean's Committee on agricultural education in India, a package on basic courses, combined with core course of Home Science have been introduced. Moreover for making the graduates self reliant, vocational courses have been added. For acquiring experiences of rural household resource and technology needs, Rural Home Work Experience (RHWE) programme has been introduced. The present Home Science curriculum would definitely overcome the previous limitations, strengthening the links with rural community.

b. Revision of courses for P.G Programme

The department completed 25 years since the M.Sc Programme was started and nearly 15 years since and nearly 15 years since Ph.d programme has been initiate Ph.d programme has been initiated. It is almost 10yearssinceis almost 10yearssince a comprehensive revision has been made in the P.G curriculum. Both M.Sc. and Ph.d students have been expressing the need for the greater choice and also advanced course of study. The subject matter of foods & nutrition has expanded very widely since the last decade covering a broad spectrum of areas. The present P.G. programme is felt to be inadequate to meet the academic and requirement. To make the curriculum mare suitable for wider unemployment opportunities existing P.G curriculum has been thoroughly revised and new course have been submitted to VII meeting of the Board of Faculty for P.G Studies for approval.

LIST OF COURSES PROPOSED

Course No.	Title of the Course	Credit hours
FN 690	Food Chemistry	3(2+1)
FN 691	Intermediary metabolism	3(2+1)
FN 692	Macro and Micro nutrients in Human Nutrition	3(2+1)
FN 693	Chemicals and functional properties of foods	3(2+1)

FN 694	Post harvest handling and storage of grains	3(2+1)
FN 695	Nutritional toxicology	2(1+1)
FN 696	Ecology of Food and Nutrition	2(2+0)
FN 697	Maternal and child nutrition	3(2+1)
FN 698	Processing and preservation of perishable foods	3(2+1)
FN 699	Food quality and safety	2(1+1)
FN 790	Food product development and evaluation	2(1+1)
FN 791	Community Nutrition and Health interventions	3(2+1)
FN 792	Nutritional assessment	3(2+1)
FN 793	Nutrition Communication and Education	3(1+2)
FN 794	Community Health Services	2(1+1)
FN 795	Nutrition and disease	2(2+0)
FN 796	Advances in diet therapy	3(2+1)
FN 797	Institutional food service Management	2(1+1)
FN 798	Nutrition and diet Counselling	2(1+1)
FN 799	Internship in dietetics	9(0+9)
FN 890	Food and nutrition programme planning and management	3(1+2)
FN 891	Food carbohydrates	3(2+1)
FN 892	Food lipids	3(2+1)
FN 893	Food proteins	3(2+1)
FN 894	Nutrition and Agriculture development	3(2+1)
FN 895	Training and development of human resources	2(1+1)
FN 896	Field experience in community problem solving	3(1+2)
FN 897	Exercise, sports & Nutrition	2(1+1)
FN 898	Geriatric nutrition and diet	2(1+1)
FN 899	Clinical Nutrition	2(1+1)
FN 990	Nutrition and epidemiology	2(1+1)
FN 991	Field Research Methods	3(1+2)
FN 992	Metabolic studies	3(1+2)
FN 993	Laboratory methods in Nutrition Research	3(1+2)
FN 994	Minerals	2(1+1)
FN 995	Vitamins	2(1+1)
FN 996	Dietetics Research	3(1+2)
FN 997	Advances in Nutritional Biochemistry	3(2+1)

FN 998	Clinical and Biochemical Assessment	4(2+2)
FN 710	M.Sc Seminar	1(1+0)
FN 810	Ph.D Seminar	
FN 720	M.Sc Special Project	3(0+3)
FN 820	Ph.D Special Project	3(0+3)
FN 730	M.Sc Research	20
FN 830	Ph.D Research	45

- c. Development of Laboratory manuals
 Laboratory manuals are being developed
 U.G. Level
 Fruit and vegetable preservation
 P.G. Level
 Advances in diet therapy
 Advanced Nutrition
 Food Science

OBJECTIVE III

TO SUPPORT THE GOVERNMENT IN TRAINING PERSONNEL AND IN IMPLEMENTING & EVALUATION OF NUTRITION PROGRAMME.

OUTPUT

The following activities were undertaken under the objective.

- a. Meeting with directors/commissioners of different Departments to formulate different action oriented activities.
 - b. Group meeting in post harvest technology with the departments.
 - c. Zonal research and extension advisory committee meetings.
- a. Meetings were held with directors/commissioners of different line departments like the departments of rural development, Panchayat raj, backward classes, Schedule castes, Social welfare, Tribal Welfare and Women Welfare and Child development. The following action oriented activities have been suggested.
- Starting of production cum training centre for training rural women entrepreneurs sponsored by the above departments in Bakery & Confectionery and fruit and Vegetable Preservation.
 - Action oriented research activities for monitoring and strengthening of ICDS programme.

Setting up of production cum training centre is in progress.

Under action oriented research, one ICAR Adhoc scheme titled strengthening the developmental aspects of children in deprived communities through ICDS was initiated in 25 ICDS centres of Shadnagar Mandal. In all the selected centres the following intervention programmes were initiated.

1. Imparting nutrition and health education to women aged 15-45 yrs using appropriate audio visual aids.
 2. Stimulation of children both at home level as well as at Anganwadi centre using appropriate child development kits, suitable for their age to improve their cognitive development of preschool children will be assessed after implementing the same for a period of one year.
- b. Group meeting on Post Harvest Technology was held on 15-11-95 with Vice Chancellor, APAU, Directors of Horticulture, Fisheries, Agro Industries, Dairy and Khadi and Village Industries. Status report was presented by Dr. Vijaya Khader on work done in department of Foods & Nutrition. The paper highlighted the following activities.
- A project on quantitative and qualitative changes in some selected dry land crops grown in different agro-climatic regions of Andhra Pradesh helped in establishing data base for the different aspects of Post Harvest System of Cereals, millets, legumes and oil seeds.
 - In another project the importance of groundnuts as a supplement in feeding programmes was brought out.
 - A mechanical dehulling technology has been developed for millets and legumes, to remove the drudgery of rural women in primary processing of grains.
 - Processing techniques for unconventional grain like Amaranth (*amaranthus esculatus*) have been standardised and products to promote its utilization were developed.
 - Infant food formulations have been developed using sorghum, pearl millet, chickpea and soybean.
 - Oyster mushroom cultivation has been taken up as an income generating activity for rural women and a variety of products have been developed.
- c. Zonal Research Extension Advisors Meeting with farmers state Departments and Scientists:

South Telangana Zone meeting held on 11 & 12 April, 1996.

South Zone meeting Cuddapah held on 15th & 16th April, 1996.

The following recommendations were brought out.

- Training programme for the women on different income generating activities to be planned.
- Introducing farm crèche (day care centre) for the children of farm women working in research stations to facilitate breast feeding and to foster psychosocio development of their children in the age group of 6 months to 3years.
- Transfer of technology for better utilization of farm produce such as banana, lime, tomato etc.

OBJECTIVE IV

TO DISSEMINATE NUTRITION INFORMATION TO THE PERSONNEL OF DIFFERENT SECTORS.

OUTPUT

A. Bringing out quarterly issue of Food and Nutrition News for circulation.

B. Nutrition Communication through Mass media (T.V, Radio, Exhibition, Print material etc).

A. BRINGING OUT QUARTERLY ISSUE OF FOOD AND NUTRITION BULLETIN FOR CIRCULATION

Two quarterly issues of Food & nutrition news have been published in the month December, 1995 and April, 1996 (issues are enclosed). Third issue on Alternate uses of millets will be published in the month of August.

B. NUTRITION COMMUNICATION THROUGH MASS MEDIA (T.V, RADIO, EXHIBITION, PRINT MATERIAL ETC.)

The following activities were undertaken to disseminate nutrition knowledge to the general public.

EXHIBITIONS

- Diabetic diet exhibition
- World Food day Celebrations

- State level kisan mela

With a view to spread the diabetic knowledge to general public, “Diabetic Diet Exhibition” was organised on September 3, 1995 at Osmania Medical College, Koti, Hyderabad. Importance of fibre in the dietetic management of diabetes was stressed. Diabetic diets were displayed. A few pictures and posters specially designed for the patient education were displayed.

Exhibition on Food & Nutrition security was held on World food day on October 16, 1995 in Bakaram village, Moinabad Mandal nearby Hyderabad. The exhibition focused its attention on educating the farm women on improved grain storage structures and low cost food. Demonstrations were conducted with locally available foods. State Level Kisan Mela was held on November 23rd & 24th 1995.

RADIO TALKS

Thirteen radio talks on different areas of nutrition were given by staff of department of foods and nutrition in All India Radio, Hyderabad during 1995-96.

Table I Radio talks undertaken by staff of Department of Foods & Nutrition.

Sl.no	Year/Date	Title of the topic
1	20-4-1995	Aaharamlo pandla pradhanyatha
2	20-5-1995	Takkuva vadakamulo unna padluposhaka viluvalu
3	17-6-1995	Mana aaharamlo sakhaharam yokka visistatha
4	16-7-1995	Molakethina pappula poshaka viluvalu
5	16-12-1995	Puliya Bettina aahara padarthamulu-poshaka viluvalu
6	15-11-1995	Red palm oil pramukyatha
7	27-11-1995	Pandlanu niluva chese paddatulu
8	13-7-1995	Dietary care during pregnancy
9	25-11-1995	Fads and fallacies on foods
10	10-2-1996	Aahara lopam valla vatche vyadhulu vati nivarana
11	28-4-1996	Preservation of fruits and vegetables in summer
12	15-5-1996	Ekkuvaga masala dinusulu vadithe?
13	22-5-1996	Ekkuvaga vantalalo noone vadithe?

POPULAR ARTICLES

Eight articles on nutrition were written in various local magazines, weeklies and news papers to benefit the farming community and rural population.

Sl.no	Year	Topic	Magazine/ Newspaper
1	Nov 1995	Jonnala pai pottu tese audhinika paddati	Annadatha
2	Dec 1995	Jonnalatho bakery oka vinuthna prayogam	Annadatha
3	Oct 1995	Aaharamloni poshakala samrakshna	Annadatha
4	April 1996	Jonnalatho swayam upadhi pathakalu	Annadatha
5	Dec 1996	Soya chikkudu ginjala poshaka viluvalu penchuta	State level kisan mela: special issue
6	2-12-95	Koddipati jagrathalu patiste madhumeha vyadhi samasya kadu	Eenadu (news paper)
7	Nov 1995	Are you a vegetarian?	Deccan chronicle (daily news paper)
8	Dec 1995	Papaya is having medicinal value	Eenadu

PRINT MATERIALS IN TELUGU

One manual on vitamin A, one folder on tomato preserves and 4 brochures on nutrition have been printed, namely:

- A. Samatula Aaharam
- B. Arogyam – Aaharam
- C. Dhanyamu, kooragayalu, pandlu niluvacheyu paddatulu
- D. Thakkuva kharchuto yekkuva poshakalu kaligina konni vantakalu

Four nutrition games have been developed for the benefit of the Ashram school children and they are ready for printing.

T.V.PROGRAMME TELECASTED:

T.V. programme on “Balanced diets for the elderly in Telugu (vruddula samatula aaharam) by Dr. Vijaya Khader and Mrs. N. Lakshmi Devi telecasted in Doordarshan, Hyderabad on 22-6-1995.

Nutritional needs of the elderly is a neglected subject while a great deal of emphasis is focussed on the infant, children and pregnant women.

Senior citizens who have given their best years for the society have received always raw deal at the hands of the planners and admintrators.

To fill this lacunae and to repay in a small way our debt to the elderly a television programme was planned with the courtesy of Hyderabad doordarshan. A visual programme in Telugu titled “vruddulaku samathula aaharam” (balanced diets for the elderly) lasting for 30 minutes was telecasted on 22-6-95 from Hyderabad Doordarshan at 12 at noon and the same was again telecasted in satellite T.V at 1.pm on 27-6-95.

The programme consisted of detailed visual presentation of various aspects of elder’s dietary and nutritional requirements, reasons for malnutrition in old age and actual amounts of foods taken per day and one days menu for the elderly was displayed and detailed the scientific explanation in Telugu.

Apart from the above programme, scripts were submitted to Educational Media Research Centre (EMRC) on the following aspects for shooting and nationwide telecasting under U.G.C programmes.

- Alternative uses of sorghum
- Red palm oil and its place in nutrition
- Nutritional problems and programmes
- Nutritional significance and utilization of papaya (carica papaya L.)

TRAINING PROGRAMMES

Training programmes to school Teachers:

Two days training programme on Nutrition Education was organised on 8th & 9th April, 1996 for school teachers. Thirteen school teachers from Rajendranagar have attended the training programme.

The topics covered under the training are magnitude of malnutrition in India in comparison to other developing countries, foods and nutrients their functions, sources and deficiencies; Nutritional problems & strategies to combat malnutrition, control of various infectious diseases and child survival strategies.

DIET AND NUTRITION COUNSELLING

Diet and Nutrition Counselling centre is run by department of foods & nutrition regularly between 9.30 AM to 11.30 AM and 3.30 to 5.00 PM on all working days free of cost for the benefit of the public.