

# CENTRE OF ADVANCED STUDIES

**FOURTH ANNUAL REPORT**

**(1998-1999)**

*Dr. (Mrs.) Vijaya Khader*

DIRECTOR

DEPARTMENT OF FOODS & NUTRITION

POST GRADUATE & RESEARCH CENTRE

ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY

RAJENDRANAGAR: HYDERABAD – 500 030

The course was successfully completed and the valedictory function was organized with the Vice – Chancellor of Acharya N.G. Ranga Agricultural University, Dr. I.V. Subba Rao as President and Dr. S.L.Mehta, D.D.G (Edn.), I.C.A.R., New Delhi as the Chief Guest. Certificates and course manuals were presented to the participants.

A short course on “Recent Advances in Nutrition for Vulnerable Groups” will be conducted during the month of May, 1999.

Objective II:

To update the curriculum and courses of Foods & Nutrition to strengthen teaching and evaluation at UG and PG level.

Four year degree programme at UG level has been formulated and finalized for implementation during the academic year 1999 – 2000.

Two specific areas of nutrition i.e., Nutrition and Dietetics and Community Nutrition which were approved in the Academic Council of the University during 1996 have been implemented for M.Sc. (Foods & Nutrition) programme from the academic year 1997 – 98 onwards.

#### ALLOCATION OF SEATS UNDER P.G.PROGRAMME

M.Sc.

Over and above the sanctioned strength of 14 M.Sc students four more candidates who have been nominated by ICAR are admitted under Centre of Advanced Studies (one from Assam, one from Kanpur, however, two have discontinued due to personal reasons).

Ph.D.

Ms.Mary Walingo an in-service candidate from Kenya who had been nominated by ICAR and admitted in Ph.D. during the year 1995 – 96, has completed her research on “Impact on dairy programme on nutritional status of vulnerable groups in Kenya”, at Kenya. She also submitted her thesis during year 1997. She is the first international candidate to be admitted into the Ph.D. programme of the department and also permitted to work at Kenya.

#### DEVELOPMENT OF TEXT BOOKS

Two university level text books entitled “Food storage and preservation” and Food Science and Technology” which were submitted by Dr, Vijaya Khader, Director, Centre of Advanced Studies to the University Grants Commission and Indian Council of Agricultural Research, have been accepted for publication and is now in print.

Two chapters on “Food facts and fallacies” and “Nutrition in Emergency” have been contributed by Dr. Vijaya Khader for the text book on “Community Nutrition” being published by the ICAR.

### **Objective III:**

#### **To support the government in training personnel.**

World bank aided operational research project in ICDS Centre of Srikakulam district which had been initiated by the department of Foods & Nutrition in the year 1996, has been completed. The main aim of the project was to test the effect of therapeutic food supplementation on the growth and morbidity status of pre-school children of ICDS project run by the department of Women Development & Child Welfare, Govt. OF A.P.

Dr.(Mrs). Sarojini, Scientist I, All India Coordinated Research Project in Foods & Nutrition has been appointed as the Project Co-ordinator, AICRP – Home Science unit at post Graduate & Research Centre, Rajendranagar, Hyderabad.

Dr. (Mrs). S. Sumathi, Associate Professor, has been appointed as co-ordinator for the ICDS sponsored Middle level training centre located at the College of Home Science, A.N.G.R.A.U.

An exhibition is being conducted for farmer’s training called “Rythu Utsavam” by ANGRAU and State Agricultural Department from 18<sup>th</sup> to 22<sup>nd</sup> March, 1999. The staff of the department are participating in two stalls on post harvest technology and consumer education.

### **Objective IV:**

To disseminate nutrition information to personnel of different sectors.

#### **Action Plan**

To bring out quarterly issue of Foods & Nutrition bulletin for circulation among the live departments and the organization involved in nutritional related programmes.

#### **QUARTERLY ISSUE OF FOODS & NUTRITION BULLETIN**

Three quarterly issues of Food & Nutrition News”, were brought out for circulation among the line departments and the organization involved in nutritional related programmes to disseminate nutrition information to personnel of different sectors.

**List of “Food & Nutrition News” quarterly issues.**

| Sl.No. | Title  | Month    | Year | Volume | Number | Issue<br>Editor |
|--------|--|----------|------|--------|--------|-----------------|
| 1.     | Mushrooms – for many uses  | April    | 1998 | 3      | 1      | Dr. V.Khader    |
| 2.     | Nutrient Composition, Processing<br>& Potential uses of papaya<br>( <i>carica papaya</i> ) | August   | 1998 | 3      | 2      | Dr. K. Aruna    |
| 3.     | Zinc in human Nutrition<br>& Health  | December | 1998 | 3      | 3      | Dr. S.Sumathi   |

Faculty improvement in terms of teaching, research and extension

- Five independent adhoc research projects on various aspects are on-going in the department.
- All India Coordinated Research Project in the Department of Foods & Nutrition is on-going from the inception of the project.
- Two inservice students candidate and another two regular students have obtained Ph.D degree during 1998.

**ON GOING RESEARCH PROJECTS**

| TITLE  | AGENCY  |
|--|---------|
| All india Co – ordinated Research Project  | I.C.A.R |
| Screening of forest foods consumed by tribals for $\beta$ -carotene content                | I.C.A.R |
| Effect of processing on Aflatoxin reduction in food products based on food grains          | I.C.A.R |
| Home based low cost energy protein rich preparations using Horsegram for vulnerable groups | I.C.A.R |
| Effect of feeding grain Amaranth and Red plam oil to hens on cholesterol level of eggs     | I.C.A.R |

## **SEMINARS / SYMPOSIUM / WORKSHOPS**

All the staff of the Centre of Advanced Studies have undergone computer training in MS-OFFICE under the Agricultural Human Resource Development (AHRD) programme at CMC, Hyderabad.

The staff have also undergone training in educational technology and pedagogy at NAARM and Extension Education Institute, Hyderabad respectively. Some staff of the department have attended Annual meeting (IFCON) of the Association of Food Scientists and Technologists at Mysore. Dr. (Mrs). N. Lakshmi Devi, Assistant Professor won the best poster award for her paper on “Geriatric foods”.

(Mrs) R . Manorama, Assistant Professor, had been invited to present two papers on Effect of supplementation on serum lipids and anti-oxidants of healthy human subjects and iron status of anaemic

Apart from this several nutritionists and dietitians participated in several award sessions and won awards. Kellogg has sponsored an oration on food fortification to combat nutritional anaemia and recipient of the maiden oration award in the form of gold medal is Dr. B.S. Narasinga Rao, Ex-Director of N.I.N. the presentation of the award to Dr. Rao by Ms.Mallika Janaki Raman, Nutrition Manager, Kellogg India Ltd., marked the launch of a public service initiative on iron deficiency anaemia by the IDA and the firm.

Ms. Maxine Burch, Dietitian from U.S.A was the chief guest of the valedictory function. Dr. Molly Joshi, President of I.D.A. National level presided over the function.

Dr. Vijaya Khader was awarded the **Registered dietician certificate** which will help the students in their academic programmes.

The conference deliberations are a feast of scientific content and knowledge and participating delegates have fully benefited from the proceedings.

## **POPULAR ARTICLES**

About ‘10’ popular articles on nutritional significance of various food products and importance of various foods in human nutrition, fallacies with regard to papaya consumption, methods of preventing food losses, etc., have been published in news papers and magazines such as Swathi, Vartha, Annadata, Swarna Sugam., by the staff member of the centre.

## TV PROGRAMMES

T.V. programmes on “Mushroom cultivation and spawn preparation” by the Director, CAS was telecasted in “Annadata” a distant education program of Doordarshan, Hyderabad, on 3<sup>rd</sup> November, 1998, 10<sup>th</sup> November, 1998 and 12<sup>th</sup> January, 1999.

## RADIO TALKS

One radio talk on “*Annadataga Mahila*” was also broadcasted on 16<sup>th</sup> October, 1998 (World Food Day), as a special event. Radio talks on various aspects of Nutrition including deficiency diseases and their cure, Nutrient composition of food stuffs, reducing processing losses, etc were delivered by the staff.

## SCIENTIFIC PAPERS

Fifteen papers have published by the staff of Department of Foods & Nutrition on various aspects such as Nutritional significance of Red Palm Oil, geriatric foods, product development, Nutritional anthropometry, diet and morbidity of tribal school children in Kurnool district of A.P., Development and storage stability of cereal based papaya products etc., which were published in various national and international journals such as, Indian Journal of Social work, Journal of Food Science and Technology, Plant foods for human nutrition, Asia Pacific Journal of Clinical Nutrition etc.

## AWARDS RECEIVED BY THE STAFF

Dr.(Mrs). Vijaya Khader, Director, centre of Advanced Studies received the **state best teacher award for the year 1998-99**.

Dr. V. Vimala, Associate Professor, received the **ICAR Outstanding Teacher Award for the biennium 1996-97** on July 16<sup>th</sup>, 1998 on the foundation day of the ICAR Society.

Dr. Latha Vijayan, Ph.D. student received **Young Scientist Award** at the Annual Meeting of the Nutrition Society of India during November, 1997.

Dr. (Mrs) N. Lakshmi Devi, Asst. Professor received Best Poster Award for her paper on “*Vitamin losses in geriatric food supplements sequel to processing*” in the areas of “*Health foods and nutraceuticals*” at the 4<sup>th</sup> International Food Convention (IFCON-98) held at CFTRI, Mysore from 23<sup>rd</sup> to 28<sup>th</sup> November, 1998.

## OTHER ACTIVITES

A project on “Formulation of Ready to Bake Cake Mixes and to study the acceptability and nutrient composition” was undertaken as a departmental research programme. Six formulations were developed using various flavors. The project is being continued for the formulation of doughnut mixes.

Dr.(Mrs) Vijaya Khader, Director, Centre of Advanced Studies, has been included in a committee constituted by the Andhra Pradesh Nutrition Council / A.P. Foods – Diversification of Foods for ICDS/Special nutrition programme – programmes in the State of Andhra Pradesh.

She has also been elected to the Executive Committee of the Nutrition Society of India for a period of two years, i.e., 1999 – 2001.

### **World Food Day Celebrations**

The Department of Foods & Nutrition, College of Home Science, Hyderabad has celebrated World Food Day on 16<sup>th</sup> October, 1998 at College of Home Science. An essay writing competition was conducted to the Home Science faculty students with the theme “Women feed the world” in English and Telugu. The programme started with prayer followed by welcome by Dr. (Mrs.) Vijaya Khader, Professor & Univ. Head and Director of Centre of Advanced Studies. She stressed the significance of celebrating world food day and highlighting the role of women in food production, food security and nutrition security of the family as well as nation.

Dr.(Mrs.) Vastla, Dean of Home Science, ANGRAU, was the chief guest of the day and addressed the staff and students. She enlightened the contribution of women in various agricultural activities starting from sowing to harvesting and post harvesting to feeding the family members. She also emphasized the role of women in dairy activities and the income generating activities. Utilization of women’s income for taking care of nutritional needs of the family was highlighted.

Other activities like publication of an article *entitled “Aahara utapatilo mahilala patra kilakum”* given by Dr. (Mrs.) Vijaya Khader in Eanadu Vasundhra, October 15<sup>th</sup>,1998.

A regional workshop on Indian traditional foods organized by CFTRI, Hyderabad and Ministry of Food Processing Industries, Government of India was held in Hyderabad. The Director, C.A.S. has chaired the session in the workshop.

### **VISITORS**

#### **Ethiopian Agricultural Delegation visits ANGRAU**

A four member delegation from Ethiopia consisting of Dr. Sey Fuketema, Director of General Ethiopian Agricultural Research Organisation (EAROI), Mr. Ato Astart Bulbula, Commission Science and Technology, Dr. Beyene Kebede, Agricultural Science and Technology Commission and Dr. Desta Hamito, President, Alemaya Agricultural University (AUA) visited ANGRAU, Hyderabad on 13<sup>th</sup> January, 1998 to explore the possibilities of developing a programme in cooperation with ICAR.

Prof.Dr. Mitsubishi Nakajima from the National Food Research Institute, Japan, delivered a lecture on Recent trends in food processing.

Dr.(Mrs.) Vijaya Khader has been nominated by the University for a short term study tour to visit two or three centres and 6-7 Universities for the year 1998-99.



# PROPOSALS FOR THE YEAR 1999-2000

## APPENDIX II

### WORKPLAN FOR CENTRE OF ADVANCED STUDIES FOR THE NEXT PLAN PERIOD FOR APPROVAL

Department of Foods & Nutrition  
Post Graduate & Research Centre  
Rajendranagar, Hyderabad – 500 030

#### I. OBJECTIVES

1. To serve as a national resource and training centre for faculty in the field of Foods & Nutrition.
2. To update the curriculum and courses of Foods & Nutrition to strengthen teaching and evaluation at UG and PG level.
3. To support the government in training personnel.
4. To disseminate nutrition information to personnel of different sectors.

#### II. OUTPUTS/PROGRAM TO BE IMPLEMENTED DURING THE CURRENT PLAN PERIOD

##### Objective 1

To serve as a national resource and training course for faculty in the field of Foods & Nutrition in State Agricultural Universities.

##### Action Plan

##### A. SHORT COURSES

Conducting three Short Courses in priority areas of Foods & Nutrition.

##### Priority areas identified for Summer Institute Programme/Short Courses

1. Nutrition for vulnerable groups
2. Recent developments in Mineral Nutrition
3. Programme planning and evaluation.

##### B. ALLOCATION OF SEATS UNDER PG PROGRAMME

Provision of seats in M.Sc and Ph.D in Foods & Nutrition to outside State candidates selected by ICAR through a common test would be decided (as a policy matter) under AHRD subject to the approval of State Government.

## **Objective 2**

To update the curriculum and courses of Foods & Nutrition and strengthen teaching and evaluation at UG and PG level.

### **Action plan**

- To implement the course curriculum for UG programme keeping in view the recommendation of Dean's Committee. (Workshop organized on 7<sup>th</sup>-12<sup>th</sup> June, 1993 at APAU, Hyderabad). IV year degree programme will be implemented.
- To organize one workshop for developing PG curriculum during III year of the programme.
- Preparation of one CD-ROM lesson and two video lessons.
- Practical Manuals preparation  
Intermediary metabolism, Maternal and standards and quality control

## **Objective 3**

To support the Government in training personnel and in implementing and evaluation of nutrition programmes.

### **Action plan**

- Assessing and developing the training needs of the line departments (Women's Development & Child Welfare; Panchayat Raj & Rural Development) through meetings and group discussions.
- Food & Nutrition information through mass media (TV, Radio and press).

## **Objective 4**

To disseminate nutrition information to personnel of different sectors.

### **Action plan**

- To bring out quarterly issue of Food & Nutrition Bulletin for circulation among the line departments and the organization involved in nutrition related programmes.

| <b><u>Title of the topic</u></b>       | <b><u>Month of issues</u></b> | <b><u>Issue Editor</u></b> |
|--|-------------------------------|----------------------------|
| 1) Soyabean processing                 | April, 1999                   | Dr. K.Krishna Kumari       |
| 2) Nutrition and respiratory Disorders | August, 1999                  | Dr. Anurag Chaturvedi      |
| 3) Food Security                       | December, 1999                | Dr. Uma Devi               |

- 4) Geriatric nutrition April, 2000 Dr. N. Lakshmi Devi
- 5) Determination of nutritional Status in pre-school children August, 2000 Dr. P. Yasoda Devi

### III. EXPECTED OUTCOME BY THE END OF THE PLAN PERIOD

1. Providing common resource material material for teaching and evaluation of food and nutrition programmes at UG and PG level.
2. Faculty improvement in terms of teaching, research and extension.
3. Strengthening Post Graduate Education and Research in Foods & Nutrition in other State Agricultural Universities.
4. Conducting need based multi-centric studies to provide feed back to the planners and policy makers.

### BUDGET PROPOSALS FOR 1999-2000

| SI.No | Particulars   | Amount (Rs.Ps.) |
|-------|---|-----------------|
| 1.    | Pay and allowances  | 3,00,000=00     |
| 2.    | T.A.  | 40,000=00       |
| 3.    | Training programmes   | 3,00,000=00     |
| 4.    | Contingencies   | 2,00,000=00     |
| 5.    | Maintenance & Repairs   | 1,00,000=00     |
| 6.    | Books and Journals  | 40,000=00       |
| 7.    | Miscellaneous Contingencies                                   | 1,00,000=00     |
| 8.    | Training of staff for Multi-Media CD-ROM Software development | 1,00,000=00     |
| 9.    | Motor vehicle (Jeep)<br>- Oils & Lubricants                   | 50,000=00       |

- Wages for casual driver 50,000=00
- Repair & replacement 50,000=00

NON- RECURRING CONTINGENCIES

|     |  |                     |
|-----|--|---------------------|
| 10. | <b>Upgradation</b> of existing Pentium computer 630 MB HDD, 66 MHZ speed, 16 MB RAM, 16 bit, <b>to Celeron processor, 4 GB HDD, 350 MHZ speed, 64 MB RAM, 32 bit, PCI-VGA card</b> | 30,000=00           |
| 11. | Computers (2 nos.) – State of the art  | 1,50,000=00         |
| 12. | HP Office Jetpro-1175C-Printer-cum-copier-cum-scanner  | 75,000=00           |
| 13. | CD-ROM writer  | 25,000=00           |
| 14. | Compact discs and preparation of CD lessons  | 3,00,000=00         |
| 15. | Video cassettes/Video lessons preparation  | 1,00,000=00         |
| 16. | Atomic Absorption Spectrophotometer  | 20,00,000=00        |
| 17. | Electronic weighing balance for weighing bulk Food items (10 kg)   | 1,00,000=00         |
| 18. | Ice cubing machine   | 50,000=00           |
| 19. | Walk in Cold room  | 5,00,000=00         |
|     | <b>GRAND TOTAL</b>   | <b>46,60,000=00</b> |

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