

## **PROCEEDINGS OF THE 44<sup>th</sup> RESEARCH COUNCIL MEETING HELD ON 17.02.2011**

The 44<sup>th</sup> meeting of the Research Council was held on 17.02.2011 in the Committee Room of the Vice-Chancellor. The list of the Research Council Members who attended the meeting is given in the Annexure.

Dr.P.Murugesu Boopathi, Vice-Chancellor, TNAU chaired and inaugurated the meeting and Dr.M.Paramathma, Director of Research, TNAU welcomed the members. Director of Research highlighted the important research achievements viz., new varieties, management technologies and farm implements developed since the inception of the University.

He also proposed for the confirmation of the proceedings of the 43<sup>rd</sup> Research Council Meeting and the house accepted it unanimously. This was followed by the presentation of the action taken report on the 43<sup>rd</sup> Research Council Meeting. In the presentation, development of maize hybrids for rainfed condition, fine grain rice variety for export, night soil composting, sub surface drip irrigation, micro sprinkler system, precision farming in transplanted red gram were highlighted.

The new research projects and new activities initiated during the year 2010-11, included characterization of induced materials for drought resistance in rice, Marker Aided Selection to introgress Bacterial Leaf Blight & Blast resistance into parental lines of released and pre release hybrids in rice, artificial screening of maize germplasm against downy mildew and turicum leaf blight, spatial management and plant ideotype for yield maximization in castor, utilization of organic wastes for production and formulation of entomopathogenic fungi for the management of white grub, release of papaya mealy bug parasitoids, resistance against pests and diseases in rice and vegetables through genetic engineering, nano fertilizer for balanced crop nutrition and mat based banana cultivation.

### **During the discussion the members offered their views for the future R&D of the University**

1. Th.N.Ponnuswamy, appreciated that subsurface drip fertigation is a very good technology and suggested that while evolving a new variety, farmers' choice and market preference may be considered, in the future. He wanted to know whether micro nutrients are available for foliar spray and disease forecast may be given to JDA's instead of Commissioner of Agriculture. He also wanted precision farming technologies in red gram. Moreover he wanted to know about soil scanning and Dr.Venkataramani Govindan, opined it as a viable technology.
2. Th.K.G.Anand Naik, suggested to work out the cost benefit ratio of subsurface drip irrigation. He was concerned with the encroachment of panchayat tanks by tree species like *Acacia nilotica*.
3. Dr.N. Kalaimani, told that corner tubes in drip irrigation have some problems, which needs further studies.
4. Dr.P. Durairasu, opined that the price forecast for forest products may be considered, in future.
5. Dr.M. Chinnadurai, wanted support price for perishables.

**Th.P.Palanivel, suggested the following through Power Point Presentation.**

1. Fertilizer recommendations for various crops based on new crop response researches both for macro and micro nutrients. **(Action: SO, NRM)**
2. In the context of adoption and usage of soluble fertilizers, fertigation and precision farming, research on the dosage of chelated fertilizers and micro nutrients for crops. **(Action: SO, NRM)**
3. Use of biofertilizers as alternate for potash and other micro nutrients **(Action: SO, NRM)**
4. Incorporation of organics like sea weed in soil may be explored. **(Action: SO, NRM)**
5. Bio-control agents with longer shelf life and easier application may be evolved. **(Action: Director, CPPS)**
6. Like fodder crops (Cumbu Napier grass), shorter life span and more number of ratoons in sugarcane may be tried. **(Action: Director, TRRI)**

**Th.Venkataramani Govindan**, has appreciated the research programmes carried out and novel initiatives for the last one year in TNAU and suggested the following points.

1. While preparing Vision 2030 special attention may be given. **(Action: DR)**
2. The Agri Portal should be more interactive and two way communicative and have more contents to the farmers. **(Action: DEE)**

**Dr.N.Kalaimani, suggested the following**

1. Vision 2030 of ICAR may be referred while preparing Vision 2030 for TNAU. **(Action: DR)**
2. High yielding varieties suited for saline-alkaline areas, rainfed and rice fallow conditions in pulses, may be evolved. **(Action: Director, CPBG / TRRI)**
3. Control of yellow mosaic and downy mildew in pulses **(Action: Director, CPBG / TRRI)**
4. Shade tolerant pulses for intercropping in plantations **(Action: Director, CPBG)**
5. Suitable high yielding sesame for rice fallow condition. **(Action: Director, CPBG / TRRI)**
6. Farmer friendly low cost rice transplanter. **(Action: Dean, Engg.)**

**Dr. Raniperumal**, suggested the following areas for future research

1. Insitu moisture conservation
2. Mechanization for each Agricultural operation
3. Extensive soil health management
4. Precision farming
5. Post Harvest Technology

**The Vice-Chancellor in his presidential address made the following remarks covering the points raised by the members.**

1. 13 students completed Dual degree programme with Cornell University.
2. One American student joined M.Sc in agronomy in TNAU.
3. Government of India selected TNAU Agritech Portal as the best in the Country.

4. Video Conferencing, Domestic and Export Market Intelligence Cell (DEMIC), weather forecasting through automatic weather station.
5. 11 Scientists were trained in Nanotechnology in USA and instruments like TEM, SEM and other equipments were purchased for Rs.10 crores and a national seminar on Nanotechnology will be organized in TNAU which will be graced by the participation of former President of India His Excellency Dr.A.P.J Abdul Kalam.
6. New Management technology Sustainable Sugarcane Initiative (SSI) will be passed on to sugar mills.
7. Vice-Chancellor suggested to compare University varieties and hybrids with private varieties and hybrids while evolving new varieties and hybrids, in future trials. **(Action: Director, CPBG)**
8. While conducting ART, all the JDAs may be involved and conducted in farmers' field in large areas. **(Action: Director, CPBG)**
9. Before releasing a new variety, management practices and plant protection technologies may be standardized. **(Action: Director, CPBG)**
10. Vice-Chancellor wanted that the cost benefit ratio of subsurface drip irrigation
11. Study on Drip fertigation for rice fallow pulses may be taken up. **(Action: Director, TRRI / CM)**
12. Mobile sprinkler technology may be popularised among dry land farmers.
13. Stemborer resistance in rice through biotechnological tools. **(Action: Director, CPMB)**
14. Tissue Culture banana resistant to bunchy top virus may be considered. **(Action: Dean, Hort.)**
15. Price forecast for more crops may be taken up. **(Action: Director, CARDS)**
16. Small machines suited for small farm holdings may be developed and popularized through ABD. **(Action: Dean, Engg.)**

### **Ongoing Research Programmes on the recommendations of the previous Research Council Meetings**

#### **(1) 42<sup>nd</sup> Research Council Meeting Recommendations**

##### **Crop Management**

1. Experiment on night soil composting may be continued and P.H & E.C may be tested. **(Action: Director, CM)**
2. Studies on influence of climate changes on the crop growth and pest and diseases is to be continued and weather based pest and disease forewarning models developed. **(Action: Director, CM & CPPS)**

##### **Water Management**

1. The research on fertigation schedule to the main and inter crop may be continued and the results reported. **(Action: Director, WTC)**
2. Research on sub surface drip fertigation and mechanized sugarcane cultivation at Madurai and Cuddalore centres may be conducted. **(Action: Director, WTC)**
3. Research on micro sprinkler for rice-fallow pulses, vegetables, curry leaf and forages may be continued. **(Action: Director, WTC)**

### **Crop Protection**

1. Pestigation studies to be continued and appropriate crop and material(s) specific prescription is to be made. **(Action: Director, CPPS / WTC / CM)**

### **Horticulture**

1. Work on alternate variety for PKM1 tamarind (i.e. red tamarind and sweet tamarind) may be continued. **(Action: Dean, HC&RI, Periyakulam)**
2. Work on supply of quality mother plants in banana and cassava to the private entrepreneurs may be continued for tissue culture plant multiplication. **(Action: Dean, HC&RI, CBE)**

### **Agricultural Marketing**

1. The price forecast for banana may be disseminated to farmers through NRCB also. **(Action: Director, CARDS)**

## **(2) 43<sup>rd</sup> Research Council Meeting Recommendations**

### **Crop Improvement**

1. Work on pure line selection can be made from the long duration redgram variety grown in Theni and Dindigul districts and work be continued. **(Action: Director, CPBG)**

### **Crop Management**

1. Combined Research on essential micronutrient mixtures for different crops may be continued. (Action: SO, NRM)

### **Water Management**

1. Research on precision farming in transplanted redgram may be continued. **(Action: Director, WTC / CM / CPBG)**

### **Forestry**

1. From the four plus trees selected from Thenkani Kottai in *Pongamia pinnata*, suitable trees may be identified and used for cultivation **(Action: Dean, FC&RI, Mettupalayam)**

## **(3) 44<sup>th</sup> Research Council recommendations**

### **Crop Improvement**

1. While evolving a new variety/hybrid, it should be compared with private variety/hybrid. **(Action: Director, CPBG)**

### **Crop Management**

1. Scheme for popularization of mobile sprinkler may be proposed to Commissioner of Agriculture. **(Action: Director, TRRI)**
2. Possibility of soil scanning by chromatography may be test verified. **(Action: SO, NRM)**
3. Availability of micro nutrients for foliar spray **(Action: SO, NRM)**
4. Sending details on pest / disease forecast to JDA's **(Action: Director, CPPS)**
5. Precision farming technology for redgram **(Action: Director, CM)**

### **Water Management**

1. Cost benefit ratio for sub surface drip fertigation may be worked out. **(Action: Director, WTC)**

### **Plant Protection**

1. Extract of tree leaves as insecticide may be tried in vegetables and fruits. **(Action: Director, CPPS / Dean, HC&RI)**

### **Horticulture**

1. Trial on extracts of chilli, garlic and onion as plant protective substances may be taken up. **(Action: Dean, HC&RI / Director, CPPS)**
2. Trial on synthetic capsin may be initiated. **(Action: Dean, HC&RI)**

### **Forestry**

1. The proposal for taking up survey and analyzing the cause of non flowering in tamarind trees in forest area may be placed before the committee for financial sanction from the Department of Forestry. **(Action: Dean, HC&RI, Periyakulam)**
2. Collaborative scheme for establishing clonal seed orchards for tree seeds between TNAU & Department of Forestry may be explored. **(Action: Dean, FC&RI, Mettupalayam)**
3. Price forecasting for forest products. **(Action: Dean, FC&RI / Director, CARDS)**

### **Policy**

1. Policy note on desilting of supply channel, strengthening of tank bunds and removal of encroachments by *Accacia nilotica* in panchayat tanks. (Action: Director, WTC)

## ANNEXURE

### 44<sup>th</sup> RESEARCH COUNCIL MEETING HELD ON 17.02.2011 AT COMMITTEE ROOM OF THE VICE-CHANCELLOR, TNAU, COIMBATORE-3.

#### LIST OF COUNCIL MEMBERS ATTENDED MEETING

1.	Dr.P. Murugesu Boopathi, Vice-Chancellor, TNAU, Coimbatore.	Chairman
2.	Dr. Rani Perumal, Retired Prof. & Head, SS&AC, TNAU, Coimbatore.	Expert Member
3.	Dr.N. Kalaimani, Principal Scientist, Aquatic Animal Health and Environment Divisions (ICAR), Chennai.	Expert Member
4.	Th. Venkataramani Govindan, Water Management Communication and Knowledge - Sharing Specialist, Chennai.	Expert Member
5.	Th.P. Palanivel, Managing Director, 'Jaysan' Home Builders, Chennai.	Expert Member
6.	Th.N. Ponnuswamy Additional Director of Agriculture (Research), Chennai. (Represented Commissioner of Agriculture)	Member
7.	Th.K.G. Anand Naik, IFS Chief Conservator of Forests (Research), Chennai. (Represented Principal Chief Conservator of Forest)	Member
8.	Th.K.B. Ramakrishnan Superintending Engineer,(Agl. Engg.), Coimbatore. (Represented Chief Engineer, Dept. of Agrl. Eng.)	Member
9.	Th.S. Sankaran Executive Engineer,(Agl. Engg.), Coimbatore. (Represented Chief Engineer, Dept. of Agrl. Eng.)	Member
10.	Dr.M. Elanchelian Regional Joint Director, Animal Husbandry (i/c). Represented Commissioner of Animal Husbandry & Veterinary Science	Member
11.	Th.V. Panneer Selvam Asst. Director of Sericulture, Coimbatore. Represented Commissioner of Sericulture	Member
12.	Th.P. Palani Kumar Assistant Director of Seed Certification, Coimbatore. Represented Commissioner of Sericulture	Member
13.	Dr.P. Subbian Registrar, TNAU, Coimbatore.	Member
14.	Dr.S. Chellamuthu Director, WTC, TNAU, Coimbatore.	Member
15.	Dr.V. Ponnuswami Dean, Hort., Periyakulam.	Member
16.	Dr.G. Kathiresan Director, P&M, TNAU, Coimbatore.	Member
17.	Dr.K. Thiyagarajan Director, CPBG, TNAU, Coimbatore.	Member

18.	Dr.V. Jayabal Dean, ADAC & RI, Trichy.	Member
19.	Dr.C. Udayasoorian Dean, SPGS, TNAU, Coimbatore.	Member
20.	Dr.P. Durairasu, IFS Dean, FC&RI, Mettupalayam.	Member
21.	Dr.N. Kumar Dean, HC&RI, Coimbatore.	Member
22.	Dr.T. Rathakrishnan Director, SW, TNAU, Coimbatore.	Member
23.	Dr.A. Tajuddin Dean, AEC&RI, Kumulur.	Member
24.	Dr.R. Ganesan Dean, AC&RI, Killikulam.	Member
25.	Dr.S. Santhana Bosu Dean (Engg.), TNAU, Coimbatore.	Member
26.	Dr.N. Ajjan Director, CARDS, Coimbatore.	Member
27.	Dr.P. Banumathi Dean (Home Science), Madurai.	Member
28.	Dr.P. Sivasubramanian Director, ABD,TNAU, Coimbatore.	Member
29.	Dr.P. Kalaiselvan Director of Extn. Education, TNAU, Coimbatore.	Member
30.	Dr.A. Chandrasekaran Controller of Examination, TNAU, Coimbatore.	Member
31.	Dr.K. Ramamoorthy Special Officer (Seeds), TNAU, Coimbatore.	Invited Member
32.	Dr.V. Velu Special Officer (NRM), TNAU, Coimbatore.	Invited Member
33.	Dr.P. Muthukrishnan P&H (Agronomy), Coimbatore.	Member
34.	Dr.A.K. Mani, Professor & Head,RRS, Paiyur.	Nominated Member
35.	Dr.M. Chinnadurai, Professor & Head, Agl. Economics, TNAU, Coimbatore.	Nominated Member
36.	Dr.V. Udayasuriyan, Professor & Head, Biotech, TNAU, Coimbatore.	Nominated Member
37.	Dr.C. Divaker Durairaj, Professor & Head, Farm Machinery, TNAU, Coimbatore.	Nominated Member
38.	Dr.D. Jawahar, Professor & Head, ARS, Kovilpatty.	Nominated Member
39.	Dr.M. Paramathma Director of Research, TNAU, Coimbatore.	Member- Secretary