ANAND AGRICULTURAL UNIVERSITY, ANAND

Proceedings of the 10th AGRESCO sub-committee meeting on Crop Production held on March 11-12, 2014 at AAU, Anand

The inaugural function of the 10th AGRESCO sub committee meeting on crop production was held at 0930 hrs on 11th March 2014 in the PG Seminar Hall AAU, Anand. Function was presided by Dr. K.B. Kathiria, Director of Research & Dean, PG Studies, AAU, Anand. The other dignitaries present in the function were Dr. P. P. Patel, Director of Extension Education, AAU, Anand, Dr. K. P. Patel, Principal, B. A. College of Agriculture and experts Dr. P. T. Patel, Retd. Principal, CPCA, S.K. Nagar. Dr. V. R. Bhatt, Convener welcome the dignitaries and all the members of crop production group. Dr. K. P. Patel Principal & Dean in his introductory remark pointed out the current food grain production (198 MT) and targeted food grain (225 MT) to meet the demand of population of India by 2025. He suggested more need of research on INM with inclusion of limiting nutrients like S, Zn and Fe along with major nutrients. He also emphasized on multi disciplinary approach which can improve the quality of research by studying more parameters of crop and there by production.

Dr. P. P. Patel Director of Extension Education emphasized on research should be focused on different production factor viz,. soil management, seed treatment, fertilizer management, quality seed, weed management, post harvest technology, biofertilizer, value addition, climate change etc. for farmers community. He also suggested active participation of scientists in farmers training, Krishi Mela and Krishi Mahotsav so we can transfer our technology to farmer's field.

The president of inaugural function, Dr. K. B. Kathiria, Director of Research, AAU, Anand appreciated the work done by the scientist of crop production group. He also explained the current demand of farmer's particularly for package of practices, suitable crop and cost factor of green house technology. So scientist should think in this line. He also informed that now government is thinking for rationing of fertilizer based on fertilizer recommendation and try to reduce the over use of chemical fertilizer in agriculture. Dr. K. C. Patel, Assoc. Prof., Dept. of soil science gave vote of thanks.

After the inaugural session technical sessions were taken up.

Technical Session I

PRESENATION OF RECOMMENDATIONS

Chairman : Dr. P. T. Patel
Co- Chairman : Dr. A. C. Sadhu
Rapporteurs : Dr. H. R. Patel and Dr. V. P. Ramani

During this session total 12 recommendations were presented and discussed in length. Among 12 recommendations 9 were passed for farming community and 1 for scientific community with minor suggestions/ corrections. Two recommendations were concluded.

I Dept. of Agronomy, BACA, AAU, Anand

1. Effect of NADEP compost on yield and quality of tomato

Recommendation for farmers:

The farmers of middle Gujarat Agro-climatic zone-III growing determinate tomato by organic farming, are advised to apply NADEP compost @ 7 tonnes mixed with castor cake @ 350 kg ha^{-1} and 1 litre A*zotobactor* culture at the time of transplanting for securing higher yield, better quality of tomato as well as more net return with maintaining soil health.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવા વિસ્તાર ૩માં સજીવ ખેતી દ્વારા નિયંત્રિત વૃદ્ધિવાળીટામેટીનીજાતોનુંવાવેતર કરતા ખેડૂતોને ભલામણ કરવામાં આવે છે કે,ટામેટીના પાકને પ્રતિ હેકટર ૭ ટન નાડેપ કંપોસ્ટ તથા ૩૫૦ કી.ગ્રા. દિવેલીનાખોળનેએક લિટર એઝેટોબેક્ટર કલ્ચર સાથે મિશ્રણકરીને ફેરરોપણી સમયે આપવાથીટામેટીનું વધુ ઉત્પાદન, સારી ગુણવત્તા તથા વધુ આવક મળે છે અને જમીનનું સ્વાસ્થ્ય પણ જળવાય છે.

(**Action**: Professor & Head, Dept. of Agronomy, AAU, Anand)

II Dept. of Horticulture, BACA, AAU, Anand

2. Studies on storage behavior of dehydrated aonla powder of different cultivars prepared through different drying techniques

Recommendation for Scientific Community:

Enterpruner who are insterested in production of quality "Aonla powder" having miximum rentention of vitamin "c" are advised to use vacuum drying method for Gujarat Aonla-1 variety to preserve Aonla podwer up to six month period.

(**Action:** Professor & Head, Dept. of Horticulture, AAU, Aand)

3. Spacing trial on Teak (*Tectona grandis* L.)

Recommendation: Concluded

(**Action**: Professor & Head, Dept. of Horticulture, AAU, Aand)

III RRS, AAU, Anand

4. Integrated nutrient management in cotton – wheat crop sequence

Recommendation for farmers:

The farmers of middle Gujarat agro climatic zone III adopting Bt cotton-wheat crop sequence are advised to apply 10.0 t FYM/ha or 1.0 t castor cake/ha along with 75% RDF to cotton (240 kg N/ha) and wheat (90: 45: 00 kg NPK/ha) crops to get higher yield and net income from this cropping system. The Bt (early group) cotton should be sown during 3rd week of June.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ઝોન - ૩માં બીટી કપાસ- ઘઉં પાક પધ્ધતિ અપનાવતા ખેડૂતોને આ પધ્ધતિમાંથી વધારે ઉત્પાદન અને ચોખ્ખી આવક મેળવવા માટે પ્રતિ હેકટરે ૧૦.૦ ટન છાણિયુ ખાતર અથવા ૧.૦ ટન દિવેલીનો ખોળ અને ભલામણ કરેલ રાસાયણિક ખાતરના ૭૫.૦ % પ્રમાણે કપાસ (૨૪૦ કિ.ગ્રા.ના.) અને ઘઉં (૯૦:૪૫:૦૦ કિ.ગ્રા.ના.ફો.પો.) ના પાકમાં આપવાની ભલામણ કરવામાં આવે છે. બીટી કપાસ (વહેલી પાકતી જાતો) નું વાવેતર જૂન માસના ત્રીજા અઠવાડીયામાં કરવું.

(**Action**: Research Scientist , RRS, AAU, Aand)

5. Effect of drip irrigation and nitrogen on yield of Bt cotton

Recommendation for farmers:

The farmers of middle Gujarat Zone III are advised to adopt drip irrigation system (0.8 PEF) for Bt cotton to get higher yield and net income with 10% saving in irrigation water along with 100% RDN (240 kg N/ha).

The drip system should be laid out at a lateral distance of 1.20 m (each crop row) and dripper (4LPH) spacing 0.60 m. The system should be operated at 1.2 kg/cm^2 pressure for 1 hour and 50 minutes during October – November and 1 hour and 25 minutes during December – January at every three days interval.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ઝોન – ૩માં બીટી કપાસનુ વાવેતર કરતા ખેડૂતોને વધારે ઉત્પાદન અને વધારે ચોખ્ખી આવક મેળવવા માટે ભલામણ કરેલ નાઇટ્રોજન (૨૪૦ કિ.ગ્રા./હે) સાથે ૧૦% પિયત પાણી ની બચત કરવા ટપક પધ્ધતિ (0.8 પી.ઇ.એફ.) અપનાવવાની ભલામણ કરવામાં આવે છે.

ટપક પિયત પધ્ધતિમાં ૪ લીટર પ્રતિ કલાક પ્રવાહની ક્ષમતાવાળા ડ્રીપર 0.60 મી. ના અંતરે ગોઠવેલ હોય તેવી ડ્રીપ પાઇપ (લેટરલ) પાકની દરેક હારમાં (૧.૨૦ મી.) ગોઠવીને ટપક પધ્ધતિ ૧.૨ કિ.ગ્રા/સે.મી^{2} ના દબાણે દર ત્રણ દિવસના અંતરે ઓક્ટોબર- નવેમ્બર દરમ્યાન ૧ કલાક અને ૫૦ મીનીટ અને ડિસેમ્બર- જાન્યુઆરી દરમ્યાન ૧ કલાક અને ૨૫ મીનીટ પ્રમાણે ચલાવવી.

(**Action**: Research Scientist, RRS, AAU, Aand)

IV Medicine and Aromatic Plant Research, AAU, Anand

6. Effect of different date of sowing and spacing on seed yield of vernonia (Kalijiri);*Vernonia anthlmintica* (L) Willd. under middle Gujarat conditions.

Recommendation for farmers:

The farmers of middle Gujarat Agro-climatic zone-III growing vernonia (*kalijiri*) in *rabi* season are advised to sow Vernonia during 1st week of October at 45 cm spacing between rows for securing higher seed yield and net return.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવા વિસ્તાર – ૩ ના કાળીજીરીનું વાવેતર કરતા ખેડૂતોને વધુ ઉત્પાદન અને નફો લેવા માટે કાળીજીરી ઓક્ટોબર માસનાં પ્રથમ અઠવાડીયામાં, બે હાર વચ્ચે ૪૫ સે.મી. નું અંતર રાખીને વાવણી કરવાની ભલામણ કરવામાં આવે છે.

(**Action**: Research Scientist, M&APR, AAU, Aand)

V Irrigated Crop Research Station, AAU, Thasra

7. Nitrogen management in rabi drilled fennel (*Foeniculum vulgare* Mill.) under drip irrigation system

Recommendation for farmers :

The farmers of middle Gujarat agro climatic zone-III are advised to grow drilled fennel in *rabi* season by drip system of irrigation at 0.8 ADFPE and fertilize the crop with 72 kg N/ha of which 25 % N (18 kg N/ha) as basal and 75% N (54 kg N/ha) in five equal splits at 10 days interval starting from 30 DAS.

Drip system should be laid out at lateral spacing of 90 cm with 8 lph dripper placed at 60 cm apart and system should be operated at 1.2 kg/cm^2 pressure for about 30 minutes at alternate day (i.e. average 75 days during crop period). \

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવા વિસ્તાર – 3 ના ઓરાણ પદ્ધતિથી શિયાળામાં વરિયાળી ઉગાડતાં ખેડૂતોને વરિયાળીનું વધુ ઉત્પાદન અને વધુ નફો મેળવવા ટપક પધ્ધતિ અપનાવવા તથા નાઇટ્રોજન ખાતર પ્રતિ હેકટરે ૭૨ કિલો મુજબ (જેમાંથી ૧૮ કિલો પાયામાં અને ૫૪ કિલો વાવણીના 30 દિવસ બાદ પાંચ સરખાં હપ્તામાં દર ૧૦ દિવસના અંતરે યુરીયામાંથી) આપવાની ભલામણ કરવામાં આવે છે.

આ ટપક પિયત પધ્ધતિમાં ૮ લી. પ્રતિ કલાકની ક્ષમતાના ડ્રીપર અને ૬0 સે.મી.ના અંતરવાળી ડ્રીપ લાઇન, બે ડ્રીપ લાઇન વચ્ચે ૯૦ સે.મી.ના અંતરે ગોઠવી ટપક પ્રણાલીને ૧.૨ કિ.ગ્રા./સેમી^{2} ના દબાણે આંતરે દિવસે 30 મીનીટ ચલાવવાની ભલામણ છે.

(**Action:** Associate Research Scientist , ARS, AAU, Thasra)

VI Main Forage Research Station, AAU, Anand

8. Yield and quality of hybrid napier varieties as affected by nitrogen levels

Recommendation for farmers:

The farmers of middle Gujarat Agro-climatic Zone III growing hybrid napier are advised to grow variety Co-3 and to fertilize with 75 kg N/ha after each cut upto three years to obtain higher green forage, dry matter, crude protein and net realization along with Common dose of 50 kg N/ha + 50 kg P_2O_5/ha as basal.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૩ ના ખેડૂતોને ભલામણ કરવામાં આવે છે કે ગજરાજ ઘાસના લીલાચારા, શુષ્ક પદાર્થ, નત્રિલ (ક્રુડ પ્રોટીન) નુ વધુ ઉત્પાદન અને આર્થિક વળતર મેળવવા માટે સીઓ-૩ જાત પસંદ કરવી. પાયાના ખાતર તરીકે ૫૦ કિલો નાઇટ્રોજન અને ૫૦ કિલો ફોસ્ફરસ પ્રતિ હેક્ટર તેમજ દરેક કાપણી પછી પ્રતિ હેક્ટરે ૭૫ કિલો નાઇટ્રોજન પૂર્તિ ખાતર તરીકે ત્રણ વર્ષ સુધી આપવો.

(**Action**: Research Scientist, MFRS, AAU, Anand)

VII ARS, AAU, Derol/Vadodara

9. Varietal Response of drilled paddy to fertilizer

Recommendation: Concluded

(**Action:** Research Scientist , ARS, AAU, Derol)

VIII ARS, AAU, Viramgam

10. Permanent small plot trial for studying the long term effect of Phosphorus on the yield of *herbaceum* cotton under rainfed conditions.

Recommendation for farmers:

The farmers of *desi* cotton growing area of North-West Agro climatic zone-V are advised not to apply phosphorous.

ખેડૂત ઉપયોગી ભલામણ :

ઉત્તર- પશ્ચિમ ખેત આબોહવાકીય વિભાગ-૫ ના બિનપિયત દેશી કપાસ વાવતાં ખેડૂતો ને ફોસ્ફરસ (ખાતર) આપવાની ભલામણ કરવામાં આવતી નથી.

(**Action:** Assoc. Research Scientist , ARS, AAU, Viramgam)

11. Study on plant density and levels of nitrogen of new released *herbaceum* cotton variety Anand Desi Cotton - 1(ADC-1).

Recommendation for farmers:

The farmers of *desi* cotton growing area of North-West Agro climatic zone-V are advised to sow the rainfed variety ADC-1 at 150 cm x 30 cm spacing and fertilized with 40 kg N ha^{-1} (20 kg ha^{-1} as basal and 20 kg ha^{-1} as topdressing at 30-40 DAS) to get higher seed cotton yield.

ખેડૂત ઉપયોગી ભલામણ :

ઉત્તર- પશ્ચિમ ખેત આબોહવાકીય વિભાગ-૫ વિસ્તારનાં દેશી કપાસ ઉગાડતા ખેડૂતોને કપાસનું વધુ ઉત્પાદન મેળવવા માટે બિનપિયત એડીસી-૧ જાતને ૧૫૦ સે.મી. x ૩૦ સે.મી. વાવણી અંતર રાખીને પ્રતિ હેક્ટર ૪૦ કિલો (20 કિ/હે. વાવણી સમયે તથા ૨૦ કિ/હે. વાવણી બાદ ૩૦ થી ૪૦ દિવસે) નાઇટ્રોજન આપવા ભલામણ કરવામાં આવે છે.

(**Action**: Assoc. Research Scientist, ARS, AAU, Viramgam)

12. Assessment of organic farming and inorganic nutrient supply system on yield and quality of cotton variety G Cot 21.

Recommendation for farmers:

The farmers of *desi* cotton growing area of North-West Agro climatic zone-V interested to raise cotton organically rainfed are advised to apply FYM @ 5 to 8 t ha^{-1} instead of recommended dose of chemical fertilizer.

ખેડૂત ઉપયોગી ભલામણ :

ઉત્તર- પશ્ચિમ ખેત આબોહવાકીય વિભાગ-૫ ના દેશી કપાસ ની બિનપિયત સેન્દ્રીય ખેતી કરવા ઇચ્છતા ખેડૂતોને રાસાયણીક ખાતરને બદલે હેકટરે ૫ થી ૮ ટન છાણીયુ ખાતર આપવાની ભલામણ કરવામાં આવે છે.

(**Action**: Assoc. Research Scientist, ARS, AAU, Viramgam)

Technical session-II

PRESENTATION ON NEW TECHNICAL PROGRAMMES

Charmain: Dr. K.P. Patel
Co-Charmain: Dr. R. V. Vyas
Rapporteurs : Dr. B. D. Patel and Dr. N. J. Jadav

In this session, 12 new technical programme were presented in the house and after thorough discussion 10 technical programme were approved with suggestions. 2 technical programme was dropped and 2 experiments of Organic Cell were concluded.

I Department of Ag. Chem. AAU, Anand

1. Effect of manures on efficiency of atrazine applied for weed management in summer pearl millet

The programme was approved with following suggestions

1 Include growth and yield in place of grain and straw yield in 1st objective
2 Add observation on total microbial count at initial, 20 DAS and at harvest.

(**Action**: Prof. & Head, Dept. of Ag. Chem. AAU, Anand)

II. Medicinal and Aromatic Plants, AAU, Anand

2. Effect of different levels of nitrogen and phosphorus on dry biomass yield of Dodi (*Leptadenia reticulata*).

The proposed experiment was approved with some suggestions and modification

1. Write design as RBD (factorial)
2. Take observation as soil status (OC, available P_2O_5 and K_2O) initially and after harvest (after third cutting).

3. Give the unit for length of creeper in observation 4.

4. Add observation for pest population if any

(**Action**: Res. Sci. Medicinal and Aromatic Plants, AAU, Anand)

III. DWSR, AAU, Anand

3 Assessment of premix broad spectrum herbicide for weed management in wheat

The Experiment was approved with modification in title

Change title as "Assessment of premixed broad spectrum herbicides for weed management in wheat"

(**Action:** Agronomist. DWSR, AAU, Anand)

IV. Main forage Research Station, AAU, Anand

4. Nitrogen and phosphorus management on growth and seed yields fodder sorghum [*Sorghum bicolor* (L.) Moench] Var. CoFS-29

House suggested to formulate a new technical programme in consultation Dr. A. C. Sadhu, Professor, Dept. of Agronomy, BACA, Aannd.

(**Action :** Research Sci., MFRS, AAU, Anand)

V. RRS, AAU, Anand

5. To study the castor based intercropping system preceding *kharif* maize under middle Gujarat conditions

The Experiment was approved with some modification in observations

1. Write crops instead of maize in title.
2. Delete 2nd objective.
3. Take chickpea (for green pod) instead of linseed.
4. Calculate fertilizer doses for intercrops as per row ratios.
5. The observations to be recorded for inter crops should include yield only

(**Action:** Research Sci. RRS, , AAU, Anand)

VI. ARS, AAU, Thasra

6. Effect of nutrient management through fertigation in Guava crop (cv. L 49) under middle Gujarat agro-climatic conditions

The Experiment was dropped with following suggestions

Verify the variety of individual guava tree, past history of guava plantation and present the photograph of each tree to the Director of Research, AAU, Anand in consultation with Dr. H. C. Patel, Professor and Head, Dept. of Horticulture, BACA, Anand.

(**Action** : Assoc. Research Sci. ARS, AAU, Thasra)

7 Nitrogen management in semi Rabi sesame (*Sesame indicum* L.) under drip irrigation system in *goradu* soil of Middle Gujarat

The house suggested to recast the experiment for summer season instead of *rabi* sesame including biofertilizer component in consultation with following scientists:

i. Dr. R. A. Patel, Astt. Res. Scientist, RRS, Anand
ii. Dr. D. B. Patel, Assoc. Res. Scientist, MRRS, Nawagam
iii. Dr. R. V. Vyas, Professor, Dept. of Microbiology, BACA, Anand

(**Action** : Assoc. Research Sci. ARS, AAU, Thasra)

8. The effect of Nutrient Management in *Bt* cotton to break the yield stagnation

The house suggested recasting the experiment in concern with

i. Dr. V. R. Bhatt, Prof. & Head, Dept. of Soil Science, BACA, Anand
ii. Dr. M. V. Patel, Prof. & Head, Dept. of Agronomy, BACA, Anand
iii. Dr. V. P. Ramani, Assoc. Res. Scientist, Micronutrient Project, AAU, Anand
iv. Dr. Girish Patel, Assoc. Res, Scientist, D. Bariya

(**Action** : Assoc. Research Sci. ARS, AAU, Thasra)

VII Agriculture Wing, AAU, Jabugam

9. Characterization, Classification and Mapping of soils of Jabugam farm.

The experiment was dropped. House suggested to be considered as departmental/college work to generate information related to soil properties of Jabugam farm and suggested to prepare separate report for record.

(**Action:** OSD. Agri. Wing , AAU, Jabugam)

10. Isolation and characterization of native *Rhizobium* isolates from summer Groundnut (*Arachis hypogaea*) of Chhota-Udaipur District (Sukhi River command area) of middle Gujarat.

The Experiment was approved with no any suggestion

(**Action**: OSD. Agri. Wing , AAU, Jabugam)

11 Efficacy testing of native *Rhizobium* isolates in summer groundnut (*Arachis hypogaea*).

House suggested some suggestions in treatments as under

1. Take T_3 as 50% RDN instead of 75% RDN.
2. Change g'nut variety as GJG 31 instead of GG 2

(**Action**: OSD. Agri. Wing , AAU, Jabugam)

VIII ARS, AAU, Viramgam

12. Standardization of crop geometry and its effect on yield and fibre quality of *deshi* cotton in rainfed condition

House madesome suggestions as under

1. To be conducted the experiment at two locations i.e. at Viramgam and Dhandhuka.
2. Add one more treatment as T_7: 150 x 30 cm and calculate the no. of rows/plot and plant population/ha accordingly.

(**Action**: Assoc. Res. Scientist, ARS, AAU, Viramgam)

Following two experiments of organic cell were concluded by the house

1. Assessment of organic farming and inorganic nutrients supply on yield of maize (*kharif*) gram (*rabi*) crop sequence.

2. Assessment of organic farming and inorganic nutrient supply on yield and quality of cabbage (*rabi*) –okra (summer) crop sequence.

(**Action**: Professor and Head, Dept. of Agronomy, BACA, Anand)

Technical Session –III
PRESENTATION OF NEW TECHNICAL PROGRAMME

Charmain: Dr. Dr. H. C. Patel
Co-Charmain : Dr. R. G. Jadav
Rapporteurs : Dr. M. J Patel and Prof. M. M. Lunagaria

During starting of the session, following 4 ongoing research experiments of horticulture were discussed in length and below listed suggestions were made by house.

1) Collection and evaluation of promising descript varieties of mango (*Mangifera indica L.)*
2) Collection and evaluation of country types of mango
3) Varietal trial in mango

Above three trials are to be concluded as per following suggestions made by house

- All the cultivars/genotypes which have distinct characters like *barmasi* bearing as well as quality particularly for organoleptic taste, aroma etc. are to be identified based on past report.
- Genotypes/cultivars which have distinct characters are to be maintained at Horticulture Farm and prepare grafting of such cultivar(s) and if it is possible, to plant on other Research Farm of AAU. After establishment of new germplasm, old trees may be removed.
- Mango germplasm from middle Gujarat particularly from the tribal area should be collected and planted at Horticulture farm.
- Germplasm/cultivar which has specific character(s) is to be used for hybridization programme in future.
- The expert committee for the review of the research work on horticulture farm has been formulated by Director of Research under his guidance. This committee will visit all the experiment and final decision will be taken up as per need based research in horticultural crops.

4) To study the performance of different varieties and hybrids of mango (Multi-location trial)

House suggested that all the varieties will be maintained in germplasm block by grafting. This experiment will be concluded after the visit of the committee.

During this session total 8 new technical programmes were presented and discussed in length. Among them 7 were accepted with suggestions and 1 was concluded.

I. Dept. of Meteorology, BACA, Anand

13. Area estimation of cotton and sugarcane crop in Gujarat

The programme was approved as such

(**Action** : Professor & Head, Meteorology, AAU, Anand)

14. Web based Gramin Krishi Mausam Sewa (GKMS) portal

The programme was approved as such

(**Action** : Professor & Head, Dept. of Meteorology, AAU, Anand)

II. Dept. of Horticulture, BACA, Anand

15. Integrated nutrient management on growth, yield and quality of custard apple (Annona squamosa L.) cv. Local under Middle Gujarat Agro climatic condition.

The experiment was dropped by the house

(**Action** : Professor & Head, Dept. Horticulture , AAU, Anand)

16. To study the effect of different varieties of cucumber under natural ventilated poly house

Accepted with following suggestion/s:

i) Title modified as" To evaluate the different varieties of cucumber under natural ventilated poly house"
ii) To check the varieties for parthenocarpy.
iii) Top dressing fertilizers should be given through drip by water soluble fertilizers.
iv) Time of fertilizer application should be based on farmers' practices.
v) Meteorological observations like temperature and relative humidity should be recorded.
vi) One blank application of biofertilizers (PGPR Consortium) should be applied.

(**Action** : Professor & Head, Dept. Horticulture , AAU, Anand)

17. Effect of integrated nutrient management on growth, flowering and flower yield of annual white chrysanthemum (*C. coronarium* L.) cv. Local

The programme was approved as such

(**Action** : Professor & Head, Dept. Horticulture , AAU, Anand)

III . ARS, AAU, Khambholaj

18. To study the effect of different sowing time for potato cultivars under middle Gujarat conditions

The experiment was approved with some modification in title and treatments

1) Title modified as" Determination of effective planting time for different potato cultivars under middle Gujarat conditions"

2) Change date of planting as

(i) 2^{nd} week of October …… instead of 15^{th} October
(ii) 4^{th} week of October …….instead of 30^{th} October
(iii) 2^{nd} week of November…instead of 15^{th} November
(iv) 4^{th} week of November ….instead of 30^{th} November

3) Pests and diseases observations should be recorded.

4) Replace word 'sowing' with 'planting' in text.

(**Action** : Associate Res Sci., ARS, AAU, Khambholaj)

IV . ARS, AAU, Jabugam

19. Evaluation of different varieties of banana as a lam crop in tribal area of Chhotaudepur Region of Middle Gujarat

The programme was approved as such

(**Action :** Asstt. Res Sci., ARS, AAU, Jabugam)

20. Evaluation of the possibility of inter-cropping system with banana cultivation in tribal area of Chhotaudepur Region of Middle Gujarat

The programme was approved as such

(**Action :** Asstt. Res Sci., ARS, AAU, Jabugam)

Technical Session IV

PRESENATION OF RECOMMENDATIONS

Chairman : Dr. N. K. Kalyansundaram
Co. Chairman : Dr. V. V. Sonani
Rapporteurs : Dr. K. D. Mevada and Dr. B. T. Satodia

In this session total 9 recommendations were presented from various center among these, 5 recommendations were approved by the house for farming community, 1 recommendation was approved for scientific community, 1 recommendation was concluded and 2 recommendations were extended.

I Dept. of Microbiology, BACA, AAU, Anand

13. Efficacy of Potash mobilizing bacteria in potato (*Solanum tuberosum* L.)
Recommendation for Farmers:

The farmers of middle Gujarat agro-climatic zone-III growing potato are advised to apply 1 L of Potash Mobilizing Bacteria (either recommended strain *Frateuria aurentia* or native strain KMB W1-*Enterobacter*) either through tuber treatment or drenching in the soil with water for obtaining higher yield and with savings of 25 % potash (application of 165 kg K_2O /ha instead of 220 kg K_2O /ha) . NP of 220-110 kg/ha to be given as per recommendation.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૩ના બટાકા ઉગાડતા ખેડૂતોને વધુ ઉત્પાદન મેળવવા માટે તથા ૨૫ % પોટાશ ખાતરની બચત માટે પ્રતિ હેકટર ૨૨૦ પોટાશ ની જગ્યાએ ૧૬૫ કિલો પોટાશ ઉપરાંત ૧ લિટર પોટાશ લભ્ય કરતા બેક્ટેરિયા (ભલામણ કરેલ જાત ફ્રેચ્યુરીયા ઓરેંસીઆ અથવા સ્થાનિક જાત કે એમ બી ડબ્લ્યુ ૧-એન્ટેરોબેકટર) બટાકાના ટુકડાને પટ આપી અથવા પાણી સાથે જમીનમાં આપવાની ભલામણ કરવામાં આવે છે. નાઇટ્રોજન અને ફોસ્ફરસ ૨૨૦ : ૧૧૦ ભલામણ મુજબ આપવો.

(**Action** : Professor & Head, Dept. of Microbiology, AAU, Anand)

14. Evaluation of liquid biofertilizer viz; *Azotobactor*, *Azospirillium* and phosphate culture through foliar application in brinjal nursery.

The house suggested some suggestions as under

- Title should be changed and written as “Evaluation of liquid biofertilizer viz; *Azotobactor*, *Azospirillium* and phosphate culture in brinjal nursery.”

- It was decided to bring the recommendation by conducting the experiment one more year at MVRS, Anand, Thasra and at Jabugam for seedling establishment.
- House also suggested to take following observations along with regular one
  A. No. of transplanted seedlings/m^2
  B. Data should be analyzed with factorial design as control v/s rest

(**Action** : Professor & Head, Dept. of Microbiology, AAU, Anand)

15. Evaluation of liquid biofertilizer viz; *Azotobactor, Azospirillium* and phosphate culture through foliar application in chilly nursery.

The house suggested some suggestions as under

- Title should be change and written as "Evaluation of liquid biofertilizer viz; *Azotobactor*, *Azospirillium* and phosphate culture in chilly nursery."
- It was decided to bring the recommendation by conducting the experiment one more year at MVRS, Anand, Thasra and at Jabugam for seedling establishment.
- House also suggested to take following observations along with regular one
  C. No. of transplanted seedlings/m^2
  D. Data should be analyzed with factorial design as control v/s rest

(**Action** : Professor & Head, Dept. of Microbiology, AAU, Anand)

II Dept. of Meteorology, BACA, AAU, Anand

16. Analysis and thematic mapping of extreme weather events of Gujarat.

Recommendation for scientific community:

The following warming pattern based on daily minimum temperature showed statewide uniformity in Gujarat which recommended to consider for the climate change adaptation and mitigation related research/planning

• Increase in hot nights.(i.e. summer when Min T>25ºC)
• Decrease in cold days (i.e. Winter when Min T<10ºC)
• Decrease in cool nights (i.e. When Min T<10th percentile in a year)
• Increase in warm nights (i.e. When Min T>90th percentile in a year).

Except these the patterns in the climatic extremes of temperature and rainfall recorded during past were ambiguous. So location specific climatic trends should be studied before planning of adaptation and mitigation measures/research.

(**Action** : Professor & Head, Dept. of Meteorology, AAU, Anand)

III NARP, AAU, Arnej

17. Response of cumin (GC-4) to nitrogen and phosphorus in Bhal region

Recommendation for farmers:

The farmers of Bhal and Coastal Agro-climatic zone –VIII growing cumin on broad bed and furrow are advised to apply 60 kg N + 30 kg P_2O_5 /ha for getting higher yield and net return.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૮ ના પહોળા પાટલા પધ્ધતિથી જીરૂનું વાવેતર કરતા ખેડુતોને વધુ ઉત્પાદન તથા નફો મેળવવા માટે ૬૦ કિ.ગ્રા. નાઇટ્રોજન તથા ૩૦ કિ.ગ્રા. ફોસ્ફરસ પ્રતિ હેક્ટરે આપવાની ભલામણ કરવામાં આવે છે.

(**Action** :Research Scientist, NARP, AAU, Arnej)

18. Efficacy of NADEP compost in Bhal region in improving yield and quality of wheat (GW-1)

Recommendation for farmers:

The farmers of Bhal and Coastal Agro-climatic zone –VIII growing duram wheat in rainfed condition are advised to use 2600 kg NADEP compost fortified with 80 kg castor cake in place of recommended fertilizer N at the onset of monsoon along with seed treatment (@ 5 ml / kg of seed) of biofertilizer (*Azospirillium*) for getting higher yield and net return.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૮ ના બિનપિયત ડ્યુરમ ઘઉંનું વાવેતર કરતા ખેડુતોને વધુ ઉત્પાદન તથા નફો મેળવવા માટે ૨૬૦૦ કિ.ગ્રા. નાડેપ કંમ્પોસ્ટ અને ૮૦ કિ.ગ્રા. દિવેલીના ખોળને ભલામણ કરેલ રાસાયણિક નાઇટ્રોજનના બદલે ચોમાસુ બેસતા આપવું. તથા બીજને જૈવિક ખાતર (એઝોસ્પાઇરીલમ)ની બીજ માવજત (૫મીલી/કિગ્રા.બીજના દરે) આપવાની ભલામણ કરવામાં આવે છે.

(**Action** :Research Scientist, NARP, AAU, Arnej)

IV BTRS, AAU, Anand

19. Response of root knot resistant bidi tobacco variety ABT-10 to irrigation and topping levels.

Recommendation for farmers:

The farmers of middle Gujarat Agro-climatic zone –III growing bidi tobacco are advised to apply five irrigations each at 50 mm depth at 15-20 days interval and topped at 18 leaves for getting higher yield and net return.

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૩ ના બીડી તમાકુનું વાવેતર કરતા ખેડૂતોને વધુ ઉત્પાદન તથા નફો મેળવવા માટે ૫૦ મી. મી. ઉંડાઇના ૫ પિયત ૧૫ થી ૨૦ દિવસના આંતરે આપવાની તથા ૧૮ પાને ખૂંટણી કરવાની ભલામણ કરવામાં આવે છે.

(**Action** :Research Scientist, BTRS, AAU, Anand)

20. Testing the feasibility of drip irrigation with mulch in bidi tobacco var. MRGTH-1

The recommendation was concluded by the house

(**Action** :Research Scientist, BTRS, AAU, Anand)

21. Effect of covering materials on growth and transplantable seedlings in bidi tobacco nursery

Recommendation for farmers :

The farmers of Middle Gujarat Agro climatic Zone III are advised to cover their bidi tobacco nursery with green agro shade net 90% at a height of 45 cm with one side slope on the bed till two leaf stage and thereafter uncover the bed during day time as and when required to obtain higher germination, seedlings and net income

ખેડૂત ઉપયોગી ભલામણ :

મધ્ય ગુજરાત ખેત આબોહવાકીય વિસ્તાર-૩ ખેડૂતોને વધુ ભલામણ કરવામાં આવે છે કે વધુમાં વધુ બીજનો ઉગાવો, ધરૂ અને આર્થિક નફો મેળવવા માટે બીડી તમાકુના ધરૂવાડિયામાં આવરણ તરીકે ગ્રીન એગ્રો શેડ નેટ (૯૦ %) ને ક્યારાની એક બાજુએ ૪૫ સે. મી. ની ઉંચાઇનો ઢાળ આપી ધરૂ બે પાનનુ થાય ત્યા સુધી અને ત્યાર બાદ દિવસ દરમ્યાન જરૂરીયાત મુજબ આવરણ તરીકે ઉપયોગ કરવો.

(**Action**: Research Scientist, BTRS, AAU, Anand)

General Suggestions:

1. The format should include plant protection observations and manure
2. Purpose of inclusion of treatment should be clearly mentioned with review of literature.
3. All the recommendations should have photographs
4. For irrigation experiments, data on soil moisture content, irrigation interval, total water applied, depth of irrigation, saving of water etc. should be recorded.

Technical Session – V

PRESENTATION OF NEW TECHNICAL PROGRAMME

Chairman : Dr Sanjay Singh
Co-Chairman: Dr. H. C. Patel
Rapporteurs: Dr. V. J. Patel and Dr. G. J. Patel

During this session total 10 new technical programmes were presented and discussed in length. Among 10 new technical programmes 2 were accepted as such, 1 was not accepted by the house , 3 new technical programmes were instructed for re-finalized and present again in the house and 4 programmes were accepted after incorporating minor suggestions/corrections as suggested.

I. KVK , AAU, Dahod

21. To evaluate the date of sowing and varieties during *rabi* season of soybean in Middle Gujarat Agro-Climatic Condition

Accepted with following suggestion/s:

1.Change objective as : To find out the appropriate sowing time and varieties
2. Modified the treatment as under (Date of sowing)
D_1: 4th Week of Sept.
D_2: 1st week of Oct.
D_3: 2nd week of Oct.
D_4: 4th week of Oct.
3. Delete the Economics in observation
4. Add all the growth and yield attributes in details

(**Action** : PC. KVK, AAU, Dahod)

Note: Same set of experiment should be conducted at Devgadhbaria during summer season with the following treatments
D_1: 1st week of Feb.
D_2: 3rd week of Feb.
D_3: 1st week of March
D_4: 3rd week of March

(**Action** : Assoc. Research Sci. TRTC, AAU, Devgadhbaria)

22. To evaluate the date of sowing on productivity of chick pea in Middle Gujarat Agro-Climatic Conditions.

Accepted with following suggestion/s:

1. Title changed as " To evaluate the sowing time and varieties on green pod yield of chick pea Under Middle Gujarat Agro-Climatic Conditions".

2. Add third variety as T_3: GG-2

3. Delete the Economics in observation

4. Modified the treatment as under (Date of sowing)
D_1: 4th week of Sept.
D_2: 2nd week of Oct.
D_3: 4th week of Oct.
D_4: 2nd week of Nov.

4. Add all the growth and yield attributes in details as well as Pest and disease observations, days to germination, No. of green pod/plant, No. of picking, No. Of branches/plant

(**Action** : PC. KVK, AAU, Dahod)

23. Effect of organic manures and fertilizers/bio-fertilizers on yield and quality of soybean (Glycine max (L.), Merrill) and their residual effects on yield of succeeding wheat crop under middle Gujarat conditions.

The programme was dropped by the house

(**Action** : PC. KVK, AAU, Dahod)

II . ARS, AAU, Derol/Vadodara

24. Effect of different green manuring on fertilizer requirement of castor

Accepted with following suggestion/s:

1. The house suggested to form a committee of the following scientist for re-finalizing the programme and submit to the committee

Committee member
1. Dr. M. V. Patel
2. Dr. V. R. Bhatt
3. Dr. P. R. Vaishnav

(**Action** : Research Sci. ARS, AAU, Derol/Vadodara)

25. Effects of bio-fertilizers and their method of application on yield of pigeonpea in relation to varying fertilizer levels

Accepted with following suggestion/s:

. The house suggested to form a committee of the following scientist for re-finalizing the programme and submit to the committee

Committee member

1. Dr. M. V. Patel
2. Dr. R. V. Vyas

(**Action** : Research Sci. ARS, AAU, Derol/Vadodara)

III . TRTC, AAU, Devgadh Baria

26. Effect of organic manures, bio-fertilizers and levels of phosphorus on Soybean [*Glycine max* (L.) Merrill] and its residual effect on *Rabi* Maize under middle Gujarat conditions

Accepted with following suggestion/s:

1. Modified the treatment as under

I. Organic manure (O)

O_1: 5 t/ha FYM

O_2: 2 t/ha Vermicompost

II. Level of Nitrogen (N)

N_1: 22.5 kg/ha

N_2: 45 kg/ha

III. Level of Phosphorous (P)

P_1: 30 kg P_2O_5/ha

P_2: 60 kg P_2O_5/ha

IV. Bio-fertilizers (B)

B_1: *Rhizobium* (Seed treatment)

B_2: PSB (Seed treatment)

B_3: *Rhizobium* + PSB (Seed treatment)

(**Action** : Assoc. Research Sci. TRTC, AAU, D. Baria)

27. Effect of Intercropping Pattern on Soybean [*Gycine max* (L.) Merrill] and Maize (*Zea maize L.*) yeild in middle Gujarat condition.

Accepted with following suggestion/s:

1. Delete the treatment No. 5
2. In last treatment (3:2) add/mention Farmers Practices

(**Action** : Assoc. Research Sci. TRTC, AAU, D. Baria)

IV . Polytechnic in Agri., AAU, Vaso

28. Response of various soil amendments on growth and yield of kharif paddy through SRI (Modified).

Accepted with following suggestion/s:

1. The house suggested that re-finalizing the programme after discussion with Dr. V. R. Bhatt

(**Action**: Professor, Polytrech in Agri., AAU, Vaso

V. Micronutrient Project, AAU, Anand

29. To find out critical limit of Ni for soil

Accepted as such

(**Action:** Research Scientist, Micronutrient Project., AAU, Anand)

30. Isolation and identification of strain for bio-remediation of heavy metals
Accepted as such

(**Action:** Research Scientist, Micronutrient Project., AAU, Anand)

Technical Session – VI

PRESENTATION OF ON GOING RESEARCH PROGRAMME

Chairman: Dr. M. V. Parel
Co-chairman: Dr. J. B. Patel
Rapporteur: Dr. J. K. Parmar and Dr. R. A. Patel

In the crop production sub committee meeting was arranged during 11-12 march, 2014. There were 23 research stations of Anand Agricultural University, Anand were presented their progress report in which 59 experiments were discussed. The minutes are as under

Regional Research Station (NARP), Arnej

Research progress report of Regional Research Station (NARP), Arnej was presented by Dr. M. S. Zakasaniya. He had presented five ongoing research experiments. All the results of experiments were noted by house.

Pulse Research Station, AAU, Vadodara

Research progress report of Pulse Research Station, AAU, Vadodara was presented by Dr. V. V. Sonani. He had presented five ongoing research experiments. Among all five experiments, three experiments were failed and two experiments are concluded.

The experiment entitled "Performance of variety on pigionpea under plant geometry" is vitiated due to heavy rain, only one year is successfully conducted. House decided that concern research scientist submit explanation with year wise data to Director of Research office for further action and research experiment should be dropped.

The experiment entitled "Irrigation Scheduling in *rabi* pigionpea through drip irrigation" is vitiated due to heavy rain. House decided that concern research scientist submit explanation to Director of Research office for further action. The experiments will shifted and continue by D. R. P. Kacha at Thasra research station.

(Action: Research Scientist, ARS, AAU, Derol/Vadodara**)**

Main Maize Research Station, Godhara

Research progress report of Main Maize Research Station, Godhara was presented by Shri. K. H. Patel. He had presented seven ongoing research experiments. All the results of experiments were noted by house.

The experiment entitled "Response of winter maize to tassel removing on maize production" House suggested that recommendation made in next AGRESCO with pooled the results of experiment for particular location and over location. Further, House suggested that the experiment on Natural organic liquid on maize will concluded and recommendation made in next AGRESCO.

While results of two year of the experiment on "Effect of bio-organics and chemical fertilizer on growth, yield & quality of sweet corn. (*Zea mays,l. var sacharata*) should be pooled and after discussion with statistician the recommendation should be form and present in Joint AGRESCO.

(Action: Research Scientist, MMRS, AAU, Godhara**)**

Polytechnic in Agriculture, Vaso

Research progress report of Polytechnic in Agriculture, Vaso was presented by Shri. Y. C. Lakum. He had presented one ongoing research experiment on summer clusterbean used for gum will modified by discuss with following committee (Dr. M. V. Patel, Dr. V. R. Bhatt, Dr. V. B. Darji)

(Action: Professor, Polytech in Agri., AAU, Vaso)

Agriculture Research station, Khadha

Research progress report of Agriculture Research station, Khadha was presented by Shri. D. T. Chaudhary. Progress report of ongoing research experiment and results were noted by house.

Department of Microbiology, Anand

Research progress report of Department of Microbiology, Anand was presented by Dr. R. V. Vyas and results were noted by house.

Agriculture Research station, Thasra

Research progress report of Agriculture Research station, Thasra was presented by Dr. R. P. Kacha. He had presented four ongoing research experiment and results were noted by house. Further, the experiment entitled "Effect of nitrogen and phosphorus fertigation on sweet corn in goradu soil of middle Gujarat condition" This experiment should be concluded and form the recommendation with results in Joint AGRESCO meeting.

(Action: Assoc. Res. Sci., ARS, AAU, Thasra**)**

Agriculture Research station, Devgadh Baria

Research progress report of Agriculture Research station, Devgadh Baria was presented by Dr. G. J. Patel. He had presented five ongoing research experiments and results were noted by house.

Agriculture Research station, Jabugam

Research progress report of Agriculture Research station, Jabugam was presented by Shri. H. C. Parmar. He had presented one ongoing research experiments and results were noted by house.

Main Vegetable Research Station, Anand

Research progress report of Main Vegetable Research Station, Anand was presented by Dr. J. K. Patel. He had presented on ongoing research experiments and results were noted by house.

Agriculture Research station, Navagam

Research progress report of Agriculture Research station, Navagam was presented by Dr. N. P. Chauhan. He had presented three ongoing research experiments and results were noted by house. Further, house decided that two experiments are concluded and recommendation will made with all results in next AGRESCO. House also suggested that the AICRIP experiment will concluded and recommendation will made with be all results including pooled data in next AGRESCO.

(Action: Research Scientist, MRRS, AAU, Navagam**)**

Agriculture Research station, Derol

Research progress report of Agriculture Research station, Derol was presented by Dr. V. V. Sonani. He had presented four ongoing research experiments and results were noted by house.

House also suggested that the experiment entitled "Varietal response of drill paddy" should be dropped. While, results of experiment entitled "Weed management

in paddy" should be presented in next AGRSCO in the form of recommendation with all results, applying DNMRT test.

(Action: Research Scientist, ARS, AAU, Derol**)**

Main Forage Research Station, Anand

Research progress report of Main forage Research Station, Anand was presented by Dr. P. M. Patel. He had presented two ongoing research experiments and results were noted by house.

Bidi tobacco research station, Anand

Research progress report of Bidi tobacco research station, Anand was presented by Dr. K. M. Gedia. He had presented five ongoing research experiments and results were noted by house.

House suggested that the long term experiment will review by committee formed as concern scientist, professor and Head of departments of Agronomy, Ag. Chemistry and Agril. Statistics. The committee should reviews the results of experiment and report submitted to the director of research office. House also suggested that the experiments entitled "Effect of planting dates on yield and quality of bidi tobacco variety" and "Assessment of NOL and inorganic nutrient supply system on rustica tobacco should be presented in next AGRSCO in the form of recommendation with all results.

(Action: Research Scientist, BTRS, AAU, Anand**)**

Medicinal and Aromatic Plant Research, Anand

Research progress report of Medicinal and Aromatic Plant Resarch, Anand was presented by Prof. B. V. Hirpara. He presented four ongoing research experiments and results were noted by house. House suggested that experiment on bhumi amalaki (Bhoy ambali) will be extended for one more year. The modifications are approved by house regarding distance and date of sowing in experiment on artimisia medicinal plant.

Department of Horticulture, BACA, AAU, Anand

Research progress report of Department of Horticulture, Anand was presented by Dr. M. J. Patel. He had presented eight ongoing research experiments and results were noted by house. Further, Dr. Sanjay Singh were suggested that concern scientist should focused on restoring, collection of germplasm and maintained by narrow spacing planting for further improvement and varietal experiments. He also suggests that improvement in kesar mango is needed to make it supar kesar.

(Action: Prof. & Head, Department of Horticulture, BACA, Anand**)**

Department of Agronomy, BACA, AAU, Anand

Research progress report of Department of Agronomy, Anand was presented by Dr. K. D. Mevada. He had presented nine ongoing research experiments and results were noted by house. House suggested that the long term experiment will

review by committee formed as concern scientist, professor and Head of departments of Agronomy, Ag. Chemistry and Agril. Statistics. The committee should reviews the results of experiment and report submitted to the director of research office. Moreover, one experiment on pearl millet-soybean row ratio was modified by addition of one treatment, i.e. pearl millet+ soybean (2:1) and varieties GHB 558 and NRC 37 will be used instead of earlier mention in experiment.

(Action: Prof & Head, Dept. of Agronomy, BACA, Anand**)**

In general, house suggested that all three location trial should not be taken and all the experiment on maize multiplication trial continue only at Godhara station.

PLENARY SESSION

Finalization of recommendations and New Technical Programmes

Charmain: Dr. A. M. Sekh
Co-Charmain : Dr. K. B. Kathiria
Rapporteurs : Dr. V. P. Ramani and Dr. K. C. Patel

The plenary session was chaired by Dr. A. M. Shekh, Hon'ble Vice Chancellor, AAU, Anand and was started with the presentation of the proceedings of various technical sessions. The proceedings of the Technical Session-I was presented by Dr. V. P. Ramani. In this session total twelve recommendations were presented and ten were finally approved and two were deferred. Dr. B. D. Patel presented proceedings of the technical session II. Out of 12 new technical programme, 11 were approved and 1 technical programme was dropped. Two experiments of organic cell were concluded.

The proceeding of technical session-III was presented by Dr. M. J. Patel which was approved by the house. The proceedings of the Technical Session-IV was presented by Dr. k. D. Mevada. In this session total nine recommendations were presented among these six were approved, two were extended for next year and one was differed. Dr. Dr. G. J. Patel presented proceeding of technical session-V and Dr. J. K. Parmar presented Technical Session-VI which were considered by the house.

Dr. D. R. Kathiria, Director of Information Technology, AAU, Anand suggested for digitalization of all the recommendations of AAU for easy access. Further, he gave ideas about real time monitoring and solving the different problems of farmers by Tablet Technology. He also emphasized on role of Information technology in agriculture.

Dr. A. M. Shekh, Hon'ble Vice Chancellor, AAU, Anand and Dr. Dr. K.B. kathiria, Director of Research congratulated all the scientists and their groups whose recommendations were accepted by the house.

The house expressed their gratitude to special invitee Dr. N. K..Kalyansundaram Retd. Prof (Ag. Chem.& Soil Sci.), Dr. P. T. Patel, Retd. Principal, CPCA, S. K. Nagar and Dr. Sanjay Singh Senior Scientist, Horticulture Research Station, ICAR, Vejalpur for chairing sessions and for his valuable suggestions and criticism for improvement.

The session ended with vote of thanks by Dr. V. R. Bhatt, Convener, AAU, Anand

Department/Discipline	No. of Recommendation				New Technical Program		Number of ongoing experiments
	For Scientific Community		For Farmer Community				
	Proposed	Approved	Proposed	Approved	Proposed	Approved	
Department of Agronomy	-	-	1	1	-	-	12
Department of Agril.Chem. and Soil Sci					1	1	4
I/C. Professor IFFCO Chair	-	-	-	-	-	-	3
Department of Agri. Meteorology	1	1	-	-	2	2	11
Department of Horticulture	1	1	-	-	3	2	14
Department of microbiology &Bio-fertilizer	-	-	3	1	-		15
Micronutrient Project (ICAR), AAU, Anand	-	-	-	-	2	2	14
AICRP on DWSR (ICAR)			-	-	1	1	20
M F R S, AAU, Anand			1	1	1	1	5
R R S, AAU, Anand	-	-	2	2	1	1	3
B T R S, AAU, Anand	-	-	3	2	-		7
Medicine and aeromatic plant research	-	-	1	1	1	1	4
N A R P, Khandha	-	-	-	-	-	-	2
NARP, Arnej	-	-	2	2	-	-	6
Irrigated Crop Research Station, Thasra	-	-	2	2	3	2	4
KVK, Dahod	-	-	-	-	3	2	-
M M R S, Godhra	-	-	1	1	-	-	7
Pulse Research Station, Derol/Vadodara	-	-	1	-	2	2	9
T R T C, Devgadhbaria	-	-	-	-	2	2	5
Z C R S, Viramgam	-	-	3	3	1	1	3
ARS Jambugam	-	-	-	-	2	2	1
Main Vegetable Research Station, Anand	-	-	-	-	-	-	2
M R R S, Nawagam	-	-	-	-	-	-	11
ARS, Khambholaj	-	-	-	-	1	1	3
Polytechnique in Agri. Vaso	-	-	-	-	1	1	1
Agri Wing, AAU, Jabugam	-	-	-	-	3	2	-
Total	**2**	**2**	**20**	**16**	**30**	**26**	**166**