Proceedings of 1st Meeting of Post Graduate Research Approval Group – Crop Improvement, NAU, Navsari

First meeting of PG-RAG of crop improvement group of NAU, Navsari was held on 29th January, 2019 at the conference hall, Main Sugarcane Research Station, NAU, Navsari.

At the beginning, **Dr. K. G. Modha**, Assistant Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari, welcomed **Dr. M. K. Arvadia**, Principal, NMCA, NAU, Navsari, he also welcomed **Dr. R. M. Patel**, Principal, ASPEE Shakilam Biotechnology Institute, NAU, Surat, **Dr. R. K. Patel**, Convener of PG-RAG and I/c. Professor and Head, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari and all the members as well as newly admitted post graduate students of the crop improvement group. In his welcome remarks, **Dr. R. K. Patel**, Convener of PG-RAG and I/c. Professor and Head, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari, addressed the house regarding outline of the first meeting of PG-RAG and by describing PG-RAG as a part of another PG academic programme he requested positive and constructive suggestions from the different expertise of different disciplines available in the house to finalize the research outline of 44 PG students including 7 M. Sc. (Agri.) and 1 Ph. D. student of Plant Molecular Biology and Biotechnology, 1 M. Sc. (Agri.) and 1 Ph. D. student of Crop Physiology and 27 M. Sc. (Agri.) and 7 Ph. D. students of Genetics and Plant Breeding. He has given weightage to cover some aspects of research work related to minor subject along with major research work and emphasized on quality research work from publications point of view. He has also given weightage on in time completion of PG degrees.

Review of Action Taken Report:-

Chairman	:	Dr. M. K. Arvadia	**Rapporteurs**	:	Dr. Madhu Bala
Co-chairman	:	Dr. R. M. Patel		:	Dr. H. K. Joshi

The action taken report of 8th meeting of board of studies of crop improvement group was presented by **Dr. R. K. Patel**, Convener of PG-RAG and I/c. Professor and Head, Department of Genetics and Plant Breeding, NMCA, NAU, Navsari. As per the report, all PG guides have properly taken care of all the suggestions which were made in 8th board of studies meeting and it was also incorporated in the concerned PG research programme. Finally, the house has accepted the action taken report with the permission of chairman and co-chairman.

Dr. M. K. Arvadia, Principal, NMCA, NAU, Navsari, in his opening remarks, he congratulated all the PG students for acquiring PG programme in Navsari Agricultural University, Navsari. By narrating Crop Improvement group as the most important and largest in the university he requested all the senior as well as junior faculties of crop improvement group to work on major crops of South Gujarat *i.e.,* Rice, Sugarcane, Pulses and Vegetables. He has also insisted house for positive feedbacks to finalize the new PG research programme. He emphasized on keen interaction and involvement of major guide for constructing research programme and recommended that whatever the suggestions the house will give that should be incorporated to make concrete and useful research programme. He has also given weightage for quality publications from PG research work. **Dr. R. M. Patel,** Principal, ASPEE Shakilam Biotechnology Institute, NAU, Surat, invited good and valuable suggestions of house for formulation of research programme so that concrete programme can be made to address the current issues of farmers and he has also advised to house to construct the research programme in such a way that it can become base to frame future research programs.

Technical Session-I

Research proposals of P.G. students of Dept. of Plant Molecular Biology and Biotechnology, Crop Physiology as well as Genetics and Plant Breeding:

Chairman	:	Dr. R. M. Patel (PMBB)/ Dr. R. K. Patel (GPB)	**Rapporteurs**	:	**PMBB Group:** Dr. C. V. Kapadia/ Dr. K. P. Suthar **GPB Group:** Dr. Madhu Bala/ Dr. H. K. Joshi
Co-chairman	:	Dr. Sanjay Jha (PMBB)/ Dr. P. B. Patel (GPB) Dr. D. A. Chauhan (GPB)			

The research work proposals of P.G. students of Dept. of Plant Molecular Biology and Biotechnology, Crop Physiology and Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari were presented before the house.

Approved research proposals of Ph. D. student of subject of Plant Molecular Biology and Biotechnology with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Patel Samarth Ramanbhai** Reg. No.- 1010118023 **Major Guide:** Dr. R. M. Patel	"Effect of nanopackaging materials on ripening related gene expression in mango (*Mangifera indica* L.) cv. Kesar"	➢ Change objective no. 1 as "To synthesis nanoparticles from mango leaf and their characterization" ➢ Conduct the qPCR analysis for the best treatments only. Further, the analysis should be started after 15 days of storage

Approved research proposals of M. Sc. students of subject of Plant Molecular Biology and Biotechnology with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Gamit Aishwaryaben Jashvantbhai** Reg. No.- 2010118042 **Major Guide:** Dr. K. P. Suthar	"Molecular and biochemical study on effect of Zn nanoparticle priming on rice (*Oryza sativa* L.)"	➢ The experiment site should be tested for Zn content and site with lower Zn content should be selected for field experiment ➢ Change the word "Zn" to "ZnO" ➢ Title should be changed as "Molecular and Biochemical response of ZnO nanoparticle in rice (*Oryza sativa* L.)"
2.	**Joshi Bhoomikaben Arvindbhai** Reg. no. 2010118049 **Major Guide:** Dr. C. V. Kapadia	"Coexpression of ACC deaminase and PMEI as self processing fusion protein in *Pichia pastoris*"	--NIL--
3.	**Lakhani Komalben Gvaldas** Reg. No.- 2010118064 **Major Guide:** Dr. K. P. Suthar	"Molecular and biochemical characterization of promising genotypes of little millet (*Panicum sumatrense*)"	➢ Remove the field trial and morphological observation ➢ Remove "Ash content analysis" from observation.

No.	Name of student	Research Topic	Suggestions
4.	**Panara Sandipkumar Shivjibhai** Reg. No.-2010118081 **Major Guide:** Dr. Rajkumar B. K.	"Isolation and molecular characterization of cellulose degrading bacteria"	➢ Change the nitrogen source from "ammonium nitrate" to "ammonium sulfate"
5.	**Patel Shivang Nileshkumar** Reg. No.-2010118106 **Major Guide:** Dr. V. B. Parekh	"Molecular diversity analysis of nuclear and cytoplasmic genome in pistillate and monoecious lines of Castor (*Ricinus communis* L.)"	--NIL--
6.	**Saini Nikunjkumar Rameshbhai** Reg. No.-2010118124 **Major Guide:** Dr. V. B. Parekh	"*In vitro* regeneration of Indian bean [*Lablab purpureus* (L.) Sweet] utilizing indirect organogenesis"	➢ Title should be changed as "Standardization of *in vitro* regeneration of Indian bean [*Lablab purpureus* (L.) Sweet] utilizing indirect organogenesis" ➢ B5 and MS Media should be tested and best media should be taken further for optimization of regeneration system in Indian bean ➢ In treatments, 1) For callus induction maximum 2,4-D concentration should be up to 2.5 mg l^{-1}, 2) For shoot regeneration maximum BAP up to 2.0 mg l^{-1}, 3) Instead of writing 0 mg l^{-1} mentions the basal concentration. ➢ The following changes in observation need to be done: 1) Write "No. of shoot per g of callus" instead of "No. of shoots per callus." 2) Write "No. of roots per shoot" instead of "No. of roots" 3) Add % contamination ➢ The repetition should be changed as per finalized treatments.

No.	Name of student	Research Topic	Suggestions
7.	**Sneha Fakeergouda Patil** Reg. No.-2010118129 **Major Guide:** Dr. Sanjay Jha	"Optimisation of genetic transformation protocol in sugarcane (*Saccharum complex* L.) variety COC-671"	➢ Use appropriate statistical design. ➢ The concentration of *Agrobacterium* should be in the range of 0.6 to 1.0 OD. ➢ Add following observations: 1) Callus (%) 2) Type of callus

Approved research proposals of Ph. D. students of subject of Crop Physiology with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Kirti Bardhan** Reg. No.- 1010118010 **Major Guide:** Dr. A. V. Narwade	"Differential transcriptome analysis of rice (*Oryza sativa* L.) roots under potassium and moisture stress interaction	➢ Use appropriate statistical design for experiment.
2.	**Malek Mahammadaman Zaheermiya** Reg. No.- 1010118016 **Major Guide:** Dr. A. V. Narwade	Research will be decided later on.	--NIL--

Approved research proposals of M. Sc. student of subject of Crop Physiology with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Pandya Mansi Nalinbhai** Reg. No.- 2010118082 **Major Guide:** Dr. Kamal Kant	"Root anatomical plasticity of rice (*Oryza sativa* L.) under potassium and moisture stress interaction"	➢ Remove the word "under moisture stress" from objective third.

Approved research proposals of Ph. D. students of subject of Genetics and Plant Breeding with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Chirag Solanki** Reg. No.- 1010118003 **Major Guide:** Dr. P. M. Mistry	"Generation mean analysis for yield, its component and molecular characterization for aroma in Rice (*Oryza sativa* L.)"	➢ Objective should be changed as below 1) Validation of markers associated with aroma (4th objective) ➢ The population size should be specified as below for study P_1, P_2 and F_1: 10 plants, F_2: 200 plants, BC_1 and BC_2: 20 plants ➢ Observation should be added 1) Days to maturity
2.	**Devyani Katara** Reg. No.-1010118004 **Major Guide:** Dr. K. G. Modha	Research will be decided later on.	--NIL--
3	**Ladumor Vaishali L.** Reg. No.-1010118013 **Major Guide:** Dr. H. E. Patil	"Stability and Diversity Analysis in Finger millet (*Eleusine coracana* (L.) Gaertn.)"	➢ Trial should be evaluated at three locations instead of two locations with 30 days of sowing difference and be College farm, Navsari Agricultural University, Navsari should be kept as third location ➢ Observations should be added 1) Leaf area (cm^2) 2) Chlorophyll content
4.	**Langhi Amol Maruti** Reg. No.- 1010118014 **Major Guide:** Dr. S. R. Patel	"Genetic analysis of yield and its components in Sunflower (*Helianthus annus* L.)"	➢ Objective should be changed as below 1) To estimate the stability parameters of parents and hybrids over locations (4th objective) ➢ Testers should be given new code. ➢ Observation should be changed as below 1) Volume weight (g/100ml) to Seed volume weight (g/100ml) (11^{th} Observation) ➢ Observations should be added in place of Quality parameters of oil (9^{th} Observation) 1) Oleic acid content (%) 2) Linoleic acid content (%)

No.	Name of student	Research Topic	Suggestions
5.	**Patel Savankumar Narshihbhai** Reg. No.-1010118024 **Major Guide:** Dr. V. P. Patel	"Quantitative trait loci analysis for yield and yield attributing traits in rice (*Oryza sativa* L.)"	--NIL--
6.	**Priya Arunbhai Patel** Reg. No.- 1010118026 **Major Guide:** Dr. K. N. Chaudhari	"QTL analysis for seed size in Coriander (*Coriandrum sativum* L.)"	--NIL--
7.	**Stuti Krishna** Reg. No.- 1010118029 **Major Guide:** Dr. R. K. Patel	"Molecular dissection of photoperiod responsive flowering with special reference to "*GmPhyA3*" homologue in Indian Bean [*Lablab purpureus* (L.) Sweet]	➢ Research Title should be changed as below "Molecular dissection of photoperiod responsive flowering with reference to "*GmPhyA3*" homologue in Indian Bean [*Lablab purpureus* (L.) Sweet]. ➢ Observation should be changed as below 1) Seed yield per plant (g) to Yield per plant (g) (10^{th} Observation)
8.	**Vadodariya Gopal D.** Reg. No.- 1010113026 **Major Guide:** Dr. D. A. Chauhan	"Generation mean analysis for yield and yield components in blackgram (*Vigna mungo* L. Hepper)"	➢ Objective should be changed as below 1) To estimate the magnitude of heterosis in F_1 (2^{nd} objective) ➢ The population size is should be specified as below for study. P_1, P_2 and F_1: 10 plants, F_2: 40 plants, BC_1 and BC_2: 20 plants ➢ "Uttara" should be removed from male parent ➢ Observation should be changed as below 1) No. of branches per plant to Branches per plant (3^{rd} Observation) 2) No. of pods per plant to Pods per plant (4^{th} Observation) 3) No. of seeds per plant to Seeds per plant (6^{th} Observation) 4) Seed yield per plant (g) to Yield per plant (g) (9^{th} Observation)

Approved research proposals of <u>M. Sc. students</u> of subject of <u>Genetics and Plant Breeding</u> with corrective suggestions made by the house:

No.	Name of student	Research Topic	Suggestions
1.	**Ahir Vaishali Jayantibhai** Reg. No.-2010118002 **Major Guide:** Dr. M. C. Patel	"Genetic architecture in upland cotton (*Gossypium hirsutum* L.)"	➢ Objective should be changed as below 1) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids (2nd objective) ➢ Observations should be changed as below 1) No. of monopodia per plant to Monopodia per plant (2nd Observation) 2) No. of sympodia per plant to Sympodia per plant (3rd Observation) 3) No. of bolls per plant to Bolls per plant (4th Observation) 4) Ginning percentage (%) to Ginning percentage (9th Observation) 5) Oil percentage (%) to Oil content (%) (12th Observation) ➢ Observation should be removed 1) Day to boll bursting (6th Observation) ➢ Observations should be added 1) Fiber length (mm) 2) Seed index 3) Lint index
2.	**Chaudhari Kaushikkumar Bhikhabhai** Reg. No.-2010118018 **Major Guide:** Dr. J. P. Makati	"Molecular characterization and assessment of genetic variability in Fenugreek (*Trigonella foenum-graceum* L.)"	➢ Objectives should be changed as below 1) To estimate the genetic variation for seed yield and its related traits (1st objective) 2) To estimate genotypic and phenotypic correlation between seed yield and its related characters (2nd objective) 3) To estimate genetic relatedness of different genotypes based on DNA markers ➢ Total 25 genotypes should be fixed for study

No.	Name of student	Research Topic	Suggestions
3.	**Chaudhary Vinodbhai Shivabhai** Reg. No.- 2010118021 **Major Guide:** Dr. R. S. Bhakta	"Genetics of seed yield and its components in Castor (*Ricinus communis* L.)"	➢ Research Title should be changed as below "Genetic analysis for seed yield and its components in Castor (*Ricinus communis* L.)" ➢ Objectives should be changed as below 1) To estimate the magnitude of heterosis for seed yield and its attributes (1st objective) 2) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids (2nd objective) 3) To study the nature of gene action for seed yield and its attributes (3rd objective) ➢ Observations should be changed as below 1) Capsules/primary spike to Capsules per primary spike (7th Observation) 2) Yield/plant (g) to Seed yield per plant (9th Observation)
4.	**Chauhan Jignaba Harpalsinh** Reg. No.- 2010118025 **Major Guide:** Dr. K. V. Vadodariya	"Heterosis and combining ability studies in desi cotton (*G. herbaceum* L.)"	➢ Objectives should be changed as below and should be written in following sequence 1) To estimate the magnitude of heterosis for seed yield and its attributes (1st objective) 2) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids (2nd objective) 3) To study the nature of gene action for seed yield and its attributes (3rd objective) ➢ Observations should be changed as below 1) Days to flowering to Days to 50 % flowering (1st Observation) 2) Micronaire (mv) to Fibre fineness (mv) (14th Observation) ➢ Observations should be removed 1) Lint yield per plant (g) 2) Lint index 3) Maturity coefficient
5.	**Darji Tanvibahen Avinashbhai** Reg. No.-	"Genetic diversity studies in relation to yield and quality traits in Barnyard millet	➢ Research Title should be changed as below "Genetic diversity for yield and yield attributes in Barnyard millet (*Echinochloa frumentacea*)"

No.	Name of student	Research Topic	Suggestions
	2010118030 **Major Guide:** Dr. H. E. Patil	(*Echinochloa frumentacea*)"	➢ Objectives should be changed as below 1) To ascertain the extent of variability in genotypes for yield and its attributes (1st objective) 2) To estimate correlation between yield and yield attributes (2nd objective) 3) To estimate the direct and indirect effects of yield attributes (3rd objective) 4) To estimate genetic divergence for yield and its attributes (4th objective) ➢ Observations should be changed as below 1) Number of productive tillers per plant to Productive tillers per plant (4th Observation) 2) Number of branches per panicle to Branches per panicle (5th Observation) ➢ Observations should be removed 1) Ash content (%) (11th Observation)
6.	**Desai Kunj Maheshkumar** Reg. No.- 2010118033 **Major Guide:** Dr. Manju Singh	"Genetic analysis through half diallele in rice (*Oryza sativa* L.)"	➢ Research Title should be changed as below "Genetic analysis for quantitative traits in rice (*Oryza sativa* L.)" ➢ Observations toshould be added 1) Kernel length (mm) 2) Kernel breadth (mm)
7.	**Gajjar Kartikkumar Devendrabhai** Reg. No.- 2010118039 **Major Guide:** Dr. S. C. Mali	"Isolation and characterization of endophytic bacteria isolated from the Sugarcane cultivated on coastal saline soils of South Gujarat for salinity tolerance"	➢ Constituted Committee should finalize the Research work 1) Dr. S. C. Mali 2) Dr. Sanjay Jha, Assoc. Prof., ASBI 3) Dr. K. G. Modha, Asst. Prof. Dept. of GPB 4) Dr. Jagdish Udutha, Asst. Res. Sci, MSRS
8.	**Gamit Mittal Kantilal** Reg. No.- 2010118042	"Genetic variability and character association in relation to quantitative and quality traits in Kodo millet (*Paspalum scrobiculatum* L.)"	➢ Research Title should be changed as below "Genetic variability and character association analysis in Kodo millet (*Paspalum scrobiculatum* L.)" ➢ Observations should be changed as below 1) Number of tillers per plant to Tillers per plant (3rd Observation)

No.	Name of student	Research Topic	Suggestions
	Major Guide: Dr. S. S. Patil		2) Number of grains per panicle to Grains per panicle (4th Observation) ➢ Observations should be removed 1) Ash content (%) (11th Observation)
9.	**Hitesh Kumar Koli** Reg. No.- 2010118047 **Major Guide:** Dr. A. I. Patel	"Genetic analysis for yield and its component traits in okra [*Abelmoschus esculentus* (L.) Moench]"	➢ Observations should be changed as below 1) Number of branches per plant to Branches per plant (3rd Observation) 2) Number of fruit per plant to Fruits per plant (8th Observation) 3) Number of seed per fruit to Seeds per fruit (10th Observation) 4) YVMV (%) to YVMV incidence (%) 5) ELCV (%) to ELCV incidence (%) 6) Fruit and Shoot borer infestation (%) ➢ "At final harvest" should be removed from observations 2, 3 and 4. ➢ "Average" word should be removed from observations 4, 5, 6 and 7
10.	**Kanshouwa Modunshim Maring** Reg. No.- 2010118055 **Major Guide:** Dr. Madhu Bala	"Line x Tester analysis for deducing heterosis and gene action in Rice (*Oryza sativa* L.)"	➢ Observations should be changed as below 1) Kernel width (mm) to Kernel breadth (mm) (7th Observation) ➢ Condition should be defined: No. of crosses should be decided on the basis of availability of no. of cross seeds.
11.	**Mendapara Isha Kishorbhai** Reg. No.- 2010118067 **Major Guide:** Dr. S. R. Patel	"Genetic variability analysis for yield attributes and characterization of *TFL* homologue in pigeon pea [*Cajanus cajan* (L.)]"	➢ Season should be changed to *Kharif* from *Kharif-rabi* ➢ Observations should be changed as below 1) Disease Incidence (%) for SMV to SMD incidence (%) (13th Observation) ➢ Observations 11th and 12th should be written in appendix in thesis.
12.	**Niravkumar Hasmukhbhai Thakor** Reg. No.- 2010118077 **Major Guide:** Dr. V. D. Pathak	"L X T analysis in fodder sorghum [*Sorghum bicolor* (L.) Moech]"	➢ Objective should be changed as below 1) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids. (2nd objective) ➢ Spacing should be kept 30 X 10 cm ➢ Observations should be changed as below 1) Total soluble solids (TSS %) to Total soluble solids (%) (8th Observation) 2) Hydrocyanic acid (HCN) content (ppm) to Hydrocyanic acid content

No.	Name of student	Research Topic	Suggestions
			(ppm) ➢ Female lines should be written as Lines ➢ Condition should be defined as: 3 lines + 5 testers + 15 hybrids + 1 check
13.	**Parmar Pratikkumar Vanrajbhai** Reg. No.-2010118085 **Major Guide:** Dr. M. K. Gangani	"Heterosis and combining ability analysis for yield and related attributes in Mungbean [*Vigna radiata* (L.) Wilczek]"	➢ Research Title should be changed as below "Genetic architecture for yield and its components in Mungbean [*Vigna radiata* (L.) Wilczek]" ➢ GM-7 should be kept as check in evaluation ➢ Objective should be changed as below 1) To study the nature and magnitude of heterosis for yield and its components. 2) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids for yield and yield contributing characters. (2nd objective) 3) To study nature of gene action for various characters. (3rd objective) ➢ Observation should be changed 1) Days to 75% maturity to Days to maturity (2nd Observation) ➢ Observation to be added 1) YVMV incidence (%)
14.	**Patel Apexa Girishbhai** Reg. No.-2010118088 **Major Guide:** Dr. B. H. Kale	"Variability analysis in determinate F_4 progenies for yield attributes and characterization of *TFL* homologue in Indian bean [*Lablab purpureus* (L.)]"	➢ Objectives should be changed as below 1) To estimate correlation and path coefficients for assessing relative contribution of each of the yield components (2nd objective) 2) Characterization of TFL homologue from determinate and indeterminate genotypes (3rd Objective) ➢ Observation should be changed as below 1) Seed yield per plant to Yield per plant (g) (11th Observation)
15.	**Patel Hardikkumar Rajeshbhai** Reg. No.-2010118092 **Major Guide:** Dr. V. L. Parmar	"Genetic diversity analysis for seed yield and its attributes in coriander (*Coriandrum sativum* L.)"	➢ Objective should be changed as below 1) To study the genetic divergence among the genotypes (4th Objective) ➢ Observation should be changed as below 1) Seed yield per plant to Yield per plant (g) (9th Observation) 2) Seed per umbel to Seeds per umbel (7th Observation) 3) 1000 seed weight (g) to 100 seed weight (g) (10th Observation) ➢ New code should be given to all the Dual Selections (1 to 14) in genotypes

No.	Name of student	Research Topic	Suggestions
16.	**Patel Harshita Rakeshbhai** Reg. No.- 2010118094 **Major Guide:** Dr. Rehana Niyaria	"Genetic variability and interrelationship studies in Cucumber (*Cucumis sativus* L.) genotypes"	➢ Research Title should be changed as below "Genetic divergence studies in Cucumber (*Cucumis sativus* L.)" ➢ Observations should be changed as below 1) Number of primary branches per plant to Primary branches per plant (6th Observation) 2) Number of fruits per vine to Fruits per vine (9th Observation) 3) Number of seeds per fruit to Seeds per fruit (13th Observation)
17.	**Patel Riddhikumari Ashvinbhai** Reg. No.- 2010118102 **Major Guide:** Dr. Rehana Niyaria	"Assessment of Genetic variability in determinate F_5 progenies of Indian bean (*Lablab purpureus* (L.) Sweet)"	➢ Research Title should be changed as below "Assessment of Genetic variability in determinate advanced breeding lines of Indian bean (*Lablab purpureus* (L.) Sweet)" ➢ Observation should be changed as below 1) Days to 50% flowering to Days to flowering (2nd Observation) ➢ Observations should be removed 1) Days to 50 % raceme emergence (1st Observation) 2) Shelling percentage (%) (10th Observation)
18.	**Prajapati Ankitkumar Sureshbhai** Reg. No.- 2010118112 **Major Guide:** Dr. S. S. Patil	"Heterosis & Combining ability study through Diallel analysis in Okra"	➢ Research Title should be changed as below "Diallel analysis in Okra" [*Abelmoschus esculentus* (L.) Moench]" ➢ Objective should be changed as below 1) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids for yield and yield contributing characters (2nd objective) 2) To estimate gene action for different characters (3rd objective) ➢ Observation should be changed as below 1) Fruit and Shoot borer infestation to Fruit and Shoot borer infestation (%) (2nd Observation) 2) Incidence of Enation Leaf Curl Virus (%) to Enation Leaf Curl Virus incidence (%) (11th Observation) 3) Incidence of Yellow Vein Mosaic (%) to Yellow Vein Mosaic Virus incidence (%) (12th Observation)
19.	**Pranitha B P** Reg. No.- 2010118113 Major Guide: **Dr. R. K. Patel**	"Molecular characterization of gene responsible for dwarf plant type and genetic variability analysis in rice [*Oryza sativa* (L.)]"	--NIL--

No.	Name of student	Research Topic	Suggestions
20.	**Rahulkumar Ishwarbhai Gohil** Reg. No.- 2010118116 **Major Guide:** Dr. P. K. Jagtap	"Genetic estimates and diversity studies in Summer Sesame (*Sesamum indicum* L.)"	➢ Research Title should be changed as below "Genetic estimates and divergence studies in Sesame [*Sesamum indicum* L.)" ➢ Objective should be changed as below 1) To study the nature of association between seed yield and its component characters (2nd objective) 2) To work out the extent of diversity present among the different accessions (4th objective) ➢ Observations should be changed as below 1) Number of branches per plant to Branches per plant (4th Observation) 2) Number of capsules per plant to Capsules per plant (5th Observation) 3) Number of seeds per capsule to seeds per capsule (9th Observation)
21.	**Rajput Ajitsinh Bhamarsinh** Reg. No.- 2010118117 **Major Guide:** Dr. B. K. Davda	"L X T analysis in grain sorghum [*Sorghum bicolor* (L.) Moech]"	➢ Objective should be changed as below 1) To estimate the general combining ability effects of parents and specific combining ability effects of hybrids for grain yield and its attributes (2nd objective) ➢ "Female Lines" should be written as "Lines" in genotypes ➢ CSH-25 should be included as standard check in genotypes ➢ Conditions should be defined for Lines + Testers + Hybrids + Check ➢ Spacing should be kept 45 x 15 cm ➢ Observations should be changed as below 1) Number of primary branches per panicle to Primary branches per panicle (5th Observation) 2) Number of secondary branches per panicle to Secondary branches per panicle (6th Observation) 3) 100 seed weight to 100 grain weight (g) (7th Observation) 4) Protein (%) to Protein content (%) (9th Observation)
22.	**Rathod Nisha Vinaysinh** Reg. No.- 2010118120 **Major Guide:** Dr. K. N. Chaudhari	"Genetic variability, correlation coefficient, path analysis and genetic divergence in bitter gourd [*Momordica charantia* (L.)]"	➢ Research Title should be changed as below "Genetic variability, correlation, path and D^2 analysis in bitter gourd [*Momordica charantia* (L.)]" ➢ Objective should be changed as below 1) To find out the extent of diversity present among genotypes (4th objective) ➢ Objective should be removed

No.	Name of student	Research Topic	Suggestions
			1) To determine selection indices (5th objective) ➢ All the observations should be written in chronological order ➢ Observation should be changed as below 1) Days to 50 % of flowering to Days to 50 % flowering (4th Observation) 2) Average fruit weight (gm) to Fruit weight (g) (12th Observation) 3) No. of primary branches per plant to Primary branches per plant (6th Observation) 4) No. of seeds per fruit to Seeds per fruit (9th Observation) 5) Seed/Flesh ratio to Seed: Flesh ratio (15th Observation) ➢ Observation should be removed 1) Leaf area (cm^2) (7th Observation) 2) 100 seed weight (g) (16th Observation) ➢ Observation should be added 1) Fruits per plant
23.	**Sheetal Gupta** Reg. No.-2010118126 **Major Guide:** Dr. C. G. Intwala	"Genetic diversity analysis in cowpea [*Vigna unguiculata*]"	➢ Objective should be added 1) To find out the extent of diversity present among genotypes ➢ Observations should be added 1) Days to maturity 2) YVMV incidence (%)
24.	**Shruthi K** Reg. No.-2010118128 **Major Guide:** Dr. D. H. Patel	"Morphological and molecular variability in cotton (*Gossypium hirsutum* L.)"	➢ Observations should be added 1) Fiber length (mm) 2) Fiber strength (g/tex) 3) Fiber fineness (mv) 4) Monopodia per plant
25.	**Suchitra** Reg. No.-2010118131 **Major Guide:** Dr. D. A. Chauhan	"Genetic architechture of fieldpea (*Pisum sativum* L.)"	➢ Six parents should be finalized for research program ➢ All the Objectives should be changed and written specifically according to research work ➢ Observations should be changed as below 1) Days to reproductive phase duration to Duration of reproductive phase (3rd Observation) 2) Yield per plant (g/plant) to Yield per plant (g) (10th Observation)
26.	**Talaviya Bansi Kishorbhai** Reg. No.-	"Heterosis and gene action in rice (*Oryza sativa* L.)"	➢ Research Title should be changed as below "Heterosis, combining ability and gene action in rice (*Oryza sativa* L.)" ➢ Objective should be changed as below

No.	Name of student	Research Topic	Suggestions
	2010118133 **Major Guide:** Dr. P. M. Mistry		1) To study the magnitude of heterosis for grain yield and its attributes (1st objective) 2) To study the general combining ability of parents and specific combining ability of hybrids for grain yield and its attributes (2nd objective) ➢ In genotypes, first tester should be written as GNR-3 instead of GNR-13 ➢ Observations should be changed as below 1) Panicle/hill to Productive tillers per plant (3rd Observation) 2) Protein (%) to Protein content (%) (9th Observation) 3) Amylase (%) to Amylose content (%) (10th Observation) 4) Aroma ratings to Aroma rating (11th Observation)
27.	**Vaid Rahulkumar Ramjibhai** Reg. No.- 2010118139 **Major Guide:** Dr. G. O. Faldu	"Heterosis and combining ability in cotton (*G. hirsutum* L.)"	➢ Research Title should be changed as below "Genetic analysis in cotton (*G. hirsutum* L.)" ➢ Objective should be changed as below 1) To study the magnitude of heterosis for yield and its component traits (1st objective) 2) To study the general combining ability of parents and specific combining ability of hybrids for yield and its component traits (2nd objective) ➢ Observations should be changed as below 1) Ginning percent (%) to Ginning outturn (%) (5th Observation) 2) Oil percent (%) to Oil content (%) (10th Observation)

At the end of meeting, all P.G. research outlines were appreciated by the Chairman **Dr. R. K. Patel**. He suggested to the house that instead of going for variability studies we should emphasize research on generating crosses, so that we can use those crosses for further research work. In case molecular work or quality parameter testing estimate of budget regarding the research work should be intimated to the department well in advance. Finally, the meeting was ended with the vote of thanks given by **Dr. K. G. Modha**, Assistant Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari.

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