



**Proceedings of 2<sup>nd</sup> Meeting of Post Graduate  
Research Approval Group – Crop Improvement,  
NAU, Navsari**

Date : 06/01/2020

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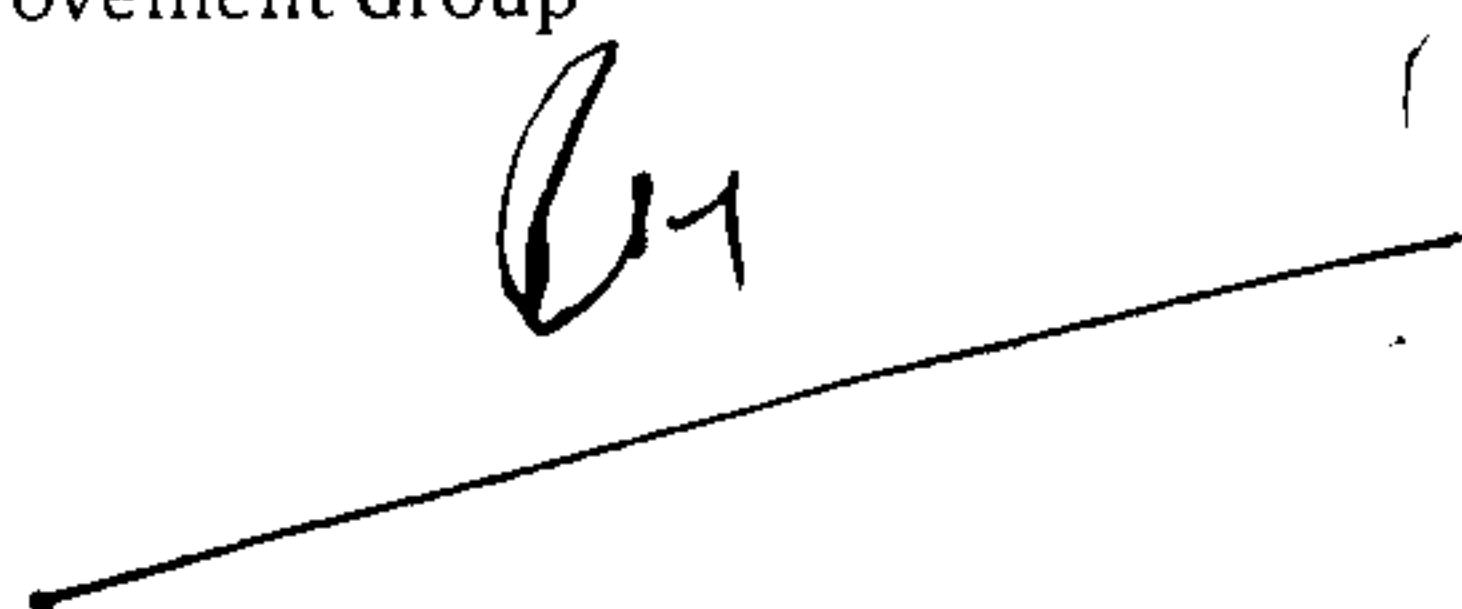
Second meeting of PG-RAG of crop improvement group of NAU, Navsari was held on 27<sup>th</sup> December, 2019 at the conference hall, Main Sugarcane Research Station, NAU, Navsari.

At the beginning, **Dr. K. G. Modha**, Associate Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari hosted the meeting and welcomed all the dignitaries, members as well as newly admitted post graduate students of the crop improvement group. **Dr. R. K. Patel**, Convener of PG-RAG and I/c. Professor and Head, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari welcomed **Dr. M. K. Arvadia**, Principal, NMCA, NAU, Navsari, **Dr. C. G. Intwala**, Research Scientist, Main Sugarcane Research Station, NAU, Navsari welcomed **Dr. R. M. Patel**, Principal, ASPEE Shakilam Biotechnology Institute, NAU, Surat and **Prof. Sagar Jadav**, Assistant Professor (Crop Physiology), Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari welcomed **Dr. R. K. Patel**, Convener of PG-RAG and I/c. Professor and Head, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari with floral bouquet. 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 second meeting of PG-RAG and by describing PG-RAG as a part of another PG academic programme he requested positive and constructive feedback from the different expertise of different disciplines available in the house to design the timely and purposeful research outline of 50 PG students including 3 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 33 M. Sc. (Agri.) and 11 Ph. D. students of Genetics and Plant Breeding. He has also given weightage to cover some aspects of research work related to minor subject along with the major subject. He also requested the members of crop improvement group to recommend, if any changes are required in the list of external examiners for evaluation of thesis. After his address, newly appointed members of crop improvement group also introduced themselves.

### Review of Action Taken Report:-

<b>Chairman</b>	:	Dr. M. K. Arvadia	<b>Rapporteurs</b>	:	Dr. Madhu Bala
<b>Co-chairman</b>	:	Dr. R. M. Patel		:	Dr. H. K. Joshi

The action taken report of 1<sup>st</sup> meeting of PG-RAG 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 1<sup>st</sup> meeting of PG-RAG of crop improvement group 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.

Principal, ASPEE Shakilam Biotechnology Institute, NAU, Surat, in his opening remarks **Dr. R. M. Patel**, invited good inputs and fruitful suggestions from all three faculties of crop improvement group to give good shape to research programme for the betterment of the future of the respective crops so that the better information can be made available to address the issues of the farmers. **Dr. M. K. Arvadia**, Principal, NMCA, NAU, Navsari, congratulated whole crop improvement group for excellent performance in last five years and for this he also quoted the inspirational support of honorable vice chancellor **Dr C. J. Dangaria** and hard work of young and dedicated scientists for release of varieties in good number. In context to PG-RAG, he congratulated all the major guides for in-time completion of degrees of more than 90 % of the students in the previous year and again he has given weightage on keen interaction and involvement of major guide for deciding research programme in the current year. He recommended to incorporate the suggestions made in this meeting in the synopsis and submit it well in advance before the end of second semester. He also emphasized on following the timely procedure for submission of thesis for all the dispatch formalities that has to be done by principal office *via* proper channel. At last, he wished all the good luck for successful construction of PG Research programme.

### **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:**

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

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

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

No.	Name of student	Research Topic	Suggestions
1.	<b>Baldaniya Vipulkumar Gobarbhai</b> Reg. No.- 1010119002 <b>Major Guide:</b> Dr. A. V. Narwade	“Characterization of rice ( <i>Oryza sativa</i> L.) genotypes for yield and nutritional traits”	1) Experiment should be done without soil and foliar Zn application 2) Remove gene specific primers in molecular analysis 3) Write name of the rice genotypes 4) Mention the word "genotypes" instead of "genotype" in objective 5) Remove the number of panicle observation

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.	<b>Baraiya Shubham Jivanbhai</b> Reg. No.- 2010119010 <b>Major Guide:</b> Dr. Kamal Kant	“Morpho-physiological and biochemical effects on source and sink relationship in direct seedling rice under deficit of water”	1) The title should be " Morpho-physiological and biochemical effects on source and sink relationship in direct seeded rice under deficit of water" 2) Remove the observation effective panicle number and number of panicle 3) Add the observation number of panicle per plant 4) Write the units for all observations 5) In design use word repetitions instead of replication 6) The experiments should be conducted with 10 varieties and, varieties needs to be finalized after consultation with rice breeder 7) Factor 2 should be as follow: T <sub>1</sub> - Tillering stage T <sub>2</sub> :- At the time of flowering initiations

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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.	<b>Bhatt Kunj Dilipbhai</b> Reg. No.- 1010119003 <b>Major Guide:</b> Dr. Sanjay Jha	“Phytochemical assisted synthetic approaches for nanoparticles and their application in agriculture”	1) The title should be" Phytochemical assisted synthetic approaches for nanoparticles and their application in tomato" 2) Specify the metal material used for synthesis of nanoparticle 3) Specify the plant species to be used in the experiment 4) The following pathogens should be included in study : early blight, late blight and <i>Fusarium</i> wilt

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.	<b>Chaudhari Khusbuben Navinbhai</b> Reg. No.- 2010119019 <b>Major Guide:</b> Dr. C. V. Kapadia	“Construction of chimeric protein with domain comprising of laccase, xylanase and pectin esterase in <i>Bacillus</i> ”	1) Change the title as “Construction of chimeric protein with domain comprising of laccase, xylanase and pectin esterase in <i>Bacillus</i> sp.” 2) Use orange peel and rice straw as plant source for activity assay. 3) The statistical parameters <i>viz.</i> , mean, range and variant should be included in analysis.
2.	<b>Hadiya Vasanben Jeenabhai</b> Reg. No.- 2010119034 <b>Major Guide:</b> Dr. K. P. Suthar	“Molecular study on Zinc uptake and translocation in rice”	1) Change the title as "Molecular characterization of Zn uptake and translocation in rice" 2) Recast the objectives as follow: (1) To study the physiological aspect of Zn uptake and translocation in rice. (2) To study the biochemical basis of Zn uptake and translocation in rice. (3) To study the molecular aspect of Zn uptake and translocation in rice. 3) The qRT-PCR analysis should be done at grain filling stage only. 4) The experiment should be conducted with six replications.

No.	Name of student	Research Topic	Suggestions
3.	<b>Kachhadia Rinkal Jitendrabhai</b> Reg. No.-2010119038 <b>Major Guide:</b> Dr. C. V. Kapadia	“Detection of quorum quenching signal molecules and identification of enzymes against <i>Erwinia carotovora</i> ”	1) Add plant assay in experiment.


At the closing remarks of the first session, chairman **Dr. R. M. Patel** appreciated the research programmes presented by crop physiology and PMBB students and valued the good inputs given by the house in designing the same in context to farming community. In addition to this, he suggested to take prior advice of statistician before formulating the research outline and also given weightage to follow common format of presentation for PG research proposal.




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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.	<b>Chaudhary Ankitkumar Raghajibhai</b> Reg. No.- 1010119005 <b>Major Guide:</b> Dr. P. M. Mistry	“Generation mean analysis for yield and its attributes and molecular characterization for protein content in rice [ <i>Oryza sativa</i> (L.)]”	1) Unit should be mentioned in 10 <sup>th</sup> and 11 <sup>th</sup> observations 10) Grain length (mm) 11) Grain breadth (mm)
2.	<b>Dela Gulammohammad Jumabhai</b> Reg. No.-1010119008 <b>Major Guide:</b> Dr. H. E. Patil	“Stability and Diversity Analysis in Little Millet ( <i>Panicum sumatrense</i> L.)”	1) Title should be written in sentence case. 2) 3 <sup>rd</sup> Location for evaluation KVK, Dediypada should be removed. 3) In observations to be recorded, Quantitative characters should be replaced with Morphological characters and Qualitative characters should be replaced with Quality characters. 4) Observations 12 <sup>th</sup> , 16 <sup>th</sup> , 18 <sup>th</sup> , 19 <sup>th</sup> and 20 <sup>th</sup> should be written as (12) Chlorophyll content (mg/ 100 g fresh weight) (16) Mineral matter (mg/100g) (18) Iron content (mg/100g) (19) Calcium content (mg/100g) (20) Ash content (mg/100g)
3	<b>Dodake Manisha Malhari</b> Reg. No.-1010119011 <b>Major Guide:</b> Dr. C. G. Intwala	“Genetic analysis of yield and its attributes over environments in Rice ( <i>Oryza sativa</i> L.)”	1) 1 <sup>st</sup> objective should be written as “To study the nature and magnitude of genetic variance for grain yield and yield contributing traits” 2) 2 <sup>nd</sup> objective should be written as “ To estimate magnitude of heterosis over standard check” 3) In research programme line should be taken as tester and tester should be taken as line.
4.	<b>Megha L M</b> Reg. No.- 1010119018	“Comparative gene expression analysis for growth habit and photoperiod	--NIL--

  
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No.	Name of student	Research Topic	Suggestions
	<b>Major Guide:</b> Dr. K. G. Modha	responsive flowering in Indian Bean [ <i>Lablab purpureus</i> (L.) Sweet]"	
5.	<b>Patel Krinaben Natvarbhai</b> Reg. No.-1010119024 <b>Major Guide:</b> Dr. P. B. Patel	"Generation mean analysis for yield, its component and molecular characterization of bacterial leaf blight resistance in rice ( <i>Oryza sativa</i> L.)"	1) Title should be written as "Generation mean analysis for yield, its components and molecular characterization of bacterial leaf blight resistance in rice ( <i>Oryza sativa</i> L.)" 2) 6 <sup>th</sup> observation should be written as 100 grain weight (g)
6.	<b>Patel Sheetal Ramesh</b> Reg. No.- 1010119028 <b>Major Guide:</b> Dr. R. K. Patel	"QTL mapping for drought tolerance at reproductive stage in Rice ( <i>Oryza sativa</i> L.)"	--NIL--
7.	<b>Raval Kalpesh</b> Reg. No.- 1010119037 <b>Major Guide:</b> Dr. A. I. Patel	"Genetic studies for productivity over environments in Eggplant [ <i>Solanum melongena</i> L.]"	1) Title should be written as "Genetic studies for fruit yield and its components over environments in Eggplant [ <i>Solanum melongena</i> L.]" 2) "GJBH-3" should be used as standard check. 3) Instead of Niger Research Station, Vanarasi experiment should be evaluated at Horticulture polytechnic, Paria. 4) 7 <sup>th</sup> , 10 <sup>th</sup> , 11 <sup>th</sup> and 12 <sup>th</sup> observations should be written as (7) Fruit weight (g) (10) Total phenol content (mg/100g of fresh weight) (11) Total soluble sugars (%) (12) Ascorbic acid (mg/100g)
8.	<b>Sanyam Patel</b> Reg. No.- 1010119039 <b>Major Guide:</b> Dr. R. K. Patel	"Genetic dissection for leaf blast resistance by QTL mapping approach in rice ( <i>Oryza sativa</i> L.)"	1) In artificial inoculation <i>Magnaporthe grisea</i> should be written as <i>Magnaporthe oryzae</i> . 2) Need not prove the pathogenicity, work should be done on single identified race for blast. 3) Reference for Phenotyping scale IRRI, 1996 should be replaced with IRRI, 2013. 4) 2 <sup>nd</sup> objective should be written as "Validation of QTLs associated with leaf blast resistance in rice"



No.	Name of student	Research Topic	Suggestions
			5) 15 <sup>th</sup> observation should be written as (15) Disease severity index (%)
9.	<b>Satasiya Pratik Nareshbhai</b> Reg. No.- 1010119040 <b>Major Guide:</b> Dr. R. K. Patel	“Genetic analysis and QTL mapping for salinity tolerance in rice ( <i>Oryza sativa</i> L.)”	--NIL--
10.	<b>Sharma Deepak Dinesh</b> Reg. No.- 1010119041 <b>Major Guide:</b> Dr. V. P. Patel	“Identification and characterization of fertility restorers for different cytoplasmic sources in rice ( <i>Oryza sativa</i> L.)”	--NIL--
11.	<b>Ujval Solanki</b> Reg. No.- 1010119047 <b>Major Guide:</b> Dr. S. R. Patel	“Diallel Analysis for Fruit Yield and its components over the environment in Brinjal ( <i>Solanum melongena</i> L.)”	<ol style="list-style-type: none"> <li>1) Title should be written as “Diallel analysis for fruit yield and its components over environments in Brinjal (<i>Solanum melongena</i> L.)”</li> <li>2) 5<sup>th</sup> objective should be written as “Diversity analysis of parents using DNA based markers”</li> <li>3) “GJBH-3” should be used as standard check</li> <li>4) 8<sup>th</sup> genotype should be written as “NBL-117”</li> <li>5) Observations should be removed (7) Pericarp thickness (mm) (10) Titrable acidity (%) (11) Ascorbic acid (mg/100g) (12) Lycopene content (mg/100g) (14) Percent leaf curl virus incidence (%)</li> <li>6) Observations should be added “Seeds per fruit” “Total phenol content (mg/100g of fresh weight)” “Total soluble sugars (%)” “Little leaf incidence (%)”</li> <li>7) 9<sup>th</sup> and 13<sup>th</sup> observations should be written as (9) Fruit yield per plant (g) (13) Shoot and fruit borer infestation (%)</li> </ol>

04

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

No.	Name of student	Research Topic	Suggestions
1.	<b>Aishwarya B Kathad</b> Reg. No.- 2010119002 <b>Major Guide:</b> Dr. Rehana Niyaria	“Biochemical Analysis and Molecular Marker Studies For Sex Determination in Spine Gourd ( <i>Momordica dioica</i> Roxb.)”	1) Title should be written in sentence case. 2) 2 <sup>nd</sup> and 3 <sup>rd</sup> objective should be merged and written as “Molecular profiling to identify sex specific DNA markers,” 3) 4 <sup>th</sup> objective should be written as “To identify sex specific protein based markers.” 4) In molecular profiling to identify sex specific DNA markers there is no need to mention no. of primers.
2.	<b>Akshata</b> Reg. No.- 2010119003 <b>Major Guide:</b> Dr. C. G. Intwala	“Characterization and validation of <i>TFL</i> locus responsible for growth habit and stability analysis for yield attributes in cowpea [ <i>Vigna unguiculata</i> L.]”	1) 1 <sup>st</sup> objective should be written as “To assess the stability of genotypes at different time isolations.”
3.	<b>Bagadiya Parth Ghanshyambhai</b> Reg. No.- 2010119006 <b>Major Guide:</b> Dr. C. G. Intwala	“Genetic Variability, Correlation and Path coefficient Analysis in F <sub>2</sub> generation of Vegetable Okra [ <i>Abelmoschus esculentus</i> (L.) Moench]”	1) Title should be written as “Genetic variability, correlation and path coefficient analysis in F <sub>2</sub> generation of Okra [ <i>Abelmoschus esculentus</i> (L.) Moench]” 2) At least four crosses should be included in research.
4.	<b>Bandaru Sriram Kumar</b> Reg. No.- 2010119008 <b>Major Guide:</b> Dr. S. C. Mali	“Heterosis and Combining ability studies in Tomato ( <i>Solanum lycopersicum</i> )”	1) Title should be written in sentence case. 2) 1 <sup>st</sup> objective should be written as “Estimation of heterosis over standard commercial check.”

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No.	Name of student	Research Topic	Suggestions
5.	<b>Bhambhana Sandip Harsukhbhai</b> Reg. No.- 2010119013 <b>Major Guide:</b> Dr. Rehana Niyaria	“Genetic divergence and correlation studies in Spine gourd ( <i>Momordica dioica</i> Roxb.)”	1) In 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> objectives seed yield should be replaced with fruit yield. 2) “No. of” should be removed from 5 <sup>th</sup> , 11 <sup>th</sup> and 14 <sup>th</sup> observations. 3) 9 <sup>th</sup> observation Fruit width (mm) should be replaced with Fruit weight (g). 4) 12 <sup>th</sup> observation should be written as “Fruit yield per plant (g).”
6.	<b>Bhatiya Sanjay Ala</b> Reg. No.- 2010119014 <b>Major Guide:</b> Dr. J. P. Makati	“Genetic analysis for quantitative traits in rice ( <i>Oryza sativa</i> L.)”	1) No. of parents to be used in half diallel should be reduced.
7.	<b>Chaudhary Chetankumar Prahladji</b> Reg. No.- 2010119021 <b>Major Guide:</b> Dr. V. D. Pathak	“Induction of Variability in Rabi Sorghum [ <i>Sorghum bicolor</i> (L.) Moench] through Physical Mutagen”	1) Title should be written as “Induction of variability in Sorghum [ <i>Sorghum bicolor</i> (L.) Moench] through physical mutagen” 2) 2 <sup>nd</sup> objective should be written as “To study the extent of genetic variability.” 3) 3 <sup>rd</sup> objective should be written as “Characterization of selected mutants for yield and yield attributes.” 4) Statistical design should be decided in consultation with the statistician. 5) 7 <sup>th</sup> observation should be written as “100 grain weight (g).”
8.	<b>Gabriel Darlong</b> Reg. No.- 2010119024 <b>Major Guide:</b> Dr. R. K. Patel	“Genetic analysis for quantitative traits in Sesame ( <i>Sesamum indicum</i> L.)”	1) 7 <sup>th</sup> observation should be written as 1000 seed weight.
9.	<b>Ganvit Kalyaniben Jayram</b> Reg. No.- 2010119028 <b>Major Guide:</b> Dr. D. H. Patel	“Evaluation of Recombinant Inbred Line in cotton ( <i>G. hirsutum</i> L.) for Jassids Tolerance and Morphological Characters”	1) Title should be written as “Evaluation of Recombinant Inbred Lines for jassid tolerance and morphological characters in cotton [ <i>Gossypium hirsutum</i> (L.)]” 2) “No. of” should be removed from 3 <sup>rd</sup> observation. 3) Trichome density should be measured at 75 DAS.

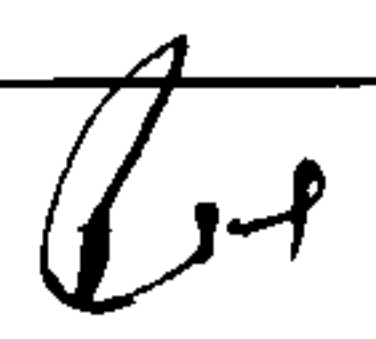
No.	Name of student	Research Topic	Suggestions
10.	<b>Gopi M Patel</b> Reg. No.- 2010119032 <b>Major Guide:</b> Dr. B. H. Kale	“Variability, Correlation and Path analysis in F <sub>5</sub> progenies of Indian bean ( <i>Lablab purpureus</i> (L.) sweet) for yield and its contributing traits”	1) Title should be written in sentence case.
11.	<b>Himansuman</b> Reg. No.- 2010119036 <b>Major Guide:</b> Dr. P. B. Patel	“Genetic analysis for yield, its components and BLB resistance in Rice [ <i>Oryza sativa</i> L.]”	--NIL--
12.	<b>Katariya Hardik Bachubhai</b> Reg. No.- 2010119042 <b>Major Guide:</b> Dr. K.G.Modha	“Genetic architecture of advanced segregating generation for yield and its attributing traits in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]”	1) Observation should be added “Yellow mosaic virus incidence (%)”.
13.	<b>Khandhar Nayankumar Rameshbhai</b> Reg. No.- 2010119046 <b>Major Guide:</b> Dr. P. K. Jagtap	“Genetic variability and Diversity studies in sunflower germplasm”	1) Title should be written as “Genetic variability and diversity studies in Sunflower [ <i>Helianthus annus</i> (L.)] 2) Objective should be added “To determine the selection indices.” 3) “No. of” should be removed from 5 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> observations.
14.	<b>Kyada Amitkumar Dilipbhai</b> Reg. No.- 2010119051 <b>Major Guide:</b> Dr. B. H. Kale	“Variability studies in late segregating generation (F <sub>5</sub> ) of determinate progenies for yield and its attributes in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]”	--NIL--



No.	Name of student	Research Topic	Suggestions
15.	<b>Madam Ankitkumar Arjanbhai</b> Reg. No.- 2010119053 <b>Major Guide:</b> Dr. Manju Singh	“Genetic analysis for quantitative traits in Fennel ( <i>Foeniculum vulgare</i> Mill.)”	--NIL--
16.	<b>Mahla Nimish Uttambhai</b> Reg. No.- 2010119055 <b>Major Guide:</b> Dr. P. K. Jagtap	“Estimation of Genetic variability and diversity parameters in Sesame ( <i>Sesamum indicum</i> L.)”	1) Title should be written as “Genetic variability and diversity parameters in Sesame ( <i>Sesamum indicum</i> L.)” 2) Objective should be added “To determine the selection indices” 3) “No. of” should be removed from 4 <sup>th</sup> and 5 <sup>th</sup> observations. 4) In observations 10 <sup>th</sup> and 13 <sup>th</sup> gm should be written as g. 5) Observation should be added “Capsules per cluster”
17.	<b>Makwana Trushti Maganlal</b> Reg. No.- 2010119056 <b>Major Guide:</b> Dr. G. O. Faldu	“Validation of molecular markers linked to fertility restoration on morphological and molecular basis and evaluation of F <sub>1</sub> Hybrids in Rabi Sorghum [ <i>Sorghum bicolor</i> (L.) Moench]”	1) Title should be written as “Validation and evaluation of molecular markers linked to fertility restoration in rabi Sorghum [ <i>Sorghum bicolor</i> (L.) Moench]” 2) 1 <sup>st</sup> objective is to be removed 3) 5 <sup>th</sup> objectives should be should be written as “To estimate combining ability and gene action for yield and its attributes.” 4) 6 <sup>th</sup> observation should be written as “Dry fodder yield per plant (g)” 5) 7 <sup>th</sup> observation should be written as “100 grain weight (g)”
18.	<b>Mulugu Jwala Pranti</b> Reg. No.- 2010119059 <b>Major Guide:</b> Dr. R. S. Bhakta	“Genetic study in Groundnut ( <i>Arachis hypogaea</i> L.)”	1) Title should be written as Variability, correlation, path analysis and D <sup>2</sup> statistics in Groundnut [ <i>Arachis hypogaea</i> (L.)]” 2) 8 <sup>th</sup> observation should be written as “Shelling percentage” 3) Observation should be added “Harvest index (%)”
19.	<b>Padsala Dhruv Babubhai</b> Reg. No.-2010119066 <b>Major Guide:</b>	“Genetic Variability, Correlation and Path Analysis in F <sub>5</sub> determinate progenies for yield and its component	--NIL--

619

No.	Name of student	Research Topic	Suggestions
	Dr. K. G. Modha	traits in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]	
20.	<b>Parmar Janmraj Dadubha</b> Reg. No.- 2010119070 <b>Major Guide:</b> Dr. K. N. Chaudhari	“Diallel Analysis for Seed Yield and it’s Components in Maize ( <i>Zea mays</i> L.)”	<ol style="list-style-type: none"> <li>1) Title should be written as “Diallel analysis for seed yield and its components in Maize [<i>Zea mays</i> (L.)”]</li> <li>2) Objective should be written as following <ol style="list-style-type: none"> <li>(1) To study the magnitude of heterosis for yield and its components.</li> <li>(2) To study general combining ability of parents and specific combining ability of hybrids.</li> <li>(3) To identify magnitude of gene action for yield and yield components.</li> </ol> </li> <li>3) Analysis should be done only with Griffing’s numerical approach.</li> <li>4) Hybrid check should be added.</li> <li>5) “No. of” should be removed from 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> observations.</li> <li>6) 7<sup>th</sup> observation should be written as “Cob diameter (cm)”.</li> <li>7) 11<sup>th</sup> observation should be written as “100 grain weight (g)”</li> <li>8) 12<sup>th</sup> observation should be written as “Grain yield per plant (g)”</li> <li>9) 13<sup>th</sup> observation should be removed “Grain yield per ha (t/ha)”</li> <li>10) Observation should be added “Days to maturity”</li> </ol>
21.	<b>Parmar Nilesh Dalsukhbhai</b> Reg. No.- 2010119072 <b>Major Guide:</b> Dr. G. O. Faldu	“Genetic analysis of morphological, biochemical and quality traits in <i>G. hirsutum</i> L. cotton”	<ol style="list-style-type: none"> <li>1) Title should be written as “Genetic analysis for yield and its components in cotton [<i>Gossypium hirsutum</i> (L.)”]</li> <li>2) Objective should be written as following <ol style="list-style-type: none"> <li>(2) To study the general combining ability of parents and specific combining ability of hybrids.</li> <li>(3) To study the nature of gene action for yield and its attributes.</li> </ol> </li> </ol>
22.	<b>Patel Charmikumari Sureshbhai</b> Reg. No.- 2010119076 <b>Major Guide:</b> Dr. B. K. Davda	“Identification and validation of molecular markers linked to fertility restoration through morphological and molecular studies and evaluation of F <sub>1</sub> Hybrids in <i>Kharif</i> Grain Sorghum [ <i>Sorghum bicolor</i> (L.) Moench]”	<ol style="list-style-type: none"> <li>1) Title should be written as “Fertility restoration studies through morphological and markers in grain Sorghum [<i>Sorghum bicolor</i> (L.) Moench]”</li> <li>2) 1<sup>st</sup> objective is to be removed.</li> <li>3) 5<sup>th</sup> objectives should be should be written as “To estimate combining ability and gene action for yield and its attributes.”</li> <li>4) 6<sup>th</sup> observation should be written as “Dry fodder yield per plant (g)”</li> <li>5) 7<sup>th</sup> observation should be written as “100 grain weight”</li> </ol>



No.	Name of student	Research Topic	Suggestions
23.	<b>Patel Dhruvil Parsotambhai</b> Reg. No.- 2010119077 <b>Major Guide:</b> Dr. K. G. Modha	“Variability Studies in “ <i>Wal</i> ” type determinate F <sub>5</sub> progenies for yield and yield attributing traits in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]”	1) Title should be written as “Variability studies in F <sub>5</sub> progenies for yield and yield attributing traits in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]”
24.	<b>Patel Disha Rajanikant</b> Reg. No.- 2010119078 <b>Major Guide:</b> Dr. B. K. Davda	“γ- Irradiated induced Genetic Variability in <i>Rabi</i> Sorghum [ <i>Sorghum bicolor</i> (L.) Moench]”	1) Title should be written as “Radiation induced genetic variability in <i>rabi</i> Sorghum [ <i>Sorghum bicolor</i> (L.) Moench]” 2) Co-guide should be changed in the committee. 3) 2 <sup>nd</sup> objective should be written as “To study the extent of genetic variability” 4) 3 <sup>rd</sup> objective should be written as “Characterization of selected mutants for yield and quality.” 5) Statistical design should be decided in consultation with the statistician. 6) 5 <sup>th</sup> observation should be written as “Grain yield per plant (g).” 7) 6 <sup>th</sup> observation should be written as “100 grain weight (g).” 8) Observation should be added “Stover yield per plant (g).”
25.	<b>Patel Hemalkumar Hareshbhai</b> Reg. No.-2010119079 <b>Major Guide:</b> Dr. V. P. Patel	“Variability studies in F <sub>2</sub> populations of inter and intra specific crosses for yield and its attributes in rice”	1) 9 <sup>th</sup> observation should be written as “100 grain weight (g).”
26.	<b>Patel Riya Hasmukhbhai</b> Reg. No.- 2010119090 <b>Major Guide:</b> Dr. D. H. Patel	“Evaluation of Recombinant Inbred Line in cotton ( <i>G. arboreum</i> L.) for Fiber quality parameters and Morphological Characters”	1) Title should be written as “Evaluation of Recombinant Inbred Lines for fiber quality parameters and morphological characters in cotton [ <i>Gossypium arboreum</i> (L.)]” 2) “No. of” should be removed from 3 <sup>rd</sup> observation.



No.	Name of student	Research Topic	Suggestions
27.	<b>Ponkiya Brijeshkumar Keshavkumar</b> Reg. No.- 2010119101 <b>Major Guide:</b> Dr. V. L. Parmar	“Genetic estimates and diversity studies in summer Sesame ( <i>Sesamum indicum</i> L.)”	1) Title should be written as “Genetic diversity analysis in Sesame [ <i>Sesamum indicum</i> (L.)]” 2) “No. of” should be removed from 4 <sup>th</sup> , 5 <sup>th</sup> and 9 <sup>th</sup> observations. 3) 7 <sup>th</sup> observation should be removed “Capsule width (cm).” 4) In observations 10 <sup>th</sup> and 13 <sup>th</sup> should be written as (10) 1000 seed weight (g) (13) Seed yield per plant (g)
28.	<b>Prajapati Maulikkumar Rameshbhai</b> Reg. No.- 2010119103 <b>Major Guide:</b> Dr. Madhu Bala	“Variability analysis in F <sub>2</sub> population of Rice ( <i>Oryza sativa</i> L.) for yield and attributing traits”	1) Title should be written as “Variability analysis in F <sub>2</sub> populations of Rice [ <i>Oryza sativa</i> (L.)] for yield and its attributing traits” 2) Objective should be written as following (1) To study the nature and magnitude of genetic variability for yield and its attributes. (2) To estimate correlation between yield and related quantitative traits. (3) To estimate heritability and expected genetic advance. (4) To study heterosis and inbreeding depression. 3) Location for evaluation of F <sub>2</sub> populations will be RRRS, NAU, Vyara. 4) Spacing should be 20 x 15 cm. 5) 9 <sup>th</sup> observation should be written as “100 grain weight (g).”
29.	<b>Sathuri Prashanth</b> Reg. No.- 2010119112 <b>Major Guide:</b> Dr. B. H. Kale	“Studies on genetic architecture in determinate F <sub>5</sub> progenies for yield and its contributing traits in Indian bean [ <i>Lablab purpureus</i> (L.) Sweet]”	--NIL--
30.	<b>Sushmitha U S</b> Reg. No.- 2010119119 <b>Major Guide:</b> Dr. Madhu Bala	“Morphological and molecular diversity analysis in Cluster bean [ <i>Cyamopsis tetragonoloba</i> (L.) Taub]”	1) Objective should be added “To determine the selection indices.” 2) 7 <sup>th</sup> observation should be written as “Clusters per plant.”





No.	Name of student	Research Topic	Suggestions
31.	<b>Tala Harshal Jayantilal</b> Reg. No.- 2010119122 <b>Major Guide:</b> Dr. S. C. Mali	“Variability studies in F <sub>2</sub> Generation of Okra [ <i>Ablemoschus esculentus</i> (L.) Moench]”	1) At least four crosses should be included in research. 2) 11 <sup>th</sup> observation should be written as “Fruit yield per plant (g).” 3) 12 <sup>th</sup> observation for insect pest and disease resistance should be included in appendices.
32.	<b>Vasu Davra</b> Reg. No.- 2010119129 <b>Major Guide:</b> Dr. M. C. Patel	“Genetic architecture in Upland Cotton ( <i>Gossypium hirsutum</i> L.)”	1) 2 <sup>nd</sup> objective should be written as “To estimate the general combining ability effects of parents and specific combining ability of hybrids.” 2) 3 <sup>rd</sup> objective should be written as “To study the nature and magnitude of gene action for yield and its component traits.” 3) Observation to be added “Oil content (%)”
33.	<b>Vinayak Kangal</b> Reg. No.- 2010119131 <b>Major Guide:</b> Dr. A. I. Patel	“Genetic studies for productivity in Okra [ <i>Ablemoschus esculentus</i> (L.) Moench]”	1) Title should be written as “Genetic studies for fruit yield and its components in Okra [ <i>Ablemoschus esculentus</i> (L.) Moench]” 2) 3 <sup>rd</sup> objective should be written as “To identify the potential hybrid for commercial exploitation.” 3) 9 <sup>th</sup> observation should be written as “Fruit yield per plant (g).” 4) 11 <sup>th</sup> observation for disease and insect incidence should be included in appendices.
34.	<b>Rathod Nisha Vinaysinh</b> Reg. No.- 2010119131 <b>Major Guide:</b> Dr. K. N. Chaudhari	“Genetic variability, correlation coefficient, path and D <sup>2</sup> analysis in Bottle gourd [ <i>Lagenaria siceararia</i> (mol.) Standl.]”	--NIL--

64

**General Suggestions:-**

- 1) Title of the Research topic should be written in sentence case.
- 2) Major Guide and student should take prior concern of each and every committee member before finalizing the research topic and presenting in front of house.
- 3) Everyone should follow the common format of the script that has been put on in the circular of the PG-RAG by Department.
- 4) Students working on Rice crop should follow writing "L/B ratio" instead of "L:B ratio" in observations.
- 5) Common inaccuracies for which suggestions are already made in this meeting and had been repetitively made in previous meetings ("gm to g", "No. of should not be written", "grains weight to grain weight", "Title in sentence case", "format of the script") should not be repeated in next PG RAG and respective major guide should firmly take care about that.

At the end of meeting in his concluding remarks, all P.G. research outlines were appreciated by the Chairman **Dr. R. K. Patel**. Finally, the meeting was ended with the vote of thanks given by **Prof. G. D. Vadodariya**, Assistant Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari.

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**(R. K. Patel)**

Convener

PG-RAG: Crop Improvement Group  
Dept. of Genetics and Plant Breeding  
NMCA, NAU, Navsari