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No. ACN/GPB/C-5/T.1/BOS/ /2016, Navsari, Dt. 14/02/2016	

To,
The Directorate of Research & Dean P.G. Studies,
Navsari Agricultural University,
Navsari-396 450

Sub: Proceeding of 6th meeting of Board of Studies of Crop Improvement Group

Respected Sir,

With reference to above cited subject, I am forwarding herewith the proceeding of the 6th meeting of board of studies of crop improvement discipline, which was held on January 27, 2016 at Main Sugarcane Research Station, NAU, Navsari. In this meeting, house has suggested several corrections for betterment of P.G. students' research outline. All the concern major guides are requested to take necessary action and submit the revised research outline (synopsis) directly to Director of Research and Dean P.G. Studies, NAU, Navsari through proper channel.

Thanking you,

Encl: Proceeding of the 6th meeting of Board of Studies for
Crop Improvement

Yours Sincerely,
S/d
(R. K. Patel)

F.W. respect to,

1. Hon'ble Vice-chancellor, NAU, Navsari
2. The Directorate of Research & Dean P.G. Studies, NAU, Navsari
3. The Principal & Dean, faculty of Agriculture, Horticulture and Forestry

Copy F.W.Cs. to,

1. All the members of the committee for information and to take necessary action (Concern PG Guide) on www.nau.in – Circular date : 09.03.2015

Proceeding of 6th Meeting of Board of Studies - Crop Improvement discipline (Genetics and Plant Breeding), Faculty of Agriculture, NAU, Navsari

Sixth meeting of Board of studies of crop improvement discipline, faculty of Agriculture, NAU, Navsari was started as per the agenda at conference hall, Main Sugarcane Research Station, NAU, Navsari on date 27th January, 2016 at 9.30 am.

Dr. R. K. Patel, Convener of board of studies of crop improvement group has welcomed Dr. A. N. Sabalpara, Director of Research and Dean P.G. studies, Dr. P. S. Vashi, Retd. Professor and Head, Dept. of Genetics and Plant Breeding, Dr M. K. Arvadia, Principal and Dean Agriculture, NMCA, NAU, Navsari, Dr. R. M. Patel, Principal, GABI College, NAU, Surat, Dr. K. A. Patel, Associate Directorate of Research, NAU, Navsari and all the members as well as students of board of studies of crop improvement group. Meeting was initiated by offering floral welcome to dignitaries followed by lightening of lamp ceremony.

Dr. A. N. Sabalpara, Director of Research and Dean PG studies, NAU, Navsari delivered inaugural speech and in his speech he praised all those agricultural universities of the state which are conducting the board of studies meeting for finalizing the PG research work. He congratulated all the scientists of crop improvement group for putting their excellent efforts in development of new varieties in various crops. He emphasized various thrust area of research and expectations of the farming communities from this group like new varieties with value added traits, biotic and abiotic stress tolerance, crop improvement work in horticultural and floricultural crops, research on minor crops, green manure crops etc. He suggested to all recognized PG guides of crop improvement group to finalize the research problems for PG students having a practical utility, which will serve as a base for future research program.

In his speech, weightage was also given on the use of modern biotechnological tools in crop improvement programs to tackle issues like climate changes, water logging, drought, salinity, sex determination in plants in early stage using marker technology etc. He emphasized on germplasm collections, its maintenance and their utilizations in crop improvement programs. He has also given weightage on crop diversification research and team work as per the need. He suggested that breeder should also focus on nutritional and quality aspects along with other yield parameters in their breeding program. Finally, he has also given emphasis about team work for better performance and progress of organization.

Finally, the vote of thanks of inaugural session was given by **Dr. A. V. Narwade**, Assistant Professor, Department of Genetics and Plant Breeding, NMCA, NAU, Navsari.

Technical Session

Chairman	:	Dr. A. N. Sabalpara	Rapporteurs	:	Dr. S. R. Patel
Co-chairman	:	Dr. M. K. Arvadia		:	Dr. V. P. Patel

The action taken report of 5th Meeting of board of studies of crop improvement discipline was presented by **Dr. R. K. Patel**, I/c. Professor and Head, Department of Genetics and Plant Breeding, N. M. College of Agriculture, NAU, Navsari. As per the report presentation, all the suggestions which were made in 5th board of studies meeting were properly incorporated by the concerns in PG research programme. Finally, the house has accepted the action taken report with the permission of chairman. Later on, **Dr. K. G. Modha**, Assistant Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari presented departmental activities including UG/PG teaching, courses offered, credit distribution pattern, PG seminar delivered, new list of external thesis examiners, list of students cleared NET/JRF examinations, PG research topics, number of newly enrolled and pass out students during the year-2015, work load of departmental staff, research projects of department and other extension related activities.

Dr. S. R. Patel, Associate Professor, Department of Genetics and Plant Breeding, College of Agriculture, Bharuch has presented departmental activities of department of Genetics and Plant Breeding, COA, NAU, Bharuch, which includes UG teaching, work load, PG activities, skill development activities – training / symposium involvement of departmental staff and other assignments handled by departmental staff. Similarly, **Prof. P. A. Vavdiya** has presented department activities of College of Agriculture, NAU, Waghai, which covered the UG teaching, workload of staff members and other assignments handled by departmental staff.

Activities of department of Plant Molecular Biology and Biotechnology, ACHF, NAU, Navsari was presented by **Dr. Diwakar Singh**. In his presentation he covered UG and PG teaching, research schemes related activities, research progress in various schemes, workload of staff member, their publications, seminar and symposium related information, number of pass out PG students from department and other related items. Activities of department of Basic science and Humanities, College of Forestry, NAU, Navsari were presented by **Prof. Vipul Parekh** and it includes UG teaching, work load of teaching staff, research program and publications.

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

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
1	Patel Minal B.	Dr. B. G. Solanki	“Study of genetic architecture for seed cotton yield and its component characters over locations in cotton (<i>Gossypium hirsutum</i> L.)”	<ul style="list-style-type: none"> ○ Change title as "Genetic architecture for seed cotton yield and its components over locations in cotton (<i>Gossypium hirsutum</i> L.)” ○ Remove the words - under different environments from objectives No. 1 and 2. ○ Objective No. 3 corrected as "Stability analysis for various traits" ○ Objective No. 4 corrected as "To study molecular variation through SSR"
2	Shinde Vijaykumar B.	Dr. B. D. Jadhav	“Genetic analysis of yield and its components with special reference to Jassid in cotton (<i>Gossypium hirsutum</i> L.)”	<ul style="list-style-type: none"> ○ Add observations - hair density and hair length. ○ Remove units from observation No. 11 and 12.

Approved research problems of M. Sc. (Agri.) students of department of Genetics and Plant Breeding with corrective suggestions made by the house :

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
1	Kanak Bhati	Dr. R. S. Bhakta	Assessment of Genetic Response and Character Association For Yield and Components in Components in Castor (<i>Ricinus communis</i> L.)”	<ul style="list-style-type: none"> ○ Title should be "Genetic divergence and correlation studies of yield and its components in castor (<i>Ricinus communis</i> L.)” ○ Remove objective No. 4 ○ Add observation of wilt incidence % ○ Correct observation No. 9 as - Yield kg/plant
2	Ganvit Kunjanben N.	Dr. K. V. Vadodariya	“Genetic analysis of yield and yield attributing traits in okra (<i>Abelmoschus esculentus</i> L.) Moench]”	<ul style="list-style-type: none"> ○ Include unit in observation No. 10 and 11 ○ Title should be- Genetic analysis of fruit yield and yield attributing traits in okra [<i>Abelmoschus esculentus</i> (L.) Moench] ○ Observation on leaf curl virus incidence (%) should be added ○ Committee will finalize parental lines for study
3	Patel Nisargkumar C.	Dr. B. K. Davda	“Genetic variability analysis of sorghum [<i>Sorghum bicolor</i> (L.) Moench] for yield and its attributes under saline and normal condition”	<ul style="list-style-type: none"> ○ Remove the word analysis and add study word in title. ○ Eliminate wani varieties from experiment ○ Conduct trial at two locations. Remove Ubharat location ○ Physiological observation Na : K ratio should be added.

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
4	Chaudhari Mahendrakumar	Dr. G. O. Faldu	“Genetic diversity analysis for yield and fiber quality in cotton (<i>Gossipium hirsutum</i> L.)”	<ul style="list-style-type: none"> ○ Title should be “Genetic diversity analysis of seed cotton yield and fiber quality in cotton (<i>Gossipium hirsutum</i> L.)” ○ Observations need to be added viz., Gossypol, Phenol and Oil %.
5	Patel Nidhi V.	Dr. B. K. Davda	“Genetic diversity of sorghum [<i>Sorghum bicolor</i> (L.) Moench] genotypes for terminal drought condition”	<ul style="list-style-type: none"> ○ Committee will finalize research problem
6	Patel Aditi D.	Dr. C. G. Intwala	“Diallel analysis for pod yield and its components traits in vegetable Indian bean (<i>Dolichous lablab</i>)”	<ul style="list-style-type: none"> ○ Remove the word “traits” from title ○ Remove objective No. 3 ○ Std. check GJIB 11 should be added ○ Remove the word respectively from objective No. 2 ○ Observation (TSS %) should be added
7	Anjana Rameshbhai A.	Dr. C. G. Intwala	“Genetic analysis of yield and its contributing traits in vegetable cowpea [<i>Vigna unguiculata</i> (L.) Walp.]”	<ul style="list-style-type: none"> ○ Check Pusa Phalguni should be included in place of GC-3 ○ Objective No. 1 and 3 corrected as green pod yield in place of grain yield ○ Remove observations viz., 100 seed weight and number of seeds per pod. ○ Add observation- TSS %. ○ Observation No. 10 should be corrected as Green pod yield per plant ○ Remove the word “number” from observation 3, 4 and 5.

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
8	Rathod Ashishkumar J.	Dr. P. M. Mistry	“Genetic analysis for grain yield, yield attributing traits and quality traits in rice (<i>Oryza sativa</i> L.)”	<ul style="list-style-type: none"> ○ Objective No. 1 needs to be corrected. ○ Add standard heterosis in place of heterosis and heterobeltiosis
9	Rathod Kajal C.	Dr. Manju Singh	“Genetic diversity studies in relation to seed yield and its component traits in Niger (<i>Guizotia abyssinica</i> (L.f.) Cass.)”	<ul style="list-style-type: none"> ○ Remove the word “seed” from title ○ Objective second should be reorder at fourth ○ Correction in observations : ○ Merge observation 4 and 5 as Branches per plant ○ Remove word "No. of" from Observation No. 6 ○ Eliminate Capsule diameter trait. ○ Unit needs to be corrected in observation 9 and 10
10	Chaudhari Shubhamkumar D.	Dr. S. C. Mali	“Genetic variability in sugarcane through induced mutation breeding”	<ul style="list-style-type: none"> ○ Change title “Genetic variability in sugarcane through induced mutagenesis” ○ Committee will finalize research problem
11	Dipesh Borwal	Dr. B. H. Kale	“Variability analysis in F ₂ populations of Indian bean (<i>Lablab purpureus</i> (L.) Sweet) for yield and its contributing traits”	<ul style="list-style-type: none"> ○ Change objective No. 5 as -To study heterosis and inbreeding depression ○ Change the name of NPS 1 to GNIB 21.

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
12	Ninama Gayatriben A.	Dr. B. D. Jadhav	“Variability and Genetic Divergence for some physiological parameters, yield and yield components in Pigeonpea genotypes under <i>semi-rabi</i> conditions”	<ul style="list-style-type: none"> ○ Correct objective No. 2 as : To estimate the correlation among physiological parameters, yield and attributing characters. ○ Word "semi rabi condition" should be eliminate from all objectives ○ Data on leaf area needs should be recorded at 50 % flowering stage.
13	Patel Hardikkumar R.	Dr. V. P. Patel	“Genetic Variability in F ₃ populations of Rice (<i>Oryza sativa</i> L.)”	<ul style="list-style-type: none"> ○ Title should be “Genetic Variability in F₃ progenies of Rice (<i>Oryza sativa</i> L.)” ○ Trial should be replicated
14	Mavani Jaydip R.	Dr. B. D. Jadhav	“Genetic Variability, Correlation, Path analysis and Genetic divergence in Brinjal (<i>Solanum melongena</i> L.)”	-NII-
15	Jyoti Asati	Dr. R. K. Patel	Genetic diversity analysis for seed yield & it’s attributes in fenugreek (<i>Trigonellafoenum graecum</i> (L.))	<ul style="list-style-type: none"> ○ Title should be "Genetic diversity analysis for yield and its attributes in fenugreek (<i>Trigonellafoenum graecum</i> (L.))". ○ Observation No. 9 should be corrected as Seed yield (g/plant), Green biomass (g/plant) ○ Remove observation seed size from the observation list

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
16	Manat Ashishkumar R.	Dr. M. C. Patel	“Heterosis and Combining Ability in a Half Diallel Cross in Sesamum (<i>Sesamum indicum</i> L.)”	<ul style="list-style-type: none"> ○ Title should be "Genetic analysis for seed yield and its components in sesame (<i>Sesamum indicum</i> L.)” ○ Remove objective No. 3 ○ Objective No.1 should be "To study combining ability and gene action involved in the inheritance of various traits” ○ Observation No. 2 needs to change as plant height (cm) ○ Experiment location should be Vanarasi
17	Chaudhari Miteshkumar H.	Dr. S. R. Patel	“Heterosis and combining ability studies for yield and its component traits in Sesame (<i>Sesamum indicum</i> L.)”	<ul style="list-style-type: none"> ○ Title should be "Genetic architecture for seed yield and its components in sesame (<i>Sesamum indicum</i> L.)” ○ Experiment location should be Bharuch/Acchalia/Navsari
18	Pampaniya Arashi G.	Dr. J. P. Makati	“Combining ability analysis and association of yield and its components among selected genotypes of cowpea [<i>Vigna unguiculata</i> (L.) Walp.]”	<ul style="list-style-type: none"> ○ Title should be “Combining ability for yield and its components in cowpea [<i>Vigna unguiculata</i> (L.) Walp.]” ○ Add parental line in treatments ○ Change observation No. 2 as Days to maturity ○ Word number should be removed from observation No. 4, 5, 6, and 7 ○ Observation No. 8 should be Pod length at maturity (g) ○ Objective No. 3 needs to eliminate and correct objective No. 2 as "To

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
				investigate the nature of combining ability and nature of gene action for quantitative characters".
19	Chaudahri Niteshkumar P.	Dr. M. K Gangani	“Combining ability and heterosis for green forage yield and its components in fodder sorghum (<i>Sorghum bicolor</i> L.)”	<ul style="list-style-type: none"> ○ Committee will decide and finalize experiment
20	Desai Pratikkumar K.	Dr. R. K. Patel	“Genetic diversity analysis for seed yield & it’s attributes in coriander (<i>Coriandrumsativum</i> (L.))”	<ul style="list-style-type: none"> ○ Title should be “Genetic diversity analysis for yield and its attributes in coriander (<i>Coriandrum sativum</i> (L.))” ○ Correct the objective No. 4 should be as "To study the genetic divergence among the genotypes". ○ Remove the observation seed size from the observation list
21	Ganvit Rakeshbhai S.	Dr. P. K. Jagtap	“Genetic diversity and association studies among some quantitative traits in Groundnut (<i>Arachis hypogaea</i> L.)”	<ul style="list-style-type: none"> ○ Data on days to initiation of flower need not to collect ○ Observation No. 11 should be Shelling % ○ Add observation - oil (%) percentage
22	Shreya Sen	Dr. K. G. Modha	“Variability, correlations and path analysis in F3:4 progenies of Green gram (<i>Vigna radiata</i> (L.) R. Wilcze) for yield and its attributes”	<ul style="list-style-type: none"> ○ In title write F₄ in place of F_{3:4} ○ Spacing should be 45 cm between row. ○ Remove objective No. 4 ○ Observation No. 11 corrected as Mungbean Yellow Mosaic Virus Incidence (%)

No	Student Name	Major Guide	Research title	Accepted with following suggestions:
23	Chaudhari Vishwaskumar B.	Dr. V. L. Parmar	“Potential of somatic hybridization in sugarcane breeding”	○ Committee (Dr. R. K. Patel, Dr. Taslim Ahmed, Shri. Vipul Parekh and Major guide and Minor Guide) finalize the research problem.

The common committee of four members framed to discuss and finalize research problem of PG students as suggested by house.

Committee member includes

- Dr. B. G. Solanki, Research Scientist (Cotton), Surat
- Dr. R. K. Patel, I/c Professor, Dept. of GPB, Navsari
- Concern Major Guide of PG student
- Concern Minor Guide of PG student

At the end of meeting all P.G. research outlines were appreciated by Chairman. Finally, at the end vote of thanks was given by **Dr. A. V. Narwade**, Assistant Professor, Dept. of Genetics and Plant Breeding, NMCA, NAU, Navsari.
