

Dr. B.R. Murty,
Project Director.

Nuclear Research Laboratory,
Indian Agricultural Research Institute,
New Delhi-110012.

No. NRL/ 635/7

Dated: 14.2.78.

Dear colleague,

The Ministry of Agriculture and Irrigation has requested me, vide letter No.3-67/77-ICI dated 20th Dec., 77, to review the latest reports of the Projects (copy enclosed), financed by I.A.E.A., Vienna. I shall be grateful if you can send me the report, ^{by the end of Feb} immediately, proceedings of which are available with you.

With kind regards,

Yours sincerely,

B. R. Murty

(B.R. Murty)

Encl: as above.

✓ Dr. D.L. Deb,
N.R.L., IARI,
N.Delhi-12.

A review of IAEA supported Projects

S. Title of the Project No.	Name of Instt./ University where research is being conducted	Principal Investigator of the Project	Remarks
1. The fate of applied organic N in flooded rice soil in relation to nitrate pollution under tropical conditions. (No.1438/R3/GS).	C.R.R.I. Cuttack.	Dr. J.E. Shinde	No.3-26/73- ICI
2. Nitrogen fixation by free living Micro-organisms in tropical Rice Soils (No. RC/1804/RB/IND).	CRRI, Cuttack.	Dr. N. Sethunathan	No.3-45/ 75-ICI
3. Pesticide Microflora Interactions in flooded rice ecosystem under conditions of Indian agriculture. (No.2089/SD).	CRRI, Cuttack.	Dr. N. Sethunathan	No.3-15/ 76-ICI
4. Use of induced mutants in Rice breeding and production. (No.1277/RB).	CRRI, Cuttack.	Dr. S.C. Mathur	No.3-24/ 75-ICI
5. Mutational upgrading of protein characteristics in the major food crops. (No.3(49)/73-ICI).	IARI, N. Delhi	Dr. H.K. Jain	No.3-49/73- ICI
6. Isotopes aided micro-nutrients studies in rice production with special reference to zinc deficiency. (No.1490/RI/RB).	IARI, N. Delhi.	Dr. D.L. Deb	No.3-4/74- ICI.
7. Studies on the alteration of mutation rates and spectrum through combined use of Physical and Chemical mutagens and manipulation of treatment conditions.	IARI, N. Delhi.	Dr. H.K. Jain	No.3-12/74- ICI
8. Agricultural nitrogen residues with special reference to their observation as fertilizer.	IARI, N. Delhi.	Dr. B.V. Subbiah.	No.3-6/75- ICI.
9. Induction and Isolation of mutations in Potato. (No. RC/1369-IND).	C.P.R.I., Simla.	Dr. M.D. Upadhye	No.3-7/75- ICI.

Dr. B.R. Murty,
Project Director.

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635/7

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B. R. Murty

(B.R. Murty)

Encl: as above.

Dr. B.V. Subbiah, (on deputation abroad)
NRL, IARI, N. Delhi.

R. P. Arora / Mr. Sachdev
(Dr. S. Bhaskaran).

B
The June report for the above project (RC1591) for the year 1976-77 has already been submitted & a copy of which is available with your PA vide file no 24. The June report for the year 1977-78 will be ready by the end of April 78 & will be submitted accordingly.

P. A. K. P. O.

P. Arora
24.2.78

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9. Induction and Isolation of mutations in Potato. (No.RC/1369-IND).	C.P.R.I., Simla.	Dr.M.D.Upadhya	No.3-7/75- ICI.

D.D.

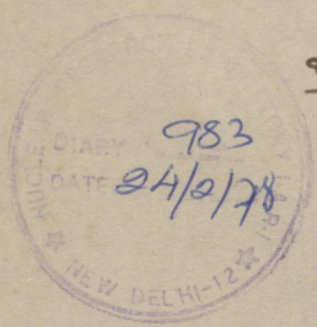
With reference to your letter dated 14.2.78 regarding the latest report of I.A.E.A. projects I am submitting the latest report of the project no. 1490/RI/RB (no. 3-4/74-101). It may be mentioned that after the expiry of the project in 1975, the project has not yet been renewed officially, although we have executed the project programme for 1977. The programme of work will be continued during 1978. However, as soon as our analytical work is over, we shall be able to prepare a report for the work done in 1977. This may take another 2-3 months.

IAEA have informed us that the project progress is under review and we are likely to get an intimation next month regarding its renewal.

D.Deb.
17/2/78.

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BPN
w/v

S. Batra
P.A. to P.D.
2
22/2/78.



Dr. V.L. Chopra,
Head.

D.O.No. 1-1/11/VLC/2717
Division of Genetics
Indian Agricultural Research Institute
New Delhi-12.

Dated: 5-5-78

Dear Dr. Murty,

I am enclosing herewith a report on the two Projects of the International Atomic Energy Agency with which Dr. H.K. Jain is associated alongwith some of the other Scientists of the Genetics Division. This is with reference to your letter No. NRL-635/7 dated 14.2.78.

With kind regards,

Yours Sincerely,

V.L. Chopra
(V.L. Chopra)

Dr. B.R. Murty,
Project Director, NRL.

H. Khosla
2/5

- 1. We wanted the annual reports for review.*
2) The enclosures were not received.

PA *M. check in office*

BK
9/6

PA
16/5-

Mr. Anand
23/6

Report on the two IAEA research projects with which
Dr. H.K. Jain is associated as Principal Investigator

Dr. H.K. Jain and his associates in the Genetics Division are associated with two projects of the International Atomic Energy Agency. The first of these projects relates to mutational upgrading of protein characteristics in the major food crops. The work carried out under this project has resulted in the development of an important experimental approach for the genetic improvement of bread wheat for protein content. Also studies have been made on the improvement of plant architecture in pulses with a view to develop high yielding varieties which will also give high yields of protein on per unit area basis. Already five papers have been published under this ~~xx~~ project, including one which is in the press at present. Copies of these papers are enclosed herewith. We have received comments of the Agency showing that they are highly satisfied with the progress of this project. The five papers published under this project are listed below:

1. Breeding for Higher Protein Yields in Bread Wheat: Experimental Approach and a Phenotypic Marker- by H.K. Jain, N.C. Singhal and A. Austin.
2. ~~Breeding~~ An Approach to Breeding for Higher Protein Content in Bread Wheat- by H.K. Jain, N.C. Singhal, M.P. Singh and A. Austin.
3. Improving Bread Wheat for Protein Content- by N.C. Singhal, H.K. Jain and A. Austin.
4. Improvement of Pulse Crops Through Induced Mutations- by C.H. Rao, J.L. Tickoo, Hayat Ram and H.K. Jain.
5. Induced Variability for Protein Content in Bread Wheat- by N.C. Singhal, H.K. Jain and A. Austin.

The second project relates to the improvement of mutation breeding techniques. It should be explained that in this second project the Institute is not receiving any funds from the International Atomic Energy Agency.

Only in the first project a small grant is received from the Agency. This second project involves primarily scientists from the develop^d~~ing~~₇ countries. Very few scientists from the developing countries are associated with this project. The Agency apparently considers that Indian scientists in view of their contributions in the field of basic mutation research should be associated in this project. Some of the work carried out in this project has been presented in the form of a Ph.D. thesis of Dr. Y.G. Khamenkar. Dr. Khamenkar studied the problems of mutagen specificity and a comparative evolution of chemical and physical mutagens in wheat and tomato. More recently Dr. Jain and his associates have been concerned with the development of a screening procedure for high yielding mutants in bread wheats. Based on these studies a paper was presented at the last Research Coordination meeting of this project which was held in Romania. A copy of the manuscript which is now in press is enclosed herewith. The title of the paper is "Induced mutations and components of yield in bread wheat".
