

# RESUME

**NAME: Dr. Pranab Hazra**

**DESIGNATION: Professor**

**CONTACTS:**

**1. OFFICIAL ADDRESS FOR CORRESPONDENCE:**

Department of Vegetable Science, Faculty of Horticulture

Bidhan Chandra Krishi Viswavidyalaya, Mohanpur-741252 , West Bengal



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**3. EMAIL :** Institutional: hazrapranab@bckv.edu.in

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**4. ORCID ID:** \_\_\_\_\_

**5. GOOGLE SCHOLAR PROFILE:** hazra.pranab05@gmail.com

**6. RESEARCHGATE PROFILE:** \_\_\_\_\_

**7. DATE OF BIRTH:** 03 / 03 / 1960

**8. DATE OF JOINING TO THE UNIVERSITY:** 30 / 04 / 1985

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## **9. ACADEMIC PROFILE:**

LEVEL	NAME OF THE DEGREE WITH DISCIPLINE/ DEPARTMENT	INSTITUTE	YEAR OF PASSING
DOCTORAL	Ph.D. (Agri.) in Horticulture (vegetable Science)	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal	1991
MASTER'S	M.Sc. (Ag.) in Horticulture Major: Vegetable Science; Minor: Genetics & Plant Breeding, Agril. Statistics)	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal	1982
BACHELOR'S	B.Sc. (Ag.) Hons. Elective: Horticulture and Plant Pathology	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal	1980

## **10. EMPLOYMENT HISTORY: (Starting from present position)**

POSITION	ORGANIZATION	PERIOD	
		From (Date)	To (Date)
Professor, Dept. of Vegetable Science, F/ Horticulture	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal	14.05.1999	till date
Reader, Dept. of Horticulture	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal (Direct selection)	01.08.1991	13.05.1999
Lecturer, Dept. of Horticulture	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur , West Bengal	30.04. 1985	31.07.1991

**11. ADMINISTRATIVE POST(S)/ RESPONSIBILITY(IES) (IF ANY)**

SL. NO.	NAME OF THE POST(S)/ RESPONSIBILITY(IES)	PERIOD	
		From (Date)	To (Date)
1.	Dean, Faculty of Horticulture (Two term)	06.12.2013 01.02.2015	05.12.2014 31.05.2016
2.	Dean, Post Graduate Studies (one term)	11.07.2018	10.07. 2021

**12. AREA OF RESEARCH : (Bulleted list)**

- Breeding approaches for tropical vegetable crops
- Pollination control mechanisms and hybrid technology
- Seed production approaches for tropical vegetable crops

**13. COURSES ASSOCIATED WITH:**

LEVEL	COURSE NO.	COURSE TITLE	CREDIT
UNDERGRADUATE	HORT 305	Breeding of Vegetables, Tubers and Spice crops	2 + 1
	HORT 351	Seed production of Vegetables, Tubers and Spice crops	2 + 1
POST GRADUATE	VSC 504	Principles of Vegetable breeding	3 +0
	VSC 505	Breeding self-pollinated vegetable crops	2 + 1
	VSC 506	Breeding cross-pollinated vegetable crops	2 + 1
Ph.D.	VSC 602	Advances in breeding of vegetable crops	3 +0
	VSC 605	Breeding for special traits in vegetable crops	2 +0
	VSC 607	Biotechnological approaches in vegetable crops	2 + 1

**14. NUMBER OF STUDENTS SUPERVISED:**

**Master's. 23; Doctoral. 22**

**15. RESOURCE PERSON FOR OTHER INSTITUTES (involvement in teaching or working as member of academic/ research bodies of other organizations, if any)**

- Expert member of the selection committee, Department of Horticulture, Bangladesh agricultural University, Mynensingh, Bangladesh (2010)
- Host Scientist for the African researcher from Malawi awarded C.V. Raman International fellowship (2013)
- Nominated member of the Board of Post Graduate Studies in the Department of Horticulture, School of Agricultural Science and Rural Development, Nagaland University (2018-2021).
- Nominated member in the Academic Council of Uttar Banga Krishi Viswavidyalaya as Educationist for the period of four (4) years w.e.f. 01.11.2021 for 4 years

## 16. LIFE MEMBERSHIP OF ACADEMIC SOCIETIES

- Member, The National Academy of Sciences, India, Allahabad, 2012
- Life member, Indian Society of Vegetable Science, Varanasi
- Life member, Indian Academy of Horticultural Science, NASC Complex, New Delhi
- Member, Indian Society of Genetics and Plant Breeding, Division of Genetics, Indian Agricultural Research Institute, New Delhi, India.
- Life member, Crop and Weed Science Society, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur.
- Executive Councilor, Indian Society of Vegetable Science
- Executive Councilor, Indian Academy of Horticultural Sciences, NASCComplex, New Delhi, 2020-2022.
- Member of the National Editorial Board of Indian Journal of Horticulture published by Indian Academy of Horticultural Science, 2019.

## 17. PROJECT ACTIVITIES

SL. NO	TITLE OF THE PROJECT	FUNDING AGENCY	ONGOING/ COMPLETED	PI/ Co-PI
1.	Adaptability and Improvement of cowpea in West Bengal	Dept. of Science & Technology and N.E.S., Govt. West Bengal	Completed (1992 to 1996)	PI
2.	Adaptability and Improvement of pointed gourd in West Bengal	Dept. of Science & Technology and N.E.S., Govt. West Bengal	Completed (1996 to 2000)	PI
3.	Development of Hybrids in Vegetable crops	I.C.A.R. under NATP, Govt. of India	Completed (1999 to 2004).	PI
4.	Exploration and utilization of biodiversity for improvement of some Vegetable crops in West Bengal	Dept. of Agriculture, Govt. of West Bengal	Completed (2002 to 2006)	PI
5.	Export Oriented Vegetable Production under low cost Poly house	APEDA, Govt. of India	Completed (2002 to 2006)	PI
6.	Standardization of agro-techniques for quality seed production of onion under Gangetic alluvial plain of West Bengal	Dept. of Food Processing Industries and Horticulture, Govt. of West Bengal	Completed (2006 -2010)	PI
7.	Development of export quality green and dry chilli with long staying high colour and oleoresin content	Dept. of Food Processing Industries and Horticulture, Govt. of West Bengal	Completed (2006 to 2010).	Co-PI
8.	Genetic diversity and characterization of <i>Momordica</i> species in eastern and north-eastern India through morphological characters and molecular markers	UGC through U.P.E. scheme	Completed (2007-2010).	Co-PI

9.	Analysis of constraints for intra-state imbalance in productivity of vegetable crops for micro-level planning	Dept. of Food Processing Industries and Horticulture, Govt. of West Bengal	Completed (2007 to 2011)	PI
10.	Indo-Bulgaria Inter-Governmental project “Developing tomato germplasm possessing economically important traits” and visit in the Institute of Genetics, Sofia, Bulgaria for three years	Department of Science and Technology, Govt. of India	Completed (2008 to 2011)	PI
11.	Isolation of mutant with exerted stigma and anther non-dehiscence character in <i>ps-2</i> functional male sterile line of tomato for utilization in hybrid seed production	Department of Atomic Energy, Bhaba Atomic Research Centre, Mumbai, Govt. of India	Completed (2010 to 2014)	PI
12.	Enhancement of nutritional quality of tomato by increasing lycopene and anthocyanin contents through mutant genes	Department of Science and Technology, Govt. of India	Completed (2013 to 2016)	PI
13.	Molecular and biochemical characterization of three fruit pigment enhancing mutant genes ( <i>hp</i> , <i>og<sup>c</sup></i> and <i>dg</i> ) and introgression of these genes with the fruit shelf-life enhancing mutant gene <i>rin</i> in respective dihomozygote condition to develop breeding line with extended shelf-life and elevated carotenoids in the fruits of tomato ( <i>Solanum lycopersicum</i> )	Department of Biotechnology, Govt. of India under Bio-CARE programme of “Woman Scientist”	Completed (2013- 2018)	Mentor
14.	Nuclear-intervened molecular breeding and <i>in vitro</i> culture for increasing yield and phytomedicine production in bitter gourd ( <i>Momordica charantia</i> )	Department of Atomic Energy, Bhaba Atomic Research Centre, Mumbai, Govt. of India	Completed (2014 to 2020)	PI

## 18. CAPACITY BUILDING/FACULTY DEVELOPMENT PROGRAMME

### A. ORGANIZED

SL. NO.	NAME OF THE PROGRAMME	DURATION	PLACE	ROLE

### B. ATTENDED

SL. NO.	NAME OF THE PROGRAMME	DURATION	PLACE	ROLE

## 19. SEMINAR/ SYMPOSIUM/ WORKSHOP etc

### A. ORGANIZED

SL. NO.	NAME OF THE PROGRAMME	DURATION	PLACE	ROLE

### B. ATTENDED

- Attended 20 International Seminar/Conference/Congress and 65 National/State level Seminar/Symposium/Workshop/ Web conference as Lead speaker/ Chairman/Co-Chairman/ Convener/ Expert.

SL. NO.	NAME OF THE PROGRAMME	DURATION	PLACE	ROLE

## 20. PATENTS/ HONOURS/ AWARDS/ RECOGNITION (Bulleted list):

### HONOURS/ AWARDS

- Fellow, Indian Society of Vegetable Science for outstanding contributions in Vegetable Science (in 2007).
- Member, The National Academy of Sciences, India (in 2012)
- Fellow, Indian Academy of Horticultural Science for significant contribution in teaching and research in Horticulture (in 2013).
- Fellow, International Society for Noni Science for significant contribution in Agricultural science (in 2021)
- Awarded Dr. Kirti Singh Gold Medal of Indian Academy of Horticultural Science for outstanding contributions and leadership in Vegetable Science (in 2013).
- Awarded Dr. Kirti Singh Memorial Lifetime Achievement Award of Indian Society of Vegetable Science for excellent contribution in R & D of Vegetable science (in 2022)

### RECOGNITION

- Member of the working group “Vegetable Production” and “Seeds and Agricultural Management” sub-Committee of the “Agriculture Commission”, Govt. of West Bengal, 2007-08.
- Member, Working Group on Horticulture (Sub-group: Vegetable crops) for 11<sup>th</sup> Planning commission, Govt. of India (2007-2012)
- Expert member of the selection committee, Department of Horticulture, Bangladesh agricultural University, Mynensingh, Bangladesh (2010)
- Host Scientist for the African researcher from Malawi awarded C.V. Raman International fellowship (2013)
- Nominated member of the Board of Post Graduate Studies in the Department of Horticulture, School of Agricultural Science and Rural Development, Nagaland University (2018-2021).
- Nominated member in the Academic Council of Uttar Banga Krishi Viswavidyalaya as Educationist for the period of four (4) years w.e.f. 01.11.2021 for 4 years
- External examiner of 45 Ph.D. theses of different University / Deemed University of India and abroad

- Member of Task force for development of DUS guidelines of different cucurbits, PPV&FRA, Govt. of India.
- Expert Member to perform different assignments of Agricultural Scientist Recruitment Board, Govt. of India.

## 21. INTERNATIONAL COLLABORATIONS/ INVOLVEMENT, IF ANY (Bulleted list):

- Awarded ICAR-AHRD Fellowship from FAO, Rome (FAO Fellowship) for persuasion of post-doctoral course “Biotechnology in Agriculture” at Hebrew University of Jerusalem, Rehovot, Israel, 2000-2001.
- Awarded Indo-Bulgaria Inter-Governmental project from Department of Science and Technology, Govt. Of India for “Visit-oriented” programme to the Institute of Genetics, Bulgarian Academy of Science, Sofia, Bulgaria during 2008-2011.
- Awarded ERASMUS MUNDUS scholarship through the BRAVE project of European Commission for “Visit-oriented” programme to The Laboratory of Plant Breeding and Biometry, Department of Crop Science, Agricultural University of Athens, Greece, 2015

## 22. PUBLICATIONS

### A. BOOKS

1. **Hazra, Pranab**, Ghosh, S. K., Maity, T. K., Pandit, M. K. and Som, M. G. 2010. *Glossary of Horticulture* (Third edition), Kalyani Publishers, Ludhiana, New Delhi, 304 p, ISBN No. 978-81-272-6106-1. (First Edition 1994)
2. **Hazra, Pranab** and Som, M.G. 1999. *Technology for Vegetable Production and Improvement*<sup>1</sup>, Naya Prokash, Kolkata, West Bengal, 428 p, ISBN No. 81-85421-53-6
3. **Hazra, Pranab** and Som, M.G. 2015. *Vegetable Science*<sup>1,2</sup> (Second revised edition), Kalyani Publishers, Ludhiana, New Delhi, 598 p., ISBN No. 978-93-272-5451-8 (First Edition 2005)
4. **Hazra, Pranab**, Banerjee, M. K. and Chattopadhyay, A. 2022. *Varieties of Vegetable crops in India*<sup>1</sup> (Third edition), Kalyani Publishers, Ludhiana, New Delhi, 199p., ISBN No. 978-93-272-1994-4 (First Edition 2005).
5. **Hazra, Pranab** and Som, M.G. 2016. *Vegetable Seed Production and Hybrid Technology*<sup>1,2</sup> (Second revised edition), Kalyani Publishers, Ludhiana, New Delhi, 459 p., ISBN No. 978-93-272-6461-6 (First Edition 2009).
6. **Hazra, Pranab**, Chattopadhyay, A., Karmakar, K. and Dutta, S. 2011. *Modern Technology for Vegetable Production*<sup>1</sup>, New India Publishing Agency, New Delhi, 413p., ISBN No. 978-93-80235-32-5.
7. Peter, K. V. and **Hazra, Pranab** (editors). 2012. *Hand book of Vegetables*<sup>2</sup>, Studium Press LLC, Houston, Texas , USA, 678p., ISBN No. 1-933699-74-4.
8. Sarkar, S. **Hazra, Pranab** and Chattopadhyay, A. 2013. *Chilli: Genetic diversity, characterization and Crop improvement*, Scholar’s Press, Verlag, Saarbrucken, Deutschland, Germany, 109 p. ISBN No. 978-3-639-51478-0.
9. Peter, K. V. and **Hazra, Pranab** (editors). 2015. *Hand book of Vegetables*, Vol. II<sup>2</sup>, Studium Press LLC, Houston, Texas , USA, 509p., ISBN No. 1-62699-036-7.
10. Peter, K. V. and **Hazra, Pranab** (editors). 2012. *Hand book of Vegetables*, Vol III<sup>2</sup>, Studium Press LLC, Houston, Texas , USA, 634p., ISBN No. 1-62699-039-5.
11. **Hazra, Pranab**. 2019. *Vegetable Science and Technology*<sup>2</sup>, New India Publishing Agency, New Delhi, 630p., ISBN No. 978-93-87973-24-4.
12. **Hazra, Pranab**. 2020. *Seed production Technology for Vegetable, Tuber and Spice crops*<sup>2</sup>, Brillion publishing, New Delhi, 651p., ISBN No. 978-93-86658-20-3

<sup>1</sup> Identified as Text Book for B.Sc. (Hons.) Horticulture programme as per Fifth Deans’ committee, ICAR

<sup>2</sup> Identified as both Text and Reference book in the Restructured and Revised syllabi of Post graduate programme in Horticultural science, Education division, ICAR, New Delhi, 2021.

**B. BOOK CHAPTERS (Best 10) Total 34 book chapters in 28 books**

1. Som, M.G., Maity, T.K. and **Hazra, Pranab** (1993). Pointed gourd. In: *Genetic Improvement of Vegetable Crops* (Eds. G. Kalloo and B.O. Bergh). Pergamon Press, Oxford. New York. Seoul. Tokyo, pp. 251-258. ISBN: 0-80-040826-5
2. Som, M. G. and **Hazra, Pranab** (1993). Cowpea. In: *Genetic Improvement of Vegetable Crops* (Eds. G. Kalloo and B.O. Bergh). Pergamon Press, Oxford, New York, Seoul, Tokyo, pp. 339-354. ISBN: 0-80-040826-5
3. **Hazra, Pranab** and Banerjee, M. K. (2000) Breeding of Vegetable Crops. In: *Tropical Horticulture Volume-2* (Eds. T.K. Bose, J. Kabir, P. Das and P.P. Joi), Naya Prokash, Calcutta, India, pp. 241-300. ISBN: 81-85421-33-1
4. **Hazra, Pranab** (2011). Vegetable Breeding Methods and Techniques. In: *Breeding and Protection of Vegetables* (ed. M.K. Rana). New India Publishing Agency, Pritam Pura, New Delhi, pp. 1-79. ISBN: 978-93-80235-49-3
5. **Hazra, Pranab** and Dutta, A. K. (2011). Vegetable Breeding for Quality Traits. In: *Breeding and Protection of Vegetables*(ed. M.K Rana). New India Publishing Agency, Pritam Pura, New Delhi, pp. 274-314. ISBN: 978-93-80235-49-3
6. **Hazra, Pranab** (2014). Mutagenesis for Human Nutrition. In: *Mutagenesis: Exploring Novel Genes and Pathways* (Eds. Kozgar, M.I., Tomlekova, N. And Wani, M.R.), Wageningen Academic Publishers, The Netherlands, pp. 143-166. ISBN:978-90-8686- 234-4.
7. **Hazra, Pranab** (2014). Role of vegetable crops in food and nutritional security. In: *Horticulture for Inclusive growth* (Eds. Chadha, K.L., Kalia, P. and Singh, S.K.). Westville Publishing House, New Delhi, pp. 60- 76. ISBN: 978-93-83491- 23-0
8. Akhtar, Shirin, Naik, A. and **Hazra, Pranab** (2015). Harnessing Heat Stress in Vegetable Crops towards Mitigating Impacts of Climate Change. In: *Climate Dynamics in Horticultural Science: Principles and Applications* (Eds. Choudhary, M.L., Patel, V.B., Md. Wasim Siddiqui and Syed Sheraz Mahdi), Apple Academic Press Inc., 9 Spinnaker Way, Waretown, New Jersey, USA. pp. 173-200. ISBN: 978-1-77188-031-2.
9. **Hazra, Pranab** 2022. Biodiversity of Vegetables: Sustainable Food and Nutritional Security in Coastal Areas, In: *Transforming Coastal Zone for Sustainable Food and Income Security* (Eds. Lama, T. D., Burman, D., Mandal, U.K., Sarangi, S.K. and Sen, H.S.). Springer, Switzerland, pp. 155-163, ISBN:978-3-030-95618-9
10. **Hazra, Pranab** 2023. Antioxidants and health benefits of brinjal, In: *Vegetables for Nutrition and Entrepreneurship* (Eds. Singh, B. and Kalia, P.). Springer Nature, Singapore pp. 203-216, ISBN: 9789811990151

**C. RESEARCH PAPERS (Best 10) Total 203 research papers**

1. Chattopadhyay, T., Hazra, P., Akhtar, S., Maurya, D., Mukherjee, A. and Roy, S. 2021. Skin colour, carotenogenesis and chlorophyll degradation mutant alleles: genetic orchestration behind the fruit colour variation in tomato. *Plant Cell Reports*, <https://doi.org/10.1007/s00299-020-02650-9> (NAAS rating: 12.20).
2. Wasim Siddiqui, Md., Chakraborty, I., Mishra, P. and **Hazra, Pranab** 2014. Bioactive attributes of tomatoes involving *dg*, *og<sup>e</sup>*, and *rin* genes. *Food & Function*, **5**: 936-943 (NAAS rating: 12.10).
3. **Hazra, Pranab**, Hazra, S., Acharya, B., Dutta, S., Saha, S., Mahapatra, P., Pradeepkumar, P., Pal, H., Chattopadhyay, A., Chakraborty, I., Jambhulkar, S., Chatterjee, S. and Ghosh, S.K. 2022. Diversity of nutrient and nutraceutical contents in the fruits and its relationship to morphological traits in bitter melon (*Momordica charantia* L.). *Scientia Horticulturae*, <https://doi.org/10.1016/j.scienta.2022.111414> (NAAS rating: 10.30).
4. Pal, Harshata, Kundu, A., Sahu, R., Sethi, A., **Hazra, Pranab** and Chatterjee, S. 2019. Unravelling the metabolic behavior in Tomato high pigment mutants (*hp-1*, *hp-*

- 2dg, og<sup>c</sup>*) and non-ripening mutant (*rin*) during fruit ripening. *Scientia Horticulturae*, **246**: 652-663(NAAS rating: 10.30).
5. **Hazra, Pranab**, Longjam, M. and Chattopadhyay, A. 2018. Stacking of mutant genes in the development of “purple tomato” rich in both lycopene and anthocyanin contents. *Scientia Horticulturae*, **239**: 253-258 (NAAS rating: 10.30).
  6. Wasim Siddiqui, M., Chakraborty, I., Mishra, P., **Hazra, Pranab**, and Ayala-Zavalad, J. F.2015. Postharvest physico-chemical changes in mutant (*dg, og<sup>c</sup>*, and *rin*) and non-mutant tomatoes. *Acta Physiologiae Plantarum*, **37**(1):1-11 (NAAS rating: 8.60).
  7. Bose S., Hazra, S., **Hazra Pranab**, Chattopadhyay, A., Maji, A., Basfore S.and Karak, C. 2023. Characterization of gynoeocious-parthenocarpic and monoecious cucumber lines (*Cucumis sativus* L.) and regression modelling to obtain high yielding and functionally rich genotypes. *Horticulture, Environment, and Biotechnology*, <https://doi.org/10.1007/s13580-023-00579-y>(NAAS rating: 8.40).
  8. Hazra, S., Gorai, S., Roy, S., Bose, S., **Hazra, Pranab**, Chattopadhyay, A., Nasim Ali, Md., Jambhulkar, S. and Maji, A. 2023. Isolation of YVMV resistant mutants of okra (*Abelmoschus esculentus* L.) through applied mutagenesis. *Plant Breeding*, 2023; 143(2): 232-245, DOI: 10.1111/pbr.13151 (NAAS rating: 8.00).
  9. Das, I., **Hazra, Pranab**, Longjam, M., Bhattacharjee, T., Maurya, P.K., Banerjee, S. and Chattopadhyay, A. 2019. Characterization of induced mutants and their hybrids of tomato (*Solanum lycopersicum* L.) for growth, yield and fruit quality traits to explore the feasibility in future breeding. *Genetic Resources and Crop Evolution*, **66**:1421-1441(NAAS rating: 8.00).
  10. Dutta, P., **Hazra, Pranab**, Hazra, S., Maji, A. and Chattopadhyay, A. 2023. Genetic expression of reproductive and fruit quality traits in snap melon (*Cucumis melo* var. *momordica* L.). *Euphytica*, 2023 219:15 <https://doi.org/10.1007/s10681-022-03146-1>(NAAS rating: 7.90).



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(Pranab Hazra) 19.05.2024  
Signature with Date