

Curriculum Vitae

- Name:** Chanda Nimbkar
- Office address:** Nimbkar Agricultural Research Institute, Animal Husbandry Division,
P.O.Box 23, Phaltan 415 523, Maharashtra, India
- Home address:** At and Post Rajale, Taluka Phaltan, Dist. Satara, Maharashtra, India
- Telephone: Work:** +91-2166-262063
-262106
- Home:** +91-2166-248142
-249228
- Mobile:** +91-9960940805
- Fax:** +91-2166-262106
- Email:** chanda.nimbkar@gmail.com
- Date of birth:** 20 December 1960
- Qualifications:** 1981: B. Com., University of Poona, India
1984: M.A. (Economics), Brown University, R.I., U.S.A.
1990: M.Sc. (Animal Breeding), University of Edinburgh, U.K.
2006: Ph.D. University of New England, NSW, Australia.
Thesis title: "Genetic improvement of lamb production efficiency in Indian Deccani sheep"
- Languages known:** English, Marathi
excellent proficiency in reading, writing, conversing and formal speaking
- Current position:** 1. Director, Animal Husbandry Division, Nimbkar Agricultural Research Institute (NARI), Phaltan, Maharashtra, India (since October 1998)
2. Hon. Director, Maharashtra Goat and Sheep Research and Development Institute, Phaltan, Maharashtra, India
- Previous positions:** 1991-1998: Research scientist, Nimbkar Agricultural Research Institute, Animal Husbandry Division
- Member of Board of Trustees of the following non-government organizations**
1. Nimbkar Agricultural Research Institute, Phaltan, Maharashtra, India
 2. Maharashtra Goat and Sheep Research and Development Institute, Phaltan, Maharashtra, India
 3. Pragat Shikshan Sanstha (Progressive Education Society), Phaltan, Maharashtra, India
- Member of Board of Directors of the following companies**
1. Nimbkar Seeds Pvt. Ltd., Phaltan, Maharashtra, India
 2. Baramati Agro Ltd., Baramati, Maharashtra, India
 3. Nira Valley Genetics Ltd., Phaltan, Maharashtra, India

Member of Governing Bodies / Boards of Management of the following organizations of the Indian Council of Agricultural Research (ICAR) Society

1. ICAR Society, New Delhi, India
2. National Dairy Research Institute, Karnal, Haryana, India
3. Project Directorate on Foot and Mouth Disease, Mukteswar, Uttarakhand, India

Areas of expertise: Animal breeding, applied research in quantitative genetics
Livestock production systems research and research management
Research planning and assessment of utility of research to farmers
Theory and practice of sheep and goat breeding programs
Extension of research results to farmers and smallholders
Writing proposals and implementing research projects
Academic and administrative leadership
Managing own agro-forestry farm since 1982

Membership of professional organizations and societies

1. British Society of Animal Science, U.K.
2. International Goat Association, U.S.A.
3. Association for the Advancement of Animal Breeding and Genetics based in Australia and New Zealand
4. Indian Society of Sheep and Goat Production and Utilization
5. Society for Conservation of Domestic Animal Biodiversity, Karnal, Haryana, India
6. Indian Society for Livestock Production and Management
7. Indian Society for Animal Genetics and Breeding
8. Animal Nutrition Society of India

Scientific Reviewer for following journals:

1. Animal Genetic Resources Information (a Cambridge Journal Online published under the joint auspices of the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme (UNEP))
2. Tropical Animal Health and Production, a Springer Journal

Salient research and development projects managed at NARI and funding agency of each project (in brackets)

1991: 'Improvement of village goats in Phaltan taluka' (Council for Advancement of People's Action and Rural Technology, New Delhi, India)

1992: Setting up a 'National Demonstration Unit for goats and sheep' at Phaltan (Ministry of Agriculture, Government of India)

1994: Importing frozen Boer goat embryos (Australian High Commission, New Delhi) and subsequent management of the Boer flock

1995: 'Crossbreeding village goats using Boer semen and monitoring the performance of crossbred kids' (AusAID, New Delhi)

1997: 'Crossbreeding local goats with improved Boer goat for better meat production and better quality skins', (Central Leather Research Institute, Chennai under the Leather Technology Mission)

1998-2002: 'Prolific Worm-Resistant Meat Sheep for Maharashtra, India', in collaboration with National Chemical Laboratory (NCL), Pune and University of New England, Armidale, Australia (Australian Centre for International Agricultural Research (ACIAR) and AusAID)

2003-2005: 'Increasing the reproductive rate of Deccani sheep using the *FecB* (Booroola) gene from the Garole breed' (German-Israel Fund for Research and International Development (GIFRID), Israel)

2003-2008: 'Improved productivity, profitability and sustainability of sheep production in Maharashtra, India through genetically enhanced prolificacy, growth and parasite resistance' in collaboration with National Chemical Laboratory (NCL), Pune and University of New England (UNE), Armidale, Australia, (ACIAR)

2008: Was Convener of the "Helen Newton Turner International Workshop on 'Using the *FecB* (Booroola) gene in sheep breeding programs' held on 10-12 November 2008 at NCL, Pune. The Workshop was convened jointly with NCL and UNE, Australia. Nineteen invited scientific papers were presented at the Workshop including 12 by international scientists and 55 registered delegates attended the Workshop. The full papers were published before the Workshop and made available to all the participants. Edited the final Workshop Proceedings published in 2009 as an ACIAR monograph, together with Prof. J.H.J. van der Werf and Prof. S.W. Walkden-Brown.

2009-2012: Increasing profitability of sheep production by genetic improvement using the *FecB* (Booroola) mutation and improved management. In collaboration with the National Bureau of Animal Genetic Resources (NBAGR), Karnal, Haryana, an institute of the Indian Council of Agricultural Research. (Department of Biotechnology, Ministry of Science and Technology, Government of India.)

2009-2012: Osmanabadi goat field unit under the All India Coordinated Research Project on Goat Improvement. (Indian Council of Agricultural Research)

Fellowships and awards received:

ACIAR John Allwright Fellowship for PhD studies in Australia (2002-2005)

2007: The ACIAR-funded project team under my leadership won the Council for Scientific and Industrial Research (CSIR), **Government of India Award** for 'Science and Technology Innovations for Rural Development – 2007' for the project 'Use of the *FecB* gene in Deccani breed of sheep to increase lamb production and thereby the incomes of shepherds'. This award was for NARI and the National Chemical Laboratory (NCL). It was declared jointly for our project and the yak development project of the National Yak Research Centre in Arunachal Pradesh, India. The award consisted of a trophy, citation and Rs.500,000 cash for NARI and NCL each.

2011: '**Illustrious Alumnus Award (2011)**' from the Principal, staff and alumni of Ness Wadia College of Commerce, Pune where I studied for my B. Com. Degree from 1978 to 1981.

Important appointments and assignments :

- 1996: Participated in the **formulation of the Livestock Breeding Policy of Maharashtra State** at the invitation of the Government of Maharashtra.
- 1996: Member of the Committee appointed by the Government of Maharashtra for making recommendations about "**Goat and Sheep Development during the Ninth Five Year Plan**"
- 1997: Member of the '**Advisory Committee on Breeding Policy for Sheep, Goats and Rabbits**' of the Government of India, Ministry of Agriculture

- 1999: Participated (as a resource person) in the ‘Workshop on Developing Breeding Strategies for Lower Input Animal Production Environments’ at Bella, Italy at the invitation of the FAO and the International Committee for Animal Recording. Wrote a case study on NARI’s genetic improvement program of village goats
- 2000: Nominated as a member of the executive committee of the Indian Society for Sheep and Goat Production and Utilisation (ISSGPU).
- 2001: Participated in the review of ACIAR project 97133 “Sustainable endoparasite control of small ruminants in southeast Asia” held in the Philippines. This visit was funded by the International Livestock Research Institute (ILRI).
- 2001: Participated in the meeting of the Indian Planning Commission’s Sub-group on **“Development of Small Ruminants” to work out a strategy for the Tenth Five Year Plan.**
- 2001: Participated in the ACIAR-India country consultation on agricultural research and development priorities, New Delhi.
- 2004: Appointed as a non-official Member of the Central Advisory Committee for the Development of Sheep, Goats and Rabbits, reconstituted by the Government of India, Ministry of Agriculture, Department of Animal Husbandry and Dairying for a period of three years from February 2004.
- **2004-2006: Appointed by the Government of India, Ministry of Agriculture as a part time member of the National Commission on Farmers entrusted with the task of working out a policy for food security in the country.**
- Permanent member of the International Committee for World Congresses on Genetics Applied to Livestock Production.
- 2006: Participated by invitation from the Food and Agriculture Organization of the United Nations (FAO), in the Regional Workshop jointly organized by APHCA and International Livestock Research Institute (ILRI) on “Goats – An Undervalued Asset in Asia?” in Luang Prabang, Lao PDR and presented a paper ‘Options for genetic improvement of goats by smallholders’.
- August 2006: Appointed as a member of the Permanent International Committee of the World Congress on Genetics Applied to Livestock Production
- 2007: **Invited by FAO to write and present a scientific paper on ‘Sustainable use and genetic improvement of animal genetic resources’** for the First International Technical Conference on Animal Genetic Resources in Interlaken in September 2007. Nominated as a member of the Indian Govt. delegation participating in the conference
- April 2007: Appointed by the Indian Council of Agricultural Research Society as a member representing agricultural/rural interests, of the Institute Management Committee of the Project Directorate on Foot and Mouth Disease, Mukteswar.
- June 2008: **Appointed** by the Union Agriculture Minister and President of the Indian Council of Agricultural Research (ICAR) Society as a Member on the ICAR Society as well as **on the Governing Body of the ICAR Society for three years**

- June 2008: Appointed by the President of ICAR as a member of the Board of Management of the National Dairy Research Institute, Karnal, Harayana for two years
- July 2008: Appointed by the President of ICAR as member of the Board of Management of the Indian Veterinary Research Institute, Izatnagar, U.P., India for two years
- January 2009: Appointed as a non-official **Member of the Central Advisory Committee for the Development of Sheep, Goats and Rabbits**, reconstituted by the Government of India, Ministry of Agriculture, Department of Animal Husbandry and Dairying for a period of four years from January 2009.
- January 2009: Appointed for three years as a **member of the Editorial Advisory Board of the Journal ‘Animal Genetic Resources Information’ published by the Food and Agriculture Organization of the United Nations (FAO)**.
- Reviewer of papers for the journals Tropical Animal Health and Production, International Journal of Sheep and Wool Science and Current Science.
- August 2010: Invited by the FAO to write and present a paper on ‘Indian initiatives to promote sustainable use of animal genetic resources’ for the session on ‘Management of animal genetic resources - Quo vadis after the State of the World Report’ at the 9th World Congress on Genetics Applied to Livestock Production held in Leipzig, Germany on August 1-6, 2010.
- December 2010: Invited by the Centre for Genetic Resources, the Netherlands, Wageningen University and Research Centre to write and present a contribution on “Recent trends in the global organization of animal breeding” in collaboration with Prof. Johan van Arendonk at the International Technical Expert Workshop “Exploring the need for specific measures for access and benefit-sharing of animal genetic resources for food and agriculture” held at Wageningen, the Netherlands.
- June 2011: Nominated (for the second time) by the Minister of Agriculture, Government of India and President of the ICAR (Indian Council of Agricultural Research) Society as a member representing rural interests, of the ICAR Society and the Governing Body of the ICAR Society for three years.

List of publications

Recent refereed publications:

Nimbkar, C. 2000. A village goat cross-breeding project in Maharashtra, India. In International Committee for Animal Recording Technical Series No. 3; Workshop on Developing Breeding Strategies for Lower Input Animal Production Environments. Bella, Italy. 22-25 September 1999. Ed. S. Galal, J. Boyazoglu and K. Hammond. pp. 435-443.

Nimbkar, C., Ghalsasi, P.M., Swan, A.A., Walkden-Brown, S.W. and Kahn, L.P. 2003. Evaluation of growth rates and nematode resistance of Deccani and Bannur lambs and their crosses with Garole. *Animal Science* 76: 503-515

Nimbkar, C., Ghalsasi, P.M., Maddox, J.F., Pardeshi, V.C., Sainani, M.N., Gupta, V. and Walkden-Brown, S.W. 2003. Expression of the *FecB* gene in Garole and crossbred ewes in Maharashtra, India. In “50 years of DNA”. Proceedings of the 15th Conference of the Association for the Advancement of Animal Breeding and Genetics. Melbourne, Australia. 15:111-114

Nimbkar, C., Pardeshi, V.C. and Ghalsasi, P.M. 2005. Evaluation of the utility of the *FecB* gene to improve the productivity of Deccani sheep in Maharashtra, India. In Applications of gene-based technologies to improve animal production and health in developing countries. Ed. H.P.S. Makkar and G.J. Viljoen. FAO-IAEA. Springer. pp. 145-154.

Pardeshi, V.C., Sainani, M.N., Maddox, J.F., Ghalsasi, P.M., **Nimbkar, C.** and Gupta, V.S. 2005. Assessing the role of *FecB* mutation in productivity of Indian sheep. *Current Science*. 89: 887-890.

Nimbkar, C. 2006. Genetic improvement of lamb production efficiency in Indian Deccani sheep. Ph.D. thesis. University of New England, Australia. 209 p.

Nimbkar, C., Ghalsasi, P.M., Chavan, K.M., Nalawade, M.H., Walkden-Brown, S.W., Gupta, V.S., Pardeshi, V. C. and van der Werf, J. H. J. 2006. Lamb production by *FecB* heterozygous carrier and non-carrier ewes in smallholder flocks in Maharashtra State of India. Proceedings 8th World Congress on Genetics Applied to Livestock Production. Belo Horizonte, Brazil. August 13-18, 2006. CD ROM Communication No. 04-03.

Nimbkar C., Ghalsasi, P.M., Nimbkar B.V., Walkden-Brown S.W., Maddox J.F., Gupta V.S., Pardeshi, V.C., Ghalsasi P.P. and van der Werf J.H.J. 2007. Reproductive performance of Indian crossbred Deccani ewes carrying the *FecB* mutation. Proceedings of the 17th Conference of the Association for the Advancement of Animal Breeding and Genetics. Armidale, Australia. 23-26 September 2007. pp. 430-433.

Nimbkar, C., Gibson, J.P., Okeyo, A.M., Solkener, J., Boettcher, P., Gandini, G and Sadana D.K. 2008. Sustainable use and genetic improvement of animal genetic resources. In Animal Genetic Resources Information. Special issue: Scientific Forum of First International Technical Conference on Animal Genetic Resources, Interlaken, Switzerland. 1-7 September 2007. 42:49-65.
http://www.fao.org/ag/againfo/programmes/en/genetics/documents/Interlaken/ITC-AnGR07Inf2_en.pdf

Nimbkar, C., Ghalsasi, P.M., Nimbkar, B.V., Ghalsasi, P.P., Gupta, V.S., Pardeshi, V.C., Maddox, J.F., van der Werf, J.H.J., Gray, G.D. and Walkden-Brown, S.W. 2008. Biological and economic consequences of introgression of the *FecB* (Booroola) gene into Deccani sheep. In 'Use of the *FecB* (Booroola) gene in sheep-breeding programs'. Proceedings of the Helen Newton Turner Memorial International Workshop. Pune, India. 10-12 November 2008. ACIAR Proceedings No. 133. (Eds SW Walkden-Brown, J Van der Werf, C Nimbkar, V Gupta) pp. 90-99. (Australian Centre for International Agricultural Research).

Nimbkar, C., Ghalsasi, P.M., Nimbkar, B.V., van der Werf, J.H.J. and Walkden-Brown, S.W. 2008. Potential introgression pathways and strategies for wider utilization of the *FecB* gene in Maharashtra State and other parts of India. In 'Use of the *FecB* (Booroola) gene in sheep-breeding programs'. Proceedings of the Helen Newton Turner Memorial International Workshop. Pune, India. 10-12 November 2008. ACIAR Proceedings No. 133. (Eds SW Walkden-Brown, J Van der Werf, C Nimbkar, V Gupta) pp. 177-189. (Australian Centre for International Agricultural Research).

Prior, J., Ghalsasi, P.M., Walkden-Brown, S.W., Chavan, K.M., Kulkarni, S.R. and **Nimbkar, C.** 2008. Shepherds' views on the value and management of Deccani crossbred *FecB* carrier ewes with a higher twinning percentage: implications for a future introgression extension program. In 'Use of the *FecB* (Booroola) gene in sheep-breeding programs'. Proceedings of the Helen Newton Turner Memorial International Workshop. Pune, India. 10-12 November 2008. ACIAR Proceedings No. 133. (Eds. S.W. Walkden-Brown, J. Van der Werf, C. Nimbkar, V. Gupta) pp. 199-211. (Australian Centre for International Agricultural Research).

Nimbkar, C. 2010. Indian initiatives to promote sustainable use of animal genetic resources. Proceedings 9th World Congress on Genetics Applied to Livestock Production. Leipzig, Germany. August 1-6, 2010. CD ROM Communication No. ID026.

Nimbkar, C. and van Arendonk, J. 2010. Recent trends in the global organization of animal breeding. Paper for the International Technical Expert Workshop on “Exploring the need for specific measures for access and benefit-sharing of animal genetic resources for food and agriculture” held at Wageningen, The Netherlands on 8-10 December 2010. <http://documents.plant.wur.nl/cgn/seminars/Worshop20100812/Nimbkar%20and%20Arendonk%20doc.pdf>

Nimbkar, C. and Kandasamy, N. 2011. Animal breeding in India – a time for reflection and action. Editorial. Journal of Animal Breeding and Genetics. 128:161-162.

Edited conference proceedings:

Walkden-Brown, S.W., Van der Werf, J., **Nimbkar, C.**, Gupta, V. (Eds) 2009. 'Use of the *FecB* (Booroola) gene in sheep-breeding programs. Proceedings of the Helen Newton Turner Memorial International Workshop held in Pune, Maharashtra, India, 10–12 November 2008. ACIAR Proceedings No. 133.' Australian Centre for International Agricultural Research. (238 pp).

Other refereed publications:

Nimbkar, C. and Wray, N. 1991. An investigation of the use of sire referencing in genetic improvement in beef cattle. Proceedings of the British Society of Animal Production, Winter Meeting. Scarborough, U.K.

Ghalsasi, P.M., **Nimbkar, C.** and Gray, G.D. 1994. Garole - Prolific microsheap of West Bengal, India. Proceedings of the Fifth World Congress on Genetics Applied to Livestock Production. Guelph, Canada. 20:456-459.

Nimbkar, C. and Nimbkar, B.V. 1995. Genetic variation in resistance to infectious disease in small ruminants in India. In 'Breeding for Resistance to Infectious Diseases in Small Ruminants' (eds. Gray, G.D., Woolaston, R.R. and Eaton, B.T.), Australian Centre for International Agricultural Research. Canberra, Australia. pp 139-152.

Ghalsasi, P.M. and **Nimbkar, C.** 1996. Evaluation of laparoscopic intrauterine insemination in ewes. *Small Ruminant Research* 23:69-73.

Lubulwa, G., Gray, D., Patten, K. and **Nimbkar, C.** 1996. Project Development Assessment: Prolific worm-resistant meat sheep for Maharashtra, India and Australia. ACIAR Economic Evaluation Unit Working Paper Series. No. 24. Australian Centre for International Agricultural Research, Canberra, Australia. 58 p.

Nimbkar, C., Ghalsasi, P.M., Ghatge, R.R. and Gray, G.D. 1998. Establishment of prolific Garole sheep from West Bengal in the semi-arid Deccan plateau of Maharashtra. Proceedings of the 6th World Congress of Genetics Applied to Livestock Production. Armidale, Australia. Jan.7-13, 1998. Vol. 25, pp. 257-260.

Nimbkar, C., Ghalsasi, P.M., Walkden-Brown, S.W., Kahn, L.P., and Gray, G.D. 2000. A comparison of the growth performance and worm resistance of lambs produced by diallel crossing of three Indian sheep breeds. Proceedings 9th Congress of the Asian-Australasian Association of Animal Production Societies and 23rd Biennial Conference of the Australian Society of Animal Production. July 3-7, 2000, Sydney, Australia. Vol. B, pp.72-75.

Davis, G.H., Galloway, S.M., Ross, I.K., Gregan, S., Ward, J., Nimbkar, B.V., Ghalsasi, P.M., **Nimbkar, C.**, Gray, G.D., Subandriyo, Inounu, I., Tiesnamurti, B., Martyniuk, E., Eythorsdottir, E., Mulsant, P., Lecerf, F., Hanrahan, J.P., Bradford, G.E. and Wilson, T. 2002. DNA tests in prolific sheep from eight countries provide new evidence on origin of the Booroola (*FecB*) mutation. *Biology of Reproduction*. 66:1869-1874.

Nimbkar, C., Ghalsasi, P.M., Walkden-Brown, S.W. and Kahn, L.P. 2002. Breeding program for the genetic improvement of Deccani sheep of Maharashtra, India. Proceedings 7th world Congress of Genetics Applied to Livestock Production (WCGALP). Montpellier, France. CD-ROM Communicaton No.25-11. (Oral presentation by C. Nimbkar in the FAO-sponsored Workshop on “Developing Sustainable Breeding Strategies in Medium-to-Low-Input Systems” at the WCGALP.) August 19-23, 2002.

Aggarwal J., Kataria R.S., Ghalsasi P.M., **Nimbkar C.**, Joshi B.K. and Mishra B.P. 2010. Expression analysis of fecundity related genes in *FecB* carrier and non-carrier ewes by semi-quantitative PCR. *Journal of Livestock Biodiversity* 2:15-19.

Non-refereed publications:

Nimbkar, C. and Ghalsasi, P.M. 1992. Observations on the performance of the first flock of improved Awassi sheep in India. In Recent Advances in Animal Production. Proceedings of the Sixth AAAP Animal Science Congress, Bangkok, Thailand. III:250..

Nimbkar, C. 1992. Suggested breeding policy for the genetic improvement of goats in the State of Maharashtra. In Final Report of the Sheep and Goat Commission to look into the Problems of Sheep and Goat Production in the State of Maharashtra. Department of Animal Husbandry, Maharashtra State. Appendix III : 1-10.

Nimbkar, C. 1993. The goats and sheep of the Deccan plateau in the Maharashtra State of India. *Animal Genetic Resources Information*. FAO, Rome. 12:81-91.

Nimbkar, C., Ghalsasi, P.M. and Mane, V.S. 1996. Growth performance of crossbreeds from local goats and Sirohi, Alpine X Sirohi and Toggenburg X Sirohi sires in villages in Maharashtra, India. Proceedings of the VI International Goat Conference, Beijing, China.1:144-147.

Nimbkar, C., Ghalsasi, P.P. and Gray, G.D. 1998. Seasonal variations in the prevalence of gastrointestinal nematodiasis in local Deccani sheep. Lead papers and abstracts of the Golden Jubilee Seminar on Sheep, Goat and Rabbit Production and Utilization, Jaipur, India. April 24-26. 1998. p. 58.

Nimbkar, C., Ghalsasi, P., Nimbkar, B. 2000. Crossbreeding with the Boer goat to improve economic returns from smallholders' goats in India. Proceedings 7th International Conference on Goats, 15-18 May 2000, Tours, France. Tome II. pp. 551-553.

Ghalsasi, P. and **Nimbkar, C.** 2000. A study on the prophylaxis of lumbar paralysis caused by cerebrospinal nematodiasis in goats. Proceedings, 7th International Conference on Goats, 15-18 May 2000, Tours, France. Tome II. p. 853.

Nimbkar B. V. and **Nimbkar C.** 2000. The importance of small ruminants and research on them to marginal farmers and for food security in an era of globalization. Paper presented in the International Conference on “The Changing Role of Agricultural Research in the Era of Globalization” organized by the Indira Gandhi Institute of Development Research (IGIDR), Mumbai, India and International Service for National Agricultural Research (ISNAR), The Netherlands. March 11-12, 2000.

Nimbkar, C., Ghalsasi, P.M., 2000. Genetic improvement of Deccani sheep to increase shepherds' incomes. Paper presented in the International Conference on "Local Livestock Breeds for Sustainable Rural Livelihoods" organized by Lokhit Pashu-Palak Sansthan, Sadri and League for Pastoral Peoples, Germany held at Udaipur and Sadri in Rajasthan, India. November 1-4, 2000.

Nimbkar, C. 2002. Gains from Garole – the 'wonder' sheep of West Bengal. *Partners in Research and Development*. Australian Centre for International Agricultural Research (ACIAR). 15:31-36.

Nimbkar, C. and Ghalsasi, P.M. 2002. Effective use of cervical artificial insemination in a breeding program for genetic improvement of deccani sheep. Paper presented at the 9th International Congress on Biotechnology in Animal Reproduction. Chennai, India. December 2-4, 2002.

Nimbkar, C. and Ghalsasi, P.M. 2002. Incidence of facial eczema in sheep in Phaltan Taluka, Maharashtra state. Invited papers and abstracts, V Seminar of the Indian Society for Sheep and Goat Production and Utilization (ISSGPU), Jaipur, India. December 30-31, 2002. pp 156-157.

Ghalsasi, P.M., **Nimbkar, C.**, Kahn, L. P. and Walkden-Brown, S.W. 2002. Effects of different levels of worm control on meat production of Deccani sheep in shepherds' flocks in Maharashtra, India. Abstracts of the 10th International Congress of the Asian-Australasian Association of Animal Production Societies held at New Delhi, India. September 23-27, 2002. p. 152.

Nimbkar, C. 2005. Importance of genetic resistance to gastro-intestinal nematodes in sheep in developing countries with special reference to the Garole breed. Proceedings of FAO Symposium on "Integrated Animal Parasite Management: From Academic Interest to Reality" held at Indira Gandhi Agricultural University, Durg, Chhattisgarh, India. December 8, 2005. pp. 34-40.

Nimbkar, C. and Nimbkar, B.V. 2006. Status and prospects of commercial sheep farming in India. In Souvenir-cum-Proceedings of the National Workshop-cum-Seminar on 'Commercial Goat and Sheep Farming and Marketing: Farmer-Industry-Researcher Interface' held at the Central Institute for Research on Goats on March 4-5, 2006. pp. 31-34. Indian Society for Sheep and Goat Production and Utilization.

Nimbkar, C. 2006. Conservation of livestock biodiversity. In Compendium of Lectures of "Biodiversity Awareness Workshop on Animal Genetic Resources and Conservation". National Bureau of Animal Genetic Resources. Karnal, India. 22-23 April, 2006. pp. 108-112.

Ghalsasi, P.M. and **Nimbkar, C.** 2006. Experiences of assessment and control of bluetongue in Satara district in Maharashtra. In "Lead Papers and Abstracts of National Seminar on Strategies for Control of Bluetongue" held at College of Veterinary Science, Tirupati, Andhra Pradesh, India. 24-25 May 2006. p. 122.

Ghalsasi, P.M. and **Nimbkar, C.** 2006. Use of new reproductive technologies in sheep and goats under field conditions. In Souvenir of National Seminar of the Indian Society for Sheep and Goat Production and Utilization on "Innovations and Recent Advances in Reproduction for Augmenting Small Ruminant Production" held at Central Sheep and Wool Research Institute, Avikanagar, Rajasthan, India. 28-30 December 2006. pp. 239-243.

Nimbkar, C., Ghalsasi, P.M., Nimbkar, B.V. 2007. Genetic improvement of Deccani sheep for increased profit. In Proceedings of a National Seminar on Sustainable Use and Conservation of the Deccani Sheep. Hyderabad, Andhra Pradesh, India. Feb. 20-22, 2007. p. 24

Nimbkar, C. 2008. Off the beaten track. A brief autobiographical essay. Chapter 31 in 'Leelavati's daughters', a collection of essays on the lives of Indian women scientists. In press.

<http://www.ias.ac.in/womeninscience/>

Nimbkar C., Ghalsasi P.M. and Nimbkar B.V. 2010. Development and Dissemination of the NARI Suwarna Strain of Deccani Sheep: Genetic improvement of production performance while maintaining adaptability. In 'Climate change and stress management: Sheep and Goat Production'. Ed. Karim, S.A., Joshi, A., Sankhyan, S.K., Shinde, A.K., Shakyawar, D.B., Naqvi, S.M.K. and Tripathi, B.N. Satish Serial Publishing House, Delhi. pp. 397-406.

Nimbkar, C. 2010. Sustainable intensification of sheep rearing on the Deccan plateau in India. (Case study of the use of biotechnologies in developing countries). In "Synthesis: Current Status and Options for Livestock Biotechnologies in Developing Countries". Document prepared for the FAO International Technical Conference on 'Agricultural biotechnologies in developing countries: Options and opportunities in crops, forestry, livestock, fisheries and agro-industry to face the challenges of food insecurity and climate change' (ABDC-10). Guadalajara, Mexico, 1-4 March 2010. http://www.fao.org/fileadmin/user_upload/abdc/documents/livestock.pdf

Ghalsasi, P.M. and **Nimbkar, C.** 2010. Use of laparoscopy as a management tool in goat farming. Abstract submitted to the 10th International Goat Conference held at Recife, Brazil on 19-23 September 2010.

Unaune, K.P., Chavan, K. M., Ghalsasi, P.M. and **Nimbkar, C.** 2010. Goat rearing in two Indian villages: a low-input occupation to boost incomes and nutrition. Abstract submitted to the 10th International Goat Conference held at Recife, Brazil on 19-23 September 2010.

Saste S.R., Ghalsasi P.M., Kataria R.S., Mishra B.P. and **Nimbkar C.** 2010. Improving reproduction and productivity of Deccani sheep through introgression of *FecB* gene from prolific Garole sheep. In 'A compilation of abstracts, International symposium on 'Biotechnologies for optimization of reproductive efficiency of farm and companion animals to improve global food security and human health' and XXVI Annual convention of the Indian Society for the Study of Animal Reproduction. College of Veterinary and Animal Sciences, Pantnagar, Uttarakhand. 10-12 November 2010. p. 143.

Ghalsasi, P.M., Ghalsasi, P.P. and **Nimbkar, C.** 2011. Detection of emerging Benzimidazole resistance in gastrointestinal nematodes in sheep and goats in organised farm and smallholder flocks in Phaltan taluka, Maharashtra. Compendium-cum-Souvenir XXI National Congress of Veterinary Parasitology of the Indian Association for the Advancement of Veterinary Parasitology held at Bombay Veterinary College, Mumbai on 5-7 January 2011. p. 44.

Qureshi N. Z., Chavan K.M., Rajput S.R., Joshi S.M., Unaune K.P. Ghalsasi P.M. and **Nimbkar C.** 2011. Non-Osmanabadi and non-true-to-type Osmanabadi does had a higher milk yield than true-to-type Osmanabadi does in six villages in Maharashtra. In Compendium of Lead Papers and Abstracts. National Seminar on Sheep and Goat Production held at The Nilgiris on 28-29 December 2011. Tamil Nadu Veterinary and Animal Sciences University and Ministry of Agriculture, Government of India. Paper No. SS3-05. pp.105-106.

Rajput, S.R., Qureshi N. Z., Chavan K.M., Unaune K.P. Ghalsasi P.M. and **Nimbkar C.** 2011. Exploring a new method of educating poorly educated village goat owners about goat health and nutrition management. In Compendium of Lead Papers and Abstracts. National Seminar on Sheep and Goat Production held at The Nilgiris on 28-29 December 2011. Tamil Nadu Veterinary and Animal Sciences University and Ministry of Agriculture, Government of India. Paper No. SS1-27. pp.35-36.

Nimbkar, C., Chavan, K., Unaune, K., Rajput, S., Qureshi, N. and Ghalsasi, P. 2012. Dressing percentage of Osmanabadi goat kids slaughtered at village fairs and income earned by goat owners in two villages in Phaltan taluka, Maharashtra. In Proceedings of IX Annual Convention of Society for

Conservation of Domestic Animal Biodiversity and National Symposium on Role of Indigenous Animal Genetic Resources in Rural Food Security vis-à-vis Climate Change held at BAIF, Pune on February 24-25, 2012. pp.231-232.

Qureshi, N., Chavan, K., Rajput, S., Unaune, K., Ghalsasi, P. and **Nimbkar, C.** 2012. Rearing of local does as profitable as rearing Osmanabadi does: An assessment of kid weights in smallholder flocks in seven villages of Maharashtra. In Proceedings of IX Annual Convention of Society for Conservation of Domestic Animal Biodiversity and National Symposium on Role of Indigenous Animal Genetic Resources in Rural Food Security vis-à-vis Climate Change held at BAIF, Pune on February 24-25, 2012. p. 243.

Education and extension booklets in Marathi and English edited by me:

1. Harnessing genetics to increase meat production from sheep
2. Management of crossbred Boer kids
3. Sustainable worm control in sheep and goats
4. Bluetongue disease in sheep
5. First aid treatment in sheep and goats
6. The Boer goat in India
7. Film script for the CD 'Management of twin lambs'
8. Vaccination in sheep and goats
9. First-aid treatment in sheep and goats