

Name : Prof. (Dr.) P. L. Saroj
Designation : Principal Scientist (Horticulture)



- Former Director, ICAR-CIAH, Bikaner
- Former Director, ICAR-DCR, Puttur
- Former Project Coordinator, AICRP-Arid Zone Fruits
- Former Project Coordinator, AICRP-Cashew
- Former ADG (H-I), ICAR HQ, New Delhi
- Former Prof. & Head/ Dean (SW), SVPUAT, Meerut

ICAR e-mail : Pl.saroj@icar.gov.in

Alternate e-mail : plsaroj@yahoo.co.in

Mobile No : 9483509653

Field of Specialization : Production System Management

Name of Institute from where obtained M.Sc. degree:

N.D. University of Agriculture and Technology, Kumarganj, Ayodhya (UP), India

Name of Institute from where obtained Ph.D. degree:

N.D. University of Agriculture and Technology, Kumarganj, Ayodhya (UP), India

Joining date in ICAR : 05/8/1991

Service Record

Position held	Institution	Period (From---to)
Principal Scientist (Hort.)	ICAAR-CISH, Lucknow	20.12.2021 to continue
Principal Scientist (Hort.)	ICAR-CIAH, Bikaner	05.11.2021 to 19.12.2021
Director	ICAR-CIAH, Bikaner	03.10.2016 to 4.11.2021
Director	ICAR-DCR, Puttur	01.9.2012 to 02.10.2016
Asstt. Director General (Hort-I)	ICAR, HQ, New Delhi	01.4.2012 to 31.8.2012
Principal Scientist (Hort.)	ICAR, HQ, New Delhi	26-2-2009 to 31.3.2012
Principal Scientist (Hort.)	ICAR-CIAH, Bikaner	4-4-2008 to 25-2-2009
Prof.& Head (Horticulture) /Dean Student Welfare	SVPUA&T, Meerut (UP)	9-4-2005 to 3-4-2008
Sr. Scientist (Hort.)	ICAR-CIAH, Bikaner	10-2-1999 to 8-4-2005
Scientist (Horticulture)	ICAR-CSWCRTI, Dehradun	15-7-1992 to 9-2-1999
Scientist (Horticulture)	ICAR-IIHR, Bangalore	5-01-1992 to 13-07-1992
Scientist (Horticulture)	ICAR-NAARM, Hyderabad	5-8-1991 to 14-7-1992
Lecturer (Horticulture)	CCS University, Meerut	24-1-1990 to 16-3-1991
Trg. Associate (Horticulture)	KVK, Deen Dayal Sodh Sansthan, Tulsipur, Gonda (UP)	4-12-1989 to 23-1-1990

Publications (Top10 Publications with first or corresponding author only):

1. Saroj, P.L., Samra, J.S., Sharma, N.K., Dadhwal, K.S., Shrimali, S.S. and Arora, Y.K. (2000). Mango based agroforestry systems in degraded foothills of north-western Himalayan region. *Indian Journal of Agroforestry*, 1 (2): 121-128.
2. Saroj, P.L., Dhandar, D.G., Sharma, B.D., Bhargava, R. and Purohit, C.K. (2003). Ber (*Ziziphus mauritiana* L.) based agri-horti system: A sustainable land use for arid ecosystem. *Indian Journal of Agroforestry*, 5(1&2):30-35.
3. Saroj, P.L., Awasthi, O.P. and Tomar, D.S. (2004). Evaluation of a peach-based agric-hortic system in degraded foothills of the Himalayan subtropics. *Tropical Agriculture*, 81 (3): 167-174.
4. Saroj, P.L. and Singh, U.V. (2010) Refinement of aonla propagation through budding under hot arid ecosystem. *Indian J. Hort.*, 67 (Special Issue): 90-95.

5. Saroj, P.L. (2012). Perpetuation of *Psidium* species through stooling and assessment of growth behavior of clonal rootstocks under subtropical conditions. *Indian Journal of Agricultural Sciences*, 82(2): 230-35.
6. Saroj, P.L., Awasthi, O.P., Bhargava, R. and Singh, U.V. (2008). Standardization of pomegranate propagation by cutting under mist system in hot arid region. *Indian J. Hort.* 65(1):231-237.
7. Saroj, P.L. and Mohana, G.S (2016). Cashew improvement in India: Retrospect and Prospects. *International Journal of Innovative Horticulture*, 5(1):14-22.
8. Saroj, P.L., Chet Ram and Kamlesh Kumar (2020). Arid Horticultural crops: Status and opportunities under changing climatic conditions. *Indian Journal of Plant Genetic Resources*, 33(1): 17-31.
9. Saroj, P.L., Kumar, K., Kumawat, K.L., Sarolia, D.K. and Meena, R.K. (2021). Significance of pollinizers in arid fruit culture: A review. *Progressive Horticulture*, 53(2): 123-141.
10. Saroj, P.L., Sarolia, D.K. and Sharma, B.D. (2022). Seventy-five years of research and development in arid fruit crops. *International Journal of Innovative Horticulture*, 11(1): 24-35.

Details of the Research Projects

S. No.	Name of Project	Period (From-To)	Funding Agency	Budget (Lakhs ₹)
Externally funded				
1.	Sustainable development of agri-horti-silvi production systems for marginal lands under arid condition (PI)	2000-2005	NATP, ICAR, New Delhi	106.0
2.	Development of vegetative propagation technique in ker (<i>Capparis deciduas</i>) (Co-PI)	2002-2005	NATP, ICAR, New Delhi	32.18
3.	Aonla based multi-storey cropping systems in arid region (Co-PI)	2001-2004	AP Cess Fund, ICAR, New Delhi	10.42
4.	Establishment of Model Nursery of fruits for multiplication of quality planting materials (Co-PI)	2006-2008	NHM, Govt. of India	18.0
5.	Institute Village Linking Programme (Co-PI)	16.5.1994-09.02.1999	NATP, ICAR, New Delhi	116.0
6.	DUS characterization of cashew cultivars (Co-PI)	31.03.2015-02.10.2016	PPV&FRA, New Delhi	10.0
7.	Centrally sponsored scheme on Medicinal and Aromatic Plants (PI)	2005-2008	DAC, Ministry of Agriculture, New Delhi	18.50
8.	Production protocol, value addition and popularization of dragon fruit in Uttar Pradesh	2023-Continue	UPCAR, Lucknow	24.2
Network Project				
1.	Production and demonstration of tissue culture raised plants under three locations and collection and maintenance of elite germplasm of date palm (Network Nodal Officer)	03-10-2016-continue	ICAR, New Delhi	57.0
ICAR-AICRP Projects				
1.	All India Coordinated Research Project on Cashew (Project Coordinator)	2012-2016	ICAR, New Delhi	1148.75
2.	All India Coordinated Research Project on Arid Zone Fruits (Project Coordinator)	2016-continue	ICAR, New Delhi	3226.72

Patent/Technologies/Varieties/Methodologies/System etc.:

Patent granted: 03

- Radial Arm Type Cashew Kernel Extracting Machine (Patent No. 2723/30-03-2016)
- Rotating Type Drum Roasting Machine for Raw cashew Nut (Patent No. 359214/23-02-2021).

- Bio-pesticide formulation 'Thar Jaivik 41 EC' (Patent No.: 407022/19-09.2022)

Technology Developed: 12

- Recommended use of rootstocks for commercial grape orcharding (*Indian J. Hort.*, 52(4):277-80, 1995).
- Standardized training systems in grapes (*Indian J. Agric. Res.*, 30 (2):127-32, 1996).
- Suggested clonal multiplication of *Psidium* spp through stooling (*Indian J. Hort.*, 55(3):183-89, 1998).
- Technology for year-round propagation of pomegranate through cuttings under mist (*Indian J. Hort.*, 65(1): 231-37, 2008).
- First standardized poly-container based aonla propagation (*Indian J. Hort.*, 57(4):300-304, 2000).
- Technology for *in-situ* orchard establishment in hot arid region (*Indian J. Hort.*, 57(1):21-26, 2000).
- Mango based cropping systems for degraded foothills of North-western Himalayan region (*Agroforestry Systems*, 87:1389-1404, 2013).
- Peach based cropping systems for degraded lands (*Tropical Agriculture*, 81 (3): 167-174).
- Ber based agroforestry systems in arid region (*Indian J. Agroforestry Systems*, 5(1&2):30-35)
- Foliar feeding of cashew for improving quality nut yield (DCR at Glance, 1-12, 2014).
- Crop regulation in pomegranate under hot arid region (*International Journal of Bio-resources and Stress Management*, 12(4): 309-318).
- Recommended integrated nutrient management in rejuvenated guava orchard under semiarid conditions (*Vegetos*, 26(1):233-242, 2013.)
- Development of microbiome-based Novel product 'Biozapper'

Varieties Developed: 25 (Notified by CVRC-13; Notified by SVRC-8 and VTIC-04)

Fruits/Plantation crops: 18

- Cashew: Hybrid-125, Hybrid-126, Hybrid-130, Nethra Ubhay
- Tamarind: Ananta Rudhira, Thettu Amalika, Goma Prateek
- Lasoda: Thar Bold, Karan Lasoda
- Wood apple: Thar Gaurav
- Bael: Goma Yashi, Thar Divya, Thar Srishti
- Jamun: Goma Priyanka
- Phalsa: Thar Pragati
- Karounda: Thar Kamal
- Chirounji: Thar Priya
- Khirni: Thar Rituraj

Vegetables: 07

- Tomato: Thar Anant
- Long melon: Thar Sheetal
- Ridge gourd: Thar Karni
- Sponge gourd: Thar Tapish
- Spinach: Thar Hariparna
- Ivy gourd: Thar Sundari
- Bottle gourd: Thar Avani

Developed value added products: 06

- Developed mouth freshener from aonla shreds blended with beet root extract and fennel.
- Developed honey coated aonla candy of cultivar NA-6.
- Developed toffee from mature fruits of bael cultivar NB-9.
- Developed mango blended pickle from tender lasoda fruits.
- Developed Indian Aloe based products like laddu, pickle and vegetable.

Methodology/ Systems: 02

- Developed anatomical indices for predicting plant vigour in clonal rootstocks of *Psidium* species. This is quick and non-destructive technique for evaluation of relative plant vigour at an early stage.

- A novel biopesticide based formulation from tumba (*Citrullus colocynthis*) was developed for management of *Helicoverpa armigera*, *Spodoptera litura*, white fly and aphid and also safe to human & natural enemies

No.of Students Guided (M.Sc.):08 (as Co-guide)

No.of Students Guided (Ph.D.): 04 (as Major guide)

Awards/ Recognitions/ Fellowship:

Awards

- Vice Chancellor Gold Medal, AND University of Agriculture & Tech., Ayodhya (UP) in 1985.
- Young Scientist Award by Centre for Research and Development, Karnataka in 1992.
- Bhartiya Vikash Ratna Award by All India Business Development Association, New Delhi in 2006.
- Dr. B.P. Pal Scientist of the Year Award by Scientific and Applied Research Centre, Meerut in 2009.
- Scientist of the Year Award by Hi-tech Horticulture Society, SVPUAT, Meerut in 2011.
- Life Time Achievement Award by Society for Horticulture Research & Development, Ghaziabad in 2018.
- Life Time Achievement Award by Hi-tech Horticulture Society, SVPUAT, Meerut in 2019.
- Sh. Girdhari Lal Chadha Gold Medal in Fruit Science by Indian Academy of Horticultural Sciences, New Delhi in 2020.

Recognitions

- President, Indian Society for Arid Horticulture, Bikaner (Rajasthan) from 2016 to 2021.
- Vice President, Date palm Society of India, Sardar Krushi Nagar (Gujarat) from 2016 to 2021.
- Founder Secretary, Indian Society for Arid Horticulture, Bikaner (Rajasthan) 2003-2005.
- Executive Councilor, Indian Academy of Horticulture Sciences from 2013 to 2019.
- Member, Editorial Board, Indian Academy of Horticulture Sciences from 2010 to 2012.
- Editor, Indian Journal of Arid Horticulture, Bikaner (Rajasthan) from 2006 to 2015.
- Editor, Progressive Horticulture from 2006-2009.
- Member, Editorial Board, Indian Journal of Soil Conservation from 1995-1999.
- Member, Editorial Board, Indian Horticulture, ICAR-DKMA from 2013 to 2021
- Executive Member, Indian Society of Horticulture Research & Development, U.K. from 2010 to 2023.
- International Representative, Indian Society of Horticulture Research & Development, U.K. from 2023 to continue
- Chairman, Organizing Committee, Silver Jubilee National Conference on Arid Horticulture at ICAR-CIAH, Bikaner in 2018.
- Course Director, International Training for African National at ICAR-ICAH, Bikaner in 2019.
- Member, Task Force Group of PPV & FRA, New Delhi from 2015-2018.
- Member, National Horticulture Board, Gurgaon from 2009 to 2012.
- Member, EXIM Committee, DAC, Govt. of India from 2008 to 2012.
- Member, National Medicinal Plant Board, New Delhi from 2008 to 2012.
- Chancellor's nominee (HE Governor, UP) for establishment of new Agricultural Universities in Uttar Pradesh-2008
- Visitor's nominee (HE President of India) in Banaras Hindu University, Varanasi from 2017-2020.
- Member, Academic Council, Sardar Vallabh Bhai Patel University of Agriculture and Technology, Meerut from 2005-2009
- Member Secretary, Board of Faculty of Agriculture Sardar Vallabh Bhai Patel University of Agriculture and Technology, Meerut from 2006-2008
- Member Board of Studies, SKRajasthan Agriculture University, Bikaner from 2016-2021.
- Member, Board of Management Maharana Pratap Horticulture University, Karnal from 2016-2019
- Member, Research Council, Banda University of Agriculture and Technology, Banda (UP)-2022.
- Member, Board of Studies, Baba Saheb Bhimrao Ambedkar Central University, Lucknow (UP) from 2021 to continue.

Fellowships/ Fellow of Professional Societies

- ICAR Junior Research Fellowship in 1985.
- ICAR Senior Research Fellowship in 1988.
- Fellow, Indian Academy of Horticultural Sciences, New Delhi in 2012. (Formerly HSI)
- Fellow, Indian Society of Horticulture Research and Development, Uttarakhand in 2010.
- Fellow, Confederation of Horticulture Association of India, New Delhi in 2011.
- Fellow, International Society of Noni Science, 2018.

International Exposure/ Assignment

- Visited Nepal under Exposure Visit Programme at Nepal Agricultural University, Bhairahwa Campus from 10-7-1985 to 12-7-1985.
- Visited African countries namely; Kenya, Uganda and Tanzania as Visiting Scientist of Indian Council of Agricultural Research in 2004 under National Agriculture Technology Project. Housed at World Agroforestry Centre, Nairobi, Kenya from 29.03.2004 to 26.04.2004.
- Visited Candy, Sri Lanka as Indian Expert to participate in the workshop on “Exploration, characterization and utilization of underutilized fruits and vegetables plant species in SAARC countries” from 3-7-2011 to 3-6-2011.
- Visited Cornell University, USA for Leadership/ Management Development Programme from 28th February to 8th Mar 2014.

National Assignments

- Project Coordinator, All India Coordinated Research Project on Cashew nut
- Project Coordinator, All India Coordinated Research Project on Arid Zone Fruits
- Nodal Officer, National Network Project on Date palm
- Team Leader, Indian Delegation for development of Network Programme on underutilized fruits and vegetables in SAARC countries.
- Monitoring of International Projects under SMD Horticultural Science, ICAR, New Delhi.
- Monitoring of Technology Mission (MM-I) for development of Horticulture.
- Development of Strategy Document for Doubling Farmers' Income in Rajasthan.

(P.L. Saroj)

Principal Scientist & Academic Coordinator