# **Technical Experts**

### **Dr. Sanjay Singh**

1. Name of Scientist : Dr. Sanjay Singh

2. Date of Birth: 01-04-1970

3. Institute: Head, Forest Research Centre for Eco Rehabilitation

4. Contact number: +919430366286

5. Date of Joining ICFRE: 02-01-1998

6. Present Post/Pay Level: Scientist F

7. Date of continuous appointment to the present post/grade: 01-01-2017

8. Discipline/ Specialization: Tree Physiology & Molecular Biology; Clonal Forestry

9. Educational qualification (Graduation & above): BSc (Biology); MSc (Botany); PhD

10. Important Research Findings (not more than 100 words in the form of bullet points):

- Development of clonal procedures for tropical broadleaved trees, bamboos and medicinal plants
- Physio-biochemical screening of genotypes for productivity enhancement and stress tolerance – Dalbergia sissoo,Pongamia pinnata, Anthocephalus chinensis, Bombax ceiba
- Screening of Moringa oleifera genotypes with superior leaf nutritive and cytokinin content and development of organic fertilizer for enhanced crop yield
- Assessment of genetic diversity in tropical trees and bamboos; development of species specific molecular markers and DNA barcoding in eastern Indian bamboos
- Elucidation of physio-biochemical basis of adventitious rhizogenesis- identification of auxin dependent and independent phases of rooting; detection of role of moisture stress in root formation and IAA ionization, distribution pattern and rhizogenesis as influenced by inorganic salt pretreatment
- 11. Research Papers/Awards/Publications (5 best publications):

### Awards

o Indian Forester Prize for most outstanding research paper (2002)



- Prof. K. K. Nag Foundation Gold Medal and Young Scientist Award (2009)
- o Freezailah Fellowship by International Timber and trade Organization (2010)
- Indira Gandhi Lifetime Achievement Award from Rajiv Gandhi International S &T
  Association (2016)

## Publications

- 1. **Sanjay Singh**, Pramod Kumar and S. A. Ansari (2004). A simple method for large-scale propagation of *Dendrocalamus asper*. *Scientia Horticulturae*, **100**: 251-255.
- 2. **Sanjay Singh**, A. S. Bhandari and S. A. Ansari (2006). Stockplant management for optimized rhizogenesis in *Tectona grandis* stem cuttings. *New Forests*, **31**: 91-96.
- Sanjay Singh, N. P. S. Nain and S. P. Tripathi (2009). Growing tropical tree planting stock in root trainers: Cell volume, seedling density and growing media.
   Annals of Tropical Research, 30: 44-55.
- 4. Priyamvada Singh, Sanjay Singh, S.P. Mishra and S. K. Bhatia (2010). Molecular characterization of genetic diversity in *Jatropha curcas* L. *Gene, Genome and Genomics*, **4**: 1-8.
- 5. **Sanjay Singh** and S. A. Ansari (2014). Callus formation impedes adventitious rhizogenesis in air layers of broadleaved tree species. *Annals of Forest Research* 57: 47-54.

Signature of the Scientist

# **Dr. Kumud Dubey**

- 1. Name of Scientist: Dr. Kumud Dubey
- 2. **Date of Birth:** 19<sup>th</sup> November, 1972
- 3. Institute: Forestry Research Centre for Eco-Rehabilitation, Allahabad.
- 4. Contact No.:0532-2420896
- 5. **Date of Joining:** 1st Jan, 1999.
- 6. Present Post/ Pay Level: Scientist E
- 7. Date of Continuous appointment to the present post/grade: 1st Jan, 2015
- 8. Discipline/ specialization: Forest Ecology and reclamation/restoration/ Bioremediation/ Environmental Biotechnology
- **9. Educational Qualification:** Ph.D. (Forest Ecology).
- 10. Important Research Findings (Latest):
  - Methodology for Remediation of waterlogged sites, Bioremediation of Bauxite Residue, Restoration of stone mining affected area, Bio-reclamation of silica mining area. Melia dubia agroforestry introduced in Eastern UP. Socio economic Impact study of mining and mining policies on Livelihoods of local population in Vindhyan Region of U.P. conducted for amendments in mining and mining policies of state and central govt. Carbon Sequestration studies on Bamboo. DPR preparations for Forestry Interventions for Ganga etc.
  - Executed several projects funded by NITI Aayog, NOVOD Board, UPCAR, MoEFCC, MoWR, DST, ICFRE etc.

### 11. Important Publications(Latest):

- **KumudDubey**, Alok Pandey, Praveen Tripathi and K. P. Dubey(2017)Sustainable Management of Waterlogged Areas through Biodrainage& Microbial Agro-ecosystem. In *Probiotics.*(pp 387-406)Springer Publisher.
- **KumudDubey**, K. P. Dubey, A. Pandey and P. Tripathi(2017) Microbial Biofertilizer Interventions in Augmenting Agroforestry.In *Probiotics.(pp 421-442)* **Springer Publisher**.
- **Kumud Dubey** and Kesheo Prasad Dubey.(2017). Biotechnology for Sustainability of Forests. *Biotech Sustainability*.104-116.
- **KumudDubey** (2012). Swot analysis for the application of Biodrainage technology to phytoremediate water logged sites. International Journal of Social Forestry (IJSF), 5(2):47-59.
- **KumudDubey** and K.P. Dubey (2011) "Impact of mining on tree diversity of the silica mining forest area at Shankargarh, Allahabad, India" in <u>Journal of Forestry</u> Research, Volume 22, Number 4, 527-532(2011) Springer Publisher.
- **Kumud Dubey** and K.P. Dubey (2011) "A Study of the Effect of Red Mud Amendments on the Growth of Cyanobacterial Species" in *Bioremediation J.* 15:3, 133-139 (2011) *Taylor & Francis*.
- Awarded Senior Membership of Asia-Pacific Chemical, Biological & Environmental Engineering Society, Hong Kong (Member NO.:100782).



## Dr. Anita Tomar

1	Name of Scientist		Dr. Anita Tomar			
1	Designation		Scientist E			
2	Date of birth		04/02/1976			
3	Institute/Place of Posting		Forest	Research	Centre	
	- 		for	Eco-rehabi	litation,	
			Allahabad			
4	Contact number	(O)	0532-2	440796		6
		(M)	638619	3844		-
5	Date of joining at I	08/04/2	2003			
6	Pay level and date of		Pay Le	vel 13		
	continuous appointment to the		01/07/2016			
	present post/grade					
7	Discipline/specializ	Agroforestry, Nursery & Seed Technology.				
8	Education qualifica	M.Sc. Forestry, Ph.D. Forestry (Silviculture).				



# **Important research findings**

- Popularized lessknown wild fruits viz. Spondias pinnata, Artocarpus lakoocha, Cordialasoora etc. for sustainable livelihood in eastern U.P.
- A concept of monsoon planting of popular introduced in work plan. Monsoon planting of poplar may provide an alternative season to the growers who are unable to plant poplar in winter season due to inadequate irrigation in eastern U.P.
- > Designed and constructed low cost, non mist movable vegetative propagation chamber as a Research Support System at FRC-ER for vegetative Propagation work.
- Processed technique for industrial products from *Moringa oleifera* tree parts
- Success chronicle for sale of Poplar & Eucalyptus timber as per previous observation/records sale of end produce of agroforestry trees was a major constraint

#### 10 Research papers/publications/award

- > Tomar, A. R.K.Manhas, R.K. Srivastava (2012). Seed germination studies in *Gentiana* kuroo Royle -An endangered medicinal herb. Journal of Medicinal and Aromatic Plant Sciences. 34 (3 & 4) 168-171.
- > Tomar A, Manhas R. K, SrivastavaR. K. and VasisthaH.B. (2014). Fruit and seed characters of some valuable Lesser Known Plants of Uttarakhand Himalayas. Ann. For., 22(2): 189-194.
- **Tomar A.** (2015). Variability and germination divergence in seed traits of Stereospermum chelonoides DC. Tropical Plant Research. 2(3) 224-229.
- > Tomar A. and Dinesh Kumar (2018). Propagation of *Ulmus wallichiana* from divergent sources of North India. Indian forester. 144 (12):1162-1165.
- ➤ TomarA. (2019). Some Neglected and Under –Exploited Fruits. Me & My Earth. 12(3). July-Sep-2019 pp 22-26.

# **Awards/International Scholarships**

- ➤ Women Scientist Award in 2<sup>nd</sup> Rashtriya Yuva Vaigyanik Sammelan 2010 at Doon University, Dehradun.
- ➤ Brandis award by *Indian Forester*, ICFRE (2007).
  - Scientist Assistance Program Scholarship of IUFRO, Vienna (Austria) in 2014.
  - Delegate Support Program by German Ministry of Food and Agriculture (FAO) in 2016
  - Special Programme for Development of Capacities (SPDC)by IUFROin 2017.

# **Alok Yadav**

1	Designation		Scientist-E			
2	Date of birth		04/03/1980			
3	Institute/Place of Posting		Forest research Centre for			
			Eco-rehabilitation, Allahabad			
4	Contact number	(O)	0532-2440722			
		(M)	9411166881			
5	Date of joining at ICFRE		06/03/2007			
6	Pay level and Date of		Pay Level 13			
	continuous appointment to		01/01/2020			
	the present post/grade					
7	Discipline/specializati	on	Environmental Sciences (Biodiversity Conservation			
			and Wasteland Management)			
8	Education qualificatio	n	M.Sc. (Environmental Sciences)			

### 9 Important research findings

- ➤ Improvement of nutritional value and yield of agro-forestry food plants through biofortification of iodine which may help overcome of iodine deficiency in the north east.
- ➤ Impact assessment of medicinal plants on local communities and it socio-economic benefits
- ➤ Various On-farm participatory researches were conducted at Demo Village to develop locally suitable agro-forestry models and other commercial crops like Muskdana, King Chili etc.

# 10 Research papers/publications/awards

- ➤ Bryophyte Invasion on famous archeological site of Ahom dynasty 'Talatal-ghar' of Sibsagar, Assam (India) *Proc. National. Acad. Sci., India, Sect. Biol. Sci.* 84 (1): 71-74 (Springer)
- ➤ Brandis Prizefor Air Layering through *Sphagnum* moss in *Guadua angustifolia* Kunth, a Commercial Important Bamboo Indian *Forester* 2013; 132 (12):1088-1091
- ➤ Balanophora diocia R.Br.Ex Royle (Balanophraceae)- A rare total root parasite reported from Karbi-Anglong district, Assam *Indian Journal of Economic and Taxonomic Botany*
- ➤ Ground flora in Assam valley tropical wet evergreen forest. Indian Journal of Forestry 37 (4):457-464
- ➤ Recent flowering in *Thamnocalamus aristatus* (Gamble) E. G Camus in East Sikkim *Researcher*, 5 (9): 19-21.

# Dr. Anubha Srivastav

1	Designation		Scientist C		
2	Date of birth		01/07/1967		
3	Institute/Place of Posting		Forest Research Centre for	00	
			Eco-rehabilitation, Allahabad		
4	Contact number (O)		0532-2440796 (Extn.28)	60	
		(M)	09451180868		
5	Date of joining at ICFRE		14/03/1991		
6	Pay level and date of continuous		Pay level - 11		
	appointment to the present post/grade		01/01/2018		
7	Discipline/specialization		Agro-forestry		
8	Education qualification		M.Sc. (Organic Chemistry), Ph.D. (Chemistry)		
			University of Allahabad, Allah	nabad	

# 9 Important research findings

- > Site-specific species packages have been developed for silica mining site of Allahabad.
- Analyzed demand -supply gap of important timber species viz. *Mangifera indica, Tectona grandis, Artocarpus heterophyllus, Acacia nilotica, Dalbergia sissoo* and *Azadirachta indica* in Tarai region of Eastern UP and identified deficit species of the area for their promotion in plantations.
- Marketing channel of important agro forestry species between traders and growers has been linked in selected districts of Eastern UP.
- > Tested Adhatoda vasica leaf extractives as bio-control measures.

## 10 Research papers/publications/awards

- Anubha Srivastav, A. K. Pandey and Dubey, R. (2012). Assessment of Trees Outside Forests (TOFs) in Gorakhpur district of Eastern U.P. *Indian Forester*, vol. 138, No.03, 252-256.
- Anubha Srivastav, Tomar, A. and Singh, P. (2015). Need to Strengthen Market Strategy of Timber Products in Eastern Uttar Pradesh. *Int. J. Med. Pharm. Res.*, 2015, 3(6): 1225-1230.
- Anubha Srivastav and Kumud Dubey (2015). Screening of potential species for rehabilitation of silica mined overburdens of Shankargarh in Vindhyan region of Allahabad (UP), *My Forest*, Vol. 51, 47-56.
- Anubha Srivastav (2015). Status of important timber species: A case study in Deoria districts of Uttar Pradesh, India, *Journal of Tropical Forestry*. 30(4) ,55-65.
- ➤ Bhrgava Alka, Srivastav Anubha and Kumbhare Vishakha (1997). Insecticidal activity of leaf alkaloids of *Adhatoda vasica* on *Albizia lebbek* defoliator *Rheasla imparata* wak. Lepidoptera Noctudae, *Pestology*, XXI, 1, 16-19.