

Short Resume of Dr Mohammad Shamim, Scientist, ICAR-IIFSR, Modipuram

<p>Dr. Mohammad shamim Scientist</p> <p>Email : mohammad.shamim@icar.gov.in shamimagrimet@gmail.com Phone No: +91-121-2888944 Mobile No.: +91-9045040407;</p>	
<p>Qualification</p>	<ul style="list-style-type: none"> • Ph. D (Agricultural Meteorology), AAU, Anand, Gujarat • M.Sc. (Agricultural Meteorology), CCS HAU, Hisar, haryana • B.Sc. (Agriculture), BHU, Varanasi, Uttar Pradesh
<p>Specialization</p>	<ul style="list-style-type: none"> • Agrometeorological Crop Growth Evaluation • Crop Simulation Modelling (DSSAT and APSIM)
<p>Area of interest</p>	<ul style="list-style-type: none"> • Crop Microclimate • Crop simulation modelling • Climate change and its effect on Integrated Farming Systems • Long term meteorological study and crop production systems
<p>Experience profile</p>	<ul style="list-style-type: none"> • Joined ARS on 23rd June 2009 • Scientist at ICAR-IIFSR, Modipuram from 30th October 2009 to 22, June 2013 • Scientist (Senior Scale) at ICAR-IIFSR, Modipuram from 23rd June 2013 to till date.
<p>Total publications (Nos.)</p>	<ul style="list-style-type: none"> • 53
<p>Selected publications (maximum best 20)</p>	<ol style="list-style-type: none"> 1. Mohammad Shamim, A. M. Shekh, V.J. Patel, J.F. Dodia, D.M. Korat and A.M. Mehta (2009). Effect of weather parameters on population dynamics of green leaf hopper and white backed plant hopper in paddy grown in middle Gujarat region. <i>Journal of Agrometeorology</i>, Volume 11, Number 2, 172-174. (NASS Rating: 6.64) 2. Mohammad Shamim, Raj Singh, V.U.M.Rao and Diwan Singh (2009). Microclimatic profiles in soybean-pearl millet intercropping systems. <i>Journal of agrometeorology</i>, 10(2):151-157. (NASS Rating: 6.64) 3. Mohammad Shamim, Shekh A.M., Pandey V., Patel H.R. and Lunagaria M.M. (2010). Sensitivity of CERES-Rice model to different environmental

- parameters on the productivity of aromatic rice in middle Gujarat. *Journal of Agrometeorology*, 12 (2): 213-216. (NASS Rating: 6.64)
4. **Mohammad Shamim**, A. M Shekh, Vyas Pandey, H R Patel, M M Lunagaria (2012). Simulating the phenology, growth and yield of aromatic rice cultivars using CERES-Rice model under different environments. *Journal of Agrometeorology*, 14: 1. 31-34. (NASS Rating: 6.64)
 5. Singh Devendra, **Mohammad Shamim**, Pandey Rakesh, Kumar Vipin (2012). Growth and yield of wheat genotypes in relation to environmental constraints under timely sown irrigated condition. *Indian Journal of Plant Physiology*, 17: 2. 113-120. (NASS Rating: 5.18)
 6. **Mohammad Shamim**, Devendra Singh, B. Gangwar, K.K. Singh and Vipin Kumar (2013). Agrometeorological indices in relation to phenology, biomass accumulation and yield of rice genotypes under Western Plain zone of Uttar Pradesh. *Journal of Agrometeorology*, Special Issue Vol II, 2013. 50-57. (NASS Rating: 6.40). (NASS Rating: 6.64)
 7. Vinay Prasad Mandal, Sham Shutrana, P C Pandey, S Patairiya, **M Shamim**, Sandeep Sharma, V Tomar, Pavan Kumar (2014): Appraisal of suitability for urban planning and expansion analysis using Quick Bird satellite data. *ARPN Journal of Engineering and Applied Sciences*. VOL. 9, NO. 12. 2716-2723(SJR: 0.224).
 8. N. Subash, **M. Shamim**, V.K. Singh, B. Gangwar, B. Singh, D. S. Gaydon, C.H. Roth, P.L. Poulton and A.K. Sikka. 2015. Applicability of APSIM to capture the effectiveness of irrigation management decisions in rice-based cropping sequence in the upper-Gangetic Plains of India. *Paddy and Water Environment*, 13:325-335. (NAAS:7.26).
 9. Chaudhary, V. P. Singh, K.K. Pratibha, Ranjan Bhattacharyya, **Shamim, M.**, Srinivas, I. and Patel, Anurag (2017). Energy conservation and greenhouse gas mitigation under different production systems in rice cultivation. *Energy - Elsevier* 130: 307–317. (NAAS Rating: 11.54)
 10. Gaydon D.S., B. Singh, E. Wang, P. L. Poulton, B. Ahmad, F. Ahmed, S. Akhter, I. Ali, R. Amarsingha, A. K. Chaki, C. Chen, B. U. Choudhury, R. Darai, A. Das, Z Hochman, H Horan,

E.Y. Hosang, K. P. Vijaya, M. R. Khan, A. M. Laing, L.Liu, M.A.P.W.K Malaiachichi., K. P. Mohapatra, M. A Muttaleb, B. Power, A.M. Radanielson, G.S. Rai, M.H Rashid.,W.M.U.K. Rathanayake, M. M. R. Sarker, D. R. Sena, M Shamim, N. Subash, A., Suriadi, L.D.B. Suriyagoda, G. Wang, R. K. Yadav, and C. H. Roth (2017). Evaluation of the APSIM model in cropping systems of Asia. *Field Crops Research*. 204: 52-75. (NAAS Rating: 9.87).

11. Jana, C., N. M. Alam, Mandal D., **Shamim M.** and Kaushal Rajesh. 2017. Spatio-temporal rainfall trends in the twentieth century for Bundelkhand region, India. *Journal of Water and Climate Change*. 441- 455. doi: 10.2166/wcc.2017.120. (NAAS Rating: 7.01).
12. **Mohammad Shamim**, B. Ganwar, N.K. Jat, Vipin Kumar, Sunil Kumar, N.M Alam and Vinay Prasad Mandal (2018). Morpho-physiological characterization of aromatic rice (*Oryza sativa*) genotypes for grain yield under timely sown irrigated condition of upper IGPs. *Journal of Agrometeorology, 20 Special issue -"NASA 2014" part-II):129-134.* (NAAS Rating: 6.64).
13. N. K. Jat, R. S. Yadav, Sudhir Kumar, **M. Shamim***, N. Ravisankar,Subhash Babuand A.S.Panwar (2018). Influence of different nutrient management practices on productivity, nutrient dynamics and profitability in basmati rice-wheat cropping systems under Western Indo Gangetic Plains of India, *Indian Journal of Agricultural Sciences*,89 (5):793-9. (NAAS Rating: 6.25).
14. N. K. Jat, Sudhir Kumar, **M. Shamim*** SubhashBabu. N. Ravisankar and A.S. Panwar (2018). Evaluation of Maize (*Zea mays*) Cultivars under Organic Production System in North Western Indo-Gangetic plains of India, *Indian Journal of Agricultural Sciences*,**89** (5): 828–33. (NAAS Rating: 6.25).
15. N.K. Jat, R.S. Yadav, Sudhir Kumar, N. Ravisankar and **M. Shamim*** (2018). Evaluation of nutrient management practices under different cropping systems in north western Indo-Gangetic plains of India” *Annals of Plant and Soil Research* 20(4): 409-415. (NAAS Rating: 4.39).

	<p>16. Panwar, A.S., M. Shamim and N. Ravisankar.2018. Influence of inter-annual rainfall variation on nutrient recycling and sustainability of integrated farming systems in different agro-ecosystems, <i>Indian Journal of Fertilizers</i>, 14 (2): 16-24. (NAAS Rating: 2.80).</p> <p>17. A. S Panwar, Ravisankar, N., Singh, R., Purusty, A.K., Shamim, M., Tripathi, D., Mohan, B., 2019.AICRP on IFS Salient Achievements and Future Directions. <i>Indian journal of fertilisers</i>, 15 (4) pp. 14-29. (NAAS Rating: 2.80).</p> <p>18. A. S. Panwar, N. Ravisankar, Raghuveer Singh, A. K. Prusty, M. Shamim, D. Tripathi and Brij Mohan (2019). AICRP on Integrated Farming Systems: Salient achievements and Future directions. <i>Indian Journal of Fertilizers</i>, 15(4):338-353. (NAAS Rating: 2.80).</p> <p>19. A. S. Panwar. M. Shamim, Subhash Babu, N. Ravisankar, Ashisa Kumar Prusty, N. M. Alam, D. K. Singh, J. S. Bindhu, Jashanjot Kaur, L. N. Dashora, M. D. Latheef Pasha, Soumitra Chaterjee, M. T. Sanjay and L. J. Desai.2019. Enhancement in Productivity, Nutrients Use Efficiency, and Economics of Rice-Wheat Cropping Systems in India through Farmer's Participatory Approach, <i>Sustainability</i>, 11 (122): 1-26. (NAAS Rating: 8.59).</p> <p>20. Vinay Prasad Mandal, N. Ravisankar, B. Gangwar, N. Subash, M. Shamim, Brijmohan N, Sujay Dutta, K R Manjunath and J S Parihar (2019). Methodology for Early Estimation of Sugarcane Area of Uttar Pradesh using Remote Sensing and Ground truth Tools. <i>Journal of Agrometeorology</i>, 21 (Special issue-NASA-2014, Part –III), 97-103. (NAAS Rating: 6.64).</p>
<p>Scholastic Awards and Achievements</p>	<p>1. <u>Dhiru Morarji Memorial Award</u> for best article in agricultural sciences 2017-18 by the Fertilizer Association of India, New Delhi for as FIRST PRIZE for research article "Influence of Inter-annual Rainfall Variation on Nutrient Recycling and Sustainable Integrated Farming Systems in Different Agroecosystems".</p> <p>2. <u>Distinguished Scientist Award</u> conferred by the Agro Environmental Development Society (AEDS), MajhraGhat, Rampur UP, India on 28 September</p>

	<p>2019.</p> <ol style="list-style-type: none"> 3. Best Paper Award for 'Effect of weather parameters on population dynamics of green leaf hopper (<i>Nephotettix virescens</i> Distant) and white backed plant hopper (<i>Sogetella furcifera</i> Horv) in paddy growing middle Gujarat region' published in <i>Journal of Agrometeorology</i>, 10 (2), 172-174. 4. Certificate of Excellence conferred by Project Team Leader SAARC-Australia Project & Principal Research Scientist, CSIRO, Australia. 5. CSIR-UGC Sr. Res. Fellowship from University Grants Commission (UGC), New Delhi in EARTH, ATMOSPHERIC, OCEAN & PLANETARY SCIENCES for pursuing Ph.D (Agril.Met) during January, 2006 - June, 2009. 6. Junior Research Fellowship from Indian Council of Agricultural Research (ICAR), New Delhi, in Physical Science for pursuing M.Sc. (Agril. Meteorology) during August 2002-August, 2004.
<p>Members of Scientific Association/ Society</p>	<ol style="list-style-type: none"> 1. Member of Advisory Board of "International Journal of Advanced and Innovative Research (IJAIR)" Bhopal, Madhya Pradesh. 2. Life Membership of "Agro-environment Development Society (AEDS)", MajhraGhat, Rampur (Uttar Pradesh) 3. Life Membership of "Association of Agrometeorologists", Anand Agricultural University, Anand Gujarat. 4. Life Membership of Farming Systems Research and Development Association, ICAR-IIFSR, Modipuram. 5. Life Member of "The International Society of Agricultural meteorology (INSAM)".
<p>Significant achievements including development of methodology, technology etc (maximum 10 in bullet form)</p>	<ol style="list-style-type: none"> 1. Identified climate resilient climate resilient production package for cropping system (Soybean-Chickpea) under extreme (high and deficit) rainfall situations for Vindhya Plateau Agro-climatic Region of Madhya Pradesh. 2. Alternate efficient farming Systems (08 nos.) for 08 NARP Zones viz., North Gujarat Zone (Gujarat), East And South Eastern Coastal Plain Zone (Odisha), Coastal Saline Zone (West Bengal), Central Plain Zone (Uttar Pradesh), north-western zone (Tamil Nadu), Sub Humid Southern Plain Zone (Rajasthan), Western Maharashtra Plain Zone (Maharashtra) and Central Maharashtra Plateau Zone (Maharashtra) for higher production, marketable surplus, profit and nutrition.

	<ol style="list-style-type: none"> 3. Package of practices for organic production of crops in 51 cropping systems suitable to 12 states. Packages have been shared with DAC&FW 4. Best performing 55 varieties of crops for organic farming suitable for 16 states were identified and transferred to stakeholders. 5. Raising of maize for cobs +vegetable cowpea in 1:1 ratio on broad beds (BB) and <i>sesbania</i> in furrow during <i>kharif</i> and mustard in furrow and 3 rows of lentil on broad beds in <i>rabi</i>, while 3 rows of green gram on beds in summer produced highest REY of 25.59 t ha⁻¹ and was remarkably better over other systems 6. Adaptation index (AI) developed based on degree of adaptation of a particular adaptive measures to grow an important enterprise of the Integrated Farming Systems under changing climate and higher AI identified for 25 centres of On Farm Research (OFR) and representing a particular NARP zone of the country. 7. Growing of crops in sequence of Pigeon pea+ Bengal gram-W + MTD (ZT)-cowpea (F) was found as climate resilient cropping systems under bio-intensification. 8. Quantified the effects of different irrigation regimes on rice-wheat cropping system in the Upper-Gangetic Plains of India using APSIM. 9. Conceptualized and documented Bankable Projects on Integrated Farming Systems for Doubling Farmers Income for 23 states and UTs. 10. Designed and documented Integrated Farming Systems for Agricultural Diversification, Enhanced Income and Employment 25 states and UTs.
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