



Dr. RAM SWAROOP JAT

Pr. Scientist (Agronomy)

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1. Date of birth : July 6, 1973
2. Education Qualification : Ph.D.
3. Joining Date in ICAR : January 8, 2007
4. Joining Date in DRMR : January 1, 2016
5. Discipline/Specialization : Resource conservation and utilization in mustard based cropping systems, physiological implication in drought stress and Orobanche management
6. Research Experience : 13 years
7. Training/advance exposure : Climate change and conservation agriculture in the area of work
8. **Current Research Projects & Future planning of research**
Sustainable Intensification of Brassica Production System (SIBPS)
9. **Awards/ Recognitions**
 - **Outstanding Scientist Award** in recognition of dynamic contribution to the oilseed brassica mechanization by the Sate Institute of Agriculture Management, Jaipur, Rajasthan.
 - **Best Scientist Award** for new initiatives in mustard mechanization and seed production and overall growth of ICAR-DRMR during the year 2015-16.
10. **Publication (Research Paper best 20)**
 - R.S. Jat, S.S. Khangarot and S.S. Rathore (2000). Effect of different fertility levels on growth and yield of mustard [*Brassica juncea* (L.) Czern & Coss] Annals of Agricultural Research 21(3): 421-423.
 - R.S. Jat and S.S. Khangarot (2001). Effect of different fertility levels on N & P uptake and economics of mustard [*Brassica juncea* (L.) Czern & Coss] Agronomy digest, Indian Journal of Agronomy (ISA) 1: 81-82.
 - S.R. Kantwa, N.L. Meena and R.S. Jat (2002). Effect of irrigation, phosphorus and phosphate solubilizing bacteria on yields, quality and moisture utilization pattern of hybrid mustard (*Brassica juncea*) Agronomy digest, Indian Journal of Agronomy (ISA) 2: 91-92.
 - R.S. Jat and Mahesh Kumar (2002). Vermicompost-A way towards organic revolution Farmer's Forum, New Delhi. 2(4): 12-14.
 - R.S. Jat and I.P.S. Ahlawat (2004). Effect of vermicompost, biofertilizers and phosphorus on growth, yield and nutrient uptake by chickpea (*Cicer arietinum*) and their residual effect on fodder maize (*Zea mize*) Indian Journal of Agricultural Sciences. 74 97): 359-361.
 - R.S. Jat and I.P.S. Ahlawat (2006). Direct and residual effect of vermicompost, biofertilizers and phosphorus on soil nutrient dynamics and productivity of chickpea-fodder maize sequence Journal of sustainable Agriculture. 28 (1): 41-54.
 - Jaya N. Surya, S.P. Singh, R.S. Jat J.P. Sharma and Kamta Prasad (2007). Land evaluation and management of some soils of Indo-Gangetic Plains in Meerut District of Uttar Pradesh Indian Journal of Soil Conservation 35, 50-54.
 - AL Singh, RS Jat, JB Misra (2009). Boron fertilization is a must to enhance peanut production in India. The Proceedings of the International Plant Nutrition Colloquium XVI p. 04-14.

- AL Singh, RS Jat, V Chaudhari, H Bariya, SJ Sharma (2010). Toxicities and tolerance of mineral elements boron, cobalt, molybdenum and nickel in crop plants. *Plant nutrition and abiotic stress tolerance II. Plant stress* 4, 31-56
- R. S. Jat, Devi Dayal, H. N. Meena, Virendra Singh and M. V. Gedia (2011). Long-term effect of nutrient management and rainfall on pod yield of groundnut (*Arachis hypogaea* L.) in groundnut based cropping systems. *Indian Journal of Agronomy* 56(2): 145-149.
- R. S. Jat, H. N. Meena, A. L. Singh and J. B. Misra (2011). Recent advances of weed management in groundnut (*Arachis hypogaea* L.) in India. *Agricultural Reviews* 32(3): 1055-171.
- H.N. Meena, P.K. Bhalodia, R.S. Jat, L.C. Vakaria (2011). Prospects of using saline water for irrigation in groundnut-bajra cropping system in saline black soils of Saurashtra. *Indian Journal of Agronomy* 57(2):122-126.
- R.S. Jat and H.N. Meena (2014). Pod yield and phosphorus-use efficiency in groundnut (*Arachis hypogaea*) as influenced by citric acid and its delivery methods under a semi-arid agro-ecosystem. *Indian Journal of Agronomy* 59(1): 177-182.
- R.S. Jat, Ruchi Bansal, J.K. Jadav and Raj Kumar (2016). Income-Health Expenses and Use of Medicinal Plants by Tribal Communities in Panch Mahal District of Gujarat . *The Indian Forester*, 142 (4): 379-383.
- R.S. Jat and N.A. Gajbhiye (2016). Variability in yield and phytochemicals content in Mandukaparni (*Centella asiatica* L.) Urban as influenced by nutrient management. *Ind. J. Agric. Sci.* 86 (8): 1004–9.
- R.S. Jat and N.A. Gajbhiye (2016). Herbage and phytochemicals yield of mandukaparni (*Centella asiatica*) as influenced by time of harvest. *Ind. J. Agron.* 61 (2): 80-85.
- Narendra A. Gajbhiye, Jayanti Makasana, Ajoy Saha, Iren Patel, R. S. Jat (2016). LC- ESI- MS/MS Method for Simultaneous Determination of Triterpenoid Glycosides and Aglycones in *Centella asiatica* L. DOI 10.1007/s10337-016-3089-x.
- RS Jat, NA Gajbhiye (2017). Secondary Metabolites Production Influenced with Soil Fertility and Irrigation in Medicinal Plant; Mandukaparni (*Centella asiatica* L.). *National Academy Science Letters* 40 (2), 87-90
- RS Jat, NA Gajbhiye (2017). Herbal biomass, secondary metabolites, water use and economic efficiencies of *Centella asiatica* influenced with irrigation water regimes. *Ind. J. Agric. Sci.* 87 (8), 1024-1029.
- AL Singh, RS Jat, A Zala, H Bariya, S Kumar, YS Ramakrishna (2017). Scaling-up of boron sources for yield and quality of large seeded peanut cultivars under varied agro-ecological conditions in India. *Journal of Plant Nutrition* 40 (19), 2756-2767.
- N.K. Jain, R.S. Jat, H.N. Meena, and K. Chakraborty (2018). Productivity, Nutrient, and Soil Enzymes Influenced with Conservation Agriculture Practices in Peanut. *Agronomy Journal* 110(2):1-8. doi:10.2134/agronj2017.08.0467.

11. Other achievement if any

1. Evaluated long-term effect of nutrient management in groundnut based cropping systems.
2. Recommended good agricultural practices for mandukaparni (*Centella asiatica*) and Kalmegh (*Adrographis paniculata*) and organic cultivation of Ashwagadha (*Withania somnifera*), Kalmegh (*A. paniculata*) and Isabgol (*Plantago ovata*).
3. Mechanization of efficient seeding techniques in rapeseed-mustard and developed 'Mustard Seeder'.
4. Sustainable intensification of rainfed mustard based cropping systems.

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