


ICAR –INDIAN INSTITUTE of SUGARCANE RESEARCH  
LUCKNOW 226002, UTTAR PRADESH

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**Personal Information**

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| Name   | Dr. Sanjay Kumar Yadav<br> |
| Designation  | Senior Scientist  |
| Division/Section   | AICRP (S)   |
| Research Area  | Agronomy  |
| <b>Patent Details</b>  |   |
| <b>External Funded Projects</b>  |   |
| <ol style="list-style-type: none"><li>1. Evaluation of bio efficacy and phytotoxicity of pre-emergent application of two herbicide products BAS 781 02 H and BAS 822 01 H against weeds in sugarcane and its effect on succeeding crop. (04/2018-12/2021). <b>(Rs. 15.00 Lakhs). (PI)</b></li><li>2. Bio-efficacy and phyto-toxicity evaluation of 'BAS 433 11 H' against broad leaved weeds and sedges in sugarcane and its effect on succeeding crop. (01/2021-06/2023). <b>(Rs.20.00 Lakhs) (Co-PI)</b></li><li>3. Networking project on Improving water use efficiency and economizing water use in sugarcane cultivation in India. . <b>(Rs. 53.90 Lakhs) (Co-PI)</b></li></ol> |   |
| <b>Publications</b>  |   |

1. Subhash Babu, Sanjay Singh Rathore, Raghavendra Singh, Sanjeev Kumar, Vinod K. Singh, **S.K. Yadav**, Vivek Yadav, Rishi Raj, Devideen Yadav, Kapila Shekhawat, Owais Ali Wani 2022. Exploring agricultural waste biomass for energy, food and feed production and pollution mitigation: A review. *Bioresource Technology* 360 (2022) 127566.
2. **SK Yadav**, SS Lal, AK Srivastava, TK Bag & BP Singh.2015. Efficacy of chemical and non-chemical methods of weed management in rainfed potato (*Solanum tuberosum* L). *Indian Journal of Agricultural Sciences*. 85 (3): 382–386.
3. **SK Yadav**, AK Srivastava, TK Bag, Yogesh & Sushil Kumar.2015. Productivity, profitability and resource use efficiency of potato (*Solanumtuberosum* L.) based cropping systems in eastern Himalayan region. *Indian Journal of Agricultural Sciences*. 85 (7): 921-25.
4. **SK Yadav**, Subhash Babu, MK Yadav, Y. Singh & Kalyan Singh. 2014. Profitability of high value crops with organic nitrogen sources under rice (*Oryza sativa*) based cropping sequence. *Indian Journal of Agricultural Sciences*. 84(3):343-348.
5. **SK Yadav**, Yogeshwar Singh, MK Yadav, Subhash Babu and Kalyan Singh. 2013. Effect of organic nitrogen sources on yield, nutrient uptake and soil health under rice (*Oryza sativa*) based cropping sequence.*Indian journal of agricultural sciences*. 82 (2):170-175.
6. TK Bag, AK Srivastava, **SK Yadav\***, MS Gurjar, LC Diengdoh, R Rai, Sukhwinder Singh. 2015. Potato (*Solanum tuberosum*) aeroponics for quality seed production in north eastern Himalayan region of India. *Indian Journal of Agricultural Sciences* 85(10): 1360-4.
7. M K Yadav,R K Singh and **S K Yadav**. 2014. Production potential and nutrient uptake of wheat (*Triticum aestivum*) as affected by organic sources of nutrients and micronutrients. *Indian Journal of Agricultural Sciences*. 84 (1):58-63.
8. **SK Yadav**, AK Srivastava and TK Bag. 2016. Effect of integration of nutrient sources on yield and quality of potato under rainfed conditions. *Indian Journal of Horticulture* 73(4): 544-549.
9. Sanjay Singh Rathore, Subhash Babu, Kapila Shekhawat, Raghavendra Singh, **SK Yadav**, Vinod K. Singh, Chandu Singh. 2022. Designing energy cum carbonefficient environmentally clean production system for achieving green economy in agriculture. Sustainable Energy Technologies and Assessments. Available at Science Direct. <https://doi.org/10.1016/j.seta.2022.102190>.
10. Subhash Babu, Raghavendra Singh, Devideen Yadav, Sanjay Singh Rathore, Rishi Raj, RavikantAvasthe, **S.K. Yadav**, Anup Das, Vivek Yadav, Brijesh Yadav, Kapila Shekhawat, P.K. Upadhyay, Dinesh Kumar Yadav, Vinod K. Singh, 2022. Nanofertilizers for agricultural and environmental sustainability. *Chemosphere*, Volume 292,2022,133451.

11. SK Shukla VP Jaiswal. Lalan Sharma, **SK Yadav**, SK Awasthi, Asha Gaur, AdilZubair and Raghvendra Tiwari. 2020. Integrated application of ethereal and microbial consortia, effect of dry matter accumulation, it partitioning and nutrient uptake in late planted sugarcane under sub tropical Indian condition. *Journal of Plant Growth Regulation* <https://doi.org/10.1007/s00344-020-10292-0>. Available online.
12. SK Shukla, Lalan Sharma, VP Jaiswal, **SK Yadav** and AD Pathak. 2022. Diversification Options in Sugarcane-Based Cropping Systems for Doubling Farmers' Income in Subtropical India. *Sugar Tech*<https://doi.org/10.1007/s12355-022-01127-1>.
13. SK Shukla LalanSharma, VP Jaiswal, AD Pathak, SK Awasthi, Adil Zubair and **SK Yadav**2021. Identification of appropriate Agri-technologies minimizing yield gaps in different sugarcane growing states of India. *Sugar Tech*. 23(3): 580-595.
14. Raghavendra Singh, Subhash Babu, R.K. Avasthe, Anup Das, C.S. Praharaj, Jayanta Layek, Amit Kumar, S.S. Rathore, MrunaliniKancheti, Sanjeev Kumar, **S.K. Yadav** and VrushaliPashte. 2021. Organic farming in North–East India: Status and strategies. *Indian Journal of Agronomy* 66 (5th IAC Special issue): S163-S179
15. MK Yadav, RS Singh, KK Singh, RK Mall, CB Patel, **SK Yadav** and MK Singh.2015. Assessment of climate change impact on productivity of different cereal crops in Varanasi, India. *Journal of Agrometeorology* 17(2): 179-184.
16. MK Yadav, RS Singh, KK Singh, RK. Mall, Chandrabhan Patel, **SK Yadav** and MK Singh. 2016. Assessment of climate change impact on pulse, oilseed and vegetable crops at Varanasi, India. *Journal of Agrometeorology* 18 (1): 13-21.
17. MK Yadav, C Patel, RS Singh, KK Singh, R Balasubramanian, RK. Mall, MK Singh, SM Singh and **SK Yadav**. 2021. Assessment of climate change impact on different pigeon pea maturity groups in north Indian condition. *Journal of Agrometeorology*. 23(1): 82-92.
18. **SK Yadav**, TK Bag, AK Srivastava and VP Yadav. 2021. Bio-efficacy of weed management practices in rainfed potato. *Indian Journal of Weed Science* **53**(1): 54–58.
19. **SK Yadav**, TK Bag and AK Srivastava. 2017. Effect of organic manure and biofertilizers on system productivity and profitability of potato (*Solanum tuberosum*)–French bean (*Phaseolus vulgaris*) cropping system. *Indian Journal of Agronomy* 62(2): 155-159.
20. **SKYadav**, AK Srivastava and TK Bag. 2014. Effect of integrated nutrient management on production of seed tubers from true potato (*Solanum tuberosum*) seed.*Indian Journal of Agronomy*. 59 (4): 646-650.
21. **SK Yadav**, Subhash Babu Y. Singh, G S Yadav, Kalyan Singh and Harvir Singh. 2013. Effect of

- organic nitrogen sources and biofertilizers on production potential and energy budgeting of rice (*Oryza sativa*)-based cropping systems. *Indian Journal of Agronomy*. 58(4): 459-464.
22. **SK Yadav**, Subhash Babu Y. Singh, MK. Yadav, GS. Yadav, Suresh Pal, Raghavendra Singh, Kalyan Singh. 2013. Effect of organic nutrient sources on yield, nutrient uptake and soil biological properties of rice (*Oryza sativa*) based cropping sequence. *Indian Journal of Agronomy*. 58 (3): 271-276
  23. MK. Yadav, R K. Singh, **SK. Yadav**, AK. Srivastava. 2015. Effect of Micronutrient under Integration of Nutrient Sources with Zinc on Growth, Yield and Nutrient Uptake of Wheat (*Triticum aestivum* L.) *Environment & Ecology* 33 (1A): 291-296.
  24. AK Srivastava, **SK Yadav**, LC Diegdoh, R Rai, TK Bag. 2016. Effect of varieties and planting dates on productivity of potato (*Solanum tuberosum* L.) in North Eastern Hill Region. *Environment and Ecology* 34 (1): 141-145.
  25. **SK Yadav**, Yogeshwar Singh, MK Yadav, Subhash Babu and Kalyan Singh. 2013. Effect of organic nutrient management in basmati rice (*Oryza sativa*)-based cropping systems. *Current Advances in Agricultural Sciences*. 5(1): 50-54.
  26. SK Shukla and **SK Yadav**. 2017. Sustainability of smallholder sugarcane growers under changing climatic scenario. *Current Advances in Agricultural Sciences*. 9(2): 197-203.
  27. AK Srivastava, **SK Yadav**, RK Mishra, LCDiengdoh, R Rai and TK Bag. 2016. Effect of different test tube closure methods on growth and development of potato cultivars. *Current Advances in Agricultural Sciences* 8(1): 58-61.
  28. **SK Yadav**, SS Lal, TK Bag, AK Srivastava and ST Zodape. 2017. Evaluation of Fertilizer Potential of Sea Weed (*Kappaphycus* and *Gracilaria*) Saps in Potato Crop in North Eastern Hill Region of India *Journal of AgriSearch* 4(3):194-197.
  29. **SK Yadav**, AK Srivastava and TK Bag. 2017. Effect of Integration of Fertilizers and FYM on Productivity and Soil Health of Rainfed Potato *Journal of AgriSearch* 4(1): 23-26.
  30. **SK Yadav**, RK Singh, VKDua, Sarala Yadav and VP Yadav. 2021. Response of Potato to Zinc Application in Eastern Indo-Gangetic Plains of India. *Journal of AgriSearch* 8(1): 18-20
  31. **SK Yadav**, RK Singh, VK Dua, SK Singh, Sarala Yadav and RR Bakade. 2020 Nitrogen requirement of potato for Eastern Indo-Gangetic Plain of India. *Journal of AgriSearch* 7(3):134-137.
  32. **SK Yadav**, RK Singh, SK Singh, Sarala Yadav and RR Bakade. 2020. Site specific nutrient management in potato through nutrient omission plot technique. *Journal of AgriSearch* 7(2): 59-62.
  33. Sarala Yadav, Manoj Kumar and **S K Yadav**. 2021. Optimization of phosphoric fertilizers for

cultivation of potato under high phosphorus soils of Eastern Indo-Gangetic plains of Bihar. *Journal of AgriSearch*, 8 (2): 79-82.

34. **SK Yadav**, Yogeshwar Singh R.P. Kumar, M K Yadav, and Kalyan Singh. 2013. Effect of organic nitrogen sources on yield quality and nutrient uptake of rice (*Oryza sativa*) under different cropping system. *Vegetos-An International Journal of Plant Research*. 26 (1):58-66.
35. AK Srivastava, **SK Yadav\***, LC Diengdoh, R Rai and TK Bag.2015. Effect of varieties and fungicide spray on productivity of potato in North Eastern hill region. *Indian Journal of Agricultural Research* 49 (4): 343-347.
36. AK Srivastava, **SK Yadav**, LC Diengdoh, R Rai and TK Bag. 2015. Effect of cultivars and seed size on field performance of potato micro-tubers in North Eastern Himalayan region in India. *Journal of Applied and Natural Science*. 7 (1): 335-338
37. AK Srivastava, **SK Yadav**, LC Diengdoh, R Rai, TK Bag. 2016. Effect of plant density on mini-tuber production potential of potato varieties through micro-plants under net-house in North Eastern Himalayan region. *Journal of Applied Horticulture*. 18(1): 61-63.
38. Sanchita Roy, TK Bag, Angad Prasad and **SK Yadav**. 2016. Impact analysis of training interventions on potato growing tribal farmers of Meghalaya. *Indian Research Journal of Extension Education*. 16 (1):116-119.
39. SK Shukla, **SK Yadav**, AP Dwivedi, GK Singh. 2019. AICRP on Sugarcane -Salient Achievements and Future Directions on Soil Health and Crop Nutrition. *Indian Journal of fertilizers*. 15 (4): 430-445.
40. AK Srivastava, V.K. Gupta, B. Lal, S Roy, **S.K. Yadav**, M.S. Gurjar, T.K. Bag, NK Pandey & B.P. Singh. 2012 Assessment of the level of knowledge and training needs of potato growing tribal farmers of Meghalaya. *International journal of Agriculture, Environment & Biotechnology*. 5(4):463-468
41. MS Gurjar, TK Bag, AK Srivastava, **SK Yadav**, KS Singh & BP Singh. 2012. Bio efficacy of bio agents against late blight of potato under natural epiphytotic condition *Journal of Mycology and Plant Pathology*. 42 (1):67
42. AK. Srivastava, MS Gurjar, **SK Yadav**, TK. Bag, J Gopal & BP Singh. 2012. Evaluation of potato germplasm for late blight resistance under natural epiphytotic condition. *Journal of Mycology and Plant Pathology*. 42 (1):57
43. **SK Yadav**, and AK Srivastava. 2015. A review on agronomical aspects of potato production in north-eastern region of India. *International Journal of Applied and Pure Science and Agriculture*. 1 (6): 26-34.
44. **SK Yadav**, SS Lal, AK Srivastava, and TK Bag. 2014. A review on weed management in potato

(*Solanum tuberosum*) in north eastern hill region of India. *International Journal of Agriculture*. 125: 279-284.

45. **SK Yadav**, Subhash Babu, MK Yadav, Kalyan Singh, GS. Yadav, and Suresh Pal A. 2013. Review of Organic Farming for Sustainable Agriculture in Northern India. Volume 2013, 8 pages. *International Journal of Agronomy* 2013:1-8
46. Sarala Yadav, **SK Yadav**, Manoj Kumar. 2016. Svalbard Global Seed Vault: Global central seed bank. *International Journal of Applied and Pure Science and Agriculture*. 2 (4): 31-37.
47. Subhash Babu, DS. Rana, GS Yadav, Raghavendra Singh, **SK Yadav**. 2014. A review on recycling of sunflower residue for sustaining soil health. *International Journal of Agronomy* 2014: 1-7.
48. **SK Yadav**, AK Srivastava, MS Gurjar TK Bag. 2013. Major weeds of potato and thier management in Meghalalya hills. Vol. *AgrobiosNewslwtter*. XI (10):45-46
49. AK Srivastava, **SK Yadav**, 2013. India. An Incredible Treasure Trove of Aromatic rice *AgrobiosNewslwtter*. XII. (1):18-19.
50. **SK Yadav**, AK Srivastava, TK Bag. 2018. In NEH region Potato production through TPS is remunerative. *Indian Horticulture*. 64 (2): 37-38.
51. MS Gurjar, Sanchita Roy, TK. Bag, AK Srivastava, **SK Yadav**, and K. Suraj Singh. 2013. Extension strategies for mounting tribal potato farmer's yield in Meghalaya. *CAU Farm magazine*. 3(2):19-21.
52. AK Srivastava and **SK Yadav**, M. S Gurjar and T.K. Bag. 2013. Breeding for late blight resistance in potato. *Agrobios Newsletter*. XI (11): 62-64.
53. **SK Yadav**, S Roy, TK Bag. 2014. Appraisal of the attributes of potato production technology. *Keanean Journal of Science*. (3): 85-88.
54. Shukla SK, Lalan Sharma, **SK Yadav** and VP. Jaiswal. 2018. Improving Water Use Efficiency in Sugarcane. *Agriculture World*: 4 (12): 30-38.
55. **SK Yadav** .2021. Non-Chemical Tillage. *News Times Post*. 5(14). 20-21.
56. Sarala Yadav, Alok Kumar and **SK Yadav**. 2020. Bamboo –The Green Gold. *Indian Farmers' Digest*. 53(8)40-42.

### Books or Chapter Published

1. MK Yadav, RS. Singh, G Mahajan, S Babu, **S. K. Yadav**, R Kumar, MK Singh, AK Singh and A Yadav. 2012. Ridge Planted Pigeon pea and Furrow Planted Rice in an Intercropping System as Affected by Nitrogen and Weed Management. **Weed Control** ISBN 978-953-51-0159-8, Edited by: Andrew J. Price, Publisher: *In Tech* pp31-57.
2. **SK Yadav**, SS Lal, TK Bag and B.P. Singh. 2017. Nutrient economy in cropping system through

- use of residual fertility of potato (*Solanum tuberosum* L.). Sustainable Farming and Soil Health Management, Ed. Sanjay Arora and Suraj Bhan. Published by Soil Conservation Society of India, NAC Complex, Pusa New Delhi-110012. Pp. 199-204.
3. **SK Yadav**, Subhash Babu, GS Yadav, R Singh, MK Yadav. 2016. Role of Organic Sources of Nutrients in Rice (*Oryza sativa*) Based High Value Cropping Sequence. Organic Farming: A Promising Way of Food Production. Ed. Petr Konvalina Published by In Tech. pp 113-146.
  4. SaralaYadav, **SK Yadav** and Manoj Kumar. 2018. Effect of Nitrogen Fertilization on Nitrogen Uptake and Nitrogen Use Efficiency of Potato (*Solanum Tuberosum* L.). Book of Abstracts on Intensification and Diversification in Agriculture for Livelihood and Rural Development. Compiled and Edited by Babita Singh, Usha Singh, Sapna Panwar, Namita, Binod Anand. Published by Bimla Singh, Managing Trustee. Pp-95.
  5. SK Shukla, **SK Yadav**, Menhi Lal and AD Pathak. 2018. Low-Cost Technologies in Sugarcane Agriculture. AICRP(S) Technical Bulletin No III, published by AICRP on Sugarcane, ICAR-IISR, Lucknow. Pp 1-56.
  6. Sanjay Rawal, MA Khan, VK Dua, SP Singh, **SK. Yadav**, SS Lal and BP Singh. 2014. CPRI Technical Bulletin No. 99. Weed management in Potato, Total no Pages 78.
  7. S.K Shukla, Lalan Sharma, **SK Yadav**, VK. Gupta, SK. Awasthi, GK. Singh and, Adil Zubair. 2017. "Salient Research Achievements during XII Plan Period (2012-2017)". Published by ICAR-AICRP (Sugarcane), IISR, Lucknow. Pages 1-26.
  8. **Edited by Drs** Shiva Dhar, Babu Subhash, Raj R., Upadhyay, P.K., Singh, T., **Yadav, S.K.**, Meena, R.P., Kumar, A., Yadav, D.D., Sarangi, S.K., Singh, D.N., Gupta, G., Jinger, D., Ramalu, B., Kumar, D., Prajapat, K., Rajpoot, S., Bamboria, S., Ravishankar, N., Kumar, V., Ramanjaneyulu, A.V. and Choudhary, S.K. 2021. Agri-Innovations to Combat Food and Nutrition Challenges. Published at the Cambridge Printing Works, New Delhi-110028, India. **Vol. 1 pp 1-526.**
  9. **Edited by Drs** Shiva Dhar, Babu, Subhash Raj R., Upadhyay, P.K., Singh, T., **Yadav, S.K.**, Meena, R.P., Kumar, A., Yadav, D.D., Sarangi, S.K., Singh, D.N., Gupta, G., Jinger, D., Ramalu, B., Kumar, D., Prajapat, K., Rajpoot, S., Bamboria, S., Ravishankar, N., Kumar, V., Ramanjaneyulu, A.V. and Choudhary, S.K. 2021. Agri Innovations to Combat Food and **Nutrition** Challenges. Published at the Cambridge Printing Works, New Delhi-110028, India. **Vol. 2 pp 527-1186.**
  10. **Edited by Drs** Shiva Dhar, Babu, Subhash, Raj R., Upadhyay, P.K., Singh, T., **Yadav, S.K.**, Meena, R.P., Kumar, A., Yadav, D.D., Sarangi, S.K., Singh, D.N., Gupta, G., Jinger, D., Ramalu, B., Kumar, D., Prajapat, K., Rajpoot, S., Bamboria, S., Ravishankar, N., Kumar, V., Ramanjaneyulu, A.V. and Choudhary, S.K. 2021. Agri Innovations to Combat Food and Nutrition Challenges. Published at the Cambridge Printing Works, New Delhi-110028, India.

**Vol. 3 pp 1187-1590.**

11. **Edited by** Drs Shiva Dhar, Babu, Subhash Raj R., Upadhyay, P.K., Singh, T., **Yadav, S.K.**, Meena, R.P., Kumar, A., Yadav, D.D., Sarangi, S.K., Singh, D.N., Gupta, G., Jinger, D., Ramalu, B., Kumar, D., Prajapat, K., Rajpoot, S., Bamoria, S., Ravishankar, N., Kumar, V., Ramanjaneyulu, A.V. and Choudhary, S.K. 2021. Agri-Innovations to Combat Food and Nutrition Challenges In: Extended Summaries of 5th International Agronomy Congress. The Indian Society of Agronomy, IARI, New Delhi 110012, Vol. 4 pp1591-2336

### **Awards**

1. Awarded Best Scientist Award by ICAR-Indian Institute of Sugarcane Research, Lucknow on 71st Foundation Day during 16th Feb. 2022.
2. Awarded as ISA Associate ship Award-2020 by Indian Society of Agronomy for outstanding contribution to Agronomy discipline. Recognition is given in 5th International agronomy Congress held at PJTSAU, Hyderabad, Telangana, India during 23-27 November 2021.
3. Young Scientist award by Samagra Vikas Welfare Society, Lucknow during 2017.