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Ongoing Research Projects

- Outscaling of Natural Farming through KVKs funded by ICAR for Rs. 10.68 Lakh from Nov, 2022 (Principal Investigator).
- Precision Farming Development Centre funded by National Committee on Plasticulture Applications in Horticulture, Government of India for Rs. 40.0 Lakh (Annual) from 1996 to 2022 (Principal Investigator).
- Entrepreneurship and skill development in soilless cultivation and vertical farming (IDP) funded by NAHEP-ICAR for Rs. 15.0 Lakh from 2020-2022 (Activity Incharge).
- Precision Farming Technologies for enhancing yield and quality of horticultural crops funded by Mission on Integrated Development of Horticulture, HP for Rs. 50.0 Lakh from Apr, 2020 to Mar, 2023 (Principal Investigator).
- Status of micro irrigation in Himachal Pradesh project funded by Himmatan Tata Trust, Dehradun for Rs. 1.80 Lakh from 2012-2013 (Principal Investigator).
- Design and Development of a continuous flow Hydroponics System funded by Ministry of Communications and Information Technology, Government of India for Rs. 90.0 Lakh from 2014-2017 (Principal Investigator).
- Solar Power- A renewable source for operation of micro irrigation system in fruits and vegetable in different zones of Himachal Pradesh funded by Mission on Integrated Development of Horticulture, Govt of Himachal Pradesh for Rs. 20.0 Lakh from 2017 to 2018 (Principal Investigator).
- Skill Development Programme under Job Role of “Greenhouse Operator” (FMS-105-17) funded by Mission on Integrated Development of Horticulture, Govt of Himachal Pradesh for Rs. 4.93 Lakh from 2017-2018 (Principal Investigator).
- Resurrection of strawberry runner in Shivalik foothills funded by RKVY, Govt of HP for Rs. 33.81 Lakh from 2016-2017 (Co-PI).
- Integrated Project on Quality Seed/Planting Material Production, irrigation Management and Soil Health Concerns in Vegetable and Spice Crops” funded by RKVY, Govt of HP for Rs. 95.0 Lakh from 2014-2015 (Co-PI).

Important Research Publications

- Spehia RS, Riblta RS, Sharma JC, Shukla Y & Sharma U. 2022. Comparative nutrient uptake and yield of Indian palak (*Beta vulgaris* L. var. bengalensisRoxb.) in hydroponics and other growing media. *Journal of Plant Nutrition* **45**:17, 2672-2678
- Spehia RS. 2021. Growth stage wise fertigation scheduling improves nutrient uptake, growth and yield of capsicum under protected conditions. *Journal of Plant Nutrition* **44**(6): 898-904.
- Spehia RS, Singh SK, Devi M, Chauhan N, Singh S, Sharma D and Sharma J C. 2020. Effect of soilless media on nutrient uptake and yield of tomato (*Solanumlycopersicum*) *Indian Journal of Agricultural Sciences* **90** (4): 732.

- Spehia RS, Pathania SS, Sharma V and Upadhyay GP. 2017. Fertilizer-use efficiency, nutrient uptake and water requirement of capsicum under fertigation in open field conditions. *Indian Journal of Horticulture* 74(3): 444-447.
- Suman S, Spehia RS and Sharma V. 2017. Humic acid improved efficiency of fertigation and productivity of tomato. *Journal of Plant Nutrition* 40(3): 439-446.
- Suman S, Spehia RS and Sharma V. 2016. Productivity of capsicum as influenced by fertigation with chemical fertilizers and humic acid. *Journal of Plant Nutrition*. 39(3): 410-416.
- Spehia RS. 2015. Status and impact of protected cultivation in Himachal Pradesh, India. *Current Science*. 108: 2254-2257.
- Spehia RS, Sharma V, Raina JN and Bhardwaj RK. 2014. Growth, yield and economics of greenhouse grown coloured capsicum as influenced by trellis system and plant spacing. *Indian Journal of Agricultural Sciences*. 84 (6): 742-5.
- Spehia RS, Sharma V, Raina JN and Bhardwaj RK. 2013. Growth yield and quality of Rabi Onion as influenced by irrigation levels and polyethylene mulching. *Indian Journal of Agricultural Sciences*. 83(11): 1184-88.
- Spehia RS, Thakur BC and Raina JN. 2012. Effect of in-situ conservation practices on soil properties and yield of broccoli under rainfed conditions of mid hill zone of Himachal Pradesh. *Indian Journal of Horticulture*. 69(1): 129-132.

Books and manuals

- (Eds.) Spehia RS and G P Upadhyay. 2017. Precision Farming and climate change: Imperatives of Indian Agriculture. M/S Bhishen Singh Mahendra Pal Singh, Dehradun. pp277. ISBNNo. 978-81-211-0921-5
- (Eds.) Spehia, RS and IP Sharma. 2011. Protected cultivation for sustainable horticulture. M/S Bhishen Singh Mahendra Pal Singh, Dehradun. pp277. ISBNNo. 978-81-211-0787-7
- (Eds) Gupta Satish, Bhardwaj Satish, Chandel Rajeshwar and R S Spehia. 2010. Bagwani Faslonki Sangrakshit Kheti (Hindi). 1-85. Directorate of Extension Education, UHF, Nauni, pp. 1-85. ISBN No. 978-81-921135-24
- Spehia RS. 2015. Tapaktathafawwarasinchai-Mukhyasavdhaniyanavamfasaljalavashyakta Pp.76. Himachal Printing Press, Shimla. ISBN 978-93-5235-035-3
- Spehia R S and Upadhyay G P. 2015. Sangrakshit Kheti Pp.105 Himachal Printing Press, Shimla ISBN 978-93-5235-036-0
- Spehia RS and Sharma OP. 2014. Vibhinn Jalwayu Kshetronkeliye polyhouse karupankan, nirman, mridaswasthyaavamjalprabandhan- 1- pp. 74 DEE, UHF, Nauni. ISBN 978-93-5087-023-1
- Spehia RS and Vipin Sharma. 2014. Sangrakshit Kheti, arthikiavam vipanan-2 Pp . 80. DEE, UHF, Nauni. ISBN No. 978-93-5087-721-0