



Dr Sunil Kumar

Associate Professor

Contact Details:

+91-01892-237285-89 Extn. 303

+91-9418050067, +91-7018445774

Academic Qualification:

- > Doctor of Philosophy (Entomology and Apiculture), **79.3%** (2006), Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.).
- > Master of Science (Entomology and Apiculture), **78.8%** (2003), Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.).
- > B.Sc. Horticulture, **64.2%** (2001), Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni-Solan (H.P.)
- > Qualified Indian Council of Agricultural Research **National Eligibility Test** in 2003, conducted by Agricultural Recruitment Board.
- > Joined as **Associate Professor**, Department of Animal Science, School of Life Sciences, Central University, Himachal Pradesh on 04th Sept. 2019.
- > **Assistant Professor (Entomology)** at COH&F (YSPUHF), Neri, Hamirpur (H.P.) India -177001 from 05th April 2010 to 03rd Sept. 2019
- > **Assistant Nematologist** under “All India Coordinated Research Project on Plant Parasitic Nematodes and Integrated Approach of their Management” in the Department of Entomology, CSK HPKV, Palampur (HP)- India from 24th Nov. 2008 to 05th April 2010.
- > **Research Associate** under “All India Coordinated Research Project on Plant Parasitic Nematodes and Integrated Approach of their Management” from 03rd Jan. 2007 to 23rd Nov.08.
- > **Senior Research Fellow** under “Planned honey bee pollination for the improvement in horticultural crops” from 02.11.2006 to 02.01.2007.
- > **Junior Research Fellow** under “Scope and potential of plant resources yielding bio-pesticides in Punjab (FMS-22-41)” from 28th Nov. 2005 to 31st March 2006.

Positions Held:

Specialisation:

Agricultural Entomology and Plant Nematology

Research Interest:

- > Identification and eco-friendly management of insect-pests associated with agricultural crops.
- > Management of root knot nematode (*Meloidogyne* spp.) in protected conditions.
- > Insect and nematode fauna associated with cultivated edible mushrooms

Publications:

1. Khanna, A.S. and **Kumar, S.** 2003. Assessment of avoidable yield losses in *Momordica charantia* due to *Meloidogyne incognita* race 2. *Indian Journal of Hill Farming*. **16** (1&2):111-112.
2. Khanna, A.S. and **Kumar, S.** 2005. Role of *Caenorhabditis elegans* (Maupas) Dougherty in the cultivation of White button mushroom *Agaricus bisporus* (Lange) Imbach. *Indian Journal of Mushrooms*. **23**(1&2): 29-33.
3. Khanna, A.S. and **Kumar, S.** 2005. Effect of myceliophagous nematodes on flush pattern and yield of *Agaricus bisporus* (Lange) Imbach. *Indian Journal of Mushrooms*. **23**(1&2): 34-36.
4. Khanna, A.S. and **Kumar, S.** 2006. *In vitro* evaluation of neem based pesticides against *Meloidogyne incognita*. *Nematologia Mediterranea*. **34**(1): 49-54.
5. **Kumar, S.** and Khanna, A.S. 2006. Influence of transplant spacing and planting date on fruit yield, plant status of tomato and population development of *Meloidogyne incognita*. *Nematologia Mediterranea*. **34**(2): 133-138.
6. **Kumar, S.** and Khanna, A.S. 2006. Role of *Trichoderma harzianum* and Neem Cake Separately and in Combination against Root-knot Nematode on Tomato. *Indian Journal of Nematology*. **32**(2):264-266.
7. Khanna, A.S.; Chandran, R.A. and **Kumar, S.** 2006. Sources of Nematode Inoculum/ in White Button and Milky Mushroom. *Indian Journal of Nematology*. **32**(2):267-269.
8. **Kumar, S.** and Khanna, A.S. 2006. Effect of neem-based products on root-knot nematode population and growth parameters of tomato. *Nematologia Mediterranea*. **34**(2): 139-144.
9. **Kumar, S.** and Khanna, A.S. 2006. Efficacy of *Trichoderma viride* and neem cake against root-knot nematode on tomato. *Pest Management and Economic Zoology*. **14**(1): 103-106.
10. **Kumar, S.**; Khanna, A.S. and Chandel, Y.S. 2007. Effect of population levels of *Aphelenchoides swarupi* and *Aphelenchus avenae* inoculated at spawning on mycelial growth of mushrooms and nematode multiplication *Nematologia Mediterranea*. **35**(2): 155-163.
11. **Kumar, S.**; Khanna, A.S. and Chandel, Y.S. 2007. Susceptibility of mushrooms to *Aphelenchoides swarupi* and *Aphelenchus avenae*. *Nematologia Mediterranea*. **35**(2): 205-211.
12. Kapoor, S.; Chandel, Y.S. and **Kumar, S.** 2008. Pathogenic effects of entomopathogenic nematode, *Heterorhabditis bacteriophora* against some insect-pests of agricultural importance. **In:** Proceedings of 2nd Congress on Insect Science held at Punjab Agricultural University, Ludhiana, India from 21-22 Feb. 2008, pp. 344-345 (Extended Abstract).
13. **Kumar, S.**; Khanna, A.S.; Verma, A.K. and Chandel, Y.S. 2008. Effect of inoculation time on damage potential of *Aphelenchoides swarupi* and *Aphelenchus avenae* to Rodman's Agaricus, *Agaricus bitorquis*. *Nematologia Mediterranea*. **36**(2): 171-178.
14. **Kumar, S.**; Khanna, A.S. and Chandel, Y.S. 2008. Damage potential of *Aphelenchoides swarupi* and *Aphelenchus avenae* in white button mushroom, *Agaricus bisporus*. *Indian Journal of Nematology*. **38**(2):146-153.
15. Pradeep Kumar; Chandel, Y.S. and **Kumar, S.** 2009. Evaluation of some insecticides for the management of *Agrotis segetum* Dennis and Schiff. *Indian Journal of Agricultural Sciences*. **79**(3): 235-239.
16. **Kumar, S.**; Khanna, A.S.; Verma, A.K.; Chandel, Y.S and Jandaik, S. 2009. Effect of population levels of *Aphelenchoides swarupi* and *Aphelenchus avenae* on mycelial

- growth of mushrooms and nematode population. *Indian Journal of Nematology*. **39**(1):14-24. .
17. Chandel, Y.S.; Kapoor, S. and **Kumar, S.** 2009. Virulence of *Heterorhabditis bacteriophora* (Poinar) against cutworm (*Agrotis segetum* Denis and Schiff). *Journal of Biological Control*. **23**(4): 409-415.
 18. **Kumar, S.** and Chandel, Y.S. 2009. Community analysis of myceliophagous nematodes associated with commercially cultivated mushrooms in Himachal Pradesh. *Plant Disease Research*. **24**(2): 178-181.
 19. **Kumar, S.**; Chandel, Y.S. and Sharma, P.K. 2010. Community analysis of major plant parasitic nematodes associated with rice in Himachal Pradesh. *Oryza*. **47**(3): 231-236.
 20. **Kumar, S.**; Khanna, A.S.; Chandel, Y.S.; Rana, V.K and Jandaik, S. 2010. Damage potential of *Aphelenchoides swarupi* and *Aphelenchus avenae* in Milky mushroom, *Calocybe indica*. *Nematologia Mediterranea*. **38**(1) 7-12.
 21. Khanna, A.S.; Sharma, A. and **Kumar, S.** 2010. Effect of nursery treatment and neem based bare root dips in formulations of plant extract on *Meloidogyne incognita* in tomato. *Nematologia Mediterranea*. **38**(2): 129-133.
 22. Chandel, Y.S.; **Kumar, S.**; Jain, R.K. and Vashisth, S. 2010. An analysis of nematode problems in greenhouse cultivation in Himachal Pradesh and avoidable losses due to *Meloidogyne incognita* in tomato. *Indian Journal of Nematology*. **40**(2): 198-203.
 23. Jarial, K.; Dogra, B.; Mandradia, R.K.; **Kumar, S.**; Sharma, D. And Gupta, A.K. 2011. Investigations on a new bacterial disease of bottle gourd in sub-tropical zone of Himachal Pradesh. *Plant Disease Research*. **26**(1): 68-75.
 24. Rana, V.K. and **Kumar, S.** 2011. Performance of *Apis mellifera* L. colonies in high hills of Himachal Pradesh. *Indian Journal of Entomology*. **73**(3): 241-243.
 25. **Kumar, S.**; Khanna, A.S. and Rana, V.K. 2012. Insect fauna associated with cultivated edible mushrooms in Himachal Pradesh. *Journal of insect Science*. **25**(1): 29-38.
 26. Vashisth, S.; Chandel, Y.S. and **Kumar, S.** 2012. An biology and damage potential of *Spodoptera litura* Fabricius on some important greenhouse crops. *Journal of insect Science*. **25**(2): 150-154.
 27. Khanna, A.S.; Sharma, A. and **Kumar, S.** 2012. Biomangement of *Sciara* sp. in white button mushroom, *Agaricus bisporus* (Lange) Imbach. *Journal of Insect Science*. **25**(4): 333-341.
 28. Vashisth, S.; Chandel, Y.S. and **Kumar, S.** 2013. Observations on insect pest problems of polyhouse crops in Himachal Pradesh. *Journal of Entomological Research*. **37**(3): 253-258.
 29. Negi, R.; **Kumar, S.** and Dhiman, S.R. 2014. Evaluation of liliium (*Lilium* spp.) cultivars for low hills of Himachal Pradesh. *Indian Journal of Scientific Research and technology*. **2**(4): 8-10.
 30. Negi, R.; **Kumar, S.** and Dhiman, S.R. 2014. Evaluation of different cultivars of gladiolus (*Gladiolus grandiflorus* L.) suitable for low hills of Himachal Pradesh. *Indian Journal of Scientific Research and technology*. **2**(6): 6-11.
 31. Sharma, Prianka; **Thakur, Sunil** and Awasthi, Pamita. 2015. Synthesis, Characterization, Biological Evaluation and Docking Study of Heterocyclic Pesticide against *G. melonella*. *Applied Biochemistry and Biotechnology*. DOI 10.1007/s12010-015-1562-x. (NAAS 7.69)
 32. Khanna, A.S.; Sharma, A.; Singh Pallavi, K.R. and **Kumar, S.** 2015. Collembolan fauna associated with cultivated edible mushrooms in Himachal Pradesh. *Agric-INTERNATIONAL*. **1**(1&2): 69-72.
 33. Negi, R.; Jarial, K; **Kumar, S.** and Dhiman, S.R. 2015. Evaluation of different cultivars of chrysanthemum suitable for low hill conditions of Himachal Pradesh. *Journal of Hill*

Agriculture. **6**(2): 144-146. (NAAS 3.10)

34. Jarial, K.; Jarial, R.; Sharma, D; **Kumar, S.** and Dogra, B. 2015. Strategy for the Management of Bacterial Spot of Bottle Gourd Caused by *Xanthomonas cucurbitae* under Low Hill Conditions of Himachal Pradesh. *International Journal of Bio-resource and Stress Management*. **6**(6): 744-748. (NAAS 4.46)
35. Sharma, Prianka; **Thakur, Sunil** and Awasthi, Pamita. 2016. In silico and bio assay of juvenile hormone analogs as an insect growth regulator against *Galleria mellonella* (wax moth) - Part I. *Journal of Biomolecular Structure and Dynamics*. DOI: <http://dx.doi.org/10.1080/07391102.2015.1056549>. (NAAS 8.92)
36. **Kumar, S.**; Khanna, A.S. 2016. Biomanagement of *Aphelenchoides swarupi* in *Agaricus bisporus* with bacterial bioagents. *Journal of Insect Science*. **29**(1): 131-135. (NAAS 3.44)
37. Thakur, R; **Kumar, S.** and Awasthi, C.P. 2016. Biochemical evaluation of tartary buckwheat (*Fagopyrum tataricum* Gaertn.) genotypes of cold dry desert of Himachal Pradesh. *Journal of Hill Agriculture*. **7**(1): 125-128. (NAAS 3.10)
38. Negi, R.; Jarial, K.; Jarial, R.S.; **Kumar, S.** and Dhiman, S.R. 2016. Evaluation of liliun cultivars for suitability under low hill conditions of Himachal Pradesh. *Journal of Hill Agriculture*. **7**(2): 201-203. (NAAS 3.10)
39. Thakur, R; **Kumar, S.** and Awasthi, C.P. 2017. Biochemical evaluation of some promising varieties/genotypes of underutilized food legumes of Himachal Pradesh. *International Journal of Farm Sciences* **7**(1): 1-6. (NAAS 4.01)
40. Thakur, R; **Kumar, S.**; Chander P.; Awasthi, C.P. and Verma, M.L. 2017. Biochemical Evaluation of Tartary Buckwheat (*Fagopyrum tataricum* Gaertn.) Genotypes of cold desert of Himachal Pradesh. *Bioscience Biotechnology Research Asia*. **14**(2): 821-825. (NAAS 4.93)
41. Khanna, A S; Sharma, A and **Kumar, S.** 2017. Life stages, longevity, seasonal abundance and nature of damage of *Cyllodes indicus* Grouvelle (Coleoptera: Nitidulidae) on oyster mushroom, *Pleurotus sajor-caju*. *International Journal of Farm Sciences*. **7**(3): 141-145. (NAAS 4.01)
42. Singh, K P; Khanna, A S and **Kumar, S.** 2018. Incidence of root-knot nematode (*Meloidogyne* species) on various hosts in different agro-climatic ranges of Himachal Pradesh, India. *Indian Journal of Nematology*. **48**(1): 96-102. (NAAS 5.03)
43. Sharma, A; Rana, V K and **Kumar, S.** 2018. New record of harar (*Terminalia chebula*) fruit borer *Dichocrocis* sp. (Lepidoptera: Crambidae). *Indian Journal of Entomology*. **80**(4): 1703-1704. (NAAS 5.89).

BOOK CHAPTERS:

1. Khanna, A.S. and **Kumar, S.** 2004. Nematode management in white button mushroom: Prophylactic and control measures. **In:** Biological diversity: Current trends (Gautam S.P.; Bansal Y.K. and Pandey A.K. Eds.). Shree Publishers & Distributors New Delhi. pp. 193-199.
2. Khanna, A.S. and **Kumar, S.** 2004. Integrated management of *Meloidogyne incognita* (Kofoid and White) Chitwood in tomato (*Lycopersicon esculentum* Mill.). **In:** Integrated Disease Management (eds., Sharma, R.C. and Sharma, J.N.). Scientific Publishers (India) Jodhpur. pp. 147-149.
3. **Kumar, S.**; Rana, V.K. and Jarial, K. 2011. Suter krimi: Samsya evam nidan. Bagvani faslon ki srankshit kheti. (Bhardwaj, S; Chandel, R. and Shapiya, R.S. Editors). Directorate of Extension Education, Dr Y S Parmar UHF Nauni, Solan, Himachal Pradesh, India. 173230. Pp. 126-133.

EXTENSION PUBLICATIONS

a. Leaflets:

1. **Kumar, S.** and Chandel, Y.S. 2008. Suterkrimi: Samsya evam nidhan. Deptt. of Entomology, Dept. of Entomology, CSK HPKV, Palampur India - 176062. 6 p.
2. **Kumar, S.** and Chandel, Y.S. 2008. Khumb main suterkrimion ka prakop evam roktham. Deptt. of Entomology, Dept. of Entomology, CSK HPKV, Palampur India - 176062. 4 p.
3. Sharma, D.; Dogra, B. S. and **Kumar, S.** 2012. Bangan ki unat kheti. Institute of Biotechnology & Environmental Science, Neri, Hamirpur (HP)-177001. 4p.

b. Popular Articles:

1. Chandel, Y.S. and **Kumar, S.** 2008. Polyhouse amin suterkrimi (nematode): Samsya evam nidhan. *Parvatia Kheti Badi*. **29**: 29-30.
2. Rana, V.K.; **Kumar, S.**; Dhiman, M.S. and Mandradia, R. 2010. Psylla- A key pest of mango orchards in Himachal Pradesh, India. *SAARC Agrinews*. 4 (1): 6 & 8.
3. Chandel, Y.S.; **Kumar, S.** and Anil Kumar. 2011. Polyhouse amin suterkrimi (nematode): Samsya evam nidhan. *Parvatia Kheti Badi*. 31(2): 23-25.
4. Negi, R.; Jarial, K. and **Kumar, S.** 2014. Gainda ugyein banderon se nijaat payein. *Giriraj Weekly*. 1 October 2014, 5 p.
5. **Kumar, S.**; Negi, R. and Rana, V.K. 2014. Himachal main suterkrimi samshya evam nidhan. *Giriraj Weekly*. 5 November 2014, 5 p.
6. **Kumar, S.**; Khanna, A.S. and Negi, R. 2015. Khumb ko kidon se bachayo, adheek fasal paayo. *Giriraj Weekly*. 13 May 2015, 5 p.
7. Rana, V K.; **Kumar, S.** and Thakur, R. 2015. Gramin khestron main rojgar ka shaskat madhyam reshm utpadan. *Giriraj Weekly*. 7 Oct. 2015, 5 p.
8. Sharma, A.; Shilpa and **Kumar, S.** 2016. Kisano vah bagwano ke liye sankhiyki taknikon ka mahatav. *Giriraj Weekly*. 10 August 2016, 5 p.
9. Dogra, B S.; **Kumar, S.**; Dogra, R and Sharma, D. 2017. Vaigyanik dhang se broccoli ki kheti. *Giriraj Weekly*. 4 Jan. 2017, 5 p.
10. **Kumar, S.**; Sharma, A. and Rana, V.K. 2017. Keetnasakon ke dusprabhon se bachayo. *Giriraj Weekly*. 09 August 2017, 5 p.
11. **Kumar, S.**; Himanshi and Meenakshi. 2019. Sweat button khumb ki makhinyon se rokthaam. *Giriraj Weekly*. 16 Jan. 2019, 5 p.
12. Himanshi and **Kumar, S.** 2019. Sarankshit kheti main suterkrimi ki badati samshya evam prabhandhan. *Giriraj Weekly*. 19 June 2019, 5 p.

TECHNICAL BULLETIN

1. **Sharma, B.M; Jandaik, S. and Kumar, S.** 2009. Khumb ke rogkarak fafund, suterkrimion va keet evam unka prabandhan. Deptt. of Plant Pathology, CSK HPKV, Palampur India - 176062. 12 p.

ABSTRACTS PUBLISHED

1. **Kumar, S.** and Khanna, A.S. 2005. Efficacy of bare root dip treatments of various neem based pesticides and *Trichoderma* spp. against *Meloidogyne incognita* (Kofoid and White) Chitwood population and plant status of tomato. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
2. **Kumar, S.** and Khanna, A.S. 2005. Evaluation of neem based pesticides against *Meloidogyne incognita* (Kofoid and White) Chitwood in *Lycopersicon esculentum* Mill. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
3. Khanna, A. S; Chandran, R.A.; **Kumar, S.** and Ganguly, S. 2005. Effect of *Panagrolaimus*

fuchsi Ruhm on mycelial growth, flush pattern and sporophore yield of *Agaricus bisporus* (Lange) Imbach and nematode multiplication. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.

4. Khanna, A.S. and **Kumar, S.** 2005. Role of *Caenorhabditis elegans* (Maupas) Dougherty in the cultivation of White button mushroom *Agaricus bisporus* (Lange) Imbach. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
5. Kapoor, S.; Chandel, Y.S. and **Kumar, S.** 2008. Pathogenic effects of entomopathogenic nematode, *Heterorhabditis bacteriophora* against some insect-pests of agricultural importance. **In:** Proceedings of 2nd Congress on Insect Science held at Punjab Agricultural University, Ludhiana, India from 21-22 Feb. 2008, pp. 344-345 (Extended Abstract).
6. Rana, V.K.; Mandradia, R.; Gupta, B.; Sharma, R. and **Kumar, S.** 2011. Status of insect-pests, diseases and deficiencies in apple orchards and their management in cold desert and dry temperate zone of Himachal Pradesh. 3rd Congress on Insect Science (April 18-20, 2011). PAU, Ludhiana (Pb). Pp18.
7. Rana, V.K.; Mandradia, R.; Gupta, B.; Sharma, R. and **Kumar, S.** 2010. Status of insect-pests, diseases and deficiencies in apple orchards and their management in cold desert and dry temperate zone of Himachal Pradesh. National symposium on "Perspective and Challenges of Integrated Pest Management for Sustainable Agriculture" Nov 19-21, 2010, Dr YS Parmar Univ. Hort & Fty. Nauni, Solan (HP). 7 pp.
8. Vashisth, S.; Chandel, Y.S. and **Kumar, S.** 2010. An analysis of insect-pest problems in greenhouse crops in Himachal Pradesh. National symposium on "Perspective and Challenges of Integrated Pest Management for Sustainable Agriculture" Nov 19-21, 2010, Dr YS Parmar Univ. Hort & Fty Nauni, Solan (HP). 22 pp.
9. Khanna, A. S; Singh, P. and **Kumar, S.** 2013. Efficacy of nursery treatment and bare root dips in plant based nematicidal formulations on *Meloidogyne incognita* in aubergine. National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 61.
10. **Kumar, S.**; Khanna, A. S. and Jarial, K. and 2013. Effect of bare root dip treatments of neem-based formulations and *Tricoderma* spp. against *Meloidogyne incognita* infesting tomato (*Solanum lycopersicum*). National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 129.
11. **Kumar, S.** and Khanna, A. S. 2013. Evaluation of bacterial bioagents against *Aphelenchoides swarupi* in white button mushroom, *Agaricus bisporus*. National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 152.
12. **Kumar, S.**; Khanna, A. S. and Rana, V.K. 2013. Population analysis of myceliophagous nematodes associated with mushrooms in Himachal Pradesh. National Symposium on Mushrooms for medicinal value and nutritional security under changing climatic conditions held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 27-28 December 2013, pp. 13.

TV/RADIO TALKS

1. **Sunil Kumar**, Nematode management in polyhouse crops. Doordarsan Shimla. 19.06.2009.
2. **Sunil Kumar**, Sanrkshit kheti main suterkrimi samsaya. All India Radio, Shimla. 15.01.2013.
3. **Sunil Kumar**, Aam main lagne wale keet patange evam prabandhan. All India Radio, Hamirpur. 20.04.2015.
4. **Sunil Kumar**, Kadu vargiyae sabjinyo main lagne wale keet patange evam prabandhan

- ke kaarye. All India Radio, Shimla. 22.06.2015.
5. **Sunil Kumar**, Tamatar main lagne wale keet patange. All India Radio, Hamirpur. 08.02.2016.
 6. **Sunil Kumar**, Nichle parvtea khestron main baeldar sabjiyon main lagne wale rog vah keet. In (STUDIO BASED) at PRASAR BHARTI, DOORDARSHAN KENDRA, Shimla (HP) on 2nd March 2016 (5:30 PM).
 7. **Sunil Kumar**, Aam ke bagichhon ka rakh rakhav. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 17.05.2016 (06:30 PM).
 8. **Sunil Kumar**, Mushroom main keet vah suterkrimi prabandhan. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 13.09.2016 (06:30 PM).
 9. **Sunil Kumar**, Garmion ke mausam main sabjiyon main lagne wale keet evam prabandhan kaise karanhe. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 18.04.2017 (06:30 PM).
 10. **Sunil Kumar**, Keetnasakon ke dusprabhav evam savhadhaniyan. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 25.07.2017 (06:30 PM).
 11. **Sunil Kumar**, Grisamkaleen sabjiyon main keet prabandhan. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 13.02.2018 (06:30 PM).
 12. **Sunil Kumar**, Phalon aur sabjiyon main phal makkhi se bachaav aur prabandhan. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 22.05.2018 (06:30 PM).
 13. **Sunil Kumar**, Javik vidhi se sabjiyon main keet prabandhan. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 19.09.2018 (06:30 PM).
 14. **Sunil Kumar**, Gobhi vargiye sabzion mein keet prabandhan kaise Karen. LIVE PHONE-IN programme in Kisanvani at All India Radio, Hamirpur on 12.02.2019 (06:30 PM).

GUEST LECTURES DELIVERED IN OTHER INSTITUTIONS:

1. Delivered a lecture on “Practical on sampling and extraction of plant parasitic nematodes from soil and plants” in ICAR sponsored Short Course on “Pest Management in High Value Crops under Protected Cultivation” held from 11-20, 2012 at CSKHPKV, Palampur (HP).
2. Delivered a lecture on “Use of insecticides in different crops and their effects on the environment” at Swami Vivekanand P.G. College of Education, Tarkwari, Distt. Hamirpur (HP) on 01 April 2017.
3. Delivered two lectures on (i) Identification of different species of nematodes prevalent under protected environment and (ii) Eco-friendly technologies for management of nematodes in polyhouses in a model training course on “**Advances in protected cultivation of high value vegetable crops**” at CSKHPKV, Palampur (HP) w.e.f. 16th to 23rd Sept. 2019.

Research Projects Completed:

Sr. No.	Project Title	PI/ Co - PI	Funding Agency
i.	Establishment of Model Floriculture Centre at RHFRS, Bhota. Total Sanctioned Amount : Rs70.0 lakh	Co-PI	ICAR, Mini Mission- II
ii.	Development of an Integrated Disease Management Schedule against Fusarium Wilt and Stem Rot of Carnation under Protected Conditions in Bilaspur District. Total Sanctioned Amount : Rs1.70 lakh	Co-PI	NATP, ATMA, Bilaspur
iii.	Management of plant parasitic nematodes under protected conditions Total Sanctioned Amount : Rs0.20 lakh	PI	NATP, ATMA, Hamirpur
iv.	Studies on plant parasitic nematodes and their role in disease incidence of ginger and management Total Sanctioned Amount : Rs 29.11 lakh.	Co-PI	DST, GOI

v.	Developing eco-friendly strategies of nematode management in vegetable crops under protected conditions & their dissemination.. Total Sanctioned Amount : Rs 12.0 lakh	Co-PI	ICAR, Mini Mission- I
vi.	Integrated management of Mango Psylla - A key pest of mango orchards in Himachal Pradesh Total Sanctioned Amount : Rs 2.20 lakh	Co-PI	NATP, ATMA, Mandi
vii.	State level seminars cum awareness programmes, scientific beekeeping training and exposure visits for the farmers of Himachal Pradesh Total Sanctioned Amount : Rs 3.05 lakh	Co-PI	NBB, GOI

Research Projects Ongoing:

i.	Assessment of climate change and its relationship with incidence of dengue vector borne diseases in non-endemic state of Himachal Pradesh Total Sanctioned Amount : Rs 48.3248 lakh (April 2019- March 2022)	Co-PI	DST (SPLICE-Climate Change Programme), GOI, New Delhi
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M. Sc. Thesis supervised:

Ms Himanshi Gupta: Eco-friendly management of root knot nematode, *Meloidogynae incognita*. The thesis submitted to Department of Entomology, College of Horticulture & Forestry, (YSP UHF) Neri, Hamirpur HP - 177001.

M Phil Supervised:

Ms Minakshi: Biology and management of diamondback moth, *Plutella xylostella* on crucifers. The thesis submitted to Department of Entomology, College of Horticulture & Forestry, (YSP UHF) Neri, Hamirpur HP - 177001.

PhD Supervised:

-

PhD Supervising:

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Participation in Seminars/Conferences:

1. **Kumar, S.** and Khanna, A.S. 2005. Efficacy of bare root dip treatments of various neem based pesticides and *Trichoderma* spp. against *Meloidogyne incognita* (Kofoid and White) Chitwood population and plant status of tomato. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
2. **Kumar, S.** and Khanna, A.S. 2005. Evaluation of neem based pesticides against *Meloidogyne incognita* (Kofoid and White) Chitwood in *Lycopersicon esculentum* Mill. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
3. Khanna, A. S; Chandran, R.A.; **Kumar, S.** and Ganguly, S. 2005. Effect of *Panagrolaimus fuchsi* Ruhm on mycelial growth, flush pattern and sporophore yield of *Agaricus bisporus* (Lange) Imbach and nematode multiplication. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.

4. Khanna, A.S. and **Kumar, S.** 2005. Role of *Caenorhabditis elegans* (Maupas) Dougherty in the cultivation of White button mushroom *Agaricus bisporus* (Lange) Imbach. National Symposium on Recent advances and Research Priorities in Indian Nematology held at IARI, New Delhi, w.e.f. 9-10 Dec. 2005.
5. Khanna, A. S; Singh, P. and **Kumar, S.** 2013. Efficacy of nursery treatment and bare root dips in plant based nematicidal formulations on *Meloidogyne incognita* in aubergine. National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 61.
6. **Kumar, S.**; Khanna, A. S. and Jarial, K. and 2013. Effect of bare root dip treatments of neem-based formulations and *Tricoderma* spp. against *Meloidogyne incognita* infesting tomato (*Solanum lycopersicum*). National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 129.
7. **Kumar, S.** and Khanna, A. S. 2013. Evaluation of bacterial bioagents against *Aphelenchoides swarupi* in white button mushroom, *Agaricus bisporus*. National Symposium on Nematode: A Friend and Foe of Agri-Horticultural Crops held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 21-23 November 2013, pp. 152.
8. **Kumar, S.**; Khanna, A. S. and Rana, V.K. 2013. Population analysis of myceliophagous nematodes associated with mushrooms in Himachal Pradesh. National Symposium on Mushrooms for medicinal value and nutritional security under changing climatic conditions held at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (H.P.), w.e.f. 27-28 December 2013, pp. 13.

TRAININGS/WORKSHOPS ATTENDED

- **“Role of Computers in Bioinformatics”** organized by Bioinformatics Centre (DISC), Advanced Centre of Hill Bioresources & Biotechnology, CSKHPKV, Palampur (HP) from 17.03.07 to 18.03.07.
- **“Awareness of e-courses for B. Sc. (Hort.) on Moodle platform delivered on-line and off-line”** organized by Dr YS Parmar Univ. Hort & Fty Nauni, Solan (HP) under NAIP component-I, Subject: “Development of e-courses project for B. Sc. (Hort.) degree programme (ICAR)” on 25th Oct. 2013.
- ICAR-Winter School on **“Recent Advances in Crops Management under Protected Cultivation”** at CPCT, IARI, New Delhi w.e.f. 26th December, 2014 to 15th January, 2015
- ICAR-Summer School on **“Current Techniques and Advances in Mass Culturing of Microbials for the Production of Biopesticides”** at ICAR- National Bureau of Agricultural Insect Resources, Bengaluru w.e.f. 5th - 25th September, 2017.
- Five days training on **“Pest Surveillance”** at National Institute of Plant Health Management, Hyderabad w.e.f. 20th - 24th November, 2017.

Membership of Learned Societies/ Professional Bodies:

- Indian Society for the advancement of Insect Science, Dept. of Entomology, PAU, Ludhiana (Pb.) - 141004, India
- The Indian Ecological Society, College of Agriculture, PAU, Ludhiana (Pb.)-141004, India
- Society for Advancement of Human and Nature (SADHNA) YSP Uni Horticulture and Forestry, Nauni, Solan-173230 Himachal Pradesh, India
- Entomological Society of India, Division of Entomology, IARI, New Delhi-110012.

Awards & Honours

Second achiever in **“Top Two Achiever Award”** for 1994-1995 (PSSCIVE Foundation Day Award)
University merit scholarship M. Sc. and Ph. D.

Received:

Others:

- √ Organized various training programmes for officials and farmers
- √ Delivered lectures in various training programmes