



CENTRE OF ADVANCED FACULTY TRAINING HORTICULTURE

Dr. Y.S Parmar University of Horticulture and Forestry, Nauni, Solan H.P

Introduction :

The department of Vegetable Crops now Vegetable Science was carved out of the erstwhile Department of Horticulture in the year 1976. Subsequently, in the year 1985 the department of Vegetable Science became a part of Dr Y S Parmar University of Horticulture and Forestry, Solan and was placed under College of Horticulture. Vegetable Crops being one of the major components of horticulture produce, the importance of this department is well understood. Himachal Pradesh is known for the production of off-season vegetables and seed production of temperate vegetables. The department has developed many varieties and hybrids of vegetables and is further engaged in developing hybrids and varieties resistant to biotic and abiotic stresses in Vegetable Crops. Various programmes and projects like All India Coordinated Research Project on Vegetables, National Seed Project, DST, Mini Mission, RKVY and Tata Trust Projects are functioning in the Department where all the modern research and teaching facilities have been developed. In VIIIth Five Year Plan this department was recognized as Centre of Advanced Studies now renamed as Centre Of Advanced Faculty Training in Horticulture (Vegetables) by the ICAR and is successfully continuing in the next plans. The centre imparts training at the national level to the teachers and scientists associated in teaching and research in the discipline of vegetable science. The department offers specialization in Vegetable breeding, Vegetable production and Vegetable seed production at the post graduate level.

The department of Vegetable Science, Dr Y S Parmar University of Horticulture & Forestry, Nauni-Solan has also played an important role in expanding the horizons of vegetable farming in the state. The department is also engaged in disseminating latest technologies to the farmers of the country through organizing *melas*, delivering Radio and TV talks and by conducting visits of farmers to the experimental farm of Vegetable Science. The Department has successfully developed and standardized technologies to grow various off- season vegetables in

open conditions and under low cost polyhouses.

Objectives of CAFT

- The major objective of the Centre of Advanced Faculty Training in Horticulture (Vegetables) is to impart latest and advanced knowledge to the faculty of vegetable science in the country to elevate the standard of Horticultural education in general and vegetable crops particularly throughout the country.
- To organize advanced training courses for benefit of teachers/scientists of various Agricultural Universities and ICAR institutes.
- To improve infrastructure facilities for post-graduate education and research in the laboratories, classrooms, seminar halls and research farms etc.
- To enhance the intake capacity of post-graduate students in the university
- To generate/ develop educational and instructional material in the form of books, manuals, compendia of lectures etc.

Faculty: Name & Designation (as on 30.09.2011):**A. Faculty in the Department of Vegetable Science (Present Status)**

S.No	Name and Designation	Field of Specialization
Professors and Equivalent		
1.	Dr. M.L Bhardwaj, Professor and Head	Vegetable Science
2.	Dr. H.S Kanwar, Associate Director (STPC)	Vegetable Science
3.	Dr. Hem Raj Sharma, Professor	Vegetable Science
4.	Dr. Y.R Shukla, Professor	Vegetable Science
Associate Professors and Equivalent		
5.	Dr. Happy Dev, Associate Professor	Vegetable Science
6.	Dr. Manish Kumar, Associate Professor	Vegetable Science
7.	Dr. Ramesh Bhardwaj, Associate Professor	Vegetable Science
8.	Dr. Sandeep Kansal, Scientist	Vegetable Plant Pathology
9.	Dr. Devinder Mehta, Scientist	Vegetable Science
10.	Dr. Kuldeep Thakur, Scientist	Vegetable Science
11.	Dr. (Mrs.) Kiran Rana, Scientist	Vegetable Entomology
Assistant Professors and Equivalent		
12.	Dr. R.S Sepahia, Assistant Scientist	Vegetable Science
13.	Dr. Dharminder Kumar, Assistant Professor	Vegetable Science
14.	Dr. Shiv Pratap Sharma, Assistant Professor	Vegetable Science
15.	Dr. (Mrs.) Meenu Gupta, Assistant Professor	Vegetable Plant Pathology
16.	Dr. Ashok Kumar, Assistant Professor	Vegetable Science
17.	Dr. (Ms) Santosh Kumari, Assistant Professor	Vegetable Science
18.	Dr. (Mrs.) Vipin Sharma, Assistant Scientist	Chemistry

B. Other associated faculty (within the University)

1.	Dr. R.C Sharma Dean, College of Horticulture, Dr. Y.S Parmar University of Horticulture and Forestry, Nauni, Solan, H.P
2.	Dr. N.P Dohroo Joint Director Research, Dr. Y.S Parmar University of Horticulture and Forestry, Nauni, Solan, H.P
3.	Dr. I.D Sharma Professor, Department of Entomology, UHF- Nauni, Solan
4.	Dr. R.S Chandel Associate Professor, Dept. of Entomology, UHF- Nauni, Solan
5.	Dr. A.K Joshi Senior Scientist Vegetables, HRS- Dhaulakuan, H.P
6.	Dr. K.S Thakur Professor, Dept. of Food Science and Technology, UHF- Nauni, Solan
7.	Dr. D.K Srivastava Professor, Dept. of Biotechnology, UHF- Nauni, Solan
8.	Dr. V.K. Joshi Professor and Head, Dept. of Food Science and Technology, UHF- Nauni, Solan
9.	Dr. R.K Thakur Senior Apiculturist, Dept. of Entomology, UHF- Nauni, Solan
10.	Dr. H.K Sharma Apiculturist, Dept. of Entomology, UHF- Nauni, Solan
11.	Dr. K.C Sharma Sr. Scientist, Dept. of Entomology, UHF- Nauni, Solan
12.	Dr. S.K Bhardwaj Scientist, Dept. of Environment Science, UHF- Nauni, Solan
13.	Dr. S.D Sharma Scientist, Dept. of Fruit Science, UHF- Nauni, Solan
14.	Dr. Kamlesh Kanwar Professor, Dept. of Biotechnology, UHF- Nauni, Solan
15.	Dr. N.S Thakur Associate Professor, Dept. of Food Science and Technology, UHF- Nauni, Solan
16.	Dr. Amit Vikram Extension Specialist, Directorate of Extension Education, UHF- Nauni, Solan
17.	Dr. H.R. Gautam Professor, Dept. of Plant Pathology, UHF- Nauni, Solan

Human Resource Development:

Particulars of Short Courses / Training programs for HRD conducted during XI plan period

S.No	Name of the Program	Period	No. of Participants		
			Internal	External	Total
1.	Advances in Vegetable Production	4.3.08 to 24.3.2008	3	16	19
2	Breeding and Seed production of Vegetable Crops	5.8.2008 to 25.8.2008	1	15	16
3	Heterosis breeding in Vegetable Crops	12.5.2009 to 1.6.2009	2	12	14
4	Production and Seed Production of Temperate Vegetables	8.3.2011 to 28.3.2011	4	15	19
5	Off-season Vegetable Production Technologies	27.9.2011 to 17.10.2011	1	19	20

Infrastructure development: (equipments etc.)

1. Photostat Machine
2. Interactive Board with Peripherals

Renovation of Lecture Room/Laboratories:

Nil

Library upgraded:

1.	Vegetable Crops	2009-10
2.	Tuber and Root Crops	2009-10
3.	Spices	2009-10
4.	Organic spices	2009-10
5.	Underutilized and Under Exploited Horticultural Crops Vol1, 2 and 4	2009-10
6.	Management of Horticultural Crops (Part-1)	2009-10
7.	Horticulture for sustainable income and environmental Protection (2 Vols sets)	2009-10

8.	Heterosis Breeding in Vegetable Crops	2009-10
9.	Hand book of Seed Science and Technology	2009-10
10.	Hybrid Vegetable Development	2009-10
11.	Production Technology of spices	2009-10
12.	Spices and condiments	2009-10
13.	Vegetable Breeding vol (i+ ii+ iii)	2009-10
14.	Growing and Breeding of potatoes	2009-10
15.	Weed, Weedicides and Weed control- Principles and Practices	2009-10
16..	Breeding of Horticultural crops- Principles and Practices	2009-10
17.	Spice Crops	2010-11
18..	Seed Technology	2010-11
19.	Techniques and Management of Field Crop Production	2010-11
20.	Underutilized Vegetable and Spice Crops	2010-11
21.	Production Technology of Spices	2010-11

Awards/Recognitions:

1. Earth Care Award -2010

Dr. H.R. Gautam, Associate member of faculty of CAFT received Earthcare award 2010 being sponsored by Jindal South West Institute Industry Foundation and Times of India Group for his valuable contribution in the field of Plant Pathology.

2. Major R.S. Yadav, SRDA Award-2008-

Dr. Manish Kumar Sharma has been presented Major R.S. Yadav, SRDA Award-2008 by Society Recent Development in Agriculture, SVBPUAT-Meerut for contribution in the field of Vegetable Science.

3. Dr. Harbhajan Singh ISVS Award-2008

Dr. Arun Joshi, Ph.D. student of this department was awarded Dr. Harbhajan Singh Award for Best Research Paper by the Indian Society of Vegetable.

4. Best Thesis Award

Dr. Satish Kumar, Ph.D. student of this department was awarded Best Thesis Award by Indian Society of Vegetable Science in 2008.

Publication

Research Papers

Dev, H. 2010. Effect of root size on yield and quality of radish seed crop cv. White Icicle. *Asian J. Hort.* 5(2): 281-83.

Dev, H. 2010. Standardization of planting time and spacing in french bean cv. Lakshmi as autumn crop for lower hills of Northern India. *Asian J. Hort.* 5(2): 318-20.

Dev, H. 2010. Standardization of planting time of turnip cv. Purple Top White Globe root crop for seed production. *Agric. Sci. Digest* 30(3): 186-88.

Dev, H. 2011. Effect of spacing and pit size on yield and its attributes in bitter-gourd cv. Solan Hara. *Agric. Sci. Digest* 31(1): 40-43.

Dev, H. 2010. Standardization of planting time of radish cv. White Icicle root crop for seed production. *Annals of Biology* 26 (1): 79-82.

Gangta, Varsha; Meenu Gupta and NP Dohroo. 2010. Influence of physiological parameters on growth of *Fusarium oxysporum* f sp. *Gingiberi*. *Plant Disease Research* 25(1): 82-83.

Gupta, Meenu; NP Dohroo; Varsha Gangta and N.P Dohroo. 2010. Effect of microbial inoculants on rhizome disease and growth parameters of ginger. *Indian Phytopathology* 63(4):438-441.

Gupta, Meenu; Varsha Gangta and NP Dohroo. 2010. Biocontrol of ginger rhizome rot through fungal and bacterial antagonists. *Plant Disease Research* 25(1): 79.

Gupta, S.K., Kumad Jarial, Kansal, S. 2009. *Colletotrichum gloeosporoides* Penz. causing anthracnose in bell pepper seed crop : A new record from Himachal Pradesh. *J. Pl. Dis. Sci.* 4 (1): 126-127.

- Kansal, S., Dohroo, N.P., Mehta Preeti, Ahluwalia, Neha. 2011. Evaluation of anti-pythiaceus fungicides against *Pythium aphanidermatum* causing soft rot of ginger. *Pl. Dis. Res.* 25 (2): 119-125.
- Kumar Rakesh, Sharma KC and Kumar Dharminder. 2009. Studies on ovicidal effects of some plant extracts against the Diamond back moth, *Plutella xylostella* (L) Infesting cauliflower crop. *Biological Forum-An International Journal* 1(1): 47-50.
- Kumar, Ramesh and Ridhima, Sharma. 2011. Quality assessment of newly introduced European radishes (*Raphanus sativus* L) *Journal of Farm Science* 1(1): 9-13.
- Kumar, Ramesh and Sangita Kaushal. 2009. Genetic Divergence Studies in Newly Introduced Genotypes of Lettuce (*Lactuca sativa* L.) *African Journal of Basic & Applied Sciences* 2 (1-2): 18-24
- Kumar, Ramesh, Kanwar, MS, Dogra, BS and Sandeep Kansal. 2010. Genetic evaluation of European carrots (*Daucus carota* L.) in mid hills of Himachal Pradesh. *Crop Improvement* 37 (1): 73-79.
- Kumar, Ramesh, Vashisht Prabhash, Gupta RK, Singh Mohar and Sangita Kaushal. 2011. Characterization of European carrot genotypes through principal component and regression analyses. *International Journal of Vegetable Science* 17: 3-12.
- Mehta DK, Kanwar HS, Thakur AK and Thakur KS. 2010. Influence of organic seed priming on germination and seedling quality in bell pepper (*Capsicum annuum* L. *Journal of Hill Agriculture*. 1(1):85-87.
- Naveen Chaudhary, Pathania, NK, Singh, SP, Kumar Pradeep and Praveen Sharma. 2010. Performance of yellow and red capsicum hybrids in naturally ventilated polyhouses in mid hills of western Himalayas. *Himachal Journal of Agricultural Research*. 36(1):43-46
- Samarnika Mishra, Manish Kumar and Sahu, G.S. 2008. Relationships among yield contributing characters in Pole type French bean (*Phaseolus vulgaris* L.). *The Orissa Journal of Horticulture*. 36 (2): 108-113.
- Sharma Nirmal, Anand Rosan and Kumar Dharminder 2009. Selection of stone fruit rootstock for drought tolerance and amenability to clonal multiplication. *Biological Forum-An International Journal* 1(1): 36-46.
- Sharma Nirmal, Anand Rosan and Kumar Dharminder. 2009. Standardization of pomegranate (*Punica granatum* L.) propagation through cuttings. *Biological Forum-An International Journal* 1(1): 75-80.

- Sharma, Ridhima, Kumar Ramesh and Kansal, S. 2009. Correlation and path analysis studies in European Radishes (*Raphanus sativus* L). *Crop Improvement* **36** (2):67-71
- Shigweda, M.N., Korla, B.N. and Shukla, Y.R. 2009. Evaluation of garlic clones for quality attributes and yield. *Annals of Agri- Bio Research*. **14** (2): 145-147
- Shigweda, M.N., Korla, B.N. and Shukla, Y.R. 2009. Evaluation of garlic clones for for bulb characters and yield. *Annals of Agri- Bio Research*. **14** (2): 141-144
- Singh, S.P., Thakur, M.C. and Pathania, N.K. 2009. Reciprocal cross differences and combining ability studies for some quantitative traits in tomato (*Lycopersicon esculentum*) under mid hill conditions of western Himalayas. *The Asian Journal of Horticulture*. **4** (2): 473-477
- Thakur KS , Rajneesh Thakur, Shukla YR , Mehta DK and Thakur AK. 2010. Effect of organic manures and biofertilizers on growth and fruit yield of tomato (*Solanum lycopersicum* Mill.) *Journal of Hill Agriculture*. 1(2):190-192
- Thakur KS, Dharminder Kumar, Amit Vikram, Thakur AK and Mehta DK. 2010. Effect of organic manures and biofertilizers on growth and yield of tomato and French bean under mid-hills of Himachal Pradesh. *Journal of Hill Agriculture*. 1(2):176-178.
- Verma Narender kumar, Verma Anil kumar and Kumar Dharminder. 2009, Effect of storage containers on seed germination and viability in *Aconitum heterophyllum* and *Podophyllum hexandrum*- Endangered medicinal plants species of Himalayan region. *Biological Forum-An International Journal* **1**(1): 8-11
- Verma, S.C., Kanwar, H.S., sharma, S.K., Shukla, Y.R. and Joshi, A.K. 2009. Evaluation of plant products against *Colletotrichum maculates fabricius* infesting French bean seeds. *Journal of Insect Science*. **22** (3): 232-237

Book Chapters

- Bhardwaj Ramesh Kumar, Spehia RS and Sangeeta Kaushal 2010. *Khira* In: *Bagbani Faslo Ki Sarankhshit Kheti* (Protected Cultivation of Horticultural Crops). 35-36.
- Kansal, S. 2009. Integrated disease management in vegetable crops. In: *Advances in Hetrosis Breeding in Vegetable crops*. Centre Of Advanced Studies in Hort. (Veg.) UHF- Nauri, Solan,H.P., India: 108-113
- Thakur KS 2009. Scope and Perspectives of Hybrid Cultivars in Organic Vegetable Cultivation. Center of Advanced Studies in Horticulture (Veg.), Department of Vegetable Science, UHF, Solan: 81-83

- Dohroo, NP, Sharma, SK and Gupta, Meenu. 2010. Ginger cultivation in Himachal Pradesh. *Vidhan Mala (Horticulture)*. 4 (1): 128-134.
- Dohroo, NP. 2011. Rhizome seed health testing parameters in ginger (*Zingiber officinale* Roscoe). National Seed Congress 2011. Organised by MPKV, Rahuri and NSRTC, Varanasi, p.269 (SII-10).
- Kansal, S. and Thakur. M.C. 2009. Occurrence and management of bottom rot of cabbage through chemical & non-chemical methods. In: *Symposium organized by ISMPP on Rational use of fungicides in the management of Horticultural crops* held at UHF, Nauni, July 8-9, 2009.
- Kumar, Rajeev., Kansal, S. and Thakur, M.C. 2009. Screening of tomato genotypes against buckeye rot & *Alternaria* blight. In: *Symposium organized by ISMPP on Rational use of fungicides in the management of Horticultural crops* held at UHF, Nauni, July 8-9, 2009
- Manish K. Sharma and Rajeev Kumar. 2009. Influence of different growing media and fertigation levels on productivity and quality of tomato in the plastic greenhouses. In: *Horticulture for livelihood security and economic growth, International Conference on Horticulture, organized by PNASF- Bangalore w.e.f. 9-12 November, 2009* : 124-125.
- Manish Kumar and Santosh Kumari. 2009. Protected cultivation: Importance and opportunities. In: *Plant protection practices in Organic farming eds, Dr. Ajay Sharma and Dr. Rajeshwar Chandel. International Book Distributors, Dehradun, India* : 108-118.
- Shukla, YR; Sharma, SK; Kumar, Ramesh; Dev, H and Sharma Deepa 2010. Effect of fruit position and fruit load on post harvest quality of *Capsicum* seed produced in the net house. *National Seminar on Post Harvest Management of Seed for Quality Assurance & Farmer's Prosperity*. ICAR/IARI RS, Karnal (Haryana) Feb 26-27: 108.
- Thakur, Kuldeep., Kansal, S. And Kumar, Dharminder. 2009. Prevalence of different diseases in organically produced tomato. Paper presented in *Symposium organized by ISMPP on Rational use of fungicides in the management of Horticultural crops* held at UHF, Nauni.
- Bhardwaj Ramesh Kumar, Shiv Pratap, Anurag Sharma and RS Sephia 2010. VEGETABLES AS FRUITS In: *Advanced Training Course on Wild and Under Utilized Fruits. Organized by NAEB, Regional Centre UHF, Solan, HP: 212-218 (22.07.2010 - 11.08.2010)*.
- Dev, H. 2011. Production and seed production of temperate cabbage. In: *Production and seed production of temperate Vegetables (Ed) under ICAR, CAFT, Hort (Veg), Dep of Vegetable Science, Dr. YSP UHF, Nauni, Solan-173 230 (HP) pp 32-39.*

- Dev, H. 2011. Production and storage of ginger (*Zingiber officinale* Rose). In: Production and seed production of temperate vegetables (Ed) under ICAR, CAFT, Hort (Veg), Dep of Vegetable Science Dr. YSP UHF, Nauni, Solan-173 230 (HP) pp 134-38.
- Dharminder Kumar, Kuldeep Singh Thakur and Balbir Dogra. 2011. Weed Management in temperate vegetables. In: Production and seed production of temperate vegetables. Centre Of Advance Faculty training in Hort. (Veg.) UHF- Nauni, Solan,H.P., India pp 104-111.
- Dharminder Kumar, R.K. Bhardwaj, Manish Kumar and Amit Vikram. 2011. Exotic Vegetables: Prospective and scope. In :*Production and seed production of temperate vegetables*. Centre Of Advance Faculty training in Hort. (Veg.) UHF- Nauni, Solan,H.P., India
- Gupta, Meenu. 2011. Disease Management and storage of ginger. In: Production and Seed Production of Temperate Vegetables. CAFT in Horticulture (Vegetables), w.e.f. 8-28 March, 2011, UHF, Nauni. pp. 269-277.
- Gupta, Meenu. 2011. Diseases of Important Spice crops and their management. In: Production and Seed Production of Temperate Vegetables. CAFT in Horticulture (Vegetables), w.e.f. 8-28 March, 2011, UHF, Nauni. pp. 259-268.
- Kansal, S. 2011. Integrated disease management in temperate vegetables In :*Production and seed production of temperate vegetables*. Centre Of Advance Faculty training in Hort. (Veg.) UHF- Nauni, Solan,H.P., India. Pp.251-258.
- Kumar Ramesh, Kumar Dharminder and Sandeep Masaye. 2011. Improvement and Seed Production of Temperate Root Crops. Centre of Advanced Faculty Training in Horticulture (Vegetable), Department of Vegetable Science, UHF, Solan, HP: 49-46 (08.03.2011-28.03.2011).
- Kumar Ramesh, Masaye Sandeep, Thakur KS and Shiv Pratap. 2011. Heterosis Breeding in Cucumber (*Cucumis sativus* L.). Center of Advanced Faculty Training in Horticulture (Veg.), Department of Vegetable Science, UHF, Solan. pp 129-131
- Manish Kumar and Sandeep Masaye. 2011. Advances in pea production and breeding. In proceedings of the CAFT training on “production and seed production of temperate vegetables” eds. M L Bhardwaj and others, organized by CAFT in Horticulture (Vegetables) at YSPUH&F, Nauni, Solan, HP. pp: 40-48.
- Manish Kumar and Sandeep Masaye. 2011. Production and seed production of vegetables under protected conditions. In proceedings of the CAFT training on “production and seed production of temperate vegetables” eds. M L Bhardwaj and others, organized by CAFT in Horticulture (Vegetables) at YSPUH&F, Nauni, Solan, HP. pp: 117-180.

- Manish Kumar. 2010. Empowering vegetable growers in the hilly region through plastics for enhancing yield and quality of potential vegetables. In proceedings of summer school on “Protected cultivation for enhanced profitability” eds. N K Pathania and others, organized at CSKHPKV-Palampur w.e.f. 3-23 September, 2010. pp: 10-12.
- Manish Kumar. 2010. Role of growing media in greenhouse vegetable production. In proceedings of summer school on “Protected cultivation for enhanced profitability” eds. N K Pathania and others, organized at CSKHPKV-Palampur w.e.f. 3-23 September, 2010. pp: 25-27.
- Singh, Shiv Pratap 2011. Development of hybrids and their seed production in tomato. In: Production and Seed Production of temperate vegetables. CAFT in Horticulture (Vegetables). Department of Vegetable Science. Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni Solan 173 230: 94-103
- Thakur KS, and Dharminder Kumar. 2011. Use of Biofertilizers in Production and seed production of Vegetables. Center of Advanced Faculty Training in Horticulture (Veg.), Department of Vegetable Science, UHF, Solan. pp 169-173
- Thakur, Kuldeep Singh; Kumar Ramesh and Dharminder Kumar. 2011. Strategy for Organic Vegetable Production. Centre of Advanced Faculty Training in Horticulture (Vegetable), Department of Vegetable Science, UHF, Solan, HP: 80-85(08.03.2011-28.03.2011).

Extension/ Popular articles

- Dev, H. 2009. Nichle parvateey kshetron mein sabjiyon ka beejotpadan. Mac Krishi Jagran, **14** (12): 38-40.
- Dev, H. 2009. Unche parvateey kshetron mein sabjiyon ka beejotpadan. Mac Krishi Jagran, **14** (10): 50-52.
- Dev, H. 2009. Unche parvateey kshetron mein sabjiyon ka utpadan. Mac Krishi Jagran, **14** (10): 38-40.
- Dev, H. 2010. Nichle Parvateey kshetron mein bemausami pyaj ka utpadan. Mac Krishi Jagran, **15** (4): 47 & 49.
- Dev, H. 2010. Nichle Parvateey kshetron mein sabji utpadan-ek drishtikon. Mac Krishi Jagran, **15** (4): 45-46.
- Dev, H. 2010. Nichle parvateey kshetron mein sabjiyon ka utpadan. Mac Krishi Jagran, **15** (2): 17-19.
- Dev, H. and Sharma, V. 2010. Bandgobhi mein keet avm rogon ki roktham. Mac Krishi Jagran, **15** (4): 43.

- Dev, H. and Sharma, V. 2010. Jarhdar sabjiyon mein keet avm rogon ki roktham. Mac Krishi Jagran, **15** (4): 44.
- Dharminder Kumar, Amit Vikram, Balbir Dogra and Kuldeep Thakur. 2009 Shushakshitoshan va madhya parvatiya kshetron ke liye salad ki mukhya kismen. Udyaniki Avm Vaniki **17**: 2
- Guleria, SPS, and Kumar Dharminder. 2009. Lahusan ka khatta meetha achar. Mamta Sandesh. (4): 8.
- Guleria, SPS, Dharminder Kumar and Verma AK. 2009, Khanpan: Salad badaye swad. Mamta Sandesh. (6): 8.
- Kumar Naveen, Sharma Naveen and Kumar Dharminder. 2010. Strawberry me plasticulture se falon ke bharpur padavar. Phal-Phool (2): 35-37.
- Kumar Ramesh, Dev, H., Korla, BN and Anurag Sharma. 2010. Himachal Pradesh Mian Jardar Sabjian Ka Beej Utopadan (Seed Production Technology of Root Vegetables in Himachal Pradesh). Folder Department of Vegetable Science, UHF, Solan, pp. 6.
- Kumar Ramesh, Dev, H., Korla, BN and Seema Mehta. 2009. Himachal Pradesh Mian Jardar Sabjian Ka Utopadan (Production Technology of Root Vegetables in Himachal Pradesh). Folder Department of Vegetable Science, UHF, Solan, pp. 6.
- Kumar Ramesh, Ridhima Sharma and Sangita Kaushal. 2009. Vividh Sabji Utopadan Main Jardar Sabjion Ka Mahatab (Importance of Root Vegetables in Vegetable Crop Diversification). Udyaniki evum Vaniki - Vividhikaran Visheshank **17** (1): 50-56.
- Pathania, N.K. and Singh, S.P. 2009. Polyhouse me ugai jane wali vibhin sabjio ki kisme. Parvatiya Khetibari (1):17-20
- Sharma, Deepa and Shukla, Y.R. 2009. Krishi vividhikaran mei masala faslo ka mehtav. Udyaniki avum vaniki. **17** (2): 57-66.
- Sharma, Deepa, Kumar Sanjeev and Shukla, Y.R. 2010. Jaiv urvarak masala faslo ki kheti ke lia ek vardan. Spice India **22**(4):11-13
- Shukla, Y.R. and Kansal, S. 2009. Matar ki kast, rog avum niyantran. Print and Electronic Network (6): 20

Books/ Manual/ Proceedings/ Compendia

- Bhardwaj, M.L.; Bhardwaj, R.K.; Kansal, S.; Thakur, K.S.; Singh, S.P.; Dev, H.; Sharma, M.K.; Kumar, D. and Gupta, M. 2011. Production and seed

production of temperate Vegetables (Ed) under ICAR, CAFT, Hort (Veg),
Dep of Vegetable Science, Dr. YSP UHF, Nauni, Solan-173 230 (HP) p285.

Exotic vegetables by U K Kohli, Amit Vikram, Manish Kumar and N P Dohroo

Mater va Frace bean ki kheti 2011. R.K. Bhardwaj, Narender Bharat,
Dharminder Kumar

Baweja HS, Verma Anil, Dharminder Kumar and Baweja Parminder Kaur. 2009.
Savrojgar: Susk Pusp Utpadan. Directorate of Extension Education. p. 1-
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Baweja HS, Verma Anil, Dharminder Kumar and Baweja Parminder Kaur. 2009.
Ek Vyavsay: Pusp Beej Utpadan. Directorate of Extension Education. p. 1-
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Baweja HS, Verma Anil, Dharminder Kumar and Baweja Parminder Kaur. 2010.
Polyhouse avm Karnation. Directorate of Extension Education. p. 1-67.

Guleria, SPS, Verma AK; Dharminder Kumar and Anil Gupta. 2010. Question Bank
in Postharves Technology. Specially Written for JRF, SRF, NET, SET, ARS
and Ph.D Scholars. New India Publishing Agency (NIPA), New Delhi
(India). (ISBN NO. 978-93-80235-04-2).

Papers presented

Dohroo, N.P., Kansal, Sandeep, Mehta, Preeti and Ahluwalia, Neha. 2010. *In vitro*
evaluation of botanicals against *Pythium aphanidermatum* causing soft rot of
ginger. Paper presented in symposium on , “ Emerging Plant Disease in
North India:statusand management strategies.” At CCS,HAU-Hisar w.e.f.28-
29 Oct,2010.

Dohroo, NP and Gupta, Meenu. 2010. Cabbage biofumigation for management of
soft rot and bacterial wilt of ginger. In: Proceedings of 63rd Annual Meeting
of Indian Phytopathological Society, New Delhi and National Symposium on
‘Perspective in Plant Health Management’ held at AAU, Anand, Gujarat
w.e.f. 14-16 December, 2010. (Oral presentation).

Gangta, Varsha; Meenu Gupta and NP Dohroo. 2010. Influence of physiological
parameters on growth of *Fusarium oxysporum* f sp. *gingiberi*. In: Souvenir
and abstracts of Annual Meeting of Indian Society of Plant Pathologists
w.e.f. 26th Feb, 2010 held at PAU, Ludhiana. PS-11.

Gupta, Meenu; Dohroo, NP and Ahluwalia, Neha. 2010. Sensitivity of *Fusarium*
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Financial Statement

Expenditure under CAFT during XI plan

Head	2007-08	2008-09	2009-10	2010-11	2011-12 (upto 30.9.2011)
Operating cost of Training	1,41,618/-	1,69,242/-	1,20,781/-	3,29,150/-	3,75,000/-
Recurring Salary	1,01,353	1,15,567	1,52,329	1,44,196	73,260
Contingency	1,30,650/-	1,81,359/-	1,69,766/-	1,98,586/-	70,086
Non-Recurring Contingency	-	1,00,000/-	-	-	1,98,819
T.A.	2,364/-	4853/-	2038/-	3,440/-	2,486
Library	-	-	30,000/-	28,026/-	-
	375,985	5,71,021	4,72,236	7,03,398	7,18,832