

Bio-data

1. Name: Narpinder Singh

2. Present affiliation and address for contact:

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3. Date of birth: 19th September, 1962

4. Nationality: Indian

5. Post presently held along with pay scale and period:

Professor (Food Technology) & Dean (Faculty of Applied Science)
& Coordinator (University-Industry linkage Programme)
Basic pay Rs 20,000 (pay scale 16400-22400)

6. Academic qualifications:

Degree	University/Institution	Year	% marks	Subject	Remarks
Ph.D.	Punjab Agricultural University, Ludhiana	1989	74.8	Food Technology	Awarded Research Fellowship in Engineering & Technology (UGC)
M.Sc.	---do---	1984	68.6	Food Technology	Awarded University Merit Scholarship (1983-84)
B.Sc. (Agri)	---do---	1982	63.6	Food Science, Technology and Nutrition	Awarded Alumni Scholarship (1980-81)

7. Employment record:

Nature of job & Pay scales	From	To	University	Major responsibilities
Coordinator (University-Industry linkage program) (Rs. 16400-22400)	12-11-2008	To-date	Guru Nanak Dev University	Extension
Dean (Faculty of Applied Sciences) (Rs 16400-22400)	4-8-2008	13-12-09	-----do-----	Teaching, Research, Administration
Professor (Rs 16400-22400)	14-8-2000	To date	-----do-----	Teaching, Research, Administration
The Royal Society Visiting Fellow	13-11-2007	14-11-2008	University of East Anglia, Norwich, UK	Research
Visiting Professor (Cochran Fellowship)	12-8-2006	29-8-2006	Kansas State University, USA	Research
Coordinator (Rs 16400-22400)	12-4-2006	22-3-2007	Centre for Advance Research in Food Sciences	Teaching, Research, Administration
Visiting Professor	29-6-2004	27-4-2005	Osaka City University, Japan	Research
Head of Department (Rs 16400-22400)	30-8-2001	28-6-2004	Guru Nanak Dev University, Amritsar	Teaching, Research, Administration
Head of Department	6-6-1997	5-6-2000	---do--	Teaching, Research, Administration
Visiting Scientist	2-10-1995	2-10-1996	Institute of Food Research, Norwich, UK	Research
Reader (Rs 3700-5700)	7-04-1993	13-8-2000	Guru Nanak Dev University, Amritsar	Teaching, Research
Assistant Professor (Rs 2200-4000)	29-3-1988	6-4-1993	Punjab Agricultural University, Ludhiana	Research & Teaching
Research Fellow (ICAR project)	25-2-1985	14-11-1985	-----do-----	Research

8. Research/teaching experience:

(i) Research experience. Achievements, memberships of scientific bodies:

- Worked in Institutes of National and international repute.
- Sanctioned number of research projects funded by ICAR, DST, UGC & DBT (Annexure I).
- Member of Editorial Board of **International Journal of Food Science and Technology** published by Institute of Food Science and Technology (Blackwell Publisher)- 2004-to-date.
- Member of Editorial Board of Journal of Food Science & Technology (Association of Food Scientists & Technologists-1999-2005).
- Member of Editorial board of "Indian Food Packer" published by All India Food Processor's Association (2007- to-date).
- Member of Editorial Board of "Progress in Food Biopolymer Research" (Univ. of Sains Malaysia, Penang, 2004 - to date).
- Professional life member of Association of Food Scientist and Technologists (India).
- Professional member of American Association of Cereal Chemist (1993 to 2007)
- Profession member of American Chemical Society (2000-2001).
- Professional member of Society of Chemical Industry (SCI) -2006-07
- Secretary Association of Food Scientists and Technologists (Amritsar Chapter) from 1997-2002.
- President Association of Food Scientists and Technologists (Amritsar Chapter) from 2002 to date.
- Member of **Senate** of Guru Nanak Dev University, Amritsar during 2002-2003.

(ii) Teaching experience & achievements:

- **Taught** various courses in the subject of Food Science and Technology to undergraduate and postgraduate students at Guru Nanak Dev University, Amritsar, Punjab Agricultural University, Ludhiana and Punjabi University, Patiala
- Supervised research projects of twenty M.Sc. (Food Technology) students.
- Supervised the project work of twenty B.Tech (Food Technology) students.
- **Developed** Course curriculum for M.Sc. (Food Technology) course at Guru Nanak Dev University, Amritsar.
- Supervised **eleven Ph.D.** scholars. Three **Ph.D.** scholars are registered for doctoral research (Annexure II).

List of important research publications: List attached (Annexure III)

9. Honours and Awards:

Awards

- (i) **Fellow** of the Indian National Science Academy (INSA)-2010
- (ii) **Recognition Award** by National Academy of Agricultural Sciences (NAAS) for significant contribution in Agricultural Engineering & Technology for the Biennium-2007-08
- (iii) **Best Paper Award** by Association of Food Scientists & Technologists (I) for the research paper entitled “**Functional properties of normal, waxy and sugary corn starches**” published in J. Food Sci. & Tech. 44 (6), 565-571, 2007.
- (iv) **C.N.R. Rao Educational Foundation Award** by Guru Nanak Dev University for Excellence in Research-2007
- (v) **Ramana Fellowship** by Department of Science and Technology, Ministry of Science & Technology, Govt. of India-2007
- (vi) **Laljee Godhoo Smarak Nidhi Award** by Association of Food Scientists & Technologists, India (2005)
- (vii) **Fellow** of the National Academy of Agricultural Sciences (NAAS)-2005.
- (viii) **Pran Vohra Award** by Indian Science Congress Association- 1997-98.
- (ix) **Appreciation Certificate** from Punjab State Council for Science and Technology (1990-93)
- (x) **INSA Medal for Young Scientist** by Indian National Science Academy (1993)

(b) International fellowship

- Academic Staff Fellowship by **Commonwealth Scholarship Commission** in the United Kingdom (1995-96)
 - Invitation Fellowship by **Japanese Society for Promotion of Science** (2004-2005)
 - **Cochran Fellowship** by United States Department of Agriculture (12-29 August, 2006)
 - **International incoming fellowship** by **The Royal Society**, UK. 2007-08.
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10. Other related information

- i) Lecture(s) delivered in India/abroad and/ or chaired scientific International Conference Symposium: Annexure IV
- ii) On the Panel of Following Journals (reviewed a large number of research papers for these journals): Annexure V

Annexure I

Research Projects undertaken/ongoing/Financial assistance received as Pricipal Investigator:

S.No	Title of project	Funding Agency	Amount (Rs)	Status
(i)	Enhancing resistance to biotic stresses & to enhance product quality in sorghum (2009-2012) <i>(Co-Principal Investigator)</i>	DSR-AICSIP Indian Council of Agricultural Research	10.00 lakh	Ongoing
(ii)	Peptidyl Prolyl Cis-Trans Isomerases: Role in Storage Protein Deposition in Wheat Relevance to Industry <i>Co-Principal Investigator</i> (2008-2011)	Department of Biotechnology	67.74 lakh	Ongoing
(iii)	Ramanna Fellowship (2007-2010)	Department of Science & Technology, Ministry Science and Technology	34.80 lakh	Ongoing
(iv)	Isolation and characterization of starch and protein from different legumes (2007-2010)	Department of Science and Technology, Ministry Science and Technology	31.69 lakh	Ongoing
(v)	Production, characterization and modification of gluten proteins (2007-2010)	University Grants Commission	8.21 lakh	Completed
(vi)	Creation of infrastructure facilities	Ministry of Food Processing Industries, Govt. of India	49 lakh	Completed
(vii)	Isolation, characterization and utilization of starch from broken Indian rice (2002-2005)	Indian Council of Agricultural Research	12.38 lakh	Completed
(viii)	Screening potato cultivars for novel properties (2003-2006)	Department of Science and Technology, Ministry Science and Technology	19.57 lakh	Completed
(ix)	Studies on the processing behaviour of Indian corn types (2003-2006)	All India Council of Technical Education	8.5 lakh	Completed
(x)	Studies on the utilization of sunflower meal (1995-98)	Indian Council of Agricultural Research	6.72 lakh	Completed
(xi)	Studies on Utilization and prevention of crystal formation in honey (1994-1997)	Indian National Science Academy	1.50 lakh	Completed

Annexure II

S.No.	Name of Scholar	Title of thesis	Year of completion
1.	Shagun Sharma	Production and utilization of resistant starch from different legumes	Enrolled
2.	Khetan Shivkani	Characterization and utilization of proteins from Kidney bean, Field pea and Amaranth grains	Registered
3.	Shubhpreet Kaur	Studies on functional properties and utilization of leaves and grains of Amaranthus.	--do--
4.	Seeratpreet Kaur	Isolation, Characterization, Modifiatio n & interaction of pectin from citrus waste & starch from kidney bean germplasm	--do--
5.	Sandeep Singh	Physico-chemical and functional properties of starch and proteins in different wheat varieties in relation to bulgar quality	Thesis submitted
6	Dr. Amrit Pal Kaur	Composition and properties of flour, starches, and products from tubers of different potato cultivars.	2008
7.	Dr. Vani Agarwal (as Co-supervisor)	Morphological, thermal and biochemical properties of starch from different cultivars of <i>Phaseolus mungo</i> L. and <i>Pisum sativum</i> L.	2008
8.	Dr. Kawaljeet Singh Sandhu	Isolation and characterization of starch from corn hybrids.	2005
9.	Dr. Maninder Kaur	Isolation and characterization of starches and proteins from different legume varieties.	2005
10.	Dr. Balmeet Singh Gill	Isolation, characterization, modification and utilization of starch and gluten from selected varieties of bread and durum wheats.	2004
11.	Dr. Lovedeep Kaur	Physico-chemical properties of potatoes in relation to thermal and functional properties of their starches.	2004
12.	Dr. Navdeep Singh Sodhi	Isolation, characterization, modification and utilization of starch from common varieties of coarse and fine rice.	2004
13.	Dr. Jaspreet Singh	Development of corn and corn-potato based texturized and baked extruded products.	2002
14.	Dr. Hardeep Singh Gujral	Impact of cereal grain quality and process variables on baked and extruded products.	2000
15.	Dr. Parminder Kaur Bath	Quality evaluation of honey from different sources and its utilization in some food products.	1999
16.	Dr. Kulwinder Kaur	Optimization of functional properties of cereal based indigenous extruded and baked products using optional ingredients.	1998

Annexure III

List of publications

(*Publications as corresponding author)

Research Papers

1. Sandeep Singh, **Narpinder Singh***, Naoto Isono and Takahiro Noda. Relationship of granule size distribution and amylopectin structure with pasting, thermal and retrogradation properties in wheat starch. *Journal of Agricultural and Food Chemistry*, **2010**, 58, 1180-1188.
2. Sandeep Singh, **Narpinder Singh*** and Finley MacRitchie. Relationship of polymeric proteins with pasting, gel dynamic- and dough empirical- rheology in different Indian wheat varieties. *Food Hydrocolloids* **2011**, 25, 19-24.
3. **Narpinder Singh**, Dominique M R Georget, Peter S Belton, Susan A Barker. Physical properties of zein films containing salicylic acid and acetyl salicylic acid. *Journal of Cereal Science* (in press).
4. Mandeep Singh Bakshi, Harpreet Kaur, Tarlok Singh Banipal, **Narpinder Singh**, Gurinder Kaur. Biomineralization of Gold Nanoparticles by Lysozyme and Cytochrome c and Their Applications in the Protein Film Formation. *Langmuir*, **2010**, 26, 13535-13544
5. Sandeep Singh and **Narpinder Singh***. Effect of debranning on the physico-chemical, cooking, pasting and textural properties of common and durum wheat varieties. *Food Research International*, **2010** (in press)
6. Sandeep Singh, **Narpinder Singh***, Rajarathnam Ezekiel, & Amritpal Kaur. Effects of gamma-irradiation on the morphological, structural, thermal and rheological properties of potato starches. *Carbohydrate Polymers* (submitted)
7. Shubhpreet Kaur, **Narpinder Singh*** and Jai Chand Rana. *Amaranthus hypochondriacus* and *Amaranthus caudatus* germplasm: Characteristics of plants, grains and flours. *Food Chemistry*, **2010**, 123, 1227-1234.
8. **Narpinder Singh***, Shubhpreet Kaur, Naoto Isono, Takahiro Noda. Genotypic diversity in physico-chemical, pasting and gel textural properties of chickpea (*Cicer arietinum* L.). *Food Chemistry*, **2010**, 122, 65-73.
9. Harinder Singh, Navdeep Singh Sodhi and **Narpinder Singh**. Structure and functional properties of acetylated sorghum starch. *International Journal of Food Properties*, **2010**, (accepted).
10. **Narpinder Singh***, Navpreet Kaur, Jai Chand Rana and Shyam Kumar Sharma. Diversity in seed and flour properties in field pea (*Pisum sativum*) germplasm. *Food Chemistry*, **2010**, 122, 518-525.
11. Harinder Singh, Navdeep Singh Sodhi and **Narpinder Singh**. Characterization of starches separated from sorghum cultivars grown in India. *Food Chemistry*, **2010**, 119, 95-100.
12. Seeratpreet Kaur, **Narpinder Singh***, Navdeep Singh Sodhi and Jai Chand Rana. Genotypic

- diversity in physicochemical, hydrating, pasting and textural properties of kidney bean varieties. *Food Chemistry*, **2009**, 117, 282-289.
13. **Narpinder Singh***, Sandeep Singh, Naoto Isono, Takahiro Noda, Anju Mahendru Singh. Diversity in amylopectin structure, thermal and pasting properties among Indian wheat varieties. *International Journal of Biological Macromolecules*, **2009**, 45, 298-304.
 14. **Narpinder Singh***, Peter S. Belton and Dominique M R Georget. The effects of iodine on kidney bean starch: films and pasting properties. *International Journal of Biological Macromolecules*, **2009**, 45, 116-119.
 15. **Narpinder Singh***, Dominique Georget, Peter Belton and Susan Barker. Zein-iodine Complex Studied by FTIR Spectroscopy, Dielectric and Dynamic Rheometry in Films and Precipitates. *Journal of Agricultural and Food Chemistry*, **2009**, 57, 4334-4341.
 16. Amrit Pal Kaur, **Narpinder Singh***, Rajarathnam Ezekiel and Navdeep Singh Sodhi. Properties of starches separated from potatoes stored under different conditions. *Food Chemistry*, **2009**, 114, 1396-1404
 17. Harinder Singh, Navdeep Singh Sodhi and **Narpinder Singh**. Structure and physicochemical properties of acid thinned sorghum starch. *International Journal of Food Properties*, **2009**, 12, 713-725.
 - 18 **Narpinder Singh***, Richa Bedi, Rhythm Garg, Mukti Garg and Jghmohan Singh. Physicochemical, thermal and pasting properties of fractions obtained during three successive reduction milling of different corn types. *Food Chemistry*, **2009**, 113, 71-77.
 19. Normell Jhoe E de Mesa, Sajid Alavi, **Narpinder Singh**, Yong-Chen Shi, Hulya Dogan and Yijun Sang. Effect of soy protein concentrate and extruder screw speed on the physicochemical, textural and cellular properties of corn starch-based expanded snacks. *Journal of Food Engineering*, **2009**, 90, 262-270.
 20. Amritpal Kaur, **Narpinder Singh***, and Rajarathnam Ezekiel. Quality parameters of potato chips from different potato cultivars: effect of prior storage and frying temperature. *International Journal of Food Properties*, **2008**, 11, 1-12.
 21. **Narpinder Singh***, Yoshiko Nakaura, Naoyoshi Inouchi, Katsuyoshi Nishinari. Structure and viscoelastic properties of starches separated from different legumes. *Starch/Starke*, **2008**, 60, 349-357.
 22. Sandeep Singh, Gurpreet Singh, Prabhjeet Singh and **Narpinder Singh*** Effect of water stress at different stages of grain development on the characteristics of starch and protein of different wheat varieties. *Food Chemistry*, **2008**, 108, 130-139.
 23. **Narpinder Singh***, Naoto Isono, Sathaporn Srichuwong, Takahiro Noda, and Katsuyoshi Nishinari. Structural and viscoelastic properties of potato starches. *Food Hydrocolloids*, **2008**, 22, 979-988.
 24. Kawaljit Singh Sandhu, Maninder Kaur, **Narpinder Singh** and Seung-Taik Lim. A comparison of native and oxidized normal and waxy corn starches: Physicochemical, thermal, morphological and pasting properties. *LWT - Food Science and Technology*, **2008**, 41, 1000-

1010.

25. Vani Aggarwal, **Narpinder Singh***, Sukhdev Singh Kamboj | Preparation and characterization of acid modified starch from mung and pea cultivars. *Journal of Food Science and Technology*, **2008**, 45, 143-147.
26. Kawaljit Singh Sandhu, **Narpinder Singh** and Seung-Taik Lim. Functional properties of normal, waxy and sugary corn starches. *Journal of Food Science and Technology*, **2007**, 44, 565-571.
27. Navdeep Singh Sodhi and **Narpinder Singh***. Characteristics of acid modified starches prepared from selected rice cultivars of India. *Journal of Food Science and Technology*, **2007**, 44, 572-578.
28. Rajarathnam Ezekiel, Gauri Rana, **Narpinder Singh*** and Sandeep Singh. Physico-chemical, thermal and pasting properties of starch separated from γ -irradiated and stored potatoes. *Food Chemistry* **2007**, 105, 1420-1429.
29. Maninder Kaur and **Narpinder Singh**. Relationships between various functional, thermal and pasting properties of flours from different Indian black gram (*Phaseolus mungo* L.) cultivars. *Journal of the Science of Food and Agriculture*, **2007**, 87, 974-984.
30. Maninder Kaur and **Narpinder Singh***. Characterization of protein isolates from different chickpea cultivars (*Cicer arietinum*). *Food Chemistry*, **2007**, 102, 366-374.
31. Maninder Kaur and **Narpinder Singh***. A comparison between the properties of seed, starch, flour and protein separated from chemically hardened and normal kidney beans. *Journal of the Science of Food and Agriculture*, **2007**, 87, 729-737.
32. Kawaljit Singh Sandhu, **Narpinder Singh** and Seung-Taik Lim. A comparison of native and acid thinned normal and waxy corn starches: Physicochemical, thermal, morphological and pasting properties. *LWT - Food Science and Technology*, **2007**, 40, 1527-1536.
33. Maninder Kaur, Kawaljit Singh Sandhu and **Narpinder Singh**. Comparative study of the functional, thermal and pasting properties of flours from different field pea (*Pisum sativum* L.) and pigeon pea (*Cajanus cajan* L.) cultivars. *Food Chemistry*, **2007**, 104, 259-267.
34. **Narpinder Singh***, Yoshiko Nakaura, Naoyoshi Inouchi, Katsuyoshi Nishinari. Fine structure, thermal and viscoelastic properties of starches separated from *Indica* rice cultivars. *Starch-Starke*, **2007**, 59, 10-20.
35. Lovedeep Kaur, Jaspreet Singh, **Narpinder Singh** and Rajaranganathan Ezekiel. Textural and pasting properties of potatoes as affected by storage temperature. *Journal of the Science of Food and Agriculture*, **2007**, 87, 520-526.
36. Kawaljit Singh Sandhu, **Narpinder Singh*** and Nachhattar Singh Malhi. Some properties of corn grains and their flours I. Physicochemical, functional and chapati making properties of flours. *Food Chemistry*, 101, **2007**, 938-946.
37. Kawaljit Singh Sandhu and **Narpinder Singh***. Some properties of corn starches II. Physicochemical, gelatinization, retrogradation, pasting and gel textural properties. *Food Chemistry*, 101, **2007**, 1499-1507.

38. Amritpal Kaur, **Narpinder Singh***, Rajrathnam Ezekiel, and Harmeet Singh Guraya. Physico-chemical, thermal and pasting properties of starches separated from different potato cultivars grown at different locations. *Food Chemistry*, 101, **2007**, 643-651.
39. Baljit Singh, K.S.Sekhon and **Narpinder Singh**. Effects of moisture, temperature, and levels of pea grits on extrusion behaviour and product characteristics of rice. *Food Chemistry*, 100, **2007**, 198-202.
40. Amritpal Kaur and **Narpinder Singh***. Effect of guar gum coating on moisture content, oil uptake and textural properties of fried (French fries) potato from different cultivars. *Journal of Food Science and Technology*, 44, **2007**, 115-117.
41. Maninder Kaur and **Narpinder Singh***. Relationships between selected properties of seeds, flours and starches from different chickpea cultivars. *International Journal of Food Properties*, 9, **2006**, 597-608.
42. Navdeep Singh Sodhi, **Narpinder Singh** and Komal. Osmotic dehydration kinetic of carrots. *Journal of Food Science and Technology*, **2006**, 43, 410-415.
43. Lovedeep Kaur, Jaspreet Singh and **Narpinder Singh**. Effect of cross-linking on some properties of potato starches. *Journal of the Science of Food and Agriculture* **2006**, 85, 1945-1954.
44. **Narpinder Singh***, Navdeep Singh Sodhi, Vani Bhambari and Harinder Singh. Effect of acetic anhydride on physicochemical, thermal, retrogradation and pasting properties of rice starches differing in crystallinity. *Journal of Food Science and Technology* **2006**, 43, 624-633.
45. **Narpinder Singh***, Naoyoshi Inouchi and Katsuyoshi Nishinari. Structural, thermal and viscoelastic characteristics of starches separated from normal, sugary and waxy maize. *Food Hydrocolloids*, **2006**, 20, 923-935.
46. Balmeet Singh and **Narpinder Singh***. Physico-chemical, water and oil absorption and thermal properties of gluten isolated from different Indian wheat cultivars. *Journal of Food Science and Technology*, **2006**, 43, 251-255.
47. **Narpinder Singh***, Lovedeep Kaur, Kawaljeet Singh Sandhu, Jagdeep Kaur, Katsuyoshi Nishinari. Relationships between physicochemical, morphological, thermal, rheological properties of rice starches. *Food Hydrocolloids* **2006**, 20, 532-542.
48. M.S. Bakshi, N Kaur, R.K.Mahajan, J Singh and **N. Singh**. Estimation of degree of counterion binding and related parameters of monomeric and dimeric cationic surfactants from cloud point measurements by using triblock polymer as probe. *Colloid and Polymer Science*, **2006**, 284, 879-885
49. S. Balasubramanian, **N. Singh**, S. M. Ilyas and O. D. Wanjari. Effect of selected decorticated legumes proteins on rheology of maize extrudate pastes. *Journal of Food Science and Technology*, 43, **2006**, 522-525.
50. **Narpinder Singh***, Deepika Dhanoa and Navdeep Singh Sodhi. Physico-chemical and textural properties of apples from different cultivars. *Journal of Food Science and Technology*, 43, **2006**, 148-152
51. **Narpinder Singh**, Naoyoshi Inouchi and Katsuyoshi. Morphological, structural, thermal and rheological characteristics of starches separated from apples of different cultivars. *Journal of*

- Agriculture and Food Chemistry*, **2005**, 53, 10193-10199.
52. Balmeet Singh Gill, **Narpinder Singh** and Navdeep Singh Sodhi. Studies on physico-chemical, textural and functional properties of wheat flour from different Indian cultivars. *Journal of Food Science and Technology*, **2005**, 43, 56-64.
 53. **Narpinder Singh***, Seerat Preet Kaur, Lovedeep Kaur and Navdeep Singh Sodhi. Physico-chemical, rheological and chapatti making properties of flours from some Indian potato cultivars. *Journal of Food Science and Technology*, **2005**, 42, 344-348
 54. **Narpinder Singh***, Lovedeep Kaur, Rajarathnam Ezekiel and Harmeet Singh Guraya. Microstructural, cooking and textural characteristics of potato (*Solanum tuberosum* L) tubers in relation to physico-chemical and functional properties of their flours. *Journal Science of Food and Agriculture*, **2005**, 85, 1275-1284.
 55. Maninder Kaur and **Narpinder Singh***. Studies on functional, thermal and pasting properties of flours from different chickpea cultivars, *Food Chemistry*, **2005**, 91, 403-411.
 56. Navdeep Singh Sodhi and **Narpinder Singh***. The physico-chemical, thermal and rheological properties of acetylated starch from different rice cultivars. *Journal of Food Engineering*, **2005**, 70, 117-127.
 57. S. S. Bedi, Kirti Jindal and **Narpinder Singh**. Elastic behaviour of syrups. *Journal of Food Engineering*, **2005**, 70, 183-188.
 58. Maninder Kaur, **Narpinder Singh*** and Navdeep Singh Sodhi. Physico-chemical, cooking, textural and roasting characteristics of chickpea (*Cicer arietinum* L.) cultivars. *Journal of Food Engineering*, **2005**, 511-517.
 59. Kawaljit Singh Sandhu, **Narpinder Singh*** and N. S. Malhi. Physicochemical, thermal and morphological properties of starches separated from corn produced from crosses of two germ pools. *Food Chemistry*, **2005**, 89, 541-548.
 60. **Narpinder Singh***, Maninder Kaur and Kawaljit Singh Sandhu, Physicochemical and functional properties of freeze-dried and oven ried corn gluten meals. *Drying Technology*, **2005**, 23, 1-14.
 61. **Narpinder Singh***, Lovedeep Kaur, Navdeep Singh Sodhi and Kashmira Singh Sekhon. Physico-chemical, cooking and textural properties of milled rice from different Indian rice cultivars. *Food Chemistry*, **2005**, 89, 53-259.
 62. Jaspreet Singh, Lavedeep Kaur, and **Narpinder Singh**. Effect of acetylation on some properties of corn and potato starches. *Starch-Starke*, **2004**, 56, 586-601.
 63. **Narpinder Singh***, Maninder Kaur, Kanwaljit Singh Sandhu and Harmeet Singh Guraya 2004. Physico-chemical, thermal, morphological and pasting properties of starches from some Indian black gram varieties (*Phaseolus mungo*. L). *Starch-Starke*, 56, **2004**, 535-544.
 64. **Narpinder Singh*** and Lovedeep Kaur. Morphological, thermal, rheological and retrogradation properties of starch fractions varying in granule size. *Journal of The Science of Food and Agriculture* **2004**, 84, 241-1252.
 65. Maninder Kaur, **Narpinder Singh***, Kawaljit Singh Sandhu and Harmeet Singh Guraya. Physico-chemical, morphological, thermal and rheological properties of starches separated from kernels of some Indian mango cultivars (*Mangifera indica* L). *Food Chemistry*, 85, **2004**, 131-140.
 66. **Narpinder Singh***, Lovedeep Kaur and Jaspreet Singh. Relationships between various physico-chemical, thermal and rheological properties of starches separated from different

- potato cultivars. *Journal of the Science of Food and Agriculture*, 84, **2004**, 714-720.
67. Maninder Kaur, **Narpinder Singh*** and K. S. Sandhu. Relationship between selected properties of black gram seeds and their composition. *International Journal of Food Properties*, **2004**, 7, 541-552.
 68. Kawaljit Singh Sandhu, **Narpinder Singh*** and Maninder Kaur. Characteristics of the different corn types and their grain fractions: physico-chemical, thermal, morphological and rheological properties of starches. *Journal of Food Engineering*, 64, **2004**, 119-127.
 69. Balmeet Singh Gill, N S Sodhi, **Narpinder Singh**, Maninder Singh and Davinder Singh. Effects of °Brix, Sodium Alginate and Drying Temperature on the Colour, Textural and Sensory Properties of Dushehari Mango Leather. *Journal of Food Science and Technology*, 41, 2004, 373-378.
 70. Vani Aggarwal, **Narpinder Singh*** and Sukhdev Singh Kamboj. Some properties of seeds and starches separated from mung (*Phaseolus mungo*) cultivars. *Journal of Food Science and Technology*, 41, **2004**, 341-343.
 71. **Narpinder Singh***, Kawaljit Singh Sandhu and Maninder Kaur. Characteristics of starches from Indian chickpea cultivars. *Journal of Food Engineering* 63, **2004**, 441-449.
 72. Maninder Kaur and **Narpinder Singh***. Effect of ammonium bicarbonate on extrusion behaviour of rice and corn grit. *Journal of Food Science and Technology*, **2004**, 41, 223-225.
 73. **Narpinder Singh***, Maninder Kaur, Kawaljit Singh Sandhu and Navdeep Singh Sodhi. Physico-chemical, cooking and textural characteristics of some Indian black gram varieties (*Phaseolus mungo*. L). *Journal of Science of Food and Agriculture*, 84 **2004**, 977-982.
 74. B. S. Chadha, G. Harmeet, M. Mandeep, HS. Saini and **N. Singh**. Phytase production by the thermophilic fungus *Rhizomucor pusillus*. *World Journal of Microbiology & Biotechnology*, 20, **2004**, 105-109.
 75. Balmeet Singh Gill, **Narpinder Singh*** and S. K. Saxena. The impact of starch properties on noodle making properties of Indian wheat cultivars. *International Journal of Food Properties*, 7, **2004**, 59-74.
 76. Vani Agarwal, **Narpinder Singh*** and Sukhdev Singh Kamboj. Some properties of seeds and starches separated from different Indian pea cultivars. *Food Chemistry*, 85, **2004**, 585-590.
 77. Lovedeep Kaur, **Narpinder Singh*** and Jaspreet Singh. Factors influencing the properties of hydroxypropylated potato starches. *Carbohydrate Polymers*, 55, **2004**, 211-223.
 78. Jaspreet Singh and **Narpinder Singh*** Effect of process variables and sodium alginate on extrusion behaviour of nixtamalized corn grit. *International Journal of Food Properties*, **2004**, 7, 329-340.
 79. **Narpinder Singh*** and Lovedeep Kaur. Morphological, thermal, rheological and retrogradation properties of starch fractions varying in granule size. *Journal of The Science of Food and Agriculture*, 84, **2004**, 1241-1252.
 80. **Narpinder Singh***, Deepika Chawla and Jaspreet Singh. Influence of acetic anhydride on physico-chemical, morphological and thermal properties of corn and potato starches. *Food Chemistry*, **2004**, 86, 601-608.
 81. Navdeep Singh Sodhi, **Narpinder Singh***, Munish Arora and Jaspreet Singh. Changes in physico-chemical, thermal, cooking and textural properties of rice during aging. *Journal of*

- Food Processing and Preservation* 27, **2003**, 387-400.
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175. K S. Sekhon and **Narpinder Singh**. 1990. Disease in wheat in relation to milling and baking properties. In proceeding of the symposium on “*Recent Development and Future Trends in Milling and Baking Technology*” held at Mysore, 10th to 12th May, pp 14-25.
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Annexure IV

- (i) Presented two research papers in 3rd International Food Convention held at Mysore from 7-12 September 1993.
- (ii) Presented a research paper in ICFOST-1994 held at New Delhi on September 2-3, 1994.
- (iii) Delivered an invited lecture in a seminar on Near Infrared Spectrophotometer and Non-Dispersive Infrared Analyser and Applications held at Hyderabad on 12th August, 1995.
- (iv) Presented two invited lectures and chaired one technical session in National Seminar on Recent Trends in Food Processing held from 17-18th April 1998 organized by Guru Jamadeswer University, Hissar.
- (v) Presented two research papers in 83rd American Association of Cereal Chemists Annual Meeting held from September 13-17, 1998 at Minneapolis, USA.
- (vi) Delivered three lectures as subject expert in one-day workshop on ‘Wheat quality’ in Nestle India Limited, Moga, Punjab on 3-11-2001.
- (vii) Delivered two lectures as subject expert in the Refresher course for university scientists and teachers on “Advances in Food Science & Technology” on 30-12-2001 at Guru Jambheshwar University, Hisar.
- (viii) Delivered an invited lecture in Rotary Club Amritsar on 6th Feb., 2002.
- (ix) Delivered a lecture on “Elderly people diet” in Chinmaya Mission, Amritsar on 17th March, 2002.
- (x) Delivered two lectures as subject expert in the summer school “Advances in Food Science and Technology” sponsored by ICAR, New Delhi, in Dept. of Food Science and Technology, PAU, Ludhiana on 12th June, 2002.
- (xi) Co-chaired “Starch Processing Technical Session” in the 87th Annual Meeting of American Association of Cereal Chemists held from Oct 13-17, 2002 at Montreal, Canada.
- (xii) Presented two research papers in Annual Meeting of American Association of Cereal Chemists held at Montreal, Canada from Oct 13-17, 2002.
- (xiii) Delivered two lectures as subject expert in the General Orientation course-59 on 11th Oct, 2003 organized by GNDU, Amritsar.
- (xiv) Delivered a lecture in “World Food Day” on 16th Oct, 2003 in the GNDU, Amritsar.
- (xv) Delivered lecture in Refresher course in Life Sciences on 21-10-03 organized by GNDU, Amritsar.

- (xvi) Organized Bakery Workshop in collaboration with The Netherlands Management Corporation Programme (NMCP) from Oct 29 to 8 Nov 2003 to impart training to students, teachers and representatives of industries.
- (xvii) Delivered a lecture as resource person in General Orientation Course-60 on 24th March, 2004 organised by GNDU, Amritsar.
- (xviii) Organized a workshop on “Soy enriched bakery/food products” on 26th March, 2004.
- (xix) Delivered on lecturer in a Seminar on 11th August, 2004 in Graduate School of Human Life Science, Osaka City University, Japan.
- (xx) Delivered a lecture in symposium on ‘Starch’ on 13th Dec, 2004 organized by Graduate School of Human Life Science, Osaka City University, Japan.
- (xxi) Delivered a lecture as resource person in General Orientation Course-65 on 10th June, 2005 organised by GNDU, Amritsar.
- (xxii) Delivered two lectures in the Summer school (ICAR) as resource person in the Summer School (ICAR) organized by CSK Himachal Pradesh Agricultural University, Palampur (HP) on 10-3-2006.
- (xxiii) Delivered lecture “Ingredients functionality, sugars and lipids” in the short course on “Extrusion Technology” organized by ASSOCOM-India Pvt. Ltd., Department of Grain Science and Technology, Kansas State University and American Soyabean Association on 20-3-06 at Vadodra.
- (xxiv) Delivered lecture “Extrusion Applications Breakfast Cereals and Snacks” in the short course on “Extrusion Technology” organized by ASSOCOM-India Pvt. Ltd., Department of Grain Science and Technology, Kansas State University and American Soyabean Association on 21-0306 at Vadodra.
- (xxv) Delivered a lecture as resource person in General Orientation Course-67 organised from 24Aprilth, 2006 to 20th May, 2006 by GNDU, Amritsar.
- (xxvi) Delivered a lecture as resource person in General Orientation Course-67 organised from 24th April to 25th May, 2006 by GNDU, Amritsar.
- (xxvii) Delivered a lecturer on ‘starch processing and functionality’ in the extrusion course on 17th August, 2006 by International Grain Programe, Kansas State University, USA.
- (xxviii) Delivered a lecturer on ‘Moprphological, thermal, rheological and reytrogradation properties of starch from different plant sources’ in the Department of Grain Science and Technology, Kansas State University, USA on 22nd August, 2006.
- (xxix) Delivered a lecture as resource person in General Orientation Course-69 organised on Ist March, 2007 by GNDU, Amritsar.

- (xxx) Delivered a lecture 'Functional food for better health' on 7th March, 2007 in the Seminar organized by GNDU, Amritsar.
- (xxxi) Delivered two lectures as resource person in General Orientation Course-70 organised on 21st May, 2007 by GNDU, Amritsar.
- (xxxii) Delivered two lectures as resource person in General Orientation Course-71 organised on 26st June and 29th June, 2007 by GNDU, Amritsar.
- (xxxiii) Delivered two lectures as resource person in General Orientation Course-74 on 22nd and 23rd May, 2008 organised by GNDU, Amritsar.
- (xxxiv) Delivered three lectures as resource person in General Orientation Course-75 27th June, 2008 and 2nd July, 2008 organised by GNDU, Amritsar.
- (xxxv) Delivered a lecture in a motivational programme organized for talented standard students by Punjab State Council for Science and Technology on 10th July, 2008.
- (xxxvi) Delivered a Lecture on 'Food for better health' in Rotary club, Amritsar on 4th August, 2008.
- (xxxvii) Delivered an invited lecture "Functional properties of normal, waxy and sugary corn starch" in the international conference (15th to 19th December, 2008) organized by the Association of Food Scientists and Technologists (I) at Mysore.
- (xxxviii) Delivered lecture "Free Radicals, Health and Food" as resource person in Winter School on 26th December, 2008 organised from 23rd December to 12th January, 2009 by GNDU, Amritsar.
- (xxxix) Delivered lecture on "GM-Foods" as resource person in Winter School on 27th December, 2008 organized from 23rd December, 2008 to 12th January, 2009 by GNDU, Amritsar.
- (xl) Delivered lecture on "Free Radicals, Health and Food" as resource person in Refresher Course Environmental Sciences on 1st, January, 2009 organised from 19th December, 2008 to 8th January, 2009 by GNDU, Amritsar.
- (xli) Delivered a keynote lecturer "Food Security, climate change and emerging technologies" in International Conference on 27-2-09 at G.B.Pant University of Agriculture and Technology, Pant Nagar
- (xlii) Delivered two lectures as resource person in General Orientation Course-76 on 4th and 5th March, 2009 organised by GNDU, Amritsar.
- (xliii) Delivered keynote address in National Seminar "Farm to feast" on 7th March organized by Khalsa College for Women, Amritsar.

- (xlv) Delivered two lectures as resource person in General Orientation Course-77 on 22nd May, 2009 organised by GNDU, Amritsar.
- (xlv) Delivered two lectures as resource person in Refresher course on Environmental sciences on 4th January, 2010 organised by GNDU, Amritsar.
- (xlv) Delivered two lectures as resource person in General Orientation Course-81 on 25th and 26th February, 2010 organised by GNDU, Amritsar.

ANNEXURE V

On the **Panel** of Following Journals (reviewed a large number of research papers for these journals):

1. Journal of Food Science and Technology (AFST (I).
2. Journal of Scientific and Industrial Research (CSIR, India)
3. Journal of the Science of Food and Agriculture (Wiley)
4. International Journal of Food Science and Technology (Blackwell Publisher)
5. Journal of Food Science (IFT, USA)
6. Journal of Food Engineering (Elsevier).
7. International Journal of Food Properties (Taylor & Francis)
8. European Food Research and Technology (Springer)
9. Food Science and Technology International (SAGE)
10. Journal of Research (PAU, Ludhiana, India)
11. Journal of Food Quality (Food Nutrition Press, USA)
12. International Journal of Biological Macromolecules (Elsevier)
13. Agro Food Industry Hi-tech (Teknoscienze)
14. Advances in Food Sciences (PSP Publishing, Germany)
15. Food Hydrocolloids (Elsevier)
16. Biomacromolecules (ACS)
17. Journal of Agricultural and Food Chemistry (ACS)
18. Carbohydrate Research (Elsevier)
19. Food Chemistry (Elsevier)
20. LWT-Food Science and Technology (Elsevier)
21. Journal of Food Composition and Analysis (Elsevier)
22. Journal of Cereal Science (Elsevier)
23. Journal of Food Quality (Food Nutrition Press)
24. Carbohydrate Polymers (Elsevier)
25. Agricultural and Forest Meteorology (Elsevier)
26. Vibrational Spectroscopy (Elsevier)
27. Starch/Starke (Wiley)