

## **Dr H.S.Gujral**

### **Post Doctoral Experience**

- **Washington State University, USA:** 2005 to 2006 (Postdoctoral Research Associate, Crop and Soil Sciences, WSU). Cereal Chemistry Lab
- **Institute of Agro-chemistry and Food Technology (IATA), Spain:** 2002 to 2003. Cereal Chemistry Lab

### **Conferences**

- **World Grain Summit. San Francisco, USA, Sept 2006.**
- **International conference on Traditional Dairy Foods: Karnal, India. Nov 2007.**
- **Global Potato Conference 2008: Dec 2008, New Delhi, India.**

### **Awards:**

- INSA Young Scientist Award (2004) by the Indian National Science Academy.

### **Memberships**

- Association of Food Scientists and Technologists, India.
- American Association of Cereal Chemists, USA.

### **Projects:**

- Effects of germination on the nutraceutical value and acceptability of brown rice. INSA grant 2007.
- Processing and utilization of oats into high  $\beta$ -glucan foods. UGC grant 2009.
- Processing of barley into functional foods. GNDU grant 2009.

### **Publications:**

1. Sharma P and Gujral HS. (2010) Milling behaviour of hulled barley and its thermal and pasting properties. Journal of Food Engineering. 97, 329-334.
2. SSharma P and Gujral HS (2010). Antioxidant and polyphenol oxidase activity of germinated barley and its milling fractions. Food Chemistry. 120, 673-678.
3. **Hardeep Singh Gujral** , Geetu Surinder Singh and CM Rosell (2008). Extending shelf life of chapatti by partial baking and frozen storage. Journal of Food Engineering. 89(4) 466-471.

- 4. Hardeep Singh Gujral, Park SJ and Baik BK (2008).** Effects of added minerals on pasting of partial waxy wheat flour and starch and on noodle making properties. *Cereal Chemistry*, 85(2) 97-101
- 5. Hardeep Singh Gujral and Shalini Gaur. (2005).** Instrumental texture of chapati as affected by Barley flour, glycerol monostearate and sodium chloride. *International Journal of Food Properties*. 8: 1-9.
- 6. Hardeep Singh Gujral and Cristina M. Rosell. (2004).** Modification of the pasting properties of wheat starch by cyclodextrin glycosyltransferase. *Journal of the Science of Food and Agriculture*. 84: 1685-1690.
- 7. Hardeep Singh Gujral and Cristina M. Rosell. (2004).** Functionality of rice flour modified with microbial transglutaminase. *Journal of Cereal Science*. 39: 225-230.
- 8. Hardeep Singh Gujral and Cristina M. Rosell. (2004).** Improvement of the breadmaking quality of rice flour by glucose oxidase. *Food Research International*. 37:75-81.
- 9. Hardeep Singh Gujral, Mónica Haros and Cristina M. Rosell. (2004).** Improving the texture and delaying staling in rice flour chapati with hydrocolloids and  $\alpha$ -amylase. *Journal of Food Engineering*. 65: 89-94.
- 10. Hardeep Singh Gujral, Ignacio Guardiola, José Vicente Carbonell and Cristina M. Rosell. (2003).** Effect of cyclodextrin glycosyl transferase on dough rheology and bread quality from rice flour. *Journal of Agricultural and Food Chemistry*. 51: 3814-3818.
- 11. Hardeep Singh Gujral, Mónica Haros and Cristina M. Rosell. (2003).** Starch hydrolyzing enzymes for retarding the staling of rice bread. *Cereal Chemistry*. 80(6): 750-754
- 12. Hardeep Singh Gujral, Shalini Gaur and CM Rosell (2003).** Effect of barley flour, wet gluten and ascorbic acid on bread crumb texture. *Food Science and Technology International*. 9(1): 17-21
- 13. Hardeep Singh Gujral, CM Rosell, Samit Sharma and Sukhprit Singh (2003).** Effect of sodium lauryl sulphate on the texture of sponge cake. *Food Science and Technology International*. 9(2): 89-93
- 14. Hardeep Singh Gujral and Vishal Kumar. (2003).** Effect of accelerated aging on the physicochemical and textural properties of brown and milled rice. *Journal of Food Engineering*. 59:117-121
- 15. Hardeep Singh Gujral and Satinderpal Singh Brar (2003).** Effect of hydrocolloids on the dehydration kinetics, colour and texture of mango leather. *International Journal of Food Properties*. 6(2) 269-279
- 16. Hardeep Singh Gujral, Sundeep Mehta, Imaan Singh Samra & Pankaj Goyal. (2003).** Effect of wheat bran, coarse wheat flour and rice flour on the texture of cookies. *International Journal of Food Properties*. 6(2) 329-340

- 17. Hardeep Singh Gujral** and Shalini Gaur. (2002). Effects of barley flour, wet gluten and liquid shortening on the texture and storage characteristics of chapati. *Journal Texture Studies*. 33: 461-469.
- 18. Hardeep Singh Gujral** and Navdeep Singh Sodhi (2002). Back extrusion properties of wheat porridge (Dalia). *Journal of Food Engineering*. 52(1): 53-56
- 19. Hardeep Singh Gujral** and Ambika Pathak (2002). Effect of composite flours and additives on the texture of chapati. *Journal of Food Engineering*. 55(2): 173-179.
- 20.** Narpinder Singh, Inderpreet Kaur Bajaj, R.P. Singh and **Hardeep Singh Gujral** (2002). Effect of different additives on mixograph and bread making properties of Indian wheat flour. *Journal of Food Engineering*. 56(1): 89-95
- 21. Hardeep Singh Gujral**, Amrit Kaur, Narpinder Singh and Navdeep Singh Sodhi (2002). Effect of liquid whole egg, fat and textured soy protein on the textural and cooking properties of raw and baked patties from goat meat. *Journal of Food Engineering*. 53(4): 377-385.
- 22. Hardeep Singh Gujral** and Gaurav Khanna (2002) Effect of skim milk powder, soy protein concentrate and sucrose on the dehydration behaviour, texture, color and acceptability of mango leather. *Journal of Food Engineering*. 55(4): 343-348
- 23.** Narpinder Singh, **Hardeep Singh Gujral** and Jasprit Singh (2002). Effect of baking ingredients and mixing duration on dough development, gas release and bread making properties. *Journal of Food Quality*. 25(4): 305-315
- 24.** Lovedeep Kaur, Narpinder Singh, Navdeep Singh Sodhi and **Hardeep Singh Gujral** (2002). Some properties of potatoes and their starches. I Cooking, textural and rheological properties of potatoes. *Food Chemistry*. 79: 177-181
- 25. Hardeep Singh Gujral** and Narpinder Singh (2002). Extrusion behaviour and product characteristics of brown and milled rice grits. *International Journal of Food Properties*. 5(2) 307-316.
- 26. Hardeep Singh Gujral**, Abhishek Sharma and Narpinder Singh. (2002). Effect of hydrocolloids, storage temperature and duration on the consistency of tomato ketchup. *International Journal of Food Properties*. 5(1) 179-191
- 27. Hardeep Singh Gujral**, Jaswant Singh, Navdeep Singh Sodhi and Narpinder Singh. (2002). Effect of milling variables on the degree of milling of unparboiled and parboiled rice. *International Journal of Food Properties*. 5(1) 193-204
- 28.** Kulwinder Kaur, Narpinder Singh and **Hardeep Singh**. (2002). Studies on the effect of skim milk powder, sprouted wheat flour and pH on the rheological and baking properties of flour. *International Journal of Food Properties*. 5(1): 13-24

- 29. Hardeep Singh**, Narpinder Singh, Lakhwinder Kaur and S.K.Saxena. (2001). Effect of sprouting conditions on functional and dynamic rheological properties of wheat. *Journal of Food Engineering*. 47:23-29
- 30. Hardeep Singh** (2001). Osmotic dehydration of carrot shreds for gazraila preparation. *Journal of Food Science and Technology*. 38 (2): 152-154
- 31. Hardeep Singh Gujral** and Navdeep Singh Sodhi. (2001). Rheology of cooked decorticated pulses. *Journal of Food Science and Technology*. 38(2): 168-171
- 32. Hardeep Singh Gujral** and Narpinder Singh. (2001). Relationship between debranning, ash distribution pattern and conductivity in maize. *International Journal of Food Properties*. 4(2): 261-269
- 33. Hardeep Singh Gujral** and Narpinder Singh (2001). Relationship between parboiling, degree of milling, ash distribution and conductivity in rice. *Journal of Food Science and Technology*. 38(6): 629-631
- 34. Hardeep Singh Gujral**, Priyanka Sharma, Narpinder Singh and Dalbir Singh Sogi (2001). Effect of hydrocolloids on the rheology of tamarind sauce. *Journal of Food Science and Technology*. 38(4) 316-320.
- 35. Hardeep Singh Gujral**, Narpinder Singh and Baljit Singh. (2001). Extrusion behaviour of grits from flint and sweet corn. *Food Chemistry*. 74(3) 303-308
- 36. Hardeep Singh Gujral** and Jasprit Kaur (2001). Effect of wheat flour and extruded wheat flour on the quality of tortillas and tortilla chips. *Journal of Food Science and Technology* . 38(6). 577-582.
- 37. Hardeep Singh** and Navdeep Singh Sodhi. (2000). Dehydration kinetics of onion. *Journal of Food Science and Technology*. 37 (5). 520-522
- 38.** Narpinder Singh, **Hardeep Singh**, Kulwinder Kaur and Mandeep Singh Bakshi. (2000). Relationship between the degree of milling, ash distribution pattern and conductivity in brown rice. *Food Chemistry*. 69: 147-151
- 39.** Narpinder Singh, Kulwinder Kaur, **Hardeep Singh** and Harmeet Singh. (2000). Effect of starch-lipid inclusion complex formation on functional properties of flour in tandoori roti. *Food Chemistry*. 69: 129-133
- 40.** Kulwinder Kaur, Narpinder Singh and **Hardeep Singh**. (2000). The effect of extruded flour and fermentation time on some quality parameters of idli. *Journal of Food Quality*. 23:15-25
- 41.** A.S. Bawa and **Hardeep Singh Gujral**. (2000). Effect of osmotic agents on drying behaviour and product quality in raisin processing. *Journal of Scientific & Industrial Research* 59: 63-66
- 42. Hardeep Singh Gujral** and Narpinder Singh. (1999). Effect of additives on dough development, gaseous release and bread making properties. *Food Research International*. 32: 691-697

- 43. Hardeep Singh**, Narpinder Singh and Kulwinder Kaur. (1998). Effect of additives and pH on dough development and gas release characteristics of sound and sprouted wheat. *Journal of Food Science and Technology*. 35(5): 393-398
- 44.** Narpinder Singh, **Hardeep Singh** and Mandeep Singh Bakshi. (1998). Determining the distribution of ash in wheat using debranning and conductivity. *Food Chemistry*. 62(2): 169-172
- 45.** A.S. Bawa and **Hardeep Singh**. (1998). Preparation, nutritional improvement, packaging and storage of Matar - a traditional Indian snack. *Journal of Food Science and Technology*. 35(6): 537-539
- 46. Hardeep Singh**, A.S. Bawa and Jasim Ahmed. (1997). Dehydration characteristics of some green leafy vegetables. *Indian Food Packer*. 2: 5-14