

Carl S. Hansen

Personal:

Born Nov. 13, 1942

Citizenship: United States

Sex: Male

Health: Excellent

Family Status: Married

Address:

15600 N. 4005 W., East Garland, Utah 84312. Phone (435)-458 3869 Fax: (435)-797-2379, email: carl.hansen@usu.edu.

Present Position:

2009,-Emeritus research assistant professor college of Agriculture, Utah State University

Past Positions

1972-1974,-Instructor, Eastern Arizona College, Thatcher, Arizona

1974-1977,-Instructor, Brigham Young University, Provo, Utah.

1977-1999,-Farmer &, General Construction: Self employed farming 640 acres in Idaho.

1999-2000,-Consultant on Anaerobic Digestion, Utah State University, Logan UT. :
Worked on swine waste anaerobic digestion project building a 2000-gallon anaerobic pilot plant at the Todd Ballard hog farm in Benson, Utah.

2000-2001,-Consultant on Aerobic Digestion for Environmental Products and Technologies Corp., Thousand Oaks, Calif. Analyzed mechanical and biological performance and improved EPT's drum composter.

2001-2004, Research Scientist and then Senior Research Scientist, Utah State University, Logan, Utah, Department of Nutrition & Food Sciences, College of Agriculture, Logan, Utah, 84322 Built and managed a 6,000 gallon anaerobic pilot plant at the USU Caine dairy, Wellsville, Utah. Developed and patented new technology for pollution control using anaerobic digestion

2004-2009,-Research assistant professor and associate director of the Center for Profitable Uses of Agricultural Byproducts Utah State University, Logan, Utah, Department of Nutrition & Food Sciences, College of Agriculture, Utah State Univ., Logan, Utah, 84322

Qualifications:

Bachelor of Science (1968) and **Master** of Science (1971)

College of Education, Utah state University

PhD (1977)

Education Dept., College of Education, Brigham Young University

Other Qualifications related to waste management and renewable Energy

Trained & Certified Nutrient Management Planner – Idaho (2000) and Utah (2001)

Patents: _4_ with 2 others pending **Conf. proceedings** _12

Presentations with abstracts: _17

Recent Grants:

USDA Small Business Innovative Research grant phase I 2004-2005	(PI)	\$79,740
Farm Pilot Project Coordination 10/20/2005 -09/01/2007.	(CO-PI)	\$254,495
USDA Rural Development 06/30/2006 to 06/01/2007	(PI)	\$87,500
USDA Small Business Innovative Research grant phase I 05/01/2007-08/14/2008	(PI)	\$79,994

Honors and Recognition:

2009: Who's Who in Agriculture Higher Education. Included in the 2009

AcademicKeys Who's Who in Agriculture Higher Education (WWAHE)

2008: Peer Review Panel for the US Dept. of Energy's Small Business Innovative Research Grants (SBIR). February 2008 for Phase I grants and April 2009 for Phase II grants.

2007: Governor's Blue Ribbon Advisory Council on Climate Change. The Utah Governor's Blue Ribbon Advisory Council was set up to define workable strategies for reducing green house gases while sustaining Utah's economy and quality of life.

2007: Member of the planning committee for the Intermountain Harvesting Energy Summit. A seven state summit held in Utah in 2007

2007: Member of the Utah Farm Bureau Harvesting Renewable Energy Network group. This was a Utah group made up of nineteen panel members

2006: Member of the US Dept. of agriculture's FY 2006 Higher Education Challenge Grants Peer Review Panel, April 11-13, 2006 in Washington, D.C.

2006: Member of the Biomass Research and Development Technical Advisory Committee to review the Western Regional Roadmap for Biomass Technologies in the United States. This panel was set up to give recommendations to the Secretaries of Agriculture and Energy, according to section 941 of the energy policy Act of 2005. The workshop was held August 8-9, 2006 in Sacramento, California.

Awards:

2007: Awarded first place for innovation of a mechanical device at the Utah Innovation Awards. This award was presented at the Stoel Rives/Utah Innovation Awards May 10, 2007 in Salt Lake City, Utah. The award was given for the Andigen IBR digester.

2007: Carl and Conly Hansen also received the AE 50 award from the American Society of Agricultural and Biological Engineers (ABASE) for having one of the 50 top innovations in the world. This award was presented at the Centennial ASABE International Meeting held in Minneapolis, Minnesota, June 19, 2007.

Dr. Carl Hansen was a research assistant professor in the department of Nutrition and food science in the college of agriculture at Utah State University. He has been involved with agriculture all of his life having grown up on a small dairy farm in Box Elder County (rural Utah). In 1977 he left education and administration to take over the family farm in Idaho. While this was going to be temporary change it ended up lasting 22 years. As sole proprietor of a 640 acre farm in Idaho he was involved with innovative management practices especially in the area of agricultural water management. He is

also experienced in single story construction of wood and metal buildings including electrical, plumbing and concrete work. He is licensed as a private pilot, and scuba diver. Other interests include skiing and distance running.

Publications Related to Aerobic and Anaerobic Digestion:

Thompson, R., C. L Hansen and C. S. Hansen 2008. *Anaerobic Hydrogen Production using Agricultural and Food Processing Wastes*. Written for presentation at the ASABE Annual International Meeting June 29 to July 2, 2008, Providence, Rhode Island,

Hansen, C. S., C. L Hansen, and G. Sullivan, 2007. *Using Biogas as a Fuel for Trucks*. Paper number: 074145. Presented at the ASABE Annual International Meeting, 17 - 20 June, Minneapolis Convention Center, Minneapolis, Minnesota. ASABE 2950 Niles Road, St. Joseph, MI 49085-9659.

Hansen, C. L; P. Zemke, D. Dye, C.S. Hansen, and S. Wahal. 2007. *Utilization of the nutrients from an anaerobic digester treating animal waste*. Paper number: 077013. Presented at the ASABE Annual International Meeting, 17 - 20 June, Minneapolis Convention Center, Minneapolis, Minnesota. ASABE 2950 Niles Road, St. Joseph, MI 49085-9659.

Hansen C S and C L Hansen 2006 *Effective Anaerobic Digestion for Treating Manure and Food Waste*. Written for presentation at the 2006 ASABE Annual International Meeting, Oregon Convention Center, Portland, Oregon. 9-12 July 2006.

Cheong, D.Y. and C. S. Hansen,2006. *Anaerobic Treatment of cheese Whey with Animal Manure*. Written for presentation and publication at the 2006 ASABE Annual International Meeting. Portland Convention Center, Portland, Oregon. 9-12 July 2006

Mann, S. L., C. L Hansen, and C. S. Hansen. 2004. *Anaerobic Digestion and Bio-gas*. Paper Number: 04408. Presented at the ASAE Annual Meeting, August 1-4, Ottawa, Canada. ASAE, 2950 Niles Road, St. Joseph, MI 49085-9659.

Hansen, C. S. and C. L Hansen 2002 "*Demonstration of Dairy Manure Remediation Using IBR Technology*," In Proceedings of the Application of Waste Remediation Technologies to Agricultural Contamination of Water Resources Conference, Edited by Wendy Griswold, Angie Burgoon, Larry E. Erickson, and Mary Rankin, Hazardous Substance Research Center, Kansas State University, Manhattan, Kansas, pp. 166-172. Also found at: www.engg.ksu.edu/HSRC/ag/2002/abstracts/13Hansen.pdf.