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**Idaho National Laboratory**

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**Education:**

Utah State University, Logan, UT 84322	Ph.D.	Plant Science	1992
Brigham Young University, Provo, UT 84602	MS	Botany	1988
Brigham Young University, Provo, UT 84602	BS	Botany	1986
Ricks College, Rexburg, ID 83440	Associate	General Agriculture	1984

**Employment / Experience:**

2011 – Present	Division Director – Energy Systems and Technologies, INL
2008 – 2011	Department Manager – Biofuels and Renewable Energy Technology, INL
2004 – present	Bioenergy Initiative Lead (named on October 28, 2004) at the Idaho National Engineering and Environmental Laboratory. Job functions include business development, research, and management. Promoted to Senior Advisory Scientist (November 11, 2004), and continued as the technical lead for the laboratory’s Agricultural Program. <i>Notable Accomplishments:</i> Lead and/or significantly contributed to 13 successful multidisciplinary / multi-institutional proposal teams (total value of \$15.25M) and many internal proposals; Received 8 INEEL Performance Awards and 1 Industry Performance Award; numerous publications and professional presentations; 4 patents.
2000 – 2004	Advisory Scientist at the Idaho National Engineering and Environmental Laboratory, Technical Lead – Agriculture Program.
1995 – 2000	Staff Scientist at the Idaho National Engineering and Environmental Laboratory, named Technical Lead of the Agriculture Program (1999).
1993 – 1995	Senior engineer/scientist working for the Agriculture and Food Products initiative at the Idaho National Engineering and Environmental Laboratory.
1992 – 1993	AAAS Congressional Science Fellow sponsored by the American Society of Agronomy, Crop Science, and Soil Science Societies of America, and Weed Science Societies. Served on the Staff of Senator Thomas Daschle, Chairman of the Subcommittee on Agriculture Research, Conservation, Forestry and General Legislation.

**Professional Societies:**

American Society of Agronomy  
Crop Science Society of America

**Refereed Publications:**

- Hess JR, Kenney KL, Wright CT, Perlack R, Turhollow A (TBD) Corn stover availability for biomass conversion: situation analysis. *Cellulose* (Accepted for publication Spring 2009)
- Hess JR, Kenney KL, Ovard L, Searcy EM, Wright CT (2009) Uniform-format solid feedstock supply system: a commodity-scale design to produce an infrastructure-compatible bulk solid from lignocellulosic biomass. INL/EXT-08-14752 [www.inl.gov/bioenergy/uniform-feedstock](http://www.inl.gov/bioenergy/uniform-feedstock) (Accessed 6 May 2009)
- Hess JR, Wright C, Kenney KL (2007) Cellulosic biomass feedstocks and logistics for ethanol production. *Biofuels, Bioproducts, and Biorefining* 1:181-190  
[https://inlportal.inl.gov/portal/server.pt/gateway/PTARGS\\_0\\_1830\\_12163\\_0\\_0\\_18/fulltext.pdf](https://inlportal.inl.gov/portal/server.pt/gateway/PTARGS_0_1830_12163_0_0_18/fulltext.pdf) (Accessed 15 May 2009)
- Fales SL, Wilhelm WW, Hess JR (2007) Convergence of agriculture and energy II: Producing cellulosic biomass for biofuels. Ames, Iowa: Council for Agricultural Science and Technology, 2007.
- Mann, N. R., R. S. Herbst, V. Kochergin, J. R. Hess (2004) "A Concept for Enhanced Flux, Erosion Resistant Membranes for Biomass Separations," *Filtration Journal*, Submitted for publication, 2004.
- Wright, Christopher T., Peter A. Pryfogle, Nathan A. Stevens, Eric D. Steffler, J. Richard Hess, and Thomas H. Ulrich (2004). *Biomechanics of Wheat/Barley Straw and Corn Stover*. The 26th Symposium of Biotechnology for Fuels and Chemicals held in Chattanooga, TN. May 9-12, 2004.
- Houghton, T.P., D.N. Thompson, J.R. Hess, J.A. Lacey, M.P. Wolcott, A. Schirp, K. Englund, D. Dostal, and F. Loge. (2004). Fungal upgrading of wheat straw for straw-thermoplastics production. *Appl. Biochem. Biotechnol.*, 113-116:71-93.
- Hess JR, Foust TD, Wright L, Sokhansanj S, Cushman JH, Easterly JL, Erbach DC, Hettenhaus JR, Hoskinson RL, Sheehan JJ, Tagore S, Thompson DN, Turhollow A (2003) Roadmap for agriculture biomass feedstock supply in the United States. DOE/NE-ID-11129  
<http://devafdc.nrel.gov/pdfs/8245.pdf> (Accessed 6 May 2009)

**Patents**

- Svoboda, J.M., D.J. Harker, J.R. Hess, and R.L Hoskinson. 2002. Methods and Systems for Seed Planting Management and Control. U.S. Patent No. 6,386,128. May 14, 2002.
- Hoskinson, R. L., J. M. Svoboda, J. W. Sawyer, J. R. Hess and J. R. Hess. 2002. Measuring Spatial Variability in Soil Characteristics. U.S. Patent No. 6,497,153. Dec. 24, 2002.
- Hoskinson, R. L., D. N. Bingham, J. M. Svoboda, and J. R. Hess. 2003. Systems and methods for Autonomously Controlling Agricultural Machinery. U.S. Patent No. 6,591,145. July 8, 2003.
- Hoskinson, R. L., J. R. Hess, K. L. Kenney, J. M. Svoboda, and T. D. Foust. 2004. Method and Apparatus for Selectively Harvesting Multiple Components of a Plant Material. U.S. Patent No. 6,729,951. May 4, 2004.