

David J. Hole
Utah State University
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Education

PhD, Texas A&M University, 1988.
Major: Genetics

MS, Iowa State University, 1983.
Major: Plant Breeding/Cytogenetics

BS, Texas A&M University, 1980.
Major: Agronomy

Professional Positions

Professor, Utah State University. (July 2004 - Present).

Associate Professor, Utah State University. (July 1997 - July 2004).

Assistant Professor, Utah State University. (December 1990 - July 1997).

Assistant Professor, Utah State University. (December 1990 - December 1990).

Licensures and Certifications

Remote Pilot, Federal Aviation Administration. (November 2016 - November 2019).

Professional Memberships

Crop Science Society of America. (January 1, 1981 - Present).

ACADEMIC INSTRUCTION

Teaching Experience

Utah State University

PSC 3600, An Introduction to Plant Breeding and Heredity, 2 courses.

PSC 4600, Cereal Science, 8 courses.

PSC 4900, Special Problems, 1 course.

PSC 5700, Advanced Plant Breeding, 3 courses.

PSC 6890,7890, Plants, Soils, and Climate Graduate Seminar, 1 course.

PSC 6900, Special Problems in Plants, Soils, and/or Climate, 1 course.

PSC 6970, RESEARCH & THESIS, 1 course.

USU 1350, Integrated Life Science, 3 courses.

Non-Credit Instruction

Workshop, 4 participants. (December 14, 2013 - December 30, 2013).

Workshop, 6 participants. (May 12, 2013 - May 25, 2013).

Workshop, 15 participants. (November 19, 2012 - December 6, 2012).

Course, 35 participants. (February 1, 2012 - April 30, 2012).

Course, 42 participants. (December 1, 2011 - January 12, 2012).

Guest Lecture, 35 participants. (February 1, 2011 - June 16, 2011).

Study Abroad, 5 participants. (June 4, 2010 - June 20, 2010).

Directed Student Learning

Master's Committee Member, Plants, Soils, and Climate. (June 2016 - Present).

Advised: Michael Deakin

Master's Committee Chair, "Organic wheat improvement," Plants, Soils, and Climate. (April 1, 2015 - Present).

Advised: Phearen Kit

Master's Committee Member, "Organic crop improvement," Plants, Soils, and Climate. (January 2015 - Present).

Advised: Avneet Kakkar

Major Professor, Plants, Soils, and Climate. (January 1, 2013 - Present).

Advised: Crista Sorenson

Master's Committee Chair, Plants, Soils, and Climate. (January 1, 2011 - Present).

Advised: Anthony Richards

Dissertation Committee Member, Plants, Soils, and Climate. (May 1, 2010 - Present).

Advised: Lei Gao

Visiting Scholar Mentor, Plants, Soils, and Climate. (December 23, 2016 - June 23, 2017).

Advised: Tassadduq Rasool

Field Studies Mentoring, "Evaluation of Dwarf Bunt in mapping populations," Plants, Soils, and Climate. (July 2015 - August 2016).

Advised: Almuth Mullner

Master's Committee Chair, "Classifying relationships of native Lotus species based chloroplast and mitochondrial SSR markers and morphometric characteristics," Plants, Soils, and Climate. (February 2014 - May 2016).

Advised: Jason Settler

Dissertation Committee Member, Plants, Soils, and Climate. (December 12, 2009 - May 2014).

Advised: Mayelyn Bautista

Master's Committee Member, "EVALUATING ERIOGONUM CORYMBOSUM'S TOLERANCE TO FREQUENT IRRIGATION AND EVALUATING ITS SIGNIFICANT MORPHOLOGICAL VARIATIONS FOR POTENTIAL CULTIVARS," Plants, Soils, and Climate. (January 1, 2010 - May 4, 2013).

Advised: Graham Hunter

Visiting Scholar Mentor, "Sunflower biosystematics," Plants, Soils, and Climate. (May 1, 2011 - November 1, 2011).

Advised: Zia Ullah Zia

Dissertation Committee Chair, Plants, Soils, and Climate. (August 2007 - May 2011).

Advised: Mingxiang Liang

Dissertation Committee Member, Plants, Soils, and Climate. (January 1, 2008 - May 4, 2011).

Advised: Kishor Bhattari

Master's Committee Member, "Origins of the Y genome in Elymus," Plants, Soils, and Climate. (January 1, 2006 - May 4, 2008).

Advised: Pungu Okito

Dissertation Committee Chair, Plants, Soils, and Climate. (January 1, 2002 - May 4, 2007).

Advised: Parminder Kaur

Major Professor, "Nutrient and irrigation impacts on winter wheat yield and quality," Plants, Soils, and Climate. (July 1, 2003 - May 4, 2006).

Advised: Justin Clawson

Master's Committee Member, "Investigation of imazamox and Clearfield winter wheat for jointed goatgrass and feral rye management," Plants, Soils, and Climate. (October 1, 1999 - August 1, 2001).

Advised: Brent Beutler

Dissertation Committee Chair, Plants, Soils, and Climate. (April 1, 1997 - May 4, 2001).

Advised: Alicia Massa

Master's Committee Member, Plants, Soils, and Climate. (May 1, 1995 - January 1, 1998).

Advised: Rodney Fuller

Major Professor, "Identification of belowground woody structures using molecular markers.," Wildland Resources. (January 1, 1995 - May 4, 1997).

Advised: Benny Bobowski

Master's Committee Member, "Normalizing wheat somatic embryos," Plants, Soils, and Climate. (May 1, 1993 - June 4, 1995).

Advised: Russell Rasmussen

Dissertation Committee Member, Plants, Soils, and Climate. (January 1, 1994 - June 1, 1995).

Advised: Junzhi Wei

Master's Committee Member, "Barley introgression for TCK resistance," Plants, Soils, and Climate. (January 1, 1991 - June 1, 1993).

Advised: Chen Jian Hu

Dissertation Committee Chair, "Identification of primary trisomics in *Agropyron cristatum*," Plants, Soils, and Climate. (January 1, 1991 - May 4, 1993).

Advised: Justus Imanywoha

RESEARCH & OTHER CREATIVE ACTIVITIES

Published Intellectual Contributions

Books

Book, Non-Scholarly-New (Published)

Hole, D. J. (1999). *James D. Smith: A Tribute From His Students and Colleagues* (pp. 277-282). Maize Genetics and Breeding in the 20th Century, P. Peterson and A. Bianchi, eds.

Refereed Journal Articles

Chen, J., Guttieri, M. J., Zhang, J., Hole, D. J., Souza, E., Goates, B. (2016). A novel QTL associated with dwarf bunt resistance in Idaho 444 winter wheat. *Theoretical and Applied Genetics*, 129(12), 2313-2322. link.springer.com/article/10.1007/s00122-016-2783-2

Graebner, R., Wise, M., Cuesta-Marcos, A., Geniza, M., Blake, T., Blake, V., Butler, J., Chao, S., Hole, D. J., Horsley, R., Jaiswal, P., Obert, D., Smith, K., Ullrich, S., Hayes, P. (2015). Quantitative trait loci associated with the tocochromanol (vitamin E) pathway in barley. *PLOS ONE*, 10(7). <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133767>

Pauli, D., Muehlbauer, G., Smith, K., Cooper, B., Hole, D. J., Obert, D., Ullrich, S., Blake, T. (2014). Association Mapping of Agronomic QTLs in US Spring Barley Breeding Germplasm. *The Plant Genome*, 7(3), 1-15. www.agronomy.org/publications/tpg/first-look

Zia, Z. U., Sadaqat, H. A., Tahir, H. N., Sadia, B., Bushman, S., Hole, D. J., Liza, M., Malik, W. (2014). Estimation of Genetic Diversity using SSR Markers in Sunflower. *Russian Journal of Genetics (Genetika)*, 50(5), 498-507.

Chen, J., Souza, E. J., Guttieri, M. J., O'Brien, K., Wheeler, J., Sorensen, L., Clayton, J., Chen, X. M., Goates, B. J., Hole, D. J., Brown, B. D., Marshall, J. M., Zemetra, R. (2012). Registration of 'UI SRG' Wheat. *J. Plant Regist.*, 6(1), 66-70.

Kjelgren, R. K., Hole, D. J., Johnson, P. G. (2012). Globally Engaging American Agriculture and Natural Resource Students through Service Learning Study Abroad. *Journal of Developments in Sustainable Agriculture*, 7(1), 14-22. www.jstage.jst.go.jp/article/jdsa/7/1/14/_pdf

Reeve, J., Endelman, J. B., Miller, B., Hole, D. J. (2012). Residual Effects of Compost on Soil Quality and Dryland Wheat Yield Sixteen Years after Compost Application. *Soil Science Society of America Journal (SSSAJ)*, 76(1).

Liang, M., Hole, D. J., Wu, J., Blake, T., Wu, Y. (2011). Expression and functional analysis of NUCLEAR FACTOR-Y, subunit B genes in barley. *Planta*.

Chen, J., Chu, C., Souza, E., Guttieri, M., Chen, X., Xu, S., Hole, D. J., Zemetra, R. (2011). Genome-wide identification of QTL conferring high-temperature adult-plant (HTAP) resistance to stripe rust (*Puccinia striiformis* f. sp. *tritici*) in wheat. *Molecular Breeding*.

Endleman, J., Reeve, J., Hole, D. J. (2010). Economically optimal compost rates for organic crop production. *Agronomy Journal*, 102, 1283-1289.

Hamblin, M., Close, T., Bhat, P., Chao, S., Kling, J., Abraham, K., Blake, T., Brooks, W., Cooper, B., Griffey, C., Hayes, P., Hole, D. J., Horsley, R., Obert, D., Smith, K., Ullrich, S., Muehlbauer, G., Jannink, J. (2010). Population Structure and Linkage Disequilibrium in US Barley Germplasm: Implications for Association Mapping. *Crop Science*, 50(2), 556-566. http://apps.isiknowledge.com/full_record.do?product=WOS&search_mode=DaisyOneClickSearch&qid=4&SID=4DINnjAKnp8I@8dPi2F&page=1&doc=2!!!

- Nair, S., Ullrich, S., Blake, T., Cooper, B., Griffey, C., Hayes, P., Hole, D. J., Horsley, R., Obert, D., Smith, K., Muehlbauer, G., Baik, B.-K. (2010). Variation in Kernel Hardness and Associated Traits in U.S. Barley Breeding Lines. *Cereal Chemistry*, 87(5), 461-466.
- Kaur, P., Larson, S., Bushman, B. S., Wang, R. R. C., Mott, I. W., Hole, D. J., Thimmapuram, J., Gong, G., Liu, L. (2008). Genes controlling plant growth habit in *Leymus* (Triticeae): maize barren stalk1 (ba1), rice lax panicle, and wheat tiller inhibition (tin3) genes as possible candidates. *Functional & Integrative Genomics*, 8, 375–386. ://000259247800006
- Jiang, Q. Z., Roche, D., Durham, S., Hole, D. J. (2006). Awn contribution to gas exchanges of barley ears. *Photosynthetica*, 44(4), 536–541.
http://link.springer.com/article/10.1007/s11099-006-0067-9
- Jiang, Q. Z., Roche, D., Hole, D. J. (2006). Carbon isotope discrimination of two-rowed and six-rowed barley genotypes under irrigated and non-irrigated field conditions. *Canadian Journal of Plant Science*, 86, 433–441. ://000240051500011
- Jiang, Q., Roche, D., Monaco, T. A., Hole, D. J. (2006). Stomatal conductance is a key parameter to assess limitations to photosynthesis and growth potential in barley genotypes. *Plant Biology*, 8, 515–521. ://000239561100011
- Roche, D., Hole, D. J., Albrechtsen, R. S., Clawson, S. M., Young, S. (2005). Registration of 'Aquila' spring barley. *Crop Science*, 45, 1160–1160. ://000229105700047
- Roche, D., Hole, D. J., Albrechtsen, R. S., Clawson, J. W., Young, S. (2005). Registration of 'Goldeneye' spring barley. *Crop Science*, 45, 2658–2659. ://000233147100081
- Hole, D. J., Roche, D., Clawson, S. M., Young, S. (2004). Registration of 'Deloris' wheat. *Crop Science*, 44, 695–696. ://000189384600058
- Massa, A. N., Jensen, K., Larson, S., Hole, D. J. (2004). Morphological variation in *Bromus* sect. *Ceratochloa* germplasm of Patagonia. *Canadian Journal of Botany*, 82(1), 136–144.
http://www.nrcresearchpress.com/doi/abs/10.1139/b03-133
- Hole, D. J. (2003). Agroecosystems analysis from the grass. *J. Nat. Resour. Life Sci. Educ.*, 32, 73-79.
- Stukenholtz, P. D., Koenig, R. T., Hole, D. J., Miller, B. (2002). Partitioning the nutrient and nonnutrient contributions of compost to dryland-organic wheat. *Compost Science & Utilization*, 10, 238–243. ://000177570900007
- Albrechtsen, R. S., Hole, D. J. (2002). Registration of 'Brigham' barley. *Crop Science*, 42, 666–666. C:Documents.pdf
- Hole, D. J., Clawson, S. M., Young, S., Roche, D. (2002). Registration of 'Golden Spike' wheat. *Crop Science*, 42, 1376–1377. C:Documents.pdf
- Albrechtsen, R. S., Hole, D. J. (2002). Registration of 'Millennium' barley. *Crop Science*, 42, 665–666. C:Documents.pdf
- Massa, A. N., Larson, S., Jensen, K., Hole, D. J. (2001). AFLP variation in *Bromus* section *Ceratochloa* germplasm of patagonia. *Crop Science*, 41, 1609–1616.
C:Documents41;1609-1616.pdf
- Albrechtsen, R. S., Hole, D. J. (2000). Registration of 'Century' barley. *Crop Science*, 40, 1506–1507. ://000089612600060

- Albrechtsen, R. S., Hole, D. J. (2000). Registration of 'Statehood' barley. *Crop Science*, 40, 1507–1508. [://000089612600061](#)
- Bobowski, B. R., Hole, D. J., Wolf, P. G., Bryant, L. (1999). Identification of roots of woody species using polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) analysis. *Molecular Ecology*, 8, 485–491. C:Documentsof roots of woody.pdf
- Hole, D. J., Jensen, K., Wang, R. R. C., Clawson, S. M. (1999). Molecular marker analysis of *Leymus flavescens* and chromosome pairing in *Leymus flavescens* hybrids (Poaceae : Triticeae). *International Journal of Plant Sciences*, 160, 371–376.
- Hole, D. J., Emran, A. M., Drew, M. C. (1997). Influx and efflux kinetics of ammonium transport in maize roots. *Maydica*, 42, 347–354.
- Hole, D. J., Albrechtsen, R. S., Clawson, S. M., Young, S. (1997). Registration of 'Utah-100' wheat. *Crop sci*, 37, 1009.
- Rasmussen, R. D., Hole, D. J., Hess, J. R., Carman, J. G. (1997). Wheat kernel dormancy and plus abscisic acid level following exposure to fluridone. *Journal of Plant Physiology*, 150, 440–445.
- Hu, C. J., Hole, D. J., Albrechtsen, R. S. (1996). Barley chromosome location and expression of dwarf bunt resistance in wheat addition lines. *Plant Disease*, 80, 1273–1276.
http://www.apsnet.org/publications/PlantDisease/BackIssues/Documents/1996Articles/PlantDisease80n11_1273.PDF!!!
- Hole, D. J., Albrechtsen, R. S., Clawson, S. M. (1996). Registration of 'Garland' wheat. *Crop sci*, 36, 208.
- Hole, D. J., Dewey, W., Albrechtsen, R. S. (1995). Registration of 'Promontory' wheat. *Crop sci*, 35, 1206–1207.
- Imanywoha, J., Jensen, K., Hole, D. J. (1994). Production and identification of primary trisomics in diploid *Agropyron cristatum* (crested wheatgrass). *Genome*, 37(3), 469–476.
<http://www.nrcresearchpress.com/doi/abs/10.1139/g94-065>
- Albrechtsen, R. S., Hole, D. J. (1993). Registration of 'Rollo' barley. *Crop sci*, 33, 1412–1413.
- Albrechtsen, R. S., Hole, D. J. (1993). Registration of 'Walker' barley. *Crop sci*, 33, 1413.
- Hole, D. J. (1993). In ovulo environments and embryo dormancy in wheat. In: *Pre-Harvest Sprouting in Cereals 1992*. Walker-Simmons, M.K. and J.L. Ried, E, 163-170.
- Hole, D. J., Cobb, B. G., Hole, P. S., Drew, M. C. (1992). Enhancement of Anaerobic Respiration in Root-Tips of Zea-Mays Following Low-Oxygen (Hypoxic) Acclimation. *Plant Physiol*, 99, 213–218. [://A1992HU48500031](#)
- Hole, D. J., Emran, A. M., Fares, Y., Drew, M. C. (1990). Induction of Nitrate Transport in Maize Roots, and Kinetics of Influx, Measured with N-13. *Plant Physiology*, 93, 642–647.
[://A1990DK14100045](#)
- Hole, D. J., Smith, J. D., Cobb, B. G. (1989). Regulation of Embryo Dormancy by Manipulation of Abscisic-Acid in Kernels and Associated Cob Tissue of Zea-Mays-L Cultured Invitro. *Plant Physiology*, 91, 101–105. [://A1989AR54200019](#)

Cobb, B. G., Hole, D. J., Smith, J. D., Kent, M. W. (1988). The Effects of Modifying Sucrose Concentration on the Development of Maize Kernels Grown in vitro. *Ann Bot*, 62(3), 265–270. <http://aob.oxfordjournals.org/content/62/3/265>

Non-Refereed Journal Articles

Hole, D. J. (1995). Plant Breeding and the PVPA. *Utah Farmer*. April, p. 6, 31.

Conference Proceedings

Conference Proceeding (Published)

Chen, J., Souza, E., Guttieri, M., Chen, X., Chu, C., XU, S., Hole, D. J., Zemetra, R. (2010). *Quantitative Trait Loci For High-Temperature Adult-Plant Resistance To Stripe Rust (Puccinia striiformis f. sp. tritici) In A Hard Red Winter Wheat Germplasm IDO444* (pp. P303). Plant and Animal Genome. www.intl-pag.org/18/abstracts/P05c_PAGXVIII_303.html

Conference Proceeding (Published)

Hole, D. J. (2007). *The Barley coordinated agricultural project (CAP)* (pp. 19). Proceedings of the 2007 Genomics Symposium: The Genomics of Drought.

Other Intellectual Contributions

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2016). *2016 Utah Small Grains Performance Trials* (vol. UAES222). Logan, UT: UAES. wheat.usu.edu/BUL_TAB/2016tabs/alltrials.HTM

Abstract (Published)

Creech, J. E., Deakin, M., Reeve, J., Hole, D. J. (2016). *Compost carryover and cover crop effects on dryland organic wheat in Utah*. Madison, WI: Western Society of Crop Science.

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2015). *2015 Utah Small Grains Performance Trials* (vol. UAES221). Logan, UT: UAES. wheat.usu.edu/BUL_TAB/2015tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2014). *2014 Utah Small Grains Performance Trials* (vol. UAES report 220). Logan, UT: UAES. wheat.usu.edu/BUL_TAB/2014tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2013). *2013 Utah Small Grains Performance Trials* (vol. UAES218). Logan, UT: UAES. wheat.usu.edu/BUL_TAB/2013tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2012). *2012 Utah Small Grains Performance Trials* (vol. UAES216). wheat.usu.edu/BUL_TAB/2012tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2012). *2011 Utah Small Grains Performance Trials* (vol. UAES215). wheat.usu.edu

Technical Report-AES (Published)

Hole, D. J., Clawson, J. (2011). *2010 Utah Small Grains Performance Trials* (vol. UAES-210). wheat.usu.edu

Technical Report-AES (Published)

Hole, D. J. (2009). *2009 Utah Small Grains Variety Trials* (vol. 209).
wheat.usu.edu/BUL_TAB/2009tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J. (2008). *2008 Utah Small Grains Variety Trials* (vol. 206). AES Research Report.
wheat.usu.edu/BUL_TAB/2008tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J. (2007). *2007 Utah Small Grains Variety Trials* (vol. 203). AES Research Report.

Technical Report-AES (Published)

Hole, D. J. (2007). *2006 Utah Small Grains Variety Trials* (vol. 200). AES Research Report.
wheat.usu.edu/BUL_TAB/2007tabs/alltrials.HTM

Technical Report-AES (Published)

Hole, D. J. (2006). *2005 Fall-Planted Small Grains Performance Trials* (vol. 195). Utah Agr. Exp.
Sta. Res. Report.

Technical Report-AES (Published)

Hole, D. J. (2005). *2004 Fall-Planted Small Grains Performance Trials* (vol. 194). Utah Agr. Exp.
Sta. Res. Report.

Technical Report-AES (Published)

Hole, D. J. (2004). *2003 Fall-Planted Small Grains Performance Trials* (vol. 187). Utah Agr. Exp.
Sta. Res. Report.

Technical Report-AES (Published)

Hole, D. J. (2003). *2002 Utah Small Grains Performance Trials* (vol. 184). Utah Agr. Expt. Sta.
Res. Report.

Technical Report-AES (Published)

Hole, D. J. (2002). *2001 Utah Small Grains Performance Trials* (vol. 181). Utah Agr. Expt. Sta.
Res. Report.

Technical Report-AES (Published)

Hole, D. J. (2001). *2000 Small Grains Performance Trials* (vol. 167). Utah Agr. Exp. Sta. Res.
Report.

Technical Report-AES (Published)

Hole, D. J. (2000). *1999 Utah Small Grains Performance Trials* (vol. 165, pp. 51 pp). Utah Agr.
Exp. Sta. Res. Report.

Technical Report-AES (Published)

Hole, D. J. (1999). *1998 Utah Small Grains Performance Trials* (pp. 56 pp). Utah Agr. Exp. Sta.
Res. Report 161.

Technical Report-AES (Published)

Hole, D. J. (1998). *1997 Utah Small Grains Performance Trials* (pp. 56 pp). Utah Agr. Exp. Sta.
Res. Report 158.

Technical Report-AES (Published)

Hole, D. J. (1997). *1996 Utah Small Grains Performance Trials* (pp. 56 pp). Utah Agr. Exp. Sta.
Res. Report 156.

Technical Report-AES (Published)

Hole, D. J. (1996). *1995 Utah Small Grains Performance Trials* (pp. 55 pp). Utah Agr. Exp. Sta. Res. Report 154.

Abstract (Published)

Hole, D. J. (1996). *The effects of compost soil amendments on organic hard-winter wheat production* (pp. Paper #964). ASAE, St. Joseph, MI.

Technical Report-AES (Published)

Hole, D. J. (1995). *1994 Utah Small Grains Performance Trials* (vol. UAES152, pp. 55 pp). Utah Agr. Expt. Sta. Res. Report 152.

Technical Report-AES (Published)

Hole, D. J. (1994). *1993 Utah Small Grains Performance Trials* (vol. UAES148, pp. 56 pp). Utah Agr. Exp. Stn. Res. Report 148.

Technical Report-AES (Published)

Hole, D. J. (1993). *1992 Utah Small Grains Performance Trials* (vol. UAES146, pp. 58 pp). Utah Agr. Exp. Stn. Res. Report 146.

Abstract (Published)

Hole, D. J. (1993). *Wheat kernel development dormancy and +abscisic acid levels following exposure to fluridone* (pp. 151). Agronomy Abstracts. ASA Madison, WI.

Technical Report-AES (Published)

Hole, D. J. (1992). *1991 Utah Small Grains Performance Trials* (vol. UAES141, pp. 58 pp). Utah Agr. Exp. Sta. Res. Report 141.

Abstract (Published)

Hole, D. J. (1992). *Inheritance of Dwarf Bunt Resistance Gene(s) from Barley* (pp. 100). American Soc. of Agron. Abstracts.

Technical Report-AES (Published)

Hole, D. J. (1991). *1990 Utah Small Grains Performance Trials* (pp. 77 pp). Utah Agr. Exp. Sta. Res. Report 138.

Abstract (Published)

Hole, D. J. (1991). *Incorporation of barley dwarf bunt resistance genes into wheat* (pp. p. 99). Agronomy Abs..

Presentations Given

Creech, J. E., Deakin, M., Reeve, J., Hole, D. J., Western Society of Crop Science 2016 Annual Meeting, "Compost carryover and cover crop effects on dryland organic wheat in Utah," Albuquerque, NM. (2016).

Hole, D. J. (Presenter & Author), Chen, J. (Author Only), Guttieri, M. (Author Only), Zhang, Z. (Author Only), Souza, E. (Author Only), Goates, B. (Author Only), 7th AG-BIO/PERDO Graduate Conference on Agricultural Biotechnology and KU-UT joint Seminar IV., "Identification of QTL for Resistance to Dwarf Bunt in and RIL population of Rio Blanco X IDO444.," Kasetsart University, Kamphaeng Saen, Thailand. (December 8, 2016 - December 9, 2016).

Kit, P. (Presenter & Author), Hole, D. J. (Author Only), Grossl, P. (Author Only), Tthe 3rd National Conference on Agricultural and Rural Development., "Synergies between Biochar and Compost for Dryland Organic Winter Wheat Production and Soil Quality, Utah, USA," SVAY RIENG UNIVERSITY, Svay Rieng Cambodia. (November 26, 2016).

- Chen, J. (Presenter & Author), Hole, D. J. (Author Only), Wang, R. (Author Only), Zhang, J. (Author Only), Souza, E. (Author Only), Goates, B. (Author Only), Guttieri, M. (Author Only), Crop Science Society of America, "Validation and Marker Assisted Selection for a Novel QTL Q.DB.Ui-7DS Associated with Dwarf Bunt Resistance of Winter Wheat.," ASA-CSSA-SSSA, Phoenix, AZ. (November 7, 2016).
- Getz, M., Elmore, L., Hoogland, T., Burhardt, A., Hole, D. J., Horsley, R., Sherman, J., 12th International Barley Genetics Symposium, "QTL mapping of head and seed morphology in a nested association mapping panel.," University of Minnesota, St. Paul, Minnesota. (June 26, 2016 - June 30, 2016).
- Chen, J., Hole, D. J. (Presenter & Author), Souza, E., Guttieri, M., Goates, B., Zhang, Z., XIX Biennial International Workshop on Bunts and Smuts, "QTL Mapping of Dwarf Bunt Resistance in Winter Wheat," CIMMYT, Izmir, Turkey. (May 3, 2016 - May 6, 2016).
- Hole, D. J., Sorenson, C. (Author Only), XVIIIth Biennial International Workshop on the Smuts and Bunts, "Fifty years of spores: breeding for resistance to dwarf bunt of wheat (*Tilletia contraversa* Kühn) in the Western US," University of Copenhagen, Copenhagen, Denmark. (February 3, 2014 - February 5, 2014).
- Sorenson, C. (Author Only), Hole, D. J., Miller, B. (Author Only), Hole, P. (Author Only), Fourth International Conservation Agriculture Conference in Southeast Asia, "Improving Soil Health in a Temperate, Xeric Moisture Regime Organic Winter Wheat Production System," USAID, Battambang Cambodia. (December 9, 2013 - December 13, 2013).
- Hole, D. J., UCIA Seed School, "Small grains breeding," Utah Crop Improvement Association, Brigham City, UT. (February 22, 2013).
- Hole, D. J. (Invited Lecture), Cache County Crop School, "Small grains variety development and improvement," Cache County Extension, Logan, UT. (February 13, 2013).
- Hole, D. J. (Presenter & Author), Chen, J. (Author Only), 5th AG-BIO/PERDO Graduate Conference on Agricultural Biotechnology and University of Tsukuba-Kasetsart University Joint Seminar II., "Applications of Phenomics and Genomics in Applied Breeding for Changing Environments in Barley and Wheat.," Kasetsart University, Kamphaeng Saen, Thailand, Kasetsart University, Kaphaeng Saen, Thailand. (December 8, 2012 - December 9, 2012).
- Hole, D. J. (Presenter & Author), Reeve, J. (Author Only), Miller, B. (Author Only), Endelman, J. (Author Only), 2012 Yangling International Agri-science Forum, "Sustainable Organic Wheat Production Under Rain-fed Production: A Long Term Study.," North West Agriculture and Forestry University, Yangling, Shaanxi, P.R. China. (November 5, 2012 - November 7, 2012).
- Kjelgren, R. K. (Presenter & Author), Hole, D. J. (Author Only), Johnson, P. G. (Author Only), International Symposium on Agricultural Education for Sustainable Development, "Globally Engaging American Agriculture and Natural Resource Students through Service Learning Study Abroad," UNESCO, University of Tsukuba, Tsukuba, Japan. (November 6, 2011 - November 12, 2011).
- Hole, D. J. (Presenter & Author), International Symposium on Agricultural Education for Sustainable Development, "Utilization of Genetic Resources for Crop Improvement in Changing Environments," UNESCO, University of Tsukuba, Tsukuba, Japan. (November 6, 2011 - November 12, 2011).

Hole, D. J. (Presenter & Author), Tongnual, P. (Author Only), Goates, B. (Author Only), International Conference on Wheat genetic resources and genomics, "Spore germination of *Tilletia controversa* Kühn (dwarf bunt of wheat) used in disease selection nurseries.," Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia. (August 28, 2011 - September 1, 2011).

Hole, D. J. (Presenter & Author), Chen, J. (Author Only), Conference on Agriculture Water Efficient Use in Arid Regions., "Improving barley and wheat germplasm for changing environments," Northwest Agriculture and Forestry University, Yangling, China. (August 17, 2011 - August 19, 2011).

Reeve, J. (Presenter & Author), Endelman, J. (Author Only), Hole, D. J., International conference on environmental, cultural, economic and social sustainability, "Long-term compost carryover effects on soil quality and yield of dryland winter wheat," Hamilton, New Zealand. (January 5, 2011 - January 7, 2011).

Liang, M. (Author Only), Wu, Y. (Author Only), Hole, D. J. (Presenter & Author), 2nd Wheat Genomics Meeting, "Functional analysis of HAP3b and HAP3c homologs in barley (*Hordeum vulgare*)," International Triticeae Mapping Initiative, Beijing, China. (August 31, 2010 - September 4, 2010).

Hole, D. J., 2nd Wheat Genomics Meeting, "Genome-wide identification of QTLs conferring high-temperature adult-plant (HTAP) resistance to stripe rust (*Puccinia striiformis* f. sp. *tritici*) in wheat," International Triticeae Mapping Initiative, Beijing, China. (August 31, 2010 - September 4, 2010).

Hole, D. J. (Invited Lecture), International Association of Operative Millers, "Wheat cultivar quality evaluation," International Association of Operative Millers, Salt Lake City, UT. (August 26, 2010).

Hole, D. J. (Invited Lecture), UCIA Seed School, "Small grains breeding report," Utah Crop Improvement Association, Brigham City, UT. (February 26, 2010).

Hole, D. J. (Presenter & Author), Greenville Farm Field Day, "Spring Barley Research Update," Logan, UT. (July 15, 2008).

Hole, D. J. (Presenter & Author), Bluecreek Field Day, "Utah Dryland Winter Wheat Research Update," Bluecreek, UT. (July 9, 2008).

Hole, D. J. (Presenter & Author), Western Wheat Workers, "Utah Small Grains Research," Davis, CA. (May 12, 2008).

Hole, D. J. (Presenter & Author), "Small grains cultivar update," Brigham City, UT. (February 29, 2008).

Hole, D. J. (Presenter & Author), WERA1009 annual meeting, "Utah Wheat Quality Update," Portland, OR. (January 30, 2008).

Hole, D. J. (Presenter & Author), Barley Coordinated Agriculture Project annual meeting, "Utah CAP report," San Diego, CA. (January 10, 2008).

Hole, D. J. (Presenter & Author), ACPFG Genomics of Drought, "The Barley coordinated agricultural project (CAP)," Adelaide, Australia. (October 22, 2007).

Hole, D. J. (Presenter & Author), Nephi farm field day, "Dryland small grains update," Nephi, UT. (July 26, 2007).

Hole, D. J. (Presenter & Author), Summer Citizens lecture series, "Wheat and bread," Logan, UT. (July 18, 2007).

Hole, D. J. (Presenter & Author), Greenville farm agronomic field day, "Spring and Winter small grains update," Greenville farm. (July 17, 2007).

Hole, D. J. (Presenter & Author), UCIA seed school, "Small grains cultivar update," Brigham City, UT. (February 28, 2007).

Hole, D. J. (Presenter & Author), WERA-081 annual meeting, "Utah Wheat Quality," Salt Lake City, UT. (January 26, 2007).

Hole, D. J. (Presenter & Author), Barley CAP annual meeting, "Barley CAP update," San Diego, CA. (January 12, 2007).

Patents or Copyrights Submitted or Accepted

Regular Patent, Plant Variety Protection Application: Greenville Wheat, PVP#: 201200470 issued 25 June 2014

Regular Patent, Plant Variety Protection application: Lucin CL wheat, Application number 201100464

Media Contributions

Other

University of Utah: Talk Soup. (March 27, 2013).

Radio

KUSU: Utah Public radio. (April 17, 2013).

Contracts, Grants and Sponsored Research

Grant

Creech, Joseph Earl (Principal), Reeve, Jennifer (Principal), Burke, Ian (Co-Principal), Norton, Jay (Co-Principal), Norton, Urszula (Co-Principal), Hole, David J., Jacobson, Astrid (Co-Principal), Curtis, Kynda (Co-Principal), Fortenberry, Randall (Co-Principal), Garcia, Axel, "Compost carryover and cover crop effects on soil quality, profitability and cultivar selection in organic dryland wheat.," Sponsored by USDA NIFA, Federal, \$1,555,053.00. (September 1, 2014 - August 31, 2018).

Hole, David J. (Supporting), "Wheat and Barley Coordinated Agricultural Project," Sponsored by USDA National Institute of Food and Agriculture (NIFA) Flow Through, Federal, \$25,000,000.00. (February 1, 2011 - December 31, 2016).

Hole, David J. (Co-Principal), Zemetra, Robert (Principal), Chen, Jianli (Co-Principal), "Developing the Next Generation of Neoclassical Plant Breeders," Sponsored by USDA National Institute of Food and Agriculture (NIFA) National Needs Graduate and Postgraduate Fellowships Program (NNF), Federal, \$249,000.00. (January 15, 2011 - January 14, 2016).

Hole, David J., "Research planter for dwarf bunt resistance evaluation.," Sponsored by Idaho Wheat Commission, Private, \$22,000.00. (May 2012 - May 2013).

Creech, Joseph Earl (Principal), Reeve, Jennifer (Co-Principal), Hole, David J. (Co-Principal), Curtis, Kynda (Co-Principal), "Compost carryover effects on yield, soil quality, and profitability in dryland organic wheat production systems," Sponsored by Utah State University RC, Utah State University, \$19,192.00. (July 1, 2011 - June 30, 2012).

Hole, David J., "Barley coordinated agricultural project (CAP)," Sponsored by USDA/NRI (Univ. of Minn. subcontract), \$56,307.00. (April 1, 2006 - August 31, 2010).

Johnson, Paul G. (Supporting), Hole, David J. (Principal), Kjelgren, Roger K. (Co-Principal), Grossl, Paul (Supporting), "Study abroad program—Thailand," Sponsored by Utah State University, Utah State University, \$4,000.00. (May 1, 2010 - August 1, 2010).

Hole, David J., "Improving Barley Yield Under Drought Using HAP Transcription Factors," Sponsored by USDA/CSREES (Oregon State Sub-contract), \$35,000.00. (August 1, 2008 - July 31, 2010).

Awards and Honors

Fulbright SE Asia regional review, Fulbright US State Dept. (November 2015).

WAAESD Award of Excellence, Western Association of Agricultural Experiment Station Directors. (July 2012).

Adjunct Professor in the 'Interdisciplinary Graduate Program in Agricultural Biotechnology', Kasetsart University. (January 30, 2012).

Visiting Professor (adjunct appointment), Northwest Agriculture and Forestry University, Yangling, China. (October 26, 2011).

Fulbright Fellow 2011-2012, Council for International Exchange of Scholars (CIES). (October 1, 2011).

Certificate of Appreciation, International Association of Operative Millers. (January 15, 2011).

Candidacy for Fulbright Specialist Roster. (January 26, 2009).

International Association of Operative Millers Certificate of Appreciation. (August 14, 2008).

Certificate of Appreciation. (July 30, 2002).

Leadership Training Class 10. (July 30, 2001).

Intellectual Contributions in Submission

Refereed Journal Articles

Stettler, J. M., Johnson, D. A., Bushman, B. Shaun, Connors, K. J., Jones, T. A., MacAdam, J. W., Hole, D. J. Utah Lotus: North American Legume for Possible Use in Rangeland Revegetation in the Southern Great Basin and Colorado Plateau. *Rangeland Ecology & Management*.

SERVICE

General Service

College

Committee Member, CAAS Curriculum Committee, July 2016 - Present.

Committee Member, P&T committee Tyler Sorensen, October 2015 - Present.

Department

Committee Chair, Department Curriculum Committee, July 2016 - Present.

Committee Chair, PSC Dept Social Committee, July 1, 2012 - 2013.

Committee Chair, Awards Committee, May 1, 2012.

Other

Conference Program Organizer, XIX Biennial International Workshop on the Bunts and Smuts, June 2014 - May 2016.

Professional/Public

International Scientific Advisory Board, XIX International Workshop on Smuts and Bunts, Izmir, Turkey. March 2015 - May 2016.

Committee Member, AOSCA Wheat Variety Review Panel - CSSA representative. January 1, 2012 - December 31, 2013.

Grant Proposal Reviewer, External, USDA AFRI research grant review panel, Washington DC, USA. June 24, 2013 - June 28, 2013.

Reviewer, Grant Proposal, USAID HortCRSP Review Panel. January 1, 2011 - December 31, 2012.

Program organizer for the International conference

Conference Chairperson, XX Biennial International Workshop on Bunts and Smuts, May 2016 - May 2018.

Utah State University

Committee Member, Promotion committee Brad Cole - USU librarian, February 2016 - Present.

Committee Member, P&T Committee Tyson Sorensen, August 2015 - Present.

Tenure Reviewer for Another Institution, Ball State University Promotion External review for Dr. Anne Blakey, May 2016 - November 2016.

Committee Chair, EPC - Academic Standards Subcommittee, August 2007 - May 2013.

Committee Member, EPC, August 2007 - May 2013.

Committee Member, P&T Committee - Eun, November 1, 2011.

Consulting

P&T Committee Jong-Su Eun. (November 15, 2007 - Present).

Academic standards sub-committee, EPC committee. (September 1, 2007 - Present).

Extension agronomist search committee. (August 1, 2007 - Present).

EPC committee. (June 1, 2007 - Present).

University IT users committee. (April 12, 2007 - Present).

PRPC. (January 1, 2007 - Present).

P&T Committee Duarte Diaz. (July 1, 2006 - Present).

P&T Committee Grant Cardon. (September 1, 2005 - Present).

Promotion Committee Paul Grossl. (September 1, 2005 - Present).

P&T Committee Yajun Wu. (September 12, 2003 - Present).

Utah Crop Improvement Association (UCIA). (January 1, 1999 - Present).

USU network managers group. (January 1, 1997 - Present).