

Publications

Peiris, K, Bockus, W., and Dowell, F. 2012. Infrared spectral properties of germ, pericarp, and endosperm sections of sound wheat kernels and those damaged by *Fusarium graminearum*. *Applied Spectroscopy* 66:1053-1060.

Cruz, C. D., Bockus, W. W., Stack, J. P., Tang, X., Valent, B., Pedley, K. F., and Peterson, G. L. 2012. Preliminary assessment of resistance among U.S. wheat cultivars to the *Triticum* pathotype of *Magnaporthe oryzae*. *Plant Dis.* 96:1501-1505.

Willyerd, K. T., Li, C., Madden, L. V., Bradley, C. A., Bergstrom G. C., Sweets, L. E., McMullen, M., Ransom, J. K., Grybauskas, A., Osborne, L., Wegulo, S. N., Hershman, D. E., Wise, K., Bockus, W. W., Groth, D., Dill-Mackey, R., Milus, R., Esker, P. D., Waxman, K. D., Adee, E. A., Ebelhar, S. E., Young, B. D., and Paul, P. A. 2012. Efficacy and stability of integrating fungicide and cultivar resistance to manage *Fusarium* head blight and deoxynivalenol in wheat. *Plant Dis.* 96:957-967.

Zhang, X., Bai, G., Bockus, W., Ji, X., and Pan, H. 2012. Quantitative trait loci for *Fusarium* head blight resistance in U.S. hard winter wheat cultivar Heyne. *Crop Science* 52:1187-1194.

Bockus, W. W., Cruz, C. C., Kalia, B., Gill, B. S., Stack, J. P., Pedley, K. F., Peterson, G. L. and Valent, B. 2012. Reaction of selected accessions of *Aegilops tauschii* to wheat blast, 2011. (online) *Plant Disease Management Reports* 6:CF005. DOI:10.1094/PDMR06. The American Phytopathological Society, St. Paul, MN.

Bockus, W. W., De Wolf, E., and Wegulo, S. N. 2012. Effect of fungicide application on *Fusarium* head blight in eight winter wheat cultivars, 2011. (online) *Plant Disease Management Reports* 6:CF004. DOI:10.1094/PDMR06. The American Phytopathological Society, St. Paul, MN.

Bockus, W. W., Baenziger, P. S., and Berzonsky, W. 2012. Reaction of Kansas, Nebraska, and South Dakota winter wheat accessions to *Fusarium* head blight (FHB), 2011. (online) *Plant Disease Management Reports* 6:CF003. DOI:10.1094/PDMR06. The American Phytopathological Society, St. Paul, MN.

Bockus, W. W., Davis, M. A., and De Wolf, E. D. 2012. Evaluation of foliar fungicides for control of tan spot of winter wheat, 2011. (online) *Plant Disease Management Reports* 6:CF002. DOI:10.1094/PDMR06. The American Phytopathological Society, St. Paul, MN.

Bockus, W. W., and Davis, M. A. 2012. Reaction of selected Kansas winter wheat cultivars to barley yellow dwarf, 2011. (online) *Plant Disease Management Reports* 6:CF001. DOI:10.1094/PDMR06. The American Phytopathological Society, St. Paul, MN.

De Wolf, E. D., Bockus, W. W., and Whitworth, J. R. 2012. Wheat Variety Disease and Insect Ratings 2012. Kansas Cooperative Extension Service publication MF-991. 4 pp.

Appel, J. A., De Wolf, E., Bockus, W. W., and Todd, T. 2012. Preliminary 2012 Kansas Wheat

Disease Loss Estimates. Kansas Cooperative Plant Disease Survey Report.
(http://www.ksda.gov/includes/document_center/plant_protection/Plant_Disease_Reports/2012KSWheatDiseaseLossEstimates.pdf)

Lingenfelter, J., Bockus, B., DeWolf, E., Fritz, A., Knapp, M., Whitworth, J., Adey, E., Heer, W., Kimball, J., Nelson, R., Evans, P., Kusel, K., Martin, T. J., Schlegel, A., Seaman, C., Spangler, M., Zhang, G., Chen, M., Chen, R., Knopf, J., Miller, R., and Shroyer, J. 2012 Performance Tests. Pages 6-30 in: 2012 Kansas Wheat Seed Book. Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress No. 1072. 52 pp.

Flowers, M.R., and Mundt, C.C. 2012. Managing stripe rust in 2012 and beyond. Pages 16-18 in: Oregon Wheat, June 2012.

Mundt, C. C. and Sackett, K.E., and Wallace, L.D. 2012. Scaling relationships for spread of disease caused by a wind-dispersed plant pathogen. *Ecosphere* 3 (Article 24):1-10.

Vazquez, M.D., Peterson, C.J., Riera-Lizarazu, O., Chen, X.M., Heesacker, A., Ammar, K., Crossa, J., and Mundt, C.C. 2012. Genetic analysis of adult plant, quantitative resistance to stripe rust in wheat cultivar 'Stephens' in multi-environment trials. *Theor. Appl. Genet.* 124:1-11.

Quincke, M.C., Peterson, C.J., and Mundt, C.C. 2012. Relationship between incidence of *Cephalosporium* stripe and yield loss in winter wheat. *Int. J. Agron.*:2012 (2012), Article ID 635219, 9 pages.

Publications 2013 (as of 8/11/13)

Flowers, M.R., and Mundt, C.C. 2013. Screening for resistance and the use of fungicides to control the major wheat diseases in Oregon. Pages 17-20 in: Oregon Wheat, June 2012.

Estep, L.K., Zala, M., Anderson, N.P., Sackett, K.E., Flowers, M., McDonald, B.A., and Mundt, C.C. 2013. First report of resistance to QoI fungicides in North American populations of *Zymoseptoria tritici*, causal agent of Septoria tritici blotch of wheat. *Plant Dis.*: "First Look" paper • <http://dx.doi.org/10.1094/PDIS-05-13-0486-PDN> • posted 06/18/2013.

Mundt, C. C., Wallace, L. D., Allen, T.W., Hollier, C.A., Kamerait, R.C., and Sikora, E.J. 2013. Initial epidemic area is strongly associated with the yearly extent of soybean rust spread in North America. *Biol. Inv* 15:1431-1438.

McMullen, M.P., Friskop, A.J., Jordahl, J.G., Meyer, S.M., Bergstrom, G.C., Bradley, C.A., Dill-Macky, R., Smith, M.J., Wiersma, J.J., Halley, S.A., Arens, A.J., Milus, E.A., Ruden, K.R. and Schatz, B.G. (2012). Uniform fungicide trial results for management of FHB and DON. In: *Proceedings of the 2012 National Fusarium Head Blight Forum*, Orlando, Florida, USA, December 4-6, 2012, pp. 19-20.

Seda, B.F., Dill-Macky, R., Chao, S. and Anderson, J.A. (2012). QTL mapping to investigate possible inhibition of *Fhb1*. In: *Proceedings of the 2012 National Fusarium Head Blight Forum*, Orlando, Florida, USA, December 4-6, 2012, p. 96.

Koeritz, E.J., Elakkad, A.M., Dahleen L.S., Skadsen, R., Abebe, T., Shah, J., Nalam, V.J., Klossner, G., Tumer, N., Di, R., Muehlbauer, G.J., Li, X., Shin, S. and Dill-Macky, R. (2012) Testing transgenic spring wheat and barley lines for reaction to Fusarium head blight: 2012 field nursery report. In: *Proceedings of the 2012 National Fusarium Head Blight Forum*, Orlando, Florida, USA, December 4-6, 2012, pp. 140-141.

Li, X., Shin, S., Dill-Macky, R., Berthiller, F., Clemente, T.E., McCormick, S.P. and Muehlbauer G.J. (2012). Transgenic wheat carrying a barley UDP-glucosyltransferase exhibit high levels of Fusarium head blight resistance. In: *Proceedings of the 2012 National Fusarium Head Blight Forum*, Orlando, Florida, USA, December 4-6, 2012, p. 142.

Muehlbauer, G.J., Shin, S., Li, X., Boddu, J., Heinen, S., Torres-Acosta, J.A., Paris, M.P.K., Schweiger, W., Clemente, T.E., Dill-Macky, R., McCormick, S.P., Lemmens, M., Berthiller, F. and Adam, G. Developing Fusarium head blight resistant wheat. In: *Proceedings of the 2012 National Fusarium Head Blight Forum*, Orlando, Florida, USA, December 4-6, 2012, p. 144.

McMullen, M.P., Bergstrom, G.C., De Wolf, E.D., Dill-Macky, R., Hershman, D.E., Shaner, G.E. and Van Sanford D.A. (2012). A unified effort to fight and enemy of wheat and barley: Fusarium head blight. *Plant Disease*, 96:1712-1728.

Gautam, P. and Dill-Macky, R. (2012). Free water can leach mycotoxin from *Fusarium*-infected wheat heads. *J. Phytopathology*, 160:484-490.

Willyerd, K.T., Li, C., Madden, L.V., Bradley, C.A., Bergstrom, G.C., Sweets, L.E., McMullen, M.P., Ransom, J.K., Grybauskas, A.P., Osborne, L.E., Wegulo, S.N., Hershman, D.E., Wise, K.A., Bockus, W.W., Groth, D., Dill-Macky, R., Milus, A.E., Esker, P.D., Waxman, K.D., Adey, E.A., Ebelhar, S.E., Young, B.G. and Paul, P.A. (2012). Efficacy and stability of integrating fungicide and cultivar resistance to manage Fusarium head blight and deoxynivalenol in wheat. *Plant Disease*, 96:957-967.

Wiersma, J.J., Dai, J., Dahlen, R.B.A. and Dill-Macky, R. (2012). Control of leaf spotting diseases and Fusarium head blight of wheat in Minnesota, 2010. *Plant Disease Management Reports*, 6:CF039. Online publication. doi:10.1094/PDMR06

Gautam, P. and Dill-Macky, R. (2012). Fusarium head blight development and trichothecene accumulation in point-inoculated Fusarium infected wheat heads. *World Mycotoxin Journal*, 5:45-55.

Gautam, P. and Dill-Macky, R. (2012). Impact of moisture, host genetics and *Fusarium graminearum* isolates on Fusarium head blight development and trichothecene accumulation in spring wheat. *Mycotoxin Research*, 28:45-58.

Chen, J., J. Wheeler, J. Clayton, W. Zhao, K. O'Brien, C. Jackson, J. M. Marshall, B.D. Brown, K. Campbell, X.M. Chen, R. Zemetra, and E.J. Souza. 2013. Registration of 'UI Stone' Wheat. *J. Plant Registration* 7: 321-326.

Chen, J., Ch. Chu, E.J. Souza, M.J. Guttieri, X. Chen, S. Xu, D. Hole, and R. Zemetra. 2012. Whole genome-wide mapping for high-temperature adult-plant resistance to stripe rust (*Puccinia striiformis* f. sp. *tritici*) in a hard red winter wheat germplasm IDO444. *Molecular Breeding* 29: 791 – 800.

Emir Islamovic, Donald E Obert, Rebekah E Oliver, Juliet M Marshall, Kelci J Miclaus, An Hang, Shiaoan Chao, Gerard Lazo, Stephen A Harrison, Amir Ibrahim, Eric N Jellen, Peter J Maughan, Ryan H Brown, Eric W Jackson. A new genetic linkage map of barley (*Hordeum vulgare* L.) facilitates genetic dissection of height and spike length and angle. *Field Crops Research journal* (<http://www.journals.elsevier.com/field-crops-research/>). Accepted 2013.

Smiley, R. W., Marshall, J. M., Gourlie, J. A., Paulitz, T. C., Kandel, S. L., Pumphrey, M. O., Garland-Campbell, K., Yan, G. P., Anderson, M. D., Flowers, M. D., and Jackson, C. A. 2013. Spring wheat tolerance and resistance to *Heterodera avenae* in the Pacific Northwest. *Plant Disease* 97: 590-600.

Islamovic, E., Obert, D.E., Oliver, R.E., Harrison, S.A., Ibrahim, A., Marshall, J.M., Miclaus, K.J., Hu, G., Jackson, E.W. 2012. Genetic dissection of grain beta-glucan and amylose content in barley (*Hordeum vulgare* L.). *Mol. Breeding*. Received: 22 February 2012 / Accepted: 14 June 2012. DOI 10.1007/s11032-012-9764-1

Stark, J.C., Love, S.L., King, B.A., Marshall, J.M., Bohl, W.H., and Salaiz, T. 2013. Potato Cultivar Response to Seasonal Drought Patterns. *American Journal of Potato Research*. *Am. J. Potato Res.* DOI 10.1007/s12230-012-9285-9. Published Jan 26, 2013.
<http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s12230-012-9285-9>

Smiley, R.W., Gourlie, J.A., Rhinhart, K.E.L., Marshall, J.M., Anderson, M.D. and Yan, G. 2012. Influence of Nematicides and Fungicides on Spring Wheat in Fields Infested with Soilborne Pathogens. *Plant Dis.* 96:1537-1547.

Obert, D.E., A. Hang, G. Hu, C. Burton, K. Satterfield, C.P. Evans, J.M. Marshall, and E.W. Jackson. Registration of 'Julie - 03AH6561-94' high beta-glucan barley. *Journal of Plant Registrations* 2012. Vol. 5: 0: 0: - doi:10.3198/jpr2011.12.0639c

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., Brown, B. D., Marshall, J. M., and R. Zemetra. Registration of 'UI SRG' Wheat. *Journal of Plant Registrations*, Vol. 6, No. 1, January 2012.

Smiley, R., Paultiz, T., and J. Marshall. Controlling Root and Crown Diseases of Small Grain Cereals. PNW 639 Dec 2012

Marshall, J.M., Jackson, C.A., Shelman, T., Beck, L., and O'Brien, K. 2013. 2012 Small Grains Report, Southcentral and Southeast Idaho Cereals Research and Extension Program. Idaho Agricultural Experiment Station. UI Research Bulletin 181. 130 pp.

Bissonnette, K.M and Marshall, J.M. 2012. A shift in species dominance of FHB fungi in southern Idaho. (Abstr.) *Phytopathology* 102(Suppl. 6):S6.7
<http://dx.doi.org/10.1094/PHYTO-102-11-S6.7>

Thomas Sweemer, Michael Flowers, Chris Mundt, Stephen Guy, Juliet Marshall, and Doug Finkelnburg. Managing Stripe Rust in Pacific Northwest Winter Wheat. *Agronomy Abstract* 66-4. 2012. Presented at the 2012 Agronomy Meeting, Oct 22, in Cincinnati, OH.

Junli Zhang, Jianli Chen, Yueguang Wang, Brian Bowman, Justin Wheeler, Weidong Zhao, Katherine O'Brien, Juliet Marshall, Harold Bockelman and J. Michael Bonman. "Association Mapping of Hagberg Falling Number in Hard White Spring Wheat Accessions." *CSSA Abstract* 66-4. 2012. Presented at the 2012 Agronomy Meeting, Oct 23, in Cincinnati, OH.

Jianli Chen, Junli Zhang, Yueguang Wang, Brian Bowman, Santosh Nayak, Justin Wheeler, Weidong Zhao, Katherine O'Brien, Juliet Marshall and J. Michael Bonman. "Evaluation and Utilization of Collection Materials to Solve Idaho Wheat Production Concerns." *CSSA Abstract* 110-2. 2012. Presented at the 2012 Agronomy Meeting, Oct 22, in Cincinnati, OH.

J.M. Marshall, K.M. Bissonnette, and J. Chen. 2012. The re-emergence of FHB in Idaho. University of Idaho Extension Impact Statement.

Chen, J., J.M. Marshall, and Wilson, C.M. Evaluation of FHB Resistance in PNW Spring Wheat Lines. *Idaho Grain Producers Magazine*. p.18-19. Spring 2012.

Marshall, J.M., Shelman, T. and Jackson, C.A. 2012. Evaluation of seed treatments for testing control of crown and foot rot in winter wheat, Bingham County, Idaho, 2011. *Plant Disease Management Reports* 6:ST016. The American Phytopathological Society, St. Paul. MN. doi:10.1094/PDMR06/ST016

Marshall, J.M., Shelman, T., and Jackson, C.A. 2012. Evaluation of seed treatments for control of crown and foot rot in winter wheat, Bingham County, Idaho, 2011. *Plant Disease Management Reports* 6:ST017. The American Phytopathological

Society, St. Paul. MN. doi:10.1094/PDMR06/ST017

Marshall, J.M., Jackson, C.A., and Shelman, T. 2012. Fungicide seed treatments for control of loose smut in spring barley, Bingham County, Idaho, 2011. Plant Disease Management Reports 6:ST018. Report No.5:CF027/PDMR05. The American Phytopathological Society, St. Paul. MN. doi:10.1094/PDMR06/ST018

Marshall, J.M., Jackson, C.A., Beck, L., and Shelman, T. Cereal Diseases in Idaho in 2011 – Stripe rust impacts. Proceedings of the University of Idaho Commodity Schools, 2012.

Marshall, J.M., Shelman, T., Jackson, C.A., and Beck, L. 2011 Idaho Wheat and barley variety performance tests and three-year summaries. Proceedings of the University of Idaho Commodity Schools, 2012.