

Publications acknowledging WheatCAP support

2018 (47 publications + 6 in press)

1. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Norden' hard red spring wheat. *J. Plant Registrations*. 12:90–96. [doi:10.3198/jpr2017.07.0045crc](https://doi.org/10.3198/jpr2017.07.0045crc)
2. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Linkert' spring wheat with good straw strength and adult plant resistance to the Ug99 family of stem rust races. *J. Plant Registrations* 12:208–214. [doi:10.3198/jpr2017.07.0046crc](https://doi.org/10.3198/jpr2017.07.0046crc)
3. Anderson, J.A., J.J. Wiersma, G.L. Linkert, S. Reynolds, J.A. Kolmer, Y. Jin, M. Rouse, R. Dill-Macky, G.A. Hareland, and J.-B. Ohm. 2018. Registration of 'Bolles' hard red spring wheat with high grain protein concentration and superior baking quality. *J. Plant Registrations* 12:215–221. [doi:10.3198/jpr2017.08.0050crc](https://doi.org/10.3198/jpr2017.08.0050crc)
4. Ando, K., S. Rynearson, K. T. Muleta, J. Gedamu, B. Girma, N. Bosque-Pérez, M. S. Chen, M. O. Pumphrey. 2018. Genome-Wide Associations for Multiple Pest Resistances in a Northwestern United States Elite Spring Wheat Panel. *Plos One* 13: e0191305. [doi:10.1371/journal.pone.0191305](https://doi.org/10.1371/journal.pone.0191305)
5. Ayana GT, Ali S, Sidhu JS, Gonzalez Hernandez JL, Turnipseed B and Sehgal SK (2018) Genome-wide association study for spot blotch resistance in hard winter wheat. *Front. Plant Sci.* 9:926. [doi:10.3389/fpls.2018.00926](https://doi.org/10.3389/fpls.2018.00926).
6. Bai, G., Z. Su, J. Cai. 2018. Wheat resistance to fusarium head blight. *Can J. Plant Pathol* doi.org/10.1080/07060661.2018.1476411.
7. Belamkar, V, M.J. Guttieri, W. Hussain, D. Jarquín, I. El-basyoni, J. Poland, A. J. Lorenz, P.S. Baenziger. 2018. Genomic Selection in Preliminary Yield Trials in a Winter Wheat Breeding Program. *G3: Genes, Genomes, Genetics*. 8:2735. [doi:10.1534/g3.118.200415](https://doi.org/10.1534/g3.118.200415)
8. Blake, N. K., A. C. Varella, B. Bicego, J. M. Martin, J. P. Cook, H.-Y. Heo, R. Acharya, J. D. Sherman, D. Nash, L. E. Talbert. 2018. Maturity traits related to climate adaptation affect quality characteristics in hard red spring wheat. *Crop Sci.* 58:1954–1963. [doi:10.2135/cropsci2018.04.0228](https://doi.org/10.2135/cropsci2018.04.0228)
9. Case, A.J., S. Bhavani, G. Macharia, Z. Pretorius, V. Coetzee, F. Kloppers, P. Tyagi, G. Brown-Guedira, B.J. Steffenson. 2018. Mapping adult plant stem rust resistance in barley accessions Hietpas 5 and GAW 79. *Theor Appl Genet.* [doi:10.1007/s00122-018-3149-8](https://doi.org/10.1007/s00122-018-3149-8)

10. Chen, S., Y. Guo, J. Briggs, F. Dubach, S. Chao, W. Zhang, M.N. Rouse, J. Dubcovsky. 2018. Mapping and characterization of wheat stem rust resistance genes *SrTm5* and *Sr60* from *Triticum monococcum* Theor. Appl. Genet. 131: 625-635. [doi:10.1007/s00122-017-3024-z](https://doi.org/10.1007/s00122-017-3024-z)
11. Chen, S., W. Zhang, S. Bolus, M.N. Rouse, J. Dubcovsky. 2018. Identification and characterization of wheat stem rust resistance gene *Sr21* effective against the Ug99 race group. PLOS Genetics. 14: e1007287. [doi:10.1371/journal.pgen.1007287](https://doi.org/10.1371/journal.pgen.1007287)
12. Cook, J.; Heo, H.-Y. Varella, A., Lanning, S., Blake, N, Sherman, J. D, Martin, J., See, D. R, Chao, S., L. Talbert. 2018. Evaluation of a QTL mapping population comprised of hard red spring and winter wheat alleles using various marker platforms. Crop Sci. 58:701-712. [doi:10.2135/cropsci2017.08.0488](https://doi.org/10.2135/cropsci2017.08.0488)
13. Dong H, R. Wang, Y. Yuan, J. Anderson, M. Pumphrey, Z. Zhang, J. Chen. 2018. Evaluation of the potential for genomic selection to improve spring wheat resistance to Fusarium head blight in the Pacific Northwest. Frontiers in Plant Science. 9: 911. [doi:10.3389/fpls.2018.00911](https://doi.org/10.3389/fpls.2018.00911)
14. Edae, E. A., M.O. Pumphrey, and M.N. Rouse. 2018. A genome-wide association study of field and seedling response to individual stem rust pathogen races reveals combinations of race-specific genes in North American spring wheat. Frontiers in Plant Science 9:52. [doi:10.3389/fpls.2018.00052](https://doi.org/10.3389/fpls.2018.00052)
15. Elbasyoni I.S., A.J. Lorenz, M. Guttieri, K. Frels, P.S. Baenziger, J. Poland, E. Akhunov. 2018. A comparison between genotyping-by-sequencing and array-based scoring of SNPs for genomic prediction accuracy in winter wheat. Plant Sci. 270:123-130. [doi:10.1016/j.plantsci.2018.02.019](https://doi.org/10.1016/j.plantsci.2018.02.019)
16. El-Feki, W.M., P.F. Byrne, S.D. Reid, and S.D. Haley. 2018. Mapping quantitative trait loci for agronomic traits in winter wheat under different soil moisture levels. Agronomy 8: 133. [doi:10.3390/agronomy8080133](https://doi.org/10.3390/agronomy8080133)
17. Frels, K., M. Guttieri, B. Joyce, B. Leavitt, P.S. Baenziger. 2018. Evaluating canopy spectral reflectance indices to estimate nitrogen use traits in hard winter wheat. Field Crops Research 217:82. [doi:10.1016/j.fcr.2017.12.004](https://doi.org/10.1016/j.fcr.2017.12.004)
18. Gardiner, L.-J., T. Brabbs, A. Akhunova, K. Jordan, H. Budak, T. Richmond, S. Singh, L. Catchpole, E. Akhunov, A. Hall. 2018. Integrating genomic resources to present full gene and promoter capture probe sets for bread wheat. bioRxiv. 363663. [doi:10.1101/363663](https://doi.org/10.1101/363663)
19. Gizaw, S.A., J.G.V. Godoy, K. Garland-Campbell, A.H. Carter. 2018. Using spectral reflectance as proxy phenotypes for genome-wide association studies of yield and yield stability in Pacific Northwest winter wheat. Crop Science 58:1232-1241. [doi:10.2135/cropsci2017.11.0710](https://doi.org/10.2135/cropsci2017.11.0710)
20. Godoy, J., S. Rynearson, X. Chen, M. Pumphrey. 2018. Genome-wide association mapping of loci for resistance to stripe rust in North American elite spring wheat germplasm. Phytopathology. 108:234-24. [doi:10.1094/PHYTO-06-17-0195-R](https://doi.org/10.1094/PHYTO-06-17-0195-R)
21. Godoy, J., S. Gizaw, S. Chao, N. Blake, A. Carter, R. Cuthbert, J. Dubcovsky, P. Hucl, K. Kephart, C. Pozniak, P. V. Vara Prasad, M. Pumphrey, L. Talbert. 2018. Genome-wide

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22. Haixiao, D., R. Wang, Y. Yuan, J. Anderson, M.O. Pumphrey, Z. Zhang, J. Chen. 2018. Evaluation of the potential for genomic selection to improve spring wheat resistance to *Fusarium* head blight in the Pacific Northwest. *Frontiers in Plant Science* 9:911. [doi:10.3389/fpls.2018.00911](https://doi.org/10.3389/fpls.2018.00911)
 23. Haley, S.D., J.J. Johnson, F.B. Peairs, J.A. Stromberger, E.E. Hudson-Arns, S.A. Seifert, V.A. Anderson, J.B. Rudolph, G. Bai, X. Chen, R.L. Bowden, Y. Jin, J.A. Kolmer, M.-S. Chen, and B.W. Seabourn. 2018. Registration of ‘Langin’ Hard Red Winter Wheat. *J. Plant Reg.* 12:232–236d. [doi:10.3198/jpr2017.11.0082crc](https://doi.org/10.3198/jpr2017.11.0082crc)
 24. Haley, S.D., J.J. Johnson, F.B. Peairs, J.A. Stromberger, E.E. Hudson-Arns, S.A. Seifert, V.A. Anderson, J.B. Rudolph, G. Bai, X. Chen, R.L. Bowden, Y. Jin, J.A. Kolmer, M.-S. Chen, and B.W. Seabourn. 2018. Registration of Avery wheat. *J. Plant Reg.* [doi:10.3198/jpr2017.11.0080crc](https://doi.org/10.3198/jpr2017.11.0080crc).
 25. Hao, Q., W. Wang, X. Han, J. Wu, B. Lyu, F. Chen, A. Caplan, C. Li, J. Wu, W. Wang, Q. Xu, D. Fu. 2018. Isochorismate-based salicylic acid biosynthesis confers basal resistance to *Fusarium graminearum* in barley. *Molecular Plant Pathology*: 19: 1995–2010. [doi:10.1111/mpp.12675](https://doi.org/10.1111/mpp.12675)
 26. Hegarty, J.M., I.A. del Blanco, L. Gallagher, J. Dubcovsky. 2018. Registration of ‘UC Tahoe’, a California adapted two-rowed spring barley for craft-scale malting. *Journal of Plant Registration* 12:163–167. [doi:10.3198/jpr2017.09.0064crc](https://doi.org/10.3198/jpr2017.09.0064crc)
 27. Heo, H.-Y., N. K. Blake, S. P. Lanning, P. F. Lamb, D. Nash, D. M. Wichman, K. D. Kephart, R. N. Stougaard, J. H. Miller, G. V. P. Reddy, J. L. Eckhoff, C. Chen, F. Menalled, E. Davis, and L. E. Talbert. 2018. Registration of NS Presser CLP wheat. *J. Plant Reg*12:70-73. [doi:10.3198/jpr2017.02.0008crc](https://doi.org/10.3198/jpr2017.02.0008crc)
 28. Huang, M., N. Mheni, G. Brown-Guedira, A. McKendry, C. Griffey, D. Van Sanford, J. Costa, C Sneller. 2018. Genetic analysis of heading date in winter and spring wheat. *Euphytica*, 214: 128. [doi:10.1007/s10681-018-2199-y](https://doi.org/10.1007/s10681-018-2199-y)
 29. Jordan, K.J., S.Wang, F. He, S. Chao, Y. Lun, E. Paux, P. Sourdille, J. Sherman, A. Akhunova, N. K. Blake, M.O. Pumphrey, K. Glover, J. Dubcovsky, L. Talbert, E. Akhunov. 2018. The genetic architecture of genome-wide recombination rate variation in allopolyploid wheat revealed by nested association mapping *Plant J.* 95: 1039–1054. [doi:10.1111/tpj.14009](https://doi.org/10.1111/tpj.14009)
 30. Kippes, N., M. Guedira, L. Lin, G.L. Brown-Guedira and J. Dubcovsky. 2018. Single nucleotide polymorphisms in a regulatory site of *VRN-A1* first intron are associated with differences in vernalization requirement in winter wheat. *Molecular Genetics and Genomics.* [doi:10.1007/s0043](https://doi.org/10.1007/s0043)
 31. Kidwell, K.K, J. S. Kuehner, G.B. Shelton, V.L. DeMacon, S. Rynearson, X.M. Chen, S. O. Guy, J.M. Marshall, D.A. Engle, C.F. Morris, and M.O. Pumphrey. 2018. Registration of 'Dayn" Hard White Spring Wheat. *J. Plant Registrations* 12:222-227. [doi:10.3198/jpr2017.10.0075crc](https://doi.org/10.3198/jpr2017.10.0075crc)

32. Lei, L, G. Li, H. Zhang, C. Powers, T. Fang, Y. Chen, X. Zhu, B. Carver, L. Yan. 2018. Nitrogen use efficiency was regulated by interacting proteins relevant to development in wheat. *Plant Biotechnol J.* 16: 1214-1226. [doi:10.1111/pbi.12864](https://doi.org/10.1111/pbi.12864)
33. Liu M, L. Lei, F. Miao, C. Powers, X. Zhang, J. Deng, M. Tadege, B.F. Carver, L. Yan. 2018. The *STENOFOLIA* gene from Medicago alters leaf width, flowering time and chlorophyll content in transgenic wheat. *Plant Biotechnol J.* 16:186-196. [doi:10.1111/pbi.12759](https://doi.org/10.1111/pbi.12759)
34. Liu W., Y. Naruoka, K. Miller, K. Garland-Campbell, A.H. Carter. 2018. Characterizing and validating stripe rust resistance loci in US Pacific Northwest winter wheat accessions (*Triticum aestivum* L.) by genome-wide association and linkage mapping. *The Plant Genome* 11:170087. [doi:10.3835/plantgenome2017.10.0087](https://doi.org/10.3835/plantgenome2017.10.0087)
35. Liu, Y., R. Wang, Y. Hu, and J. Chen. 2018. Genome-wide linkage mapping of quantitative trait loci for late-season physiological and agronomic traits in spring wheat under irrigated conditions. *Agronomy* 60: [doi:10.3390/agronomy8050060](https://doi.org/10.3390/agronomy8050060).
36. Lozada, D.N., Mason, R.E., Sukumaran, S., Dreisigacker, S. 2018 Validation of grain yield QTL from soft winter wheat using a CIMMYT spring wheat panel. *Crop Science.* [doi:10.2135/cropsci2018.04.0232](https://doi.org/10.2135/cropsci2018.04.0232)
37. Mason, R.E., J.W. Johnson, M. Mergoum, R.G. Miller, D.E. Moon, J. Carlin, S.A. Harrison, M.A. Babar, P. Murphy, A.M.H. Ibrahim, R. Sutton, and A.R. Blount. 2018. AR11LE24 is a soft red winter wheat adapted to the mid-south region of the United States. *Journal of Plant Registrations.* [doi:10.3198/jpr2017.09.0060crc](https://doi.org/10.3198/jpr2017.09.0060crc)
38. Mo, J., T. Howell, H. Vasquez-Gross, L.A. de Haro, J. Dubcovsky, S. Pearce. 2018. Mapping causal mutations by exome sequencing in a wheat TILLING population: a tall mutant case study. *Mol. Genet. Genom.* 293: 463-477. [doi:10.1007/s00438-017-1401-6](https://doi.org/10.1007/s00438-017-1401-6)
39. Mo, Y., L.S. Vanzetti, I. Hale3, E.J. Spagnolo, F. Guidobaldi, J. Al-Oboudi, N. Odle, S. Pearce, M. Helguera, J. Dubcovsky. 2018. Identification and characterization of Rht25, a locus on chromosome arm 6AS affecting wheat plant height, heading time, and spike development. *Theor Appl Genet* [doi:10.1007/s00122-018-3130-6](https://doi.org/10.1007/s00122-018-3130-6)
40. Qureshi, N., H. Bariana, P. Zhang, R. McIntosh, D. Wong, M. Shankar, M.J. Hayden, J. Dubcovsky, and U. Bansal. 2018. Genetic relationship of stripe rust resistance genes *Yr34* and *Yr48* in wheat and identification of linked KASP markers. *Plant Disease.*102: 413-420. [doi:10.1094/PDIS-08-17-1144-RE](https://doi.org/10.1094/PDIS-08-17-1144-RE)
41. Shao M., G. Bai, T.W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, and G. Zhang. 2018. QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby. *Theor. Appl. Genet.* 131: 1683-1697. [doi:10.1007/s00122-018-3107-5](https://doi.org/10.1007/s00122-018-3107-5)
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45. Yuan, C., J. Wu, B. Yan, Q. Hao, C. Zhang, B. Lyu, F. Ni, A. Caplan, J. Wu, D. Fu. 2018. Remapping of the stripe rust resistance gene *Yr10* in common wheat. *Theor. Appl. Genet.* 131: 1253–1262. [doi:10.1007/s00122-018-3075-9](https://doi.org/10.1007/s00122-018-3075-9)
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47. Zhang, J., S.A. Gizaw, E. Bossolini, J. Hegarty, T. Howell, A.H. Carter, E. Akhunov, J. Dubcovsky. 2018. Identification and validation of QTL for grain yield and plant water status under contrasting water treatments in fall-sown spring wheats. *Theor. Appl. Genet.* 131: 1741–1759. [doi:10.1007/s00122-018-3111-9](https://doi.org/10.1007/s00122-018-3111-9)

In press

1. Cobo, N., L. Pflüger, X. Chen, J. Dubcovsky. 2018. Mapping QTL for resistance to new virulent races of wheat stripe rust from two Argentinean wheat varieties. *Crop Sci.* *In press*
2. Dhakal, S., C.-T. Tan, V. Anderson, H. Yu, M.P. Fuentealba, J.C. Rudd, S.D. Haley, Q. Xue, A.M.H. Ibrahim, L. Garza, R. Devkota, S.-Y. Liu. 2017. Mapping and KASP marker development for wheat curl mite resistance in ‘TAM 112’ wheat using linkage and association analysis. *Mol. Breeding.* *In press.*
3. Gizaw SA, Godoy JG, Pumphrey MO, Carter AH. 2018. Use of spectral reflectance indices in indirection selection and genome wide association studies of drought resistance and yield potential in North American spring wheat (*Triticum aestivum* L.). *Crop Sci.* *In press.*
4. Gizaw, S.A., J. Godoy, K. Garland-Campbell, A.H. Carter. 2018. Genome-wide association study of yield and component traits in Pacific Northwest winter wheat (*Triticum aestivum* L.). *Crop Science* *In press*
5. Huang M., B. Ward, C. Griffey, D. Van Sanford, A. McKendry, G. Brown-Guedira, P. Tyagi, C Sneller. 2018. The accuracy of genomic prediction between environments and populations for soft wheat traits. *Crop Sci.* *In press.*
6. Jernigan K.L., J. Godoy, M. Huang, Y. Zhou, C.F. Morris, K. A. Garland-Campbell, Z. Zhang, A.H. Carter 2018. Association mapping for end-use quality in Pacific Northwest adapted soft white winter wheat. *Front. Pl. Sci.* *In press.*