

Publications
Grain, Forage, and Bioenergy Research Unit (2003 – 2006)

Roy French

1. **French, R.** and D. C. Stenger. 2003. Evolution of wheat streak mosaic virus: Dynamics of population growth within plants may explain limited variation. *Ann. Rev. Phytopathol.* 41:199-214.
2. Stenger, D.C. and **R. French**. 2004. Complete nucleotide sequence of oat necrotic mosaic virus: A distinct tritimovirus species most closely related to wheat streak mosaic virus. *Arch. Virol.* 149:633-640.
3. Stenger, D.C. and **R. French**. 2004. Functional replacement of Wheat streak mosaic virus HC-Pro with the corresponding cistron from a diverse array of viruses in the family Potyviridae. *Virology* 323:257-267.
4. Balaji, S., M. C. Black, **R. French**, D. C. Stenger, and G. Sunter. 2004. Spinach curly top virus: A newly described Curtovirus species from Southwest Texas with incongruent gene phylogenies. *Phytopathology* 94:772-779.
5. **French, R.** and D. C. Stenger. 2005. Reciprocal monophyly of the genera Potyvirus and Rymovirus (family Potyviridae) is supported by genome sequences of *Agropyron* mosaic virus and *Hordeum* mosaic virus. *Arch. Virol.* 150:299-312.
6. Choi, I.R., K. M. Horken, D. C. Stenger, and **R. French**. 2005. An internal RNA element in the wheat streak mosaic virus P3 cistron revealed by synonymous mutations that affect both movement and replication. *J. General Virology* 86:2605-2614.
7. Stenger, D.C., G. L. Hein, F. E. Gildow, K. M. Horken, and **R. French**. 2005. Plant virus HC-Pro is a determinant of Eriophyid mite transmission. *J. Virology* 79:9054-9061.
8. Stenger, D.C., **R. French**, and F. E. Gildow. 2005. Complete deletion of wheat streak mosaic virus HC-Pro: A null mutant is viable for systemic infection. *J. Virology* 79:12077-12080.
9. Brown, J.K., A. M. Idris, K. Ostrow, N. Goldberg, **R. French**, and D. C. Stenger. 2005. Genetic and phenotypic variation within the pepper golden mosaic virus complex. *Phytopathology* 95:1217-1224.
10. **French, R.** and D. C. Stenger. 2005. Population structure within lineages of wheat streak mosaic virus derived from a common founding event exhibit stochastic variation inconsistent with the deterministic quasispecies model. *Virology* 343:179-189.

11. Stenger, D.C., G. L. Hein, and **R. French** 2006. Nested deletion analysis of wheat streak mosaic virus HC-Pro: mapping domains affecting polyprotein processing and eriophyid mite transmission. *Virology* 350:465-474.
12. Stenger, D.C., B.A. Young, and **R. French** 2006. Random mutagenesis of Wheat streak mosaic virus HC-Pro: noninfectious interfering mutations in a gene dispensable for systemic infection of plants. *J. General Virology* (in press).

Deanna Funnell

1. Pedersen, J., Marx, D. and **Funnell, D.** 2003. A technique to reduce the risk of gene flow through sorghum pollen. *Crop Science* 43: 1506-1509.
2. Pedersen, J., Bean, S., **Funnell, D.** and Graybosch, R. 2004. Rapid iodine staining techniques for identifying the waxy phenotype in sorghum grain and waxy genotype in sorghum pollen. *Crop Science* 44: 764-767.
3. Heist, E., Zaitlin, D., **Funnell, D.**, Nesmith, W. and Schardl, C. 2004. Necrotic-lesion resistance induced by *Peronospora tabacina* on leaves of *Nicotiana obtusifolia*. *Phytopathology* 94: 1178-1188.
4. Mazzola, M., **Funnell, D.** and Raaijmakers, J. 2004. Wheat-specific selection of 2,4-diacetylphloroglucinol-producing fluorescent *Pseudomonas* species from resident soil populations. *Microbial Ecology* 48: 338-348.
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10. **Funnell, D.** and Pedersen, J. 2006. Reaction of sorghum lines genetically modified for reduced lignin content to infection by *Fusarium* and *Alternaria* species. Plant Disease 90: 331-338.
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Robert Graybosch

1. Kim, W., Johnson, J.W., **Graybosch, R.A.**, Gaines, C.S. 2003. The effect of T1DL.1RS wheat-rye chromosomal translocation on agronomic performance and end-use quality of soft wheat. Cereal Research Communications 31 (3-4), 301-308.
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4. Guo, G. D. S. Jackson, **R. A. Graybosch**, and A. M. Parkhurst. 2003. Wheat tortilla quality: impact of amylose content adjustments using waxy wheat flour. Cereal Chemistry 80: 427-436.
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8. Kumlay, A., P.S. Baenziger, K. Gill, D.R. Shelton, **R.A. Graybosch**, A. Lukaszewski and D. Wesenberg. 2003. Understanding the effect of rye chromatin in wheat. Crop Science 43: 1643-1651.

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15. **R.A. Graybosch**, C.J. Peterson, D.R. Porter, and O.K. Chung. 2004. Registration of N96L9970 greenbug resistant wheat. *Crop Sci.* 44: 1492-1493.
16. **R.A. Graybosch**, E.J. Souza, W.A. Berzonsky, P.S. Baenziger, D.J. McVey, and O.K. Chung. 2004. Registration of nineteen waxy spring wheats. *Crop Sci.* 44: 1491-1492.
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22. Fufa H., P. Stephen Baenziger, B.S. Beecher, **R.A. Graybosch**, K.M. Eskridge and L.A. Nelson. 2005. Genetic improvement trends in agronomic performances and end-use quality characteristics among hard red winter wheat cultivars in Nebraska. *Euphytica* 144: 187-198.
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34. Divis, L.A., **R.A. Graybosch**, C. J. Peterson, P. S. Baenziger, G.L. Hein, B.B. Beecher, and T. J. Martin. In Press. Agronomic and quality effects in winter wheat of a gene conditioning resistance to wheat streak mosaic virus. *Euphytica*.
35. F. E. Dowell, E. B. Maghirang, **R. A. Graybosch**, P. S. Baenziger, D. D. Baltensperger, and L. E. Hansen. In Press. An automated single-kernel near-infrared trait selection system. *Cereal Chemistry*.

Rob Mitchell

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Jeffrey Pedersen

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3. Stack, James P. and **Jeffrey F. Pedersen**. Expression of Susceptibility to Fusarium Head Blight and Grain Mold in A1 and A2 Cytoplasms of Sorghum bicolor (L.) Moench. *Plant Disease* 87(2): 172-176. 2003.
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Gautam Sarath

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