

REBECCA CREAMER

Associate Professor

Dept. Entomology, Plant Pathology and Weed Science
New Mexico State University
Las Cruces, NM 88003
505-646-3068
creamer@taipan.nmsu.edu

RESEARCH INTERESTS

Plant viruses, insect vector transmission, viral epidemiology, fungal endophytes, ecology and genetics of locoweed endophytes

EDUCATION

Ph.D., 1989 Plant Pathology, University of California, Davis. Dissertation: Aphid transmission specificity and mixed infection interactions of barley yellow dwarf viruses.

M.S., 1985 Plant Pathology, University of California, Davis. Thesis: Characterization and elicitor activity of lipids from Phytophthora infestans in the hypersensitive response of potato tuber tissue and studies of phytoalexin elicitors in Bipolaris carbonum and Ceratocystis fimbriata.

B.S., 1981 Plant Pathology, University of Kentucky, Lexington.

PROFESSIONAL EXPERIENCE

2005 - present Associate Professor, Department of Entomology, Plant Pathology, and Weed Science, New Mexico State University

1999 - 2005 Assistant Professor, Department of Entomology, Plant Pathology, and Weed Science, New Mexico State University

1990 - 1999 Assistant Professor, Department of Plant Pathology, University of California, Riverside

1989 - 1990 Post-Doctoral Researcher, Department of Plant Pathology, Ohio State University, Ohio Agricultural Research and Development Center

PROFESSIONAL AFFILIATIONS

American Phytopathological Society 1983-present
 Virology Committee 1993-1995
 Senior Editor of Plant Disease 1995-1997
 Associate Editor for Plant Disease 1993-1994 and 2004-2006
Entomological Society of America 1990-present
Society of Southwestern Entomologists 2000-present
Curly Top Regional Coordinating Committee 2004 – present
 Developer
Gamma Sigma Delta 1994-present
Toastmasters 1984- present

UNIVERSITY AFFILIATIONS

Center for Natural History Collections
Molecular Biology Graduate Group
 Recruitment Committee Chair
ADVANCE mentor
Skeen Teaching Greenhouse Oversight Committee
Mentor for RISE and MARC (NIH funded) Undergraduate Minority Research Programs
Mentor for ASSURED (USDA funded) Undergraduate Minority Research Program

TEACHING

Current Teaching Responsibilities

EPWS 310 Plant Pathology- 4 unit undergraduate class - with lab
EPWS 451/551 Plant Virology- 3 unit undergrad/graduate class

Thesis Advisees: He, X.(PhD, Plant Pathology), Osorio, F.(PhD, Plant Pathology), Ottoni, G.(PhD, Plant Pathology), Romero, J. (MS, Plant Pathology), Oldrup, W.E. (MS, EPPWS), Ray, J. (MS, EPPWS), Hubble, H. (MS, EPPWS), Renouard, J. (MS, Molecular Biology)
current advisees—Achata, J. (MS, EPPWS), Lam, N. (PhD, Molecular Biology), Mukerjee, S. (PhD, Molecular Biology), Al-Khatib, R. (PhD, Molecular Biology)

GRANTS AND CONTRACTS (5 yr total): \$427,400

RESEARCH PUBLICATIONS

Ralphs, M. H., **Creamer, R.**, Baucom, D., Gardner, D. R., Welsh, S. L., Graham, J. D., Hart, C., Cook, D., and Stegelmeier, B. L. 2008. Relationship between the endophyte *Embellisia* spp. and the toxic alkaloid swainsonine in major locoweed species (*Astragalus* and *Oxytropis*). *Journal Chemical Ecology* 34:32-38.

Creamer, R., J. McLain-Romero, E. Oldrup. Fungal endophytes of locoweed: an overview. 2007. Pages 338-347 in: *Poisonous Plants Global Research and Solutions*, K. E. Panter, T. L. Wierenga, and J. A Pfister, eds. CABI Publishing, Oxford, UK

Ray, J., Schroeder, J., **Creamer, R.**, and Murray, L. 2006. Planting date affects phenology of London rocket (*Sisymbrium irio*) and interaction with beet leafhopper (*Circulifer tenellus*) in southern New Mexico. *Weed Science* 53: 54:127-132.

Creamer, R., Sanogo, S., El-Sebai, O., Carpenter, J., and Sanderson, R. 2005. Kaolin-based foliar reflectant affects physiology, incidence of beet curly top virus, but not yield of chile pepper. *HortScience*. 40:574-576.

R. Creamer, Hubble, H., and A. Lewis. 2005. Curtovirus infection of chile pepper in New Mexico. *Plant Disease* 89:480-486.

Ray, J., **Creamer R.**, Schroeder, J., and Murray, L. 2005. Moisture and temperature requirements for London rocket (*Sisymbrium irio*) emergence. *Weed Science* 53:187-192.

Gardner, D. R., Romero, J., Ralphs, M. H., and **Creamer, R.** 2004. Correlation of an endophytic fungus (*Alternaria* spp.) with the presence of swainsonine in Lambert locoweed (*Oxytropis lambertii*). Pages 32-38 in : *Poisonous Plants and Related Toxins*, T. Acamovid, C. S. Stewart, and T. W. Pennycott, eds. Oxford University Press, UK.

Kulshrestha, S., **Creamer, R.**, and Sterling, T. 2004. Phylogenetic relationship among New Mexico *Astragalus mollissimus* varieties and *Oxytropis* species by restriction fragment analysis. *Weed Science* 52:984-988.

Creamer, R., Sanogo, S., Moya, A., Romero, J., Molina-Bravo, R., and Cramer, C. 2004. Iris yellow spot virus on onion in New Mexico. *Plant Disease*. 88:1049.

Renouard, J. J., **Creamer, R.** and Richman, D. B. 2004. Gut content analysis of the spider *Hibana incursa* (Aranae: Anyphaenidae) using serological methods. *Southwestern Entomologist* 29:91-97.

Romero, J., **Creamer, R.**, H. Zepeda, J. Strickland, and G. Bell. 2004. Toxicosis of *Embellisia* fungi from locoweed (*Oxytropis lambertii*) is similar to locoweed (*Oxytropis lambertii*) toxicosis in rat. *Journal of Animal Science*. 82:2169-2174.

Braun, K., Romero, J, Liddell, C., and **Creamer, R.** 2003. Production of swainsonine by fungal endophytes of locoweed. *Mycological Research* 107:980-988.

Creamer, R., Carpenter, J., and Rascon, J. 2003. Incidence of the beet leafhopper, *Circulifer tenellus* (Homoptera: Cicadellidae) in New Mexico. *Southwestern Entomologist* 28:177-182.

Redinbaugh, M. G., Seifers, D. L., Meulia, T., Abt, J. J., Anderson, R. J., Styer, W. E., Ackerman, J., Salomon, R., Houghton, W. **Creamer, R.**, Gordon, D. T., Hogenhout, S. A. 2002. Maize fine streak virus, a new leafhopper-transmitted maize rhabdovirus. *Phytopathology* 92:1167-1174.

- Rodriguez-Alvarado, G., Fernandez,-Pavia, S., **Creamer, R.**, and Liddell, C. 2002. Pepper mottle virus causing disease in chile peppers in southern New Mexico. *Plant Disease* 86:603-605.
- Johnson, D. D. Walker, G. P., and **Creamer, R.** 2002. Stylet penetration behaviour resulting in inoculation of a sermipersistently transmitted closterovirus by the whitefly *Bemisia argentifolii*. *Entomologia Experimentalis et Applicata*. 102:115-123.
- Alzhanova, D. V., Napuli, A. J., **Creamer, R.** and Dolja, V. V. 2001. Cell-to-cell movement and assembly of a plant closterovirus: roles for the capsid proteins and Hsp70 homolog. *Embo J*. 20:6997-7007
- Gispert, C. Oldfield, G. N., Perring, T. M., and **Creamer, R.** 1998. Transmission biology of peach mosaic virus by *Eriophyes insidiosus* Keifer and Wilson (Acari: Eriophyidae). *Plant Disease* 82:1371-1374.
- McLain, J., Castle, S., Holmes, G., and **Creamer, R.** 1998. Physiochemical characterization and field assessment of lettuce chlorosis virus. *Plant Disease* 82:1248-1252.
- Gispert, C. Perring, T. M., and **Creamer, R.** 1998. Purification and characterization of peach mosaic virus. *Plant Disease* 82:905-908.
- He, X., Harper, K. Grantham, G., Yang, C.-H., and **Creamer, R.** 1998. Serological characterization of the 3'-proximal encoded proteins of beet yellows closterovirus. *Archives of Virology* 143:1349-1363.
- He, X., Rao, A. L. N., and **Creamer, R.** 1997. Characterization of beet yellows closterovirus specific-RNAs in infected plants and protoplasts. *Phytopathology* 87:347-352.
- Creamer, R.** and He. X. 1997. Transmission of sorghum stunt mosaic rhabdovirus by the leafhopper vector, *Graminella sonora* (Homoptera:Cicadellidae). *Plant Disease* 81:63-65.
- Creamer, R.** Luque-Williams, M. and Howo, M. 1996. Epidemiology and incidence of beet curly top geminivirus in naturally infected weed hosts. *Plant Disease* 80:533-535.
- Harper, K. and **Creamer, R.** 1995. Hybridization detection of insect-transmitted plant viruses with digoxigenin-labeled probes. *Plant Disease* 79:563-567.
- Oldfield, G.N., **Creamer, R.**, Gispert, D., Osorio, F., Rodriguez, R., and Perring T.M. 1995. Incidence and distribution of peach mosaic and its vector, *Eriophyes insidiosus* (Acari:Eriophyidae) in Mexico. *Plant Disease* 79:186-189.
- Creamer, R.** and Wadsworth, M. 1994. Carrot light root syndrome, a possible physiological disorder. *Plant Disease*. 78:317.

Creamer, R., Nault, L. R., and Gingery, R. E. 1993. Biological factors affecting leafhopper transmission of purified maize chlorotic dwarf machlovirus. *Entomol. exp. et appl.* 67:65-71.

Creamer, R. 1993. Invertebrate tissue culture as a tool to study insect transmission of plant viruses. *In Vitro Cell Dev. Biol.* 29:284-288.

Creamer, R. 1992. Purification and serological characterization of sorghum stunt mosaic virus. *Phytopathology* 82:1473-1476.

Creamer, R., and Falk, B.W. 1990. Detection of transcapsidated barley yellow viruses. *Journal of General Virology* 71:211-217.

Creamer, R., and Falk, B.W. 1989. Characterization of a non-specifically aphid transmitted CA-RPV isolate of barley yellow dwarf virus. *Phytopathology* 79:942-946.

Griesbach, J. A., **Creamer, R.**, Lorens, G., Falk, B.W., Qualset, C. O., and Jackson, L. F. 1989. Barley yellow dwarf of California cereals. *California Agriculture* 43:23-24.

Creamer, J. R., and Bostock, R. M. 1988. Contribution of eicosapolyenoic fatty acids to the sesquiterpenoid phytoalexin elicitor activities of *Phytophthora infestans* spores. *Physiological and Molecular Plant Pathology* 32:49-59.

Creamer, J. R., and Bostock, R. M. 1986. Characterization and biological activity of *Phytophthora infestans* phospholipids in the hypersensitive response of potato tuber. *Physiological and Molecular Plant Pathology* 28: 215-225.

OTHER PUBLICATIONS

Creamer, R. 2003. Alfalfa mosaic virus. Pages 24-26 in: *Compendium of Pepper Diseases*, N Goldberg, J. Murphy, P. Roberts, and K. Pernezy, eds. APS Press. St. Paul, MN.

Creamer, R. 2003. Beet curly top virus. Pages 26-27 in: *Compendium of Pepper Diseases*, N Goldberg, J. Murphy, P. Roberts, and K. Pernezy, eds. APS Press. St. Paul, MN.

Creamer, R. 2004. Sorghum stunt mosaic virus. *In: Virus Diseases of Poaceae (Gramineae)*. H. Lapiere and P. Signoret, eds. INRA Editions, France.

Creamer, R. Gispert, C. and Oldfield, G. 1994. Partial characterization of peach mosaic virus. Pages 21-23 in: *Proceedings of the Rose Rosette Symposium*. A. Epstein and J. Hill, eds. Iowa State University.

