

Department of Plant Science

Publications between January 1 and December 31, 2007

List of all academic staff members

Emeritus Professors: Estey, R.H.; Grant, W.F.

Professors: Dutilleul, P.R.; Smith, D.L. (Chair); Watson, A.K.

Associate Professors: de Blois, S.; Donnelly, D.J.; Fortin, M.G.; Jabaji, S.H. (Assoc. Dean – Research); Kushalappa, A.C.; Seguin, P.; Stewart, K.A.; Waterway, M.J.

Assistant Professors: Bede, J.; Stromvik, M.

Faculty Lecturers: Begg, C.; McClintock, K.; Wees, D.

BEDE, J. (*Bede, J.C., McNeil, J.N., Tobe, S.S.) The role of neuropeptides in caterpillar nutritional ecology. *Peptides*, v. 28, 2007, pp. 185-186.

de BLOIS, S. (Paquette, A., Laliberté, E., Bouchard, A., **de Blois, S.**, Legendre, P., and Brisson, J.) Lac Croche understory vegetation data set (1998–2006). *Ecology*, v. 88, 2007, p. 3209.

--(*Maheu-Giroux, M. and **de Blois S.**) Landscape ecology of *Phragmites australis* invasion in networks of linear wetlands. *Landscape Ecology*, v. 22, no 2, 2007, pp. 285-301.

--(*Fenton, N., Béland, C., **de Blois, S.** and Bergeron, Y.) Sphagnum establishment and expansion in black spruce (*Picea mariana*) boreal forests. *Canadian Journal of Botany*, v. 85, 2007, pp. 43-50.

DONNELLY, D. (Zhang, T., Fortin, M., **Donnelly, D.** and Li, X..) Constitutive expression of a new proteinase inhibitor II family gene in potato. Canada-China special issue on potato. *Journal of Huazhong Agricultural University*, v. 26, 2007, pp. 71-75. (NSERC)

DUTILLEUL, P.R. (*Larocque, G., **Dutilleul, P.**, Pelletier, B., and Fyles, J.W.) Characterization and quantification of uncertainty in coregionalization analysis. *Mathematical Geology*, v. 39, 2007, pp. 263-288.

JABAJI, S.H. (Morissette, D., Dauch, A.L., Beech, R., Masson, L., Brousseau, R. and **Jabaji-Hare, S.H.**) Isolation of mycoparasitic-related transcripts by SSH during interaction of the mycoparasite *Stachybotrys elegans* with its host *Rhizoctonia solani*. *Current Genetics*. (Published on line, December 5, 2007).

KUSHALAPPA, A.C. (Abu-Nada, Y., **Kushalappa, A.C.**, Marshall, W., Yaylayan, V., Al-Mughrabi, K. and Murphy, A.) Temporal dynamics of pathogenesis related metabolites and their plausible pathways of induction in potato leaves following inoculation with *Phytophthora infestans*. *European J. Plant Path.*, v. 118, 2007, pp. 375-391.

--(Moalemiyan, M., Vikram, A., and **Kushalappa, A.C.**) Detection and discrimination of two fungal diseases of mango (cultivar Keitt) by monitoring volatile metabolic profiles, using GC/MS. *Postharvest Biol. Tech.*, v. 45, 2007, pp. 117-125.

--(Maftoonazad, N., Ramaswamy, H.S., Moalemiyan, M. and **Kushalappa, A.C.**) Effect of pectin-based edible emulsion coating on changes in quality of avocado exposed to *Lasiodiplodia theobromae* infection. *Carbohydrate Polymers*, v. 68, 2007, pp. 341-349.

SEGUIN, P. (Mustafa, A.F., García, J.C.F., **Seguin, P.** and Marois-Mainguy, O.) Chemical composition, ensiling characteristics and ruminal degradability of forage soybean cultivars. *Canadian Journal of Animal Science*, v. 87, no. 4, 2007, pp. 623–629.

--**Seguin P.** Kura clover forage yield contribution increases over time when seeded in mixture with grasses in southwestern Québec. *Forage and Grazinglands*. doi:10.1094/FG-2007-1217-02-RS.

--(Khavazi, K., Rejali, F., **Seguin, P.** and Miransari, M.) Effects of carrier, sterilisation method, and incubation on survival of *Bradyrhizobium japonicum* in soybean (*Glycine max* L.) inoculants. *Enzyme and Microbial Technology*, v. 41, nos. 6-7, 2007, pp. 780-784.

--(Pelletier, S., Simpson, R., Randall, P., Bélanger, G., Tremblay, G.F., **Seguin, P.**, Drapeau, R. and Allard, G.) Forage dietary cation-anion difference and cadmium concentration as influenced by grass species, source of cadmium, and chloride fertilization. *Grass and Forage Science*, v. 62, no. 4, 2007, pp. 416–428.

--(Hassanat, F., Mustafa, A.F. and **Seguin, P.**) Effects of inoculation on ensiling characteristics, chemical composition and aerobic stability of regular and brown midrib millet silages. *Animal Feed Science and Technology*, v. 139, 2007, pp. 125-140.

--(Hassanat, F., Mustafa, A.F. and **Seguin P.**) Effect of the brown midrib trait and stage of development at harvest on cell wall composition and degradability of forage pearl millet leaves and stems. *Canadian Journal of Animal Science*, v. 87, no. 3, 2007, pp. 421-429.

--(Al-Tawaha, A.M., **Seguin, P.**, Smith, D.L. and Bonnell, R.B.) Irrigation level affects isoflavone concentrations of early maturing soya bean cultivars. *Journal of Agronomy and Crop Science*, v. 193, no. 4, 2007, pp. 238-246.

--(Gélinas, B., **Seguin, P.**) Oxalate in grain amaranth. *Journal of Agricultural and Food Chemistry*, v. 55, no. 12, 2007, pp. 4789-4794.

--(Pelletier, S., Bélanger, G., Tremblay, G.F., **Seguin, P.**, Drapeau, R. and Allard, G.) Dietary cation-anion difference of timothy (*Phleum pratense* L.) as influenced by application of chloride and nitrogen fertilizer. *Grass and Forage Science*, v. 62, no. 1, 2007, pp. 66-77.

SMITH, D.L. (*Miransari, M. and **Smith, D.L.**) Overcoming the stressful effects of salinity and acidity on soybean [*Glycine max* (L.) Merr.] nodulation and yields using signal molecule genistein under field conditions. *Journal of Plant Nutrition*, v. 30, 2007, pp. 1967–1992.

--(*Jung, W.-J., Mabood, F., Kim, T.H. and **Smith, D.L.**) Induction of pathogenesis-related proteins on biocontrol of *Rhizoctonia solani* with *Pseudomonas aureofaciens* in soybean (*Glycine max* L. Merr.) plants. *Biocontrol*, v. 52, 2007, pp. 895–904.

--(*Dashti, N.H., Montasser, M.S., Ali, N.Y., Bahrdwaj, R.G. and **Smith, D.L.**) Nitrogen biofixing bacteria compensate for the yield loss caused by viral satellite RNA associated with cucumber mosaic virus in tomato. *Journal of Plant Pathology*, v. 23, 2007, pp. 90-96.

--(*Almaraz, J., Zhou, X. and **Smith, D.L.**) Gas exchange characteristics and dry matter accumulation of soybean treated with Nod factors. *Journal of Plant Physiology*, v. 164, 2007, pp. 1391-1393.

--(Al-Tawaha, A.M., Seguin, P., **Smith, D.L.** and Bonnell, R.B.) Irrigation Level Affects Isoflavone Concentrations of Early Maturing Soya Bean Cultivars. *Journal of Agronomy & Crop Science*, v. 193, 2007, pp. 238-246.

--(*Jung, W.-J., Souleimanov, A., Park, R.-D. and **Smith, D.L.**) Enzymatic production of *N*-acetyl chitoooligosaccharides by crude enzyme derived from *Paenibacillus illioisensis* KJA-424. *Carbohydrate Polymers*, v. 67, 2007, pp. 256–259.

--(*Poustini, K., Mabood, F. and **Smith, D.L.**) Preincubation of *Rhizobium leguminosarum* bv *phaseoli* with jasmonate and genistein signal molecules increases bean (*Phaseolus vulgaris* L.) nodulation, nitrogen fixation and biomass production. *Journal of Agricultural Science and Technology*, v. 9, 2007, pp. 107-117.

STEWART, K.A. (Jenni, S., Rekika, D. and **Stewart, K.A.**) Yield, quality and revenue of pickling cucumbers with irrigation and supplemental N fertilizer under a humid climate. *Canadian Journal of Plant Science*, v. 87, 2007, pp. 571-580.

WATERWAY, M.J. (**Waterway, M. J.** and Starr, J. R.) Phylogenetic relationships in tribe Cariceae (Cyperaceae) based on nested analyses of four molecular data sets. *Aliso*, v. 23, 2007, pp. 165-192.

Note: Also published as pp. 165-192 in: J. T. Columbus, E. A. Friar, C. W. Hamilton, J. M. Porter, L. M. Prince, and M.G. Simpson [eds.]. *Monocots: comparative biology and evolution*. Vol. 2, Poales. Rancho Santa Ana Botanic Garden, Claremont, CA, USA.

WATSON, A.K. (*Abu-Dieyeh, M.H. and **Watson, A.K.**) Grass over-seeding and a fungus combine to control *Taraxacum officinale*. *Journal of Applied Ecology*, v. 44, no. 1, 2007, pp. 115-124.

--(*Abu-Dieyeh, M.H. and **Watson, A.K.**) Efficacy of *Sclerotinia minor* for dandelion control: effect of dandelion accession, age and grass competition. *Weed Research*, v. 47, no. 1, 2007, pp. 63-72.

--(Teshler, M.P., Ash, G.J., Zolotarov, Y. and **Watson, A.K.**) Increased shelf life of a bioherbicide through combining modified atmosphere packaging and low temperatures. *Biocontrol Science & Technology*, v. 17, no. 4, 2007, pp. 387-400.

--(Abu-Dieyeh, M.H. and **Watson, A.K.**) Population dynamics of broadleaf weeds in turfgrass as influenced by chemical and biological control methods. *Weed Science*, v. 55, 2007, pp. 371-380.

--**Watson, A.K.** Improving bioherbicide performance (invited paper). Pages 18-25 in Qiang, S. and Song, X. (eds.), *Proceedings of the International Workshop on Weed Science and Agricultural Production Safety*. April 7-9, 2007, Nanjing Agriculture University, Nanjing, China.

--***Watson, A.K.** *Sclerotinia minor* – Biocontrol Target or Agent? Chapter 10 in M. Vurro and J. Gressel (eds.) *Novel Biotechnologies for Biocontrol Agent Enhancement and Management*, 2007, pp. 205-211. Springer.

--(***Watson, A.K.**, Gressel, J., Sands, D., Hallett, S., Vurro, M. and Beed, F.) *Fusarium oxysporum* f. sp. *striga*, Athletes Foot or Achilles Heel? Chapter 11 in M. Vurro and J. Gressel (eds.) *Novel Biotechnologies for Biocontrol Agent Enhancement and Management*, 2007, pp. 213-222. Springer.

--(Beed, F.D., Hallett, S.G., Venne J. and **Watson, A.K.**). Biocontrol using *Fusarium oxysporum*; a critical component of integrated striga management. Chapter 21 in G. Ejeta and J. Gressel (eds.) *Integrating New Technologies for Striga Control, Towards Ending the Witch-Hunt*. World Scientific Publishers, 2007, Singapore.