RECENT PUBLICATIONS

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Journal Articles

Li, S.Y., and Skinner, A.C. 2005. Influence of larval stage and virus inoculum on virus yield in insect host *Neodiprion abietis* (Hymenoptera: Diprionidae). *Journal of Economic Entomology* **98:** 1876–1879.

Virus yield produced by dead larvae of balsam fir sawfly, *Neodiprion abietis* (Harris) (Hymenoptera: Diprionidae), that had been infected at four different larval stages (second, third, fourth, or fifth instar) with two virus concentrations (10^5 polyhedral inclusion bodies (PIB)/ mL or 10^7 PIB/mL), were analyzed and compared to determine the effects of instar and amount of virus inoculum on virus production. The results indicate that both larval stage and inoculation dosage significantly affect virus yield. On average, each dead larva produced 1.36–12.21 x 10^7 PIB, depending upon larval age and virus concentration of inoculum. Although each dead larva produced more PIB when it was inoculated in the fourth or fifth stage, inoculation of these larvae did not result in the highest virus yield because of low larval mortality. In terms of net virus return, third instars would maximize virus yield when they are inoculated with a virus concentration that can cause 95–100% larval mortality.

Mosseler, A., Pendrel, B.A., Wang, W., Niu, Y., Park, Y.S., Gao, C.-Q., and Song, L.W. 2005. Observations on forest restoration in Jilin, China. *Journal of Forestry Research* **16**: 331–334.

This paper reviews various forestry practices in Jilin Province, China. The authors emphasize the rich natural diversity of Jilin and the need to focus research efforts on understanding the potential of native species to meet the needs of land-management agencies involved in forest resource exploitation and ecological restoration. The native species of China hold great potential, and deserve more research attention, for meeting these needs. The introduction and testing of exotic species should be done only under rigorous scientific testing and after comparison with native species prior to operational introduction into forestry in order to avoid unwanted ecological consequences, including potential problems with alien invasives and pest introductions. The authors also emphasize the need to maintain viable (e.g., genetically diverse and reproductively fit) natural populations of native species in order to protect China's valuable natural diversity and maintain the potential of native species to function as future seed sources for local forest and ecological restoration activities.

Salonius, P.O. 2005. F and H layer planting. *Canadian Silviculture* Fall: 25–26.

Tai, H.H., Tai, G.C.C., and Beardmore, T. 2005. Dynamic histone acetylation of late embryonic genes during seed germination. *Plant Molecular Biology* **59**: 909–925.

Histone acetylation is involved in the regulation of gene expression in plants and eukaryotes. Histone deacetylases (HDACs) are enzymes that catalyze the removal of acetyl groups from histones, which is associated with the repression of gene expression. To study the role of histone acetylation in the regulation of gene expression during seed germination, trichostatin A (TSA), a specific inhibitor of histone deacetylase, was used to treat imbibing *Arabidopsis thaliana* seeds. GeneChip arrays were used to show that TSA induces up-regulation of 45 genes and down-regulation of 27 genes during seed germination. Eight TSA-up-regulated genes were selected for further analysis—RAB18, RD29B, ATEM1, HSP70, and four late embryogenesis abundant protein genes (LEA). A gene expression time course shows that these eight genes are expressed at high levels in the dry seed and repressed upon seed imbibition at an exponential rate. In the presence of TSA, the onset of repression of the eight genes is not affected, but the final level of repressed expression is elevated. Chromatin immunoprecipitation and HDAC assays show that there is a transient histone deacetylation event during seed germination at 1 day after imbibition, which serves as a key developmental signal that affects the repression of the eight genes.

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Book Chapters

Cameron, S.I. 2006. Tissue culture gel firmness: measurement and effects on growth. Pages 329–337 *in* S. Dutta Gupta and Y. Ibaraki, editors. *Plant Tissue Culture Engineering.* Springer, Dordrecht, The Netherlands.

Royer, L., and Delisle, J. 2005. Utilisation des pièges à phéromone sexuelle dans la gestion des ravageurs. Pages 663–678 *in* C. Regnault-Roger, B. Philogène, and G. Fabres, editors. *Enjeux phytosanitaires pour l'agriculture et l'environnement du XXI^{e} siècle.* Lavoisier Tec et Doc., Paris, France.

Delisle, J., and Royer, L. 2005. Y-a-t-il un avenir pour la lutte par confusion sexuelle contre les ravageurs forestiers? Pages 679–696 *in* C. Regnault-Roger, B. Philogène, and G. Fabres, editors. *Enjeux phystosanitaires pour l'agriculture et l'environnement du XXI^{e} siècle.* Lavoisier Tec. et Doc., Paris, France.

Proceedings Articles

Beardmore, T., Daigle, B., Forbes, K., Loo, J.A., Major, J.E., McPhee, D., Mosseler, A., Ramirez, C., Ramirez, M., Scheer, G., and Simpson, J.D. 2005. Genetic diversity research at Canadian Forest Service - Atlantic. Pages 30–37 *in* J.D. Simpson, editor. *Climate change and forest genetics.* Proc. 29th Mtg. CTIA, Part 1, 26–29 July 2004, Kelowna, B.C.

Beardmore, T., Forbes, K., Loo, J.A., and Simpson, J.D. 2005. *Ex situ* conservation strategy for butternut *(Juglans cinerea L.)*. Abstract. Page 105 *in* G.A. O'Neill and J.D. Simpson, editors. *Climate change and forest genetics.* Proc. 29th Mtg. CTIA, Part 2, 26–29 July 2004, Kelowna, B.C.

Simpson, J.D. 2005. Quality assurance in seed testing. Abstract. Page 79 *in* G.A. O'Neill and J.D. Simpson, editors. *Climate change and forest genetics, Part 2.* Proceedings of the Canadian Tree Improvement Association. 26–29 July 2004, Kelowna, B.C.

Simpson, J.D., Beardmore, T., Loo, J.A., and McAfee, B. 2005. Survey of gene conservation requirements for forest tree and shrub species in Canada. Abstract. Page 67 in G.A. O'Neill and J.D. Simpson, editors. *Climate change and forest genetics, Part 2.* Proceedings of the Canadian Tree Improvement Association. 26–29 July 2004, Kelowna, B.C.

Miscellaneous

Moroni, M.T. 2006. Forest carbon cycling. NRCan, CFS-AFC Impact Note 44.