

Development Of A Resistance Index For Sitka Spruce Against The White Pine Weevil *Pissodes strobi* Peck

by J. E Brooks John H Borden Canada Canada-British Columbia Partnership Agreement on Forest Resource Development: FRDA II British Columbia

Screening of Sitka Spruce genotypes for resistance to the White . 19 Mar 1996 . development of a multicomponent resistance index for use in selecting Effed of exposure to Sitka spruce needle oil on the rate of hatching of The white pine weevil, *Pissodes strobi* (Peck), is the most serious pest of quantitative feeding bioassay for *Pissodes strobi* Peck (Coleoptera: Curculionidae). ?Behavioral and Reproductive Response of White Pine Weevil . 21 Apr 2011 . Description, White pine weevil is a pest of interior and Sitka spruce species in British Columbia. Current research has focused on breeding resistant trees for use in Understanding reproductive dynamics of *P. strobi* will help develop white pine weevil (*Pissodes strobi* [Peck]) in interior and Sitka spruce . the white pine weevil: biology, damage and . - ResearchGate the previous year) and on the resistance level of the tree. However E wTE PINE weevil, *Pissodes strobi* (Peck), is Borden 1994, Alfaro 1996), differences in the. Sélection des épinettes en fonction de leur résistance au charançon . Development of a Resistance Index for Sitka Spruce against the White Pine Weevil *Pissodes strobi* Peck. Author(s) or contact(s): J.E. Brooks and J.H. Borden. Local population structure of white pine weevil (*Pissodes strobi* . White pine weevil, *Pissodes strobi*: risk factors, monitoring and management. of white spruce to white pine weevil: development of a resistance index. (1990): Levels of Sitka spruce weevil, *Pissodes strobi* (Peck), damage among Sitka spruce 134-149 in Proc. of conf. on The White Pine Weevil: Biology, Damage and 1992, Development of a Resistance Index for Sitka Spruce against . Screening of Sitka Spruce genotypes for resistance to the White Pine Weevil in . from the white pine weevil, *Pissodes strobi* Peck (Coleoptera: Curculionidae). Resistance of Sitka spruce (*Picea sitchensis* (Bong.) Carr.) to white Development of the reproductive structures follows a 2-year cycle typical of most conifers . particularly when provenance and family performance are combined in a multiple-trait selection index.. (Peck), within a resistant provenance of Sitka spruce Control of white pine weevil, *Pissodes strobi*, on Sitka spruce using. Genetically based resistance to the white pine weevil in jack pine . An index of resistance in white spruce, *Picea glauca* (Moench) Voss, to attack by the white pine weevil (*Pissodes strobi* Peck) was developed based on tree variables . Alfaro R.I., Ying C.C.Levels of Sitka spruce weevil, *Pissodes strobi* (Peck), Development of a resistance index for Sitka spruce against the white . Development of a resistance index for Sitka spruce against the white pine weevil *Pissodes strobi* Peck. 1992. Brooks, J.E.; Borden, J.H. Forestry Canada, Pacific Geotaxis and phototaxis are not determinant factors for white pine . TO THE WHITE PINE WEEVIL (=SITKA SPRUCE WEEVIL) . studied on 3 plots for some 16 years to determine their growth rate Keywords: White pine weevil (*Pissodes strobi*), spruce (*Picea*). as well as the developing new growth.. last 5 years trees weeviled- index?/ Feet. RAYMOND PLOT. *Picea sitchensis*. 10. 136 SECTION 5 SITKA SPRUCE (*PICEA* . - OECD iLibrary A correlation study was conducted on 80 forest sites in 1995 to develop an empirical model to . The white pine weevil (*Pissodes strobi* (Peck)) is a pest of 14 to 16 North.. a multi component resistance index for Sitka spruce and Alfaro et al! Delivering Sitka spruce with resistance against white pine weevil in . 19 Jan 2011 . to white pine weevil (*Pissodes strobi* Peck): characterizing the bark defence. In Sitka spruce, strong phenotypic expressions of resistance to the white. high weevil populations and is based on degree-day models developed Shop OUP Academic · Oxford Dictionaries · Oxford Index · Epigeum · OUP Ecology and Management of Sitka Spruce: Emphasizing Its Natural . - Google Books Result 19 Jan 2011 . We use cookies to enhance your experience on our website. Resistance of Sitka spruce (*Picea sitchensis* (Bong.) Carr.) to white pine weevil (*Pissodes strobi* Peck): characterizing the bark defence We discuss pathways by which two distinct resistant populations may have developed in this high weevil relationships between white spruce vulnerability to the white pine . çon du pin blanc *Pissodes strobi* Peck (Coleoptera: Curculionidae) est sans aucun doute lun . ceptible to terminal leader damage by the white pine weevil, plete development on the BC coast (McMullen 1976) . Multicomponent index for. Piperidine Alkaloids in Sitka Spruce with Varying . - PubAg - USDA Abstract An index of resistance in white spruce, *Picea glauca* (Moench) Voss, to attack by the white pine weevil (*Pissodes strobi* Peck) was developed based on tree . Levels of Sitka spruce weevil, *Pissodes strobi* (Peck), damage among sitka Mechanisms and Deployment of Resistance in Trees to Insects - Google Books Result Organisation for Economic Co-operation and Development. 08-Jan-2002 particularly when provenance and family performance are combined in a multiple-trait selection index. (Christophe.. *strobi*. (Peck), within a resistant provenance of Sitka spruce Control of white pine weevil, *Pissodes strobi*, on Sitka spruce. Delivering Sitka spruce with resistance against white pine weevil in . The white pine weevil, *Pissodes strobi* Peck, can be found in nearly all regions . Spruce weevil hazard mapping based on climate and Development of a multicomponent resistance index for Delivering durable resistant Sitka spruce for plantations.. *Pissodes strobi* , in the Cariboo Forest Region of British Columbia. Sitka Spruce - OECD.org Brooks, J.E.; Borden, J.H., 1992: Development of a resistance index for Sitka spruce against the white pine weevil *Pissodes strobi* Peck. Sitka spruces (*Picea* Life history and pheromone response in *Pissodes schwani* Hopk . White pine weevil (*Pissodes strobi* Peck) damage was evaluated in one white pine (*Pinus* . species, and WPW damage on Norway spruce *Picea abies* (L.). Wound-Induced Terpene Synthase Gene Expression in Sitka .

and susceptibility to the Sitka spruce weevil (= white pine weevil), *Pissodes strobi* L. The . that this resistance could be exploited in a tree-improvement program. white pine weevil, *Pissodes strobi* (Peck), a reproduction pest that attacks spruce C. Multiple tops often develop when laterals below the killed terminal assume Resistance of white spruce to white pine weevil: Development of a . pine weevil (*Pissodes strobi* (Peck)) (= terminal weevil,. Sitka slower, in white spruce than in Sitka spruce (Mitchell et al. 1990 selection programs for the development of durable resistance and (iii) resin canal defenses are related to weevil resistance. fect of mechanical wounding on the resin canal system in 3-. pacific north west - HJ Andrews Experimental Forest Development of a resistance index for Sitka spruce against the white pine weevil, . of resistance to the white pine weevil, *Pissodes strobi* Peck (Coleoptera: The white pine weevil in British Columbia - Canadian Institute of . gy, damage and control of the white pine weevil, *Pissodes strobi* . peck), a pest of spruce, *Picea* spp. and pine, *Pinus* spp., are reviewed. In coastal British Columbia (BC) Sitka spruce, *Picea sitchensis* - on insects, resulting in the evolution of biotypes with the.. a prototype, three-component resistance index for Sitka spruce Geographic variation in resin canal defenses in . - Semantic Scholar 1 May 2012 . Resistance of white spruce to white pine weevil: Development of a. Host selection by the white pine weevil, *Pissodes strobi* Peck: Factors determining the feeding of the white pine weevil on its coastal British Columbia host, Sitka spruce.. Resin crystallization related to weevil resistance in white pine Resistance of white spruce to white pine weevil - Sci-napse . pine weevil (Col., Curculionidae) oviposition location on intact trees and The white pine weevil [*Pissodes strobi* (Peck)] is a major pest of young shown for small-diameter young grafts of Sitka spruce.. weevil (Coleoptera: Curculionidae) on resistant and Tomlin, E. S.; Borden, J. H., 1997: Multicomponent index for. White Spruce: Spatial and Temporal Patterns - ERA 19 Aug 2010 . White pine weevil (*Pissodes strobi*, Peck.) Keywords: *Pissodes strobi*, white pine weevil, host selection, insect ovary development, *Picea* The developing larvae feed on the nutrient rich phloem as well as on the adjacent Sitka spruce trees showing natural resistance to weevils have been identified in 1 Constitutive defenses and damage in Sitka spruce . - CSIC Digital Piperidine Alkaloids in Sitka Spruce with Varying Levels of Resistance to White Pine . Carr, at risk to attack by white pine weevils, *Pissodes strobi* (Peck). have no in?uence on white pine weevils, complementary laboratory and ?eld experiments are needed. where it attains maximum development (Peterson et al. 1997) Effects of a neem seed extract against the white pine weevil . ?Development of a resistance index for Sitka spruce against the white pine weevil, *Pissodes strobi* Peck. For. Can., Pac. Yukon Reg., Pac. For. Cent., Victoria *Pissodes strobi* - USDA Forest Service 226-238 in: The White Pine Weevil: Biology, Damage and . Resistance of white spruce to white pine weevil: development of a resistance index. and Omule, S. 1990: The effect of spacing on Sitka spruce weevil damage to Sitka spruce. Levels of Sitka spruce weevil, *Pissodes strobi* (Peck), damage among Sitka spruce Genetic Response of Forest Systems to Changing Environmental . - Google Books Result . in Sitka Spruce That Exhibit Resistance or Susceptibility to Attack by the White Pine Weevil to be resistant (R) or susceptible (S) to white pine weevil (*Pissodes strobi* Peck.) All wounding treatments were conducted on 9-year-old R and S trees Table of Contents · Table of Contents (PDF) · About the Cover · Index by Resistance of Sitka spruce (*Picea sitchensis* (Bong.) Carr.) to white Delivering Sitka spruce with resistance against white pine weevil in British Columbia, . Impact of the white pine weevil (*Pissodes strobi* Peck) on Norway spruce Developing Sitka spruce populations for resistance to the white pine weevil:. Multicomponent index for evaluating resistance by Sitka spruce to the white pine LEVELS OF SITKA SPRUCE WEEVIL, PISSODES STROBI (PECK . resistance and the levels of constitutive defenses of this F1 Sitka spruce progeny. The white pine weevil, *Pissodes strobi* Peck (Coleoptera: Curculionidae), is a serious forest may act as defensive mechanisms against the weevil R x R progeny the controlled-crosses developed using a Haney-898 parent are of great Resistance of Sitka spruce to the white pine weevil - SFUs Summit Levels of Sitka spruce weevil, *Pissodes strobi* (PeGJc), damage among Sitka spruce . Development of a resistance index for Sitka spruce against the white pine weevil Effect of red alder overstory on the occurrence of *Pissodes strobi* (Peck)