Does Faustmann Rotation Apply to Fully Regulated Forests?
Olli Tahvonen and Esa-Jussi Viitala
upcoming in Forest Science, February 2006

This article clears up some misunderstandings in the forest economics literature. The authors analyze two long-standing formulations of the optimal rotation problem for a fully regulated forest: a marginal model for divisible forest capital and a regular profit model for timber production. The authors point out logical inconsistencies that are related to the valuation of standing trees and propose an alternative formulation that yields results consistent with the Faustmann formula, which states that the optimal time to harvest a stand is when the rate of change of its value with respect to time is equal to the interest on the value of the standing timber plus interest on the value of the forest land.

Interference to Hardwood Regeneration in Northeastern North America: Ecologic Characteristics of American Beech, Striped Maple, and Hobblebush
Ralph D. Nyland, Amy L. Bashant, Kimberly K. Bohn, and Jane M. Verostek
upcoming in Northern Journal of Applied Forestry, March 2006

This review is the first in a five-part series authored by Ralph Nyland and colleagues at SUNY College of Environmental Science and Forestry. The overall subject of the series is “Interference to hardwood regeneration in northeastern North America.” The five reviews will be published, one per consecutive issue, beginning with this issue. The first article summarizes characteristics of the three primary woody species that can inhibit regeneration of desirable northern hardwoods. It highlights the limited information about striped maple and hobblebush, and the abundance of sources that deal with American beech. The article concludes with a section on management implications.

A New Approach to Log Volume Estimation
Riyaz A. Sadiq
upcoming in Southern Journal of Applied Forestry, February 2006

Estimation of volume of logs requires measurement on three log parameters, viz., diameter, length, and taper of the log. This article proposes a log volume estimation formula that uses the Disk method of integral calculus for estimating volume of solids of different geometrical shapes. The proposed formula takes the taper rate of the logs into consideration while evaluating their volumes. Based on the archival water displacement method, a unique technique using cutting-edge computer software technology has been employed for setting up log benchmark volume. A comparative study between the newly proposed formula and those currently used—Huber’s, Smalian’s, and Newton’s—indicates its user-friendly application and a performance level comparable to Newton’s, but significantly better than the others.

Evaluation of Risk Assessment of Mountain Pine Beetle Infestations
Caren C. Dymond, Michael A. Wulder, Terry L. Shore, Trisalyn Nelson, Barry Boots, and Bill G. Riel
upcoming in Western Journal of Applied Forestry, January 2006

Decision support systems to aid the management of mountain pine beetles combine characteristics of the stand and beetle infestation to estimate risk of damage. In this study in British Columbia, Canada, an established risk rating system was evaluated to determine the utility of the values generated. The annual data was used to generate risk for a given year and to compare the ratings with survey data from the subsequent year. Under epidemic conditions, 30 to 43% of the stands rated as high risk were subsequently infested. Of the infested stands, 72 to 76% had a high risk rating. The risk rating system accurately predicted risk in stands that were infested, but not all high risk stands were subsequently attacked. The estimation of risk on an annual basis is sufficiently reliable for strategic planning of forest managers.