Assessing the Inflation Hedging Ability of Timberland Assets in the United States
Yang Wan, Bin Mei, Michael Clutter, and Jacek Siry
upcoming in Forest Science, February 2013

Inflation hedging is one of the unique features of timberland assets that attract timberland investors. This study uses Fisher hypothesis and capital asset pricing model under inflation to analyze how effectively private and public equity timberland assets hedge actual, expected, and unexpected inflation in the United States over 1987–2009. Empirical results suggest that private equity timberland assets do hedge actual, expected, and unexpected inflation, whereas public equity timberland assets are not consistent in hedging actual, expected, or unexpected inflation. Hedging effectiveness depends on the state of the economy. The authors find that private equity timberland assets are effective in hedging inflation during the boom and less effective during the recession. The longer people invest in the private equity timberland assets, the stronger and more consistent the hedging ability holds.

Comparative Assessment of Natural Regeneration Quality in Two Northern Hardwood Stands
Ulrike Hagemann, Gery van der Kelen, and Sven Wagner
upcoming in Northern Journal of Applied Forestry, March 2013

Selected quality aspects of natural regeneration in gaps were studied in two sugar maple-yellow birch forest stands in Quebec: a selection-cut stand and a protected old-growth stand. Measures of stem deviation, forking, number of live branches, branch size, and overall quality were applied to saplings and poles of sugar maple, yellow birch, and American beech between 2.5–13.0 m in height. Saplings and poles in the old-growth stand had fewer forks and fewer live branches of smaller relative branch diameters, resulting in better overall quality compared to the selection-cut stand. Gap size had no significant influence on individual quality parameters, a quality index (QI) (Sonderman 1979), or the authors’ modification of Sonderman’s system (mQI). The mQI allows for a comprehensive evaluation of regeneration quality, which may be used to evaluate the success of silvicultural measures in the context of quality-oriented northern hardwoods management.

Small Mammal Responses to Intensively Established Pine Plantations in Coastal Plain Mississippi
Brice B. Hanberry, Scott L. Edwards, Stephen Demarais, and Jeanne Jones
upcoming in Southern Journal of Applied Forestry, February 2013

In the southeastern United States, pine plantation establishment practices vary widely. To investigate small mammal responses to a gradient of establishment practices, the authors monitored small mammals for 5 years in pine plantations established using chemical, mechanical, or chemical and mechanical site preparation, followed by herbaceous control after planting. Small mammals captured across five establishment treatments included 2,476 individuals of five common species and an undifferentiated Peromyscus genus. There were no treatment differences by species or overall abundance. However, excluding Peromyscus spp., total small mammal abundance was greater in the less intensive treatments. While plantation establishment intensity may not be detrimental to common species, further research is necessary to support these results. Future research should also identify differences in demographics among establishment practices, which could address mechanisms of population dynamics.

Stand Density Index Estimates Leaf Area Index in Uneven-Aged Ponderosa Pine Stands
Seth A. Ex and Frederick Smith
now appearing in Western Journal of Applied Forestry, January 2013

Uneven-aged silviculture is increasingly favored where diverse management objectives require complex stand structures. Traditional uneven-aged silvicultural methods have been criticized as inflexible and lacking ecological basis. Stocking indices such as Reineke’s stand density index (SDI) are flexible and easy to apply, but are not necessarily ecologically meaningful. Data from Black Hills ponderosa pine stands was used to test whether SDI is a suitable proxy for leaf area index (LAI) in uneven-aged stands. LAI has clear ecological meaning, and is interpretable in terms of resource use efficiency and site quality. The authors found SDI explained almost 90% of the variation in LAI in 21 uneven-aged stands, and was unbiased by tree size. These results show SDI is a useful tool for regulation of complex stand structures.