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The Forest Rotations Problem Under Risk and Uncertainty: Is There Anything Left To Study?

Not since Faustmann's ground breaking 1849 treatise on the optimal forest rotation has an article been more influential to the field of forest economics than Nobel Laureate Paul Samuelson's lecture and subsequent 1976 Economic Inquiry article, "Economics of Forestry in an Evolving Society." I discuss the development of forest rotations and policy choice modeling since this defining lecture, noting how this line of research has been shaped by Samuelson's article. In many ways he focused attention of critical issues of the time, but this work began a path of research totaling hundreds of papers based on assumptions that landowners solve relatively simple open loop or optimal stopping problems. As such, the field of forest economics is still relatively open especially with regard to relevant questions concerning correlated uncertainties and damages for natural risks that can arrive often more than once during a forest rotation with a landowner who does not automatically harvest after the first event, uncertainty concerning landowner responses in policy instrument choice problems, and the modeling of pure uncertainty in forest rotation problems. I propose some new ways of considering these problems. (Received September 14, 2013)