

Our analyses indicate that a system can be developed for identifying stands that are vulnerable to oak decline. Factors that create high vulnerability include: (1) a high proportion of oak in the stand, (2) xeric landforms and accompanying low SI, and (3) physiological maturity as expressed by SI/age ratio. In our study, 80 percent of the declining stands had an SI/age ratio lower than 1.4.

While identification of vulnerable stands appears possible, devising a biologically and socially acceptable way of treating them will be difficult. Introducing age

diversity would seem prudent. Uneven-aged management systems are currently favored by most of the vocal publics, but limited observations of some partial cuts in vulnerable or damaged stands have revealed continued or even accelerated decline. When adequate advance oak reproduction is already present, clearcutting results in a high proportion of oaks in the new stand (Loftis 1990). Clearcutting is rejected by many as a management option, however, particularly on public land. Studies monitoring the effects of management practices on decline and oak regeneration are needed.



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