

TREE QUALITY, REGENERATION AND WILDLIFE
PRESENCE IN MANAGED OAK POLE STANDS
ON MESIC SITES IN RHODE ISLAND

BY

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ABSTRACT

Tree quality, oak regeneration and wildlife use were evaluated in six recently fuelwood-thinned mixed oak pole stands on mesic sites in Rhode Island.

Sampling points were systematically located so as to yield an approximate 20 percent areal sample; a 10-BAF prism was used to identify sample trees. All live sample trees of oak species between 6.6 in and 15.5 in dbh (diameter 4.5 ft above ground) were graded as potential factory sawtimber and all live sample trees of oak species 15.6 in or greater dbh were graded as actual factory sawtimber. Oak regeneration and wildlife presence, as evidenced by deer/rabbit scat and browsing, were assessed by randomly establishing 320 milacre plots. All avian species observed visually or auricularly during the breeding season were recorded.

Five hundred and fifty-nine oak trees (6.6-15.5 in dbh) were graded by potential factory lumber tree grade specifications. Approximately 1.4, 17.0 and 8.1 percent of the stems were classified as grade 1, 2 and 3, respectively. Decay degraders, especially rotten branches <3 in, were the most important stem degraders; branch degraders were of secondary importance. Physical degraders were negligible.

Eighty-four oak trees (>15.5 in dbh) were graded by actual factory lumber tree grade specifications. Approximately 3.6, 7.1 and 38.1 percent of the stems were classi-

fied as grade 1, 2 and 3, respectively. Of the cull degraders, only decay was important.

Advance regeneration of oaks was more than adequate for future stocking with an average density of 2,588 stems per acre.

As expected, wildlife (deer/rabbit) presence was very limited in these mixed oak pole stands. Eleven avian species common to 4 of the 5 study sites were observed during the breeding season; 6 were cavity-nesters. Non-oak tree species particularly red maple (Acer rubrum L.), provided most of the nest cavity substrate; valuable oak stems were not damaged by cavity-nesters.