

ASH, THE EMERALD ASH BORER, AND PRIVATE FOREST LAND MANAGEMENT

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Forest management through emerald ash borer (EAB) will be a dynamic process that will change based on the best information available at the time. Management decisions will depend on the anticipated time of EAB arrival; the diameter and number of ash present in the forest stand; the diameter and number of other desirable and undesirable species present in the stand (especially exotic invasives); the current and anticipated future ash markets; and, most importantly, the long-term economic and biological impact that the loss of ash will have on the residual stand in terms of future stocking level and natural regeneration.

As a consulting forester for more than 25 years in northeastern Indiana, I was first introduced to EAB in a woods near Quincy, MI, in 2003. It was obvious how devastating this insect would be. In addition, because EAB is difficult to identify (initially), management will need to be proactive. In early 2004, EAB was found in my primary work area. Based on very strong ash markets at that time and the potential for heavy mortality before the next scheduled harvests (typically 10-year intervals; most woods are <20 acres in size), my recommendation was to harvest all merchantable ash when conducting a harvest for a landowner. Financially, this approach worked well for about 2 years. However, ash regeneration thrives on disturbance; because of more aggressive harvesting, ash was more dominant in the understory than ever.

In late 2005, EAB was found in Huntington County and, soon after, the price plummeted, at least locally. In addition, new locations of EAB were being identified and subsequent quarantines made it difficult to market a large amount of ash, particularly during the summer (generally a desirable time to harvest ash due to low moisture content). In quarantined areas, the decision at that time was to include as much ash as possible and still attract a competitive price. In areas that were not quarantined, I continued to sell all merchantable ash.

I have serious concerns that ash (now undesirable) and other undesirable species will further dominate stand

regeneration. Observations over the years have shown that many older timber harvests failed to regenerate acceptable species (even following timber stand improvement and completing openings). Observations also indicate that recent harvest openings include a high percentage of undesirable seedlings, such as ash, elm (vulnerable to Dutch elm disease), ironwood, blue beech, buckeye, and box elder, due to the abundant seed bank present immediately prior to the timber harvest. The presence of any invasive species only compounds that problem. Attempts to attain better natural regeneration have led to my current management philosophy: to increase management of the seed bank within the forest stand. My philosophy applies to management of any stand, with or without EAB. The goal is to minimize the amount of undesirable regeneration to improve the regeneration of desirable species and the long-term economic viability of the woodlands. Understory treatments (timber stand improvement) are done to eliminate or reduce the number of less desirable seed prior to a timber harvest. For example, treatment of any exotic invasives is mandatory. Harvests are delayed until EAB results in moderate to heavy mortality, usually 2 to 5 years, with the accompanying loss of seed bank.

EAB is now observed almost daily in my work area. The price of ash is now relatively stable, although considerably lower than 4 or 5 years ago. It is also anticipated that the current price is not likely to improve significantly. The current price appears to be relatively unaffected, except for the best trees, even when the trees have been dead for less than a year or two. The current timber markets in my area are primarily handles and pallets with some grade and sucker-rod.

As a general rule, each woods is treated on a case-by-case basis. In woods that have a considerable amount of high quality ash or a very small component of ash, I still recommend proceeding with the timber harvest as soon as possible, prior to mortality. Regarding tree planting, ash has not been a component since 2005.