

duced the highest cumulative total growth of all Norway maples transplanted. Data for individual trees in this group were consistent, and all trees exhibited a decline in growth during the fourth and fifth years. This decline suggests potential problems for Norway maples transplanted in summer months.

Growth before transplanting was compared with growth after transplanting. Our study indicated that growth before transplanting had no influence on the growth after transplanting. Since all trees in this study were reasonably vigorous, it should not be assumed that trees with low vigor would perform as well as vigorous trees.

Survival was only slightly affected by date of transplanting. Loss of one Norway maple and one green ash moved in July could be attributed to transplanting. Both trees were at the upper limit of the recommended size for the tree spade used. If slightly smaller trees had been available, such losses might have been avoided.

Conclusion

The eight species of shade trees used in this study represent only a few of the many tree

species and cultivars used in the landscape. The response of individual species to date of transplanting varied, but no general trend emerged to support the commonly held belief that spring and fall are best for transplanting. To the contrary, several species performed better when transplanted in late spring and summer. Adequate maintenance, however, must be considered essential.

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Abstract

KEITH, S. L. 1985. **Chainsaw safety: what you don't know can hurt you.** *Am. Forests* 91(9):22-27, 62-63.

Gone are the days when the only ones operating chainsaws were those burly loggers of the north woods, professional Paul Bunyans who cut their teeth on wood chips and slash piles. Today a host of ranchers, farmers, and suburbanites have swollen the ranks of chainsaw users, and the tool has become a common sight in many a garage and tool shed. According to the Consumer Product Safety Commission's (CPSC) most recent report, about 35,000 injuries involving chainsaws were treated in emergency rooms in 1976. The number fluctuated somewhere around 63,000 between 1978 and 1982, and was projected to be 69,000 for 1983. Dealing with kickback is the name of the game. And while the potentially deadly phenomenon goes with the territory, each individual manufacturer has worked long and diligently in addressing the problem. Chain brakes seem the common answer, along with asymmetrical guide bars and low-kick chains. Although kickback causes the most serious injuries, other hazards are faced by those who take a chainsaw into their hands. Front handguards protect against accidental encounters with a moving saw chain. Rear handguards keep knuckles from being slapped by loose or broken chains, and chain catchers serve to restrain a flailing chain. The throttle lockout is a sort of chainsaw "parking brake" designed to prevent accidental ignition. Bumper spikes on the front of the engine or motor housing are meant to grip the wood and help hold the saw in place during cutting. Antivibration systems absorb engine and cutting vibrations, lessening operator fatigue.