Utilization of Storm-Damaged Timber

USDT100404

Use of storm damaged timber depends on physical damage to trees and the length of time between damage and harvest. Sawtimber trees with broken tops may be unusable for lumber because of wood splintering and internal tearing (shake). Salvage of usable sawlogs from broken trees depends on the height of the standing stumps.

Uprooted or leaning trees usually can be converted to lumber. Badly splintered trees also present problems in debarking and chipping before pulping or conversion to hardboard or particleboard. However, trees with shake or just end splintering can usually be processed successfully although there will be some decrease in the quality of chips.

Fungi and insects require time to degrade the quality of timber. Rapid harvest and removal is the most effective method to prevent damage by these organisms. However, if this is impossible, timber can still be utilized for some products for up to a year.

The following are guidelines for the use of storm damaged timber for various products. Times are approximate and are affected by species, size and whether the trees are standing or on the ground.

Product	**Harvest within**	**Comments**
Veneer and lumber appearance (P), (H)	4 - 6 weeks	Blue stain prohibits use if left longer
Lumber-framing (P)	3 - 4 months	Should be kiln dried to prevent emergence of secondary insects. Do not use where toughness is important
Lumber-decorative boards and paneling (P), (H)	12 months	Should be kiln dried
Posts (P)	4 - 6 weeks	Blue stain will affect toughness and preservative treatability
Poles, piling (P)	Not recommended	
Pulp, hardboard, particleboard (P), (H)	12 months	Blue stain, decay and low moisture content may affect the pulping process and chemical or energy requirements. Should be mixed with sound wood.
Fuelwood (P), (H)	12 months	Low moisture content increases heat value

(P) Pine (H) Hardwood

Trees that are bent, broken or splintered, probably have windshake (internal tearing) and may not be suitable for lumber, but could be used for pulp or particleboard. Uprooted and leaning trees are more likely to be suitable for lumber. Badly splintered trees present problems in debarking and chipping before conversion to a fiber product.

When logs cannot be used rapidly, it is possible to prevent attack by fungi and insects by storing the logs under water. Valuable logs can be protected by floating in a pond or by keeping waterlogged under a water spray. To be effective, the logs should be water logged as soon after the harvest as possible and should be kept wet continuously. Ponding and water spraying can prevent deterioration for at least a year.

Source: Source: North Carolina Department of Forestry and Natural Resources