

Salvaging Timber: What should I do with my damaged timber?

*Eric L. Taylor, Assistant Professor
and Extension Specialist—Forestry,
and C. Darwin Foster, Associate Department Head
and Extension Program Leader for Forestry,
The Texas A&M University System*

Every landowner who must make timber salvage and management decisions should answer these questions before taking any action:

1. Do I have a manageable timber stand left undamaged?
2. Will I be able to make a timber sale in the future when prices are better?
3. Can I salvage the damaged timber?

To answer these questions, you will need certain information. A professional forester can help you obtain this information. From a timber inventory, foresters will determine: 1) the basal area of undamaged timber; 2) the volume or weight of the undamaged standing timber; and 3) the amount of damage (volume or weight of damaged timber).

The *Timber Stand Salvage Decision Model* on the following page uses this information to help landowners make decisions about their timber stands. Remember that poor market conditions, a scarcity of professional loggers, and a lack of property access may limit salvage operations even when they are recommended. When damage occurs in patches, consider making the damaged patches a new stand separate from undamaged patches. Answer the questions above separately for the damaged and undamaged stands.

Protect undamaged trees during salvage operations. Avoid selling undamaged timber as salvage unless a future timber harvest is impossible. More money can be lost selling good trees in a poor market than is made salvaging damaged trees. However, it is a good idea to remove as much of the damaged timber as possible in order to reduce fire hazard, minimize insect infestation, and lower site preparation costs. Wind-damaged trees may not qualify as sawtimber because of the internal damage they suffered.

Estimating in Damage

Landowners should get help from professional foresters to determine the value of damaged timber. However, if you attempt this task yourself, follow these steps.

First, use maps, photographs, GPS or other methods to identify and estimate damaged acreage. The local Texas Forest Service forester, county Extension agent, tax assessor or Farm Service Agency representative may be able to obtain this information for you. Determine the value of timber lost as

$$\text{Timber value} = \text{acreage} \times \text{timber value per acre}$$

Determining timber value per acre requires a timber inventory. Wind storms tend to blow down trees in strips, with some trees left standing. Take advantage of this with a two-step timber cruise.

- 1) Place plots in the least damaged areas to estimate total tonnage and value per acre. Fixed radius plots will work best if some trees are lying down. We recommend using a 1/20 fixed radius plot (radius equals 26.34 feet). Measure the dbh of each tree within the plot and tally it by species and product (pulpwood or sawtimber).
- 2) Next, use the following equations to determine necessary values for the *Timber Stand Salvage Decision Model*:

$$\text{Plot size} = 1/20 \text{ acres with radius} = 26.34 \text{ ft.}$$

$$\text{Basal area (BA) of each tree} = \text{DBH}^2 \times 0.005454$$

$$\text{Total BA/acre} = \frac{\text{sum of BA of all trees within the plot}}{\text{the appropriate plot size blow-up factor}}$$

$$\text{Undamaged BA} = \text{total undamaged tree basal area}$$

$$\text{Damaged BA/ac} = \text{total damaged tree basal area}$$

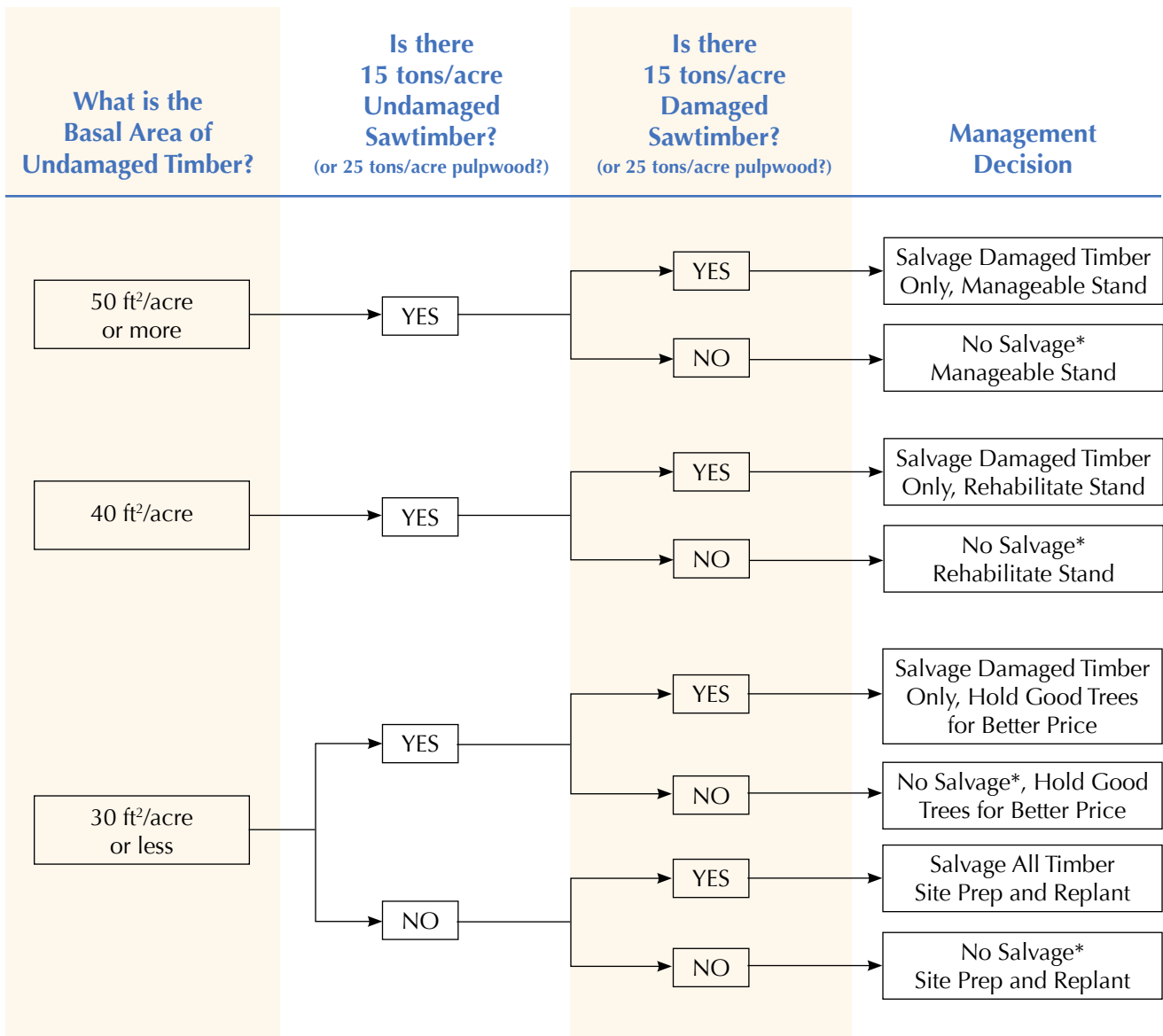
Estimate Timber Casualty Loss

The deductible loss from a casualty is the lesser of the fair market value before the loss and the basis in the timber. Casualty losses can be claimed on IRS Form 4684, which is available in IRS Publication 2194, the Disaster Losses Kit. To file IRS Form 4684, Casualties and Theft, and claim a loss, a landowner needs three values:

- ♦ fair market value before the disaster,
- ♦ fair market value after the disaster, and
- ♦ basis in timber.

Timber basis is the key. If the basis is zero, then there is no deductible loss. Timber basis should have been established already. If not, a retroactive basis may be estimated. Combine the cruise above with growth information collected by using an increment borer, and determine tree diameters at the time the property was acquired. Generally, basis is worth estimating if a forester's fee is less than 15 percent of the estimated basis.

For more information see Texas Cooperative Extension publication ER-036.



*Insufficient tonnage to commercially harvest

Produced by Agricultural Communications, The Texas A&M University System
 Extension publications can be found on the Web at: <http://tcebookstore.org>

Visit Texas Cooperative Extension at <http://texasextension.tamu.edu>

Educational programs conducted by Texas Cooperative Extension serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas Cooperative Extension, The Texas A&M University System.