

Worksheet for Estimating the Tonnage of a Pile of Orchard Tear-out Wood

Use any of the following methods:

Method 1:

This method relies on the relatively constant growth rate (in terms of wood weight) of orchard trees.

Variables required:

- Number of acres of orchard torn out = **N**
- Age of trees torn out = **A**
- Growth rate per year, depending on age of trees = **GR**

Age	Growth Rate
10	.76
15	.78
20	.80
25	.83
30	.76
35	.72
40	.68
45	.64
50	.60

To calculate tons to be burned (**T**): **NxAxGR**

Example: For a 10 acre orchard tear out, with 25 year old trees:

$$T = 10 \text{ acres (N)} \times 25 \text{ years (A)} \times 0.83 \text{ (GR)} = \mathbf{207.5 \text{ tons}}$$

Your Calculation: _____ X _____ X _____ = _____
N A GR T

Method 2:

This method uses an estimate of a pile size and then uses typical pile densities to estimate pile tonnage.

Variables required:

- Pile volume in cubic feet = **V**
- Compaction factor (285) = **CF**

285 accounts for the average density of orchard wood and the air space between the separate pieces of wood in a cube-shaped pile.

To calculate tons to be burned (**T**): **V / 285**

Example: For a pile 20x20x10 feet. The volume (**V**) is calculated (20X20X10) = 4000 cubic feet for a cube-shaped pile.

$$T = 4000 \text{ cubic feet pile} / 285 \text{ (compaction factor)} = \mathbf{14.05 \text{ tons}}$$

Your Calculation: **V** = _____ X _____ X _____ = _____ cubic feet
Width Length Height

$$\frac{\text{V}}{\text{CF}} / \frac{285}{\text{CF}} = \text{T} \text{ Tons}$$

Method 3:

Use a default value of **21 tons** per acre of trees removed to be burned.

If you need help with pile volume calculations, please call us.