



**UFST: Debris Volume Estimation**

Whole Trees on the Ground<sup>1</sup>

25% Wood; 75% Air (Space) in the Truck<sup>2</sup>

dbh	Approx. Cu Yards
4	0.3
8	2
12	5
16	10
20	19
24	31
28	48
32	68
36	94
40	125
44	161
48	204
52	253
56	309
60	373

Alternate volume table based on tighter packing of woody debris in the trucks; probably not realistic.

50% Wood, 50% Air (Space) in the Truck

dbh	Approx. Cu Yards
4	0.1
8	1
12	2
16	5
20	10
24	16
28	24
32	34
36	47
40	62
44	81
48	102
52	127
56	155
60	186

Common Objects

Vehicle	Size of 'Box' in Feet	Cubic Yards
Honda Civic	14 x 5.5 x 4.5	13
Corolla	15 x 5.5 x 4.5	14
Ford Escape SUV	14 x 5.5 x 6	17
Honda CR-V	14 x 6 x 5.5	17
Windstar Van	15 x 6 x 6	20
Jeep Commander	15 x 6 x 6	20
Toyota SUV	15 x 6 x 6	20
F 150 PU	18 x 6 x 6	24
Suburban	18 x 7 x 6	28

Tulsa - FEMA Debris

Dia Class	Cubic Yards
6" - 12"	5
13" - 24"	10
25" - 36"	15
37" - 48"	20
>48"	25

Based on the table in the upper left, this should more appropriately be:

- 6" - 12" - 4 yds
- 13" - 24" - 19 yds
- 25" - 36" - 68 yds
- 37" - 48" - 161 yds
- > 48" - 253 yds

<sup>1</sup> Whole tree volume calculations were derived from Martin et al. 1998 Can. J. For. Res. 28: 1648-1659

<sup>2</sup> Figuring 75% air space when debris is loaded in the bed of a truck. Derived from the FEMA Debris Monitor Field Guide (FEMA 587) May 2007, page 13, Grinding and Chipping (75% reduction to mulch) which states that grinding or chipping reduces volume at a 4:1 ratio.

