

A map of the Northeast United States, including parts of New York, Pennsylvania, Delaware, Maryland, and Virginia. A grid is overlaid on the map, and various red numbers are scattered across it. The numbers include 85, 132, 7, 2, 4, 5, 6, 8, 7, 3, 1, 9, 12, 1, 1, 3, 4, 1, 12, and 13. The word "Balls" is partially visible at the bottom right.

Northeast Forests, LLC

Forest Operations Research

SMARTPHONE

TIMBER HARVEST

WEIGHT TABLES

FOR THE NORTHEAST

Smartphone Timber Harvest Weight Tables for the Northeast

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anyone who might find it useful

All tables based on Montieth's (1979) *Whole Tree Weight
Tables for New York*.

Tables compiled by Steven Bick

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Table 1. Northern hardwoods whole tree weights, stems sizes and numbers for various load weights (50' tall trees).

DBH (")	tons per tree	trees per ton	trees per load by stem size		
			(29 tons)	(34 tons)	(39 tons)
4	0.08	12.5	363	425	488
5	0.12	8.3	242	283	325
6	0.18	5.6	161	189	217
7	0.24	4.2	121	142	163
8	0.31	3.2	94	110	126
9	0.39	2.6	74	87	100
10	0.48	2.1	60	71	81
11	0.58	1.7	50	59	67
12	0.69	1.4	42	49	57
13	0.81	1.2	36	42	48
14	0.93	1.1	31	37	42
15	1.07	0.9	27	32	36
16	1.21	0.8	24	28	32
17	1.36	0.7	21	25	29
18	1.53	0.7	19	22	25

50' tall trees

Table 2. Northern hardwoods whole tree weights, stems sizes and numbers for various load weights (65' tall trees).

DBH (")	tons per tree	trees per ton	trees per load by stem size		
			(29 tons)	(34 tons)	(39 tons)
4	0.10	10.2	294	345	396
5	0.16	6.5	187	219	252
6	0.22	4.5	130	152	174
7	0.30	3.3	95	112	128
8	0.37	2.7	79	93	107
9	0.50	2.0	58	68	78
10	0.62	1.6	47	55	63
11	0.74	1.3	39	46	52
12	0.88	1.1	33	38	44
13	1.04	1.0	28	33	38
14	1.20	0.8	24	28	33
15	1.38	0.7	21	25	28
16	1.56	0.6	19	22	25
17	1.76	0.6	16	19	22
18	1.97	0.5	15	17	20

65' tall trees

Table 3. Combined hardwood species tons per acre by basal area stocking.

BA/Acre (square ft.)	total tree height			
	30'	50'	65'	80'
30	17	26	34	41
40	22	35	45	55
50	28	44	57	69
60	33	53	68	83
70	39	62	79	97
80	44	71	90	110
90	50	79	102	124
100	55	88	113	138

combined hardwoods

Table 4. Combined softwood species tons per acre by basal area stocking.

BA/Acre (square ft.)	total tree height			
	30'	50'	65'	80'
30	17	25	32	38
40	22	34	42	51
50	28	42	53	63
60	34	51	63	76
70	39	59	74	89
80	45	68	85	102
90	51	76	95	114
100	56	84	106	127

combined softwoods

Table 5. Number of 29-ton loads per acre of combined hardwoods by basal area stocking.

harvest basal area per acre (sq. ft.)	Average Tree Height			
	30'	50'	65'	80'
30	0.6	0.9	1.2	1.9
40	0.8	1.2	1.6	2.5
50	0.9	1.5	1.9	3.1
60	1.1	1.8	2.3	3.7
70	1.3	2.1	2.7	4.3
80	1.5	2.4	3.1	5.0
90	1.7	2.7	3.5	5.6
100	1.9	3.0	3.9	6.2
110	2.1	3.3	4.3	6.8
120	2.3	3.6	4.7	7.4
130	2.5	3.9	5.1	8.1
140	2.7	4.2	5.5	8.7
150	2.8	4.6	5.8	9.3

29-ton loads
combined hardwood species

Table 6. Number of 34-ton loads per acre of combined hardwoods by basal area stocking


harvest basal area per acre (sq. ft.)	Average Tree Height			
	30'	50'	65'	80'
30	0.5	0.8	1.0	1.6
40	0.6	1.0	1.3	2.1
50	0.8	1.3	1.7	2.6
60	1.0	1.6	2.0	3.2
70	1.1	1.8	2.3	3.7
80	1.3	2.1	2.7	4.2
90	1.5	2.3	3.0	4.8
100	1.6	2.6	3.3	5.3
110	1.8	2.8	3.7	5.8
120	1.9	3.1	4.0	6.4
130	2.1	3.4	4.3	6.9
140	2.3	3.6	4.7	7.4
150	2.4	3.9	5.0	7.9

34-ton loads
combined hardwood species

Table 7. Number of 34-ton loads per acre of combined hardwoods by basal area stocking

harvest basal area per acre (sq. ft.)	Average Tree Height			
	30'	50'	65'	80'
30	0.4	0.7	0.9	1.4
40	0.6	0.9	1.2	1.8
50	0.7	1.1	1.4	2.3
60	0.8	1.4	1.7	2.8
70	1.0	1.6	2.0	3.2
80	1.1	1.8	2.3	3.7
90	1.3	2.0	2.6	4.2
100	1.4	2.3	2.9	4.6
110	1.6	2.5	3.2	5.1
120	1.7	2.7	3.5	5.5
130	1.8	2.9	3.8	6.0
140	2.0	3.2	4.1	6.5
150	2.1	3.4	4.3	6.9

39-ton loads
combined hardwood species



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