

Stump Removal By Accelerated Decay

-- Field Worksheet --

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Increase Surface Area of Stump and Major Roots

- drill stump top and sides
- drill top of major roots beyond stump
- scar stump surfaces

Increase Soil Aeration

- till, cultivate, loosen soil
- vertical mulch and trench to reduce compaction
- install deep air vents below stump if needed

Maintain Optimum Moisture

- provide plenty of water and drainage
- keep soil moist not wet through proper drainage
- irrigate to maintain optimum moisture

Maintain Healthy Soil

- keep soil well aerated and properly drained
- inoculate with forest soil if needed
- apply sugar to sites after first year with old stumps

Site Protection

- cover stump with soil
- cover soil and stump with mulching fabric
- use coarse organic mulch over area to reduce weeds

Site Disruption

- every few months damage, pierce, and break-up stump
- every three months replace soil on stump
- keep punching holes or slice into ground around stump

Enrich Site With Nitrogen

- use Table 1 on reverse side to determine amount
- broadcast over entire treatment area
- use slow release, low salt index fertilizer

Over Time

- check for and replace soil which has subsided
- replant



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Table 1: Estimated pounds of nitrogen needed to accelerate stump decay processes in a treatment area.

(* = do not apply more than 10 pounds of nitrogen in any one application.)

stump diameter (inches)	diameter of treatment area (feet)	radius of treatment area (feet)	full stump decay		decay after stump grinding	
			split application (1/3 annual) of nitrogen (pounds N)	annual application of nitrogen (pounds N)	split application (1/3 annual) of nitrogen (pounds N)	annual application of nitrogen (pounds N)
2 in.	0.8 ft.	0.4 ft.	0.01 lbs.	0.02 lbs.	0.003 lbs.	0.009 lbs.
4	1.6	0.8	0.02	0.07	0.01	0.03
6	2.4	1.2	0.05	0.2	0.03	0.09
8	3.2	1.6	0.1	0.3	0.05	0.15
10	4.0	2.0	0.15	0.5	0.07	0.21
12	4.8	2.4	0.2	0.6	0.1	0.3
14	5.6	2.8	0.3	0.9	0.1	0.4
16	6.4	3.2	0.4	1.1	0.2	0.6
18	7.2	3.6	0.5	1.5	0.2	0.7
20	8.0	4.0	0.6	1.8	0.3	0.9
22	8.8	4.4	0.7	2.2	0.3	1.0
24	9.6	4.8	0.9	2.6	0.4	1.2
26	10	5	1.0	3.0	0.5	1.4
28	11	5.5	1.2	3.5	0.6	1.7
30	12	6	1.3	4.0	0.6	1.9
32	13	6.5	1.5	4.6	0.7	2.2
34	14	7	1.7	5.2	0.8	2.5
36	14	7	1.9	5.8	0.9	2.8
38	15	7.5	2.2	6.5	1.0	3.1
40	16	8.0	2.4	7.2	1.1	3.4
42	17	8.5	2.6	7.9	1.3	3.8
44	18	9	2.9	8.7	1.4	4.1
46	18	9	3.2	9.5	1.5	4.5
48	19	9.5	3.4	10*	1.6	4.9
50	20	10	3.7	11*	1.8	5.3
52	21	10.5	4.0	12*	1.9	5.7
54	22	11	4.3	13*	2.1	6.2
56	22	11	4.7	14*	2.2	6.7
58	23	11.5	5.0	15*	2.4	7.2
60	24	12	5.4	16*	2.5	7.5
65	26	13	6	18*	3	9
70	28	14	7	21*	3.5	10*
75	30	15	8.5	26*	4	12*
80	32	16	9.5	29*	4.5	14*
85	34	17	11*	33*	5	15*