

Slash Walls: Contracts, Costs and Harvesting Systems to Limit Deer Impact to Regeneration

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Cornell University
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United States Department of Agriculture
National Institute of Food and Agriculture

Slash Wall Regeneration Harvests

- Mechanized felling and windrowing
- Built from low-value stems and slash (tops) near perimeter
- Integrated cutting of all understory vegetation



Harvest Layout Considerations

- Topography and natural obstacles
- Limit residual trees near wall
- Gates / future access



Contracts

- Minimum 10' high and 10' wide, plus “sufficiently dense to exclude deer” as determined by Forest Manager
- Negotiated percentage sales
- Loggers compensated for slash wall construction and cutting the “interfering” understory vegetation



2017 Wall Construction Costs

Sale	Acres	Perimeter (ft)	Machine Hours	\$ / Ft*
01 – Gas Line	74	7400	62	\$1.68
02 – Red Pine	11	2800	14	\$1.00
03 – Sta. Rd.	16	3800	15	\$0.80
04 - Wedge	12	2700	25	\$1.88

* At feller-buncher rate of \$200/hour

2019 – Volume and Time In Walls

(volume as tons estimated per 100 feet of wall)

Stand Type	Total (tons)	> 6" Hdwd (tons)	> 6" Conifer (tons)	Feet / minute
Hdwd Pole	27	15	0	2.4
HEM-Hdwd Small-SWT	33	13	10	2.6
Old-field Pole	29	4	16	2.6
Overall AVG	31	12	9	2.6

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- **Avg. wall cost \$2.25/ft (\$1.50 – labor, \$0.75 – wood)**
- **Negligible maintenance costs vs. fences**
- **~ half the cost of fencing**

Lessons Learned

- Crew needs to “buy in”
- Mechanized, not “hand” felling
- Negotiated, not bid sales
- Logger learning curve
- Prioritize low-grade into wall
- Avoid acute corners
- Anticipate future wall and harvest locations



What's Next?

- Seedling height growth and stand development
- Wall functional longevity
- Economic metrics
- New locations and crews



... and Extension!

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