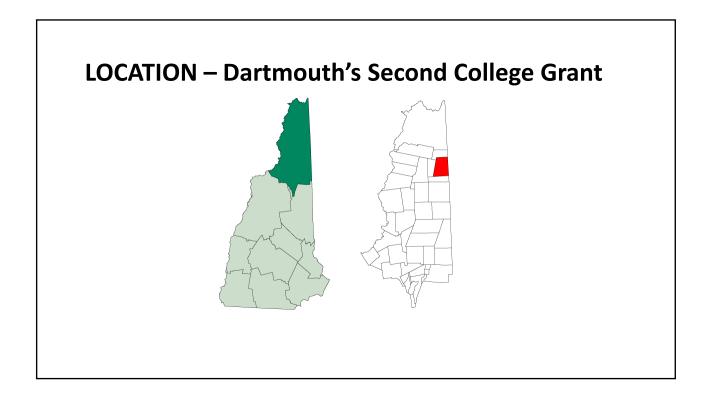
## **Economics of Northern Hardwoods**

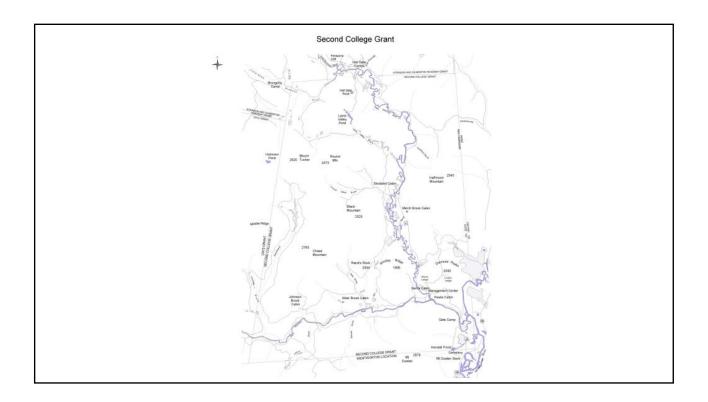
Northeast Silvicultural Institute September 13, 2017

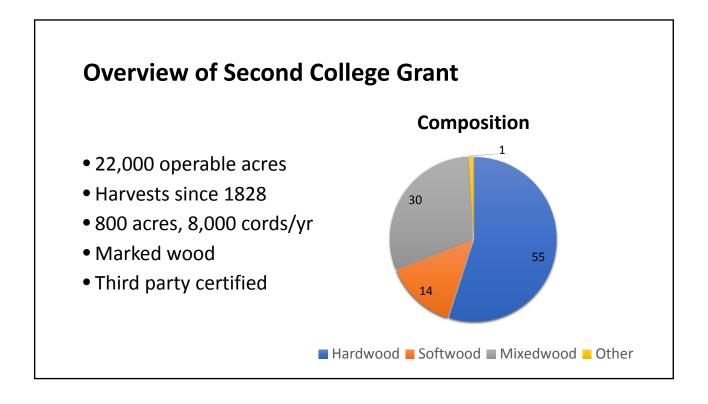
Kevin Evans
Director of Woodlands
Dartmouth College

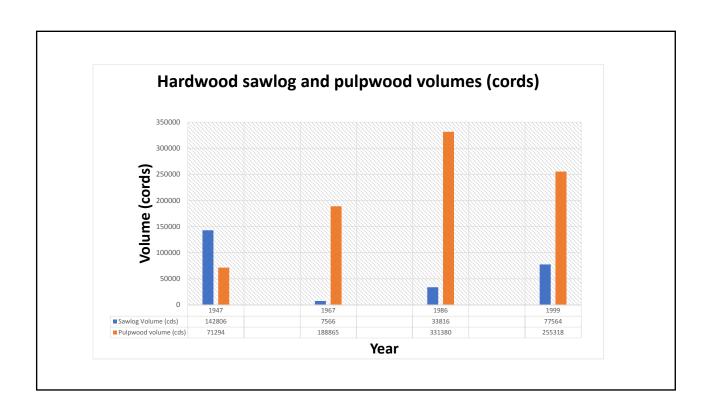
### We will:

- Look at examples of how silviculture has increased value of a forest and a specific hardwood stand at the Second College Grant
- Reflect on how increases in grade change also increases tree value and subsequently stand value
- •Look briefly at a pre-commercial thinning in Bartlett northern hardwood stand #22
- Talk briefly about markets

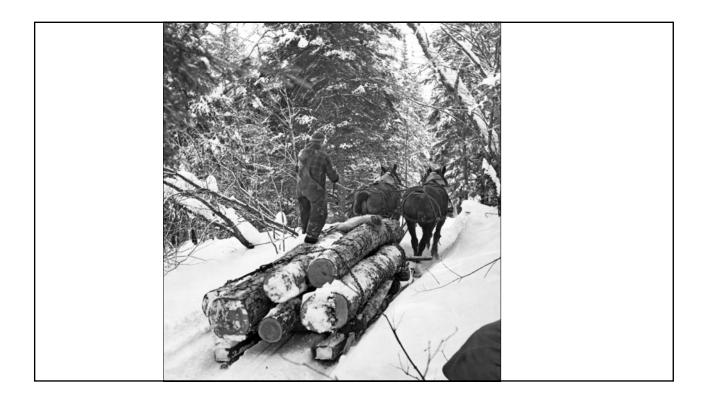




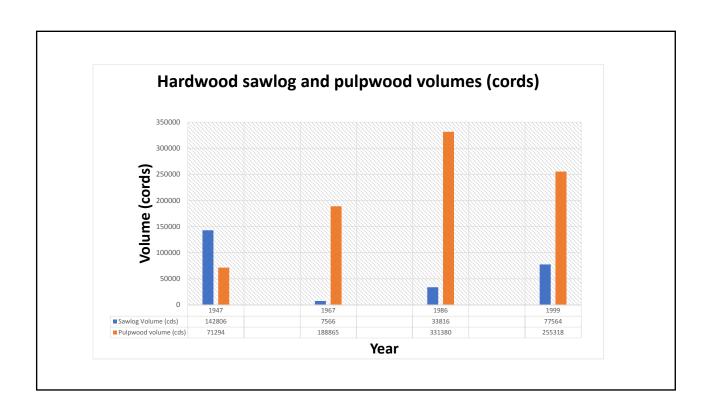


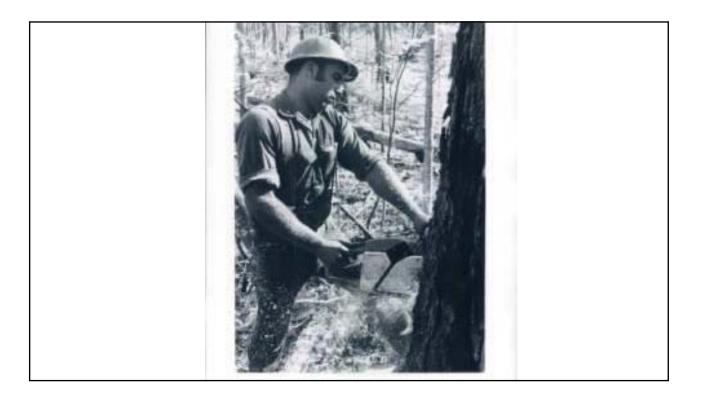


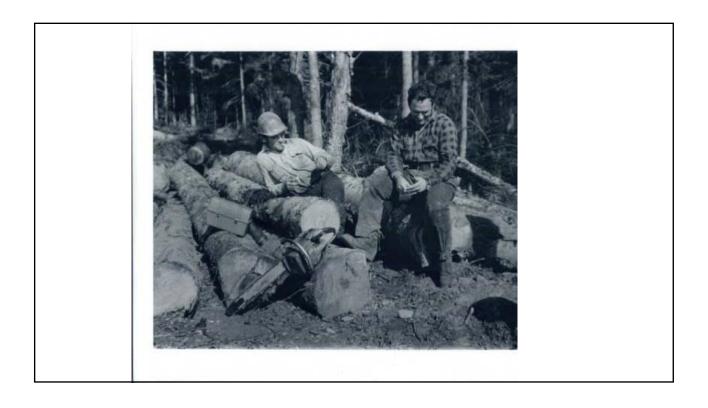


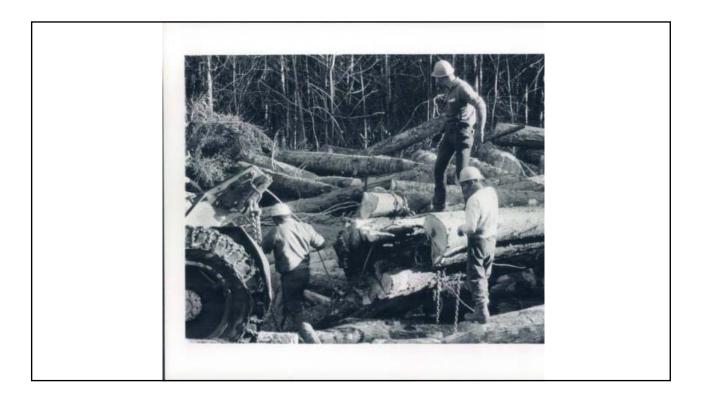


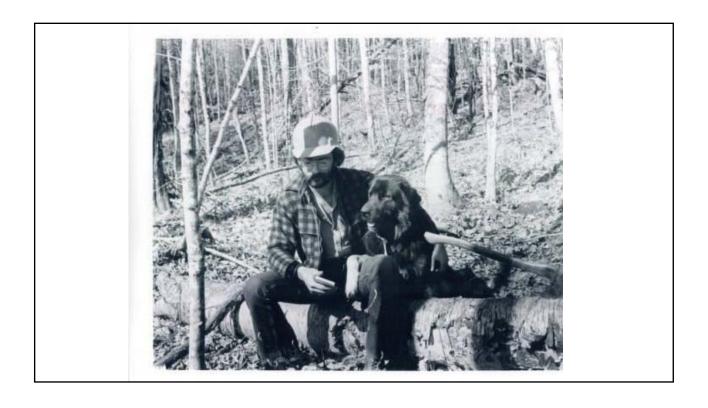


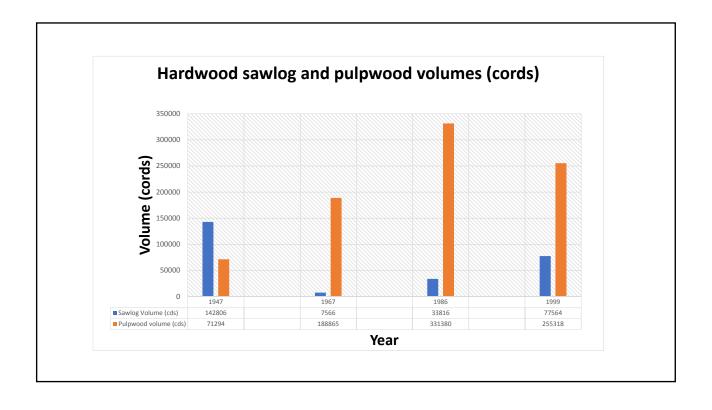










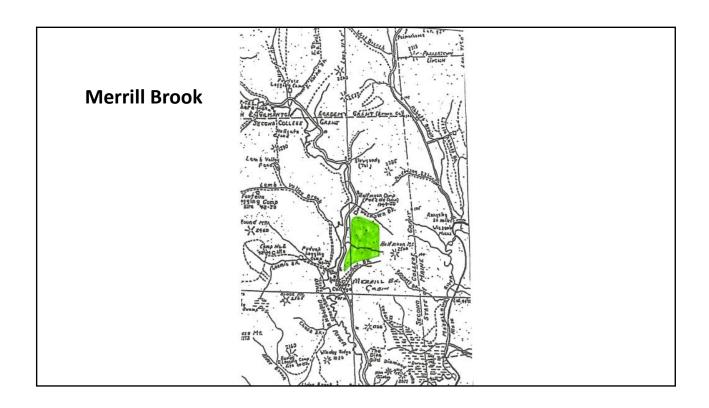




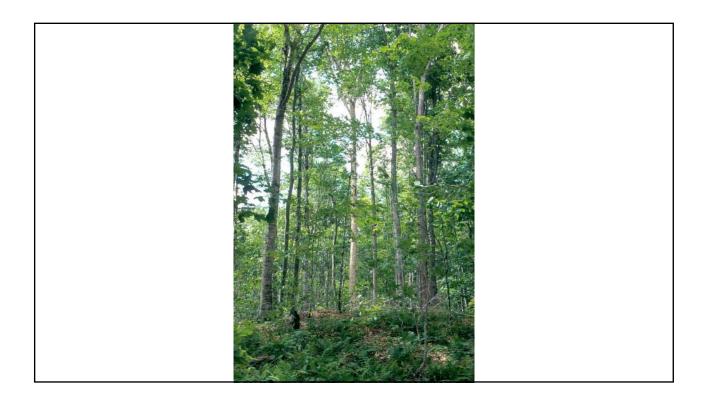


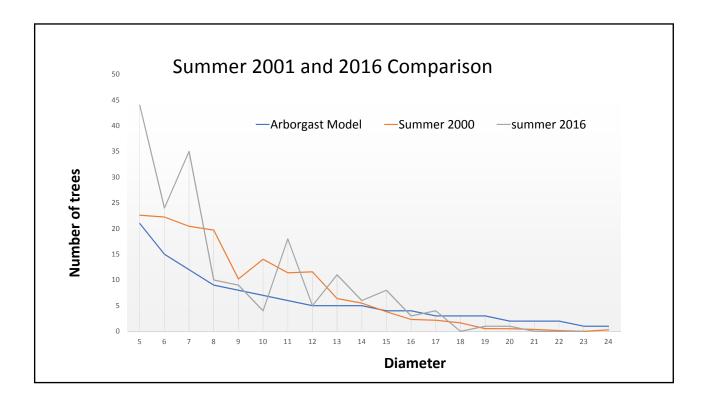


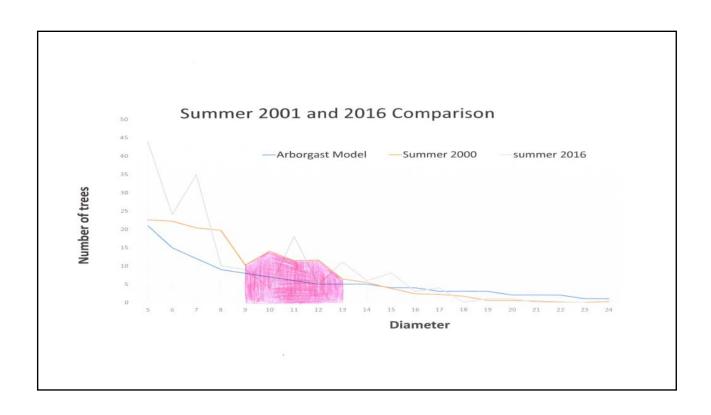


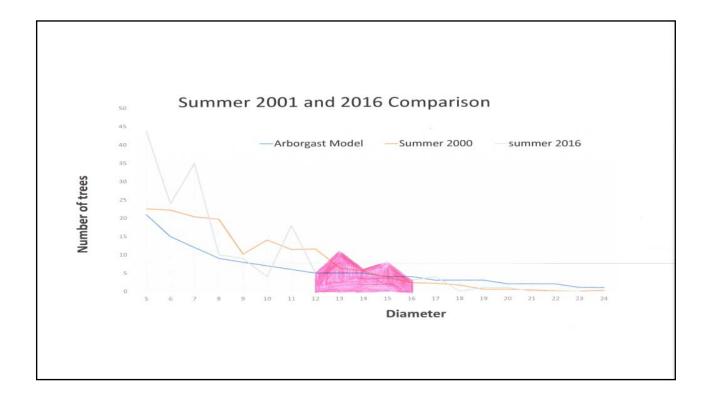


HISTORY		1999 INVENTORY	2001 HARVEST	2001 POST HARVEST INVENTORY	2016 INVENTORY
HARVEST LATE 1950'S	ВА	100		74	105
	TREES/ACRE	192		142	183
DIAMETER LIMIT CUT	MSD	9.7		10	10.3
PRIMARILY SAWLOGS	VOLUME (CORDS)	33		22	34
	PULP	26	2500 (92%)	18	21
	LOGS	7	472 (8%)	4	13









#### Look at Grade increase Grade Venner AAA Veneer A Sawlog Prime Sawlog Select Sawlog #1 Pallet Specs 16" 4cf 12" 4cf 14" 3cf 12" 3cf 10" 2cf 8" 1cf Market price (mbf) Hard Maple \$4,000.00 \$825.00 \$600.00 \$450.00 \$250.00 \$2,500.00 Yellow Birch \$3,500.00 \$600.00 \$450.00 \$350.00 \$250.00 \$2,500.00













### **Conclusions: Economic Assessment**

- At both 2016 and 2026 value, pre-commercial thinning not worth the investment at low, high interest rates
- Commercial thinning increases plot value, generates revenue mid-rotation
  - At 2016 value, low interest rate, reference and thinned plots worth more
  - At 2016 value, high interest rates, thinned and reference plots worth more
  - At 2026 value, low interest rate, thinned plots worth more
  - At 2026 value, high interest rates, thinned and plots where paper birch left worth more

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