

# Non-Industrial Private Landowner's Knowledge and Awareness of Sustained Yield Management in the Northern Forest

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## Introduction

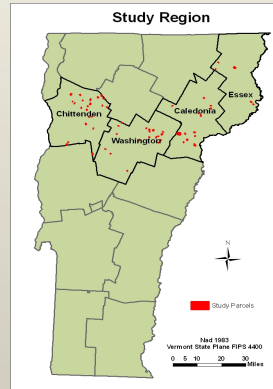
- The majority of forestland in the Northeast is owned by non-industrial private forest owners (NIPF). Timber harvesting on NIPF lands has seen a significant increase in recent decades.
- The sustainable management of these lands is integral to the viability of the forest industry in the Northeast.
- Past studies have shown that poor management is prevalent, despite the advantages of sustained yield management.
- Understanding the correlation between landowners knowledge of sustained yield management and implementation can help managers better facilitate sustainable practices on these lands.

## Objectives

- Understand the effect that Vermont's Use Value Appraisal program (UVA), absentee, and management plans have on landowner knowledge.
- Evaluate the effect of relationship between landowner knowledge of sustained yield management, and its implementation.

## Methods

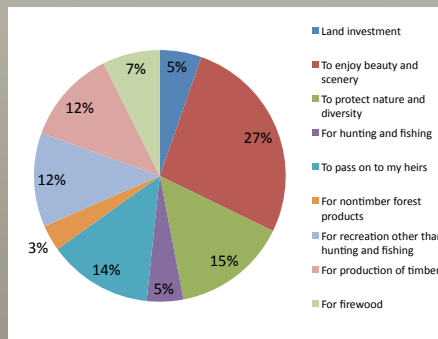
- Mailers were sent out to 2144 NIPF landowners in a four county region of Vermont, owning at least 25 acres and who had recently harvested timber.
- There were 113 respondents providing a 5.3% response rate. 59 participants were chosen using a simple random sample.
- During the summer of 2010 field visits and interviews were conducted. Sustained yield management was evaluated on each property by measuring acceptable management practices (BMP), and forest stocking,
- The survey used a summated rated scale with 6 questions regarding landowner knowledge on a 7 point Likert type scale.
- The correlation between knowledge and sustained yield management was analyzed using Kendal tau correlation coefficient, in SAS.
- Factors affecting knowledge were analyzed using the Mann-Whitney-Wilcoxon.
- Cronbach alpha scores for the knowledge scale was .79 showing good reliability in the scale.



## Descriptive Statistics

- The average property size for the sample was 110 acres.
- 45% of landowners sampled had received a college education.
- 63% had owned the property for over 20 years.
- 32% of sample were absentee landowners.
- 72% of the sample were currently enrolled in the Vermont Use Value Appraisal Program (UVA).
- 61% of the properties had a management plan containing silvicultural prescriptions.
- 52% of harvests were administered by a forester.

## Distribution of Landowners Top 3 Reasons For Owning Land



## Results

- UVA program showed a significant difference in landowner knowledge with a p-value of .029.
- Absentee landowners, and landowners with management plans showed no significant difference in knowledge scores.
- A Kendall tau correlation coefficient value of -.162 shows there is no linear correlation between knowledge and sustained yield management.

### Kendall Tau Correlation Coefficient Knowledge and Sustained Yield Management

Kendall Tau	N	P-value
-.162	31	.244

### Factors Affecting Landowner Knowledge Mann-Whitney-Wilcoxon Test

Factor	Y/N	N	Mean	P-value (.05)
UVA	Y	41	6.36	.029*
	N	16	5.52	
Absentee	Y	18	5.82	.30
	N	39	6.25	
Management Plan	Y	35	6.32	.12
	N	22	5.81	

## Conclusion

- Programs such as UVA are effective at helping to teach landowners about sustained yield management.
- Management plans did not affect landowner knowledge.
- There is a disconnect between NIPF knowledge and implementation of sustained yield management.



## Acknowledgments

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