

## 29. LANDOWNER WILLINGNESS TO ENGAGE IN LONG-TERM TIMBER LEASES IN WEST VIRGINIA, USA

David W. McGill, Shawn T. Grushecky, Stuart Moss, Chad Pierskalla and Al Shuler

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As global competition increases for wood-based products, the need for more efficient supply chains becomes increasingly important. In the forest products sector, these supply chains involve individuals and firms ranging from private forestland owners with standing timber to factories producing final finished products. Under the assumption that 'transparent' supply chains are beneficial to members within the supply chain, the authors are investigating how this transparency can be increased and what benefits might accrue to private forest owners who are associated with a specific supply chain under a long-term agreement. In recent years, hunting lease agreements between family forest owners and various organized hunt clubs or individuals have become commonplace in the Appalachian mountains of West Virginia. Can long-term timber leases become a new opportunity for landowners, forestry professionals, and wood-based industries? This paper describes a survey of private forestland owners in West Virginia that investigated the perceived concerns, benefits and barriers landowners have with regard to entering long-term timber leases with forestry professionals and timber firms.

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### INTRODUCTION

With rising global demand for wood-based products, the need for more efficient wood supply chains becomes increasingly important. In the forest products sector, supply chains in the eastern US involve individuals and firms made up of private forestland owners with standing timber, sawmills, and factories producing final finished products. Efficient access to and mobilization of timber resources is critical for assuring sustainable wood supply and long-term vitality of the forest products sector (De Galembert 2003). Needed efficiency improvements in this segment of wood-supply chains are exemplified in the case of paper supply chains in the southern USA, where the 'upstream' end of the supply chain – including cost of standing timber, logging, and log transport – constitute the largest direct cost for manufacturing paper products (Siry *et al.* 2006).

Wherever there is a wood-using mill, wood supply is a fundamental concern. This is particularly true in areas where most of the land is in small-scale, private landholdings and where forest product companies rely on external sources of wood for their mills. These conditions are present in eastern USA where wood-using industries are divesting themselves of forest landholdings in favour of purchasing timber on the open market (Hagan *et al.* 2005), rural forested areas are becoming increasingly urbanized with landowners who likely do not have timber production as a primary ownership objective (Little 2006, Egan and Luloff 2000), and the demand for eastern hardwoods is increasing in light of increasing global competition (Alig *et al.* 2002, Franklin and Johnson 2004).

In 2005, a collaborative project was initiated to evaluate methods for increasing the efficiency and sustainability of hardwood supply chains in Virginia and West Virginia (Bond *et al.* 2005). In conversations about supply chain transparency, where each firm or member of the supply chain has knowledge of product availability and demand of the other members, the issue of 'landowner fidelity' to the supply chain arose. That is, what are the benefits that accrue to the forestland owner – the raw material producer – by committing their land to a particular firm or supply chain, and what forms might that commitment take?

During the 1900s, long-term timber contracts were common in south-eastern USA. In a survey of southern forest products companies conducted in the late 1960s, 54 wood-based companies held 2.7 M hectares of land under long-term lease agreements (Siegel 1973). Timber leases were viewed as a cost-efficient way to maintain a secure wood supply without outright ownership (Greene 1979). There appears to be no leases for hardwood timber in West Virginia or Virginia, but the opportunity for some form of partnership between forest products manufacturers and timber owners might provide a 'win-win' situation in regions where wood demand is high and wood supply access and mobilization is limited (De Galembert 2003).

A survey was conducted in Wetzel County in northern West Virginia in order to provide information that would allow an assessment of the feasibility and practicality of long-term timber agreements between forest products companies, foresters, and landowners in the state. This report summarizes the findings of that survey.

## RESEARCH METHOD

A questionnaire was developed to elicit perceptions, concerns, and attitudes of private landowners concerning long-term timber leases. The questionnaire contained 44 questions, 11 being on timber harvesting history, 3 on land tenure, 19 on timber leases, 4 on education and information, and 7 on demographics. In the questionnaire, a simple definition of an example timber lease agreement was provided:

Generally, long-term timber leases feature two main parts:

- 1) an agreed-upon *annual or single up-front fee* paid by a purchasing party to retain the right to harvest an agreed-upon amount of timber in a specified time period (generally 5 to 20 years), and
- 2) an agreed upon *price for timber harvested* during the lease period.

The timing and harvesting guidelines for long-term leases can vary considerably and are set in place by the contract between the landowner and timber leasing party.

A table listing 15 issues related to timber leases was developed by the authors and presented in the questionnaire with Likert-type scales ranging from 1 = very important to 4 = not important.

The reference population consisted of 885 taxpayers owning more than 20.2 ha who were filtered from a database purchased from the West Virginia Tax Office in spring 2005. Wetzel County in north-western West Virginia was selected as the pilot county for several reasons including its long physical distance of about 250 kilometres from counties of interest in our larger study (counties with mills located near southern West Virginia), the heavily forest cover of the county (82% forested, according to Griffith and Widmann 2003), and the fact that Wetzel County had not been used for any recent forestry-related surveys.

Questionnaires were mailed in envelopes containing a cover letter requesting the assistance of the landowners and a coded, pre-addressed and stamped return envelope. A request was made to return blank questionnaires if not interested or unable to fill out a response. The mailing schedule following the four-step procedure recommended by Dillman (2000); the steps were: 19 February 2007 – Pre-questionnaire postcard; 6 March and 9 March 2007 – first mailing of questionnaire; 21 March 2007 – reminder postcard; and 9 April – second mailing of questionnaire

By 22 April 2007, 444 responses were obtained from the original 885 questionnaires sent out to Wetzel county landowners. Questionnaires were returned by 269 individuals. The adjusted response rate of 38% was achieved after taking into account the 167 bad addresses, 5 deceased, 1 duplicate, and 2 refused; 92 blank questionnaires were received. A total of 177 usable questionnaires was received, a response rate of 25%.

## SURVEY FINDINGS

### Demographics

Respondents were residents of eight different states, although West Virginia residents made up 84% of the group. Ohio, Pennsylvania, and Maryland residents accounted for about 4% each. California, Florida, Michigan and North Carolina made up about 1% each. Males made up 85% of the respondents and averaged 63 years old (range 37 to 105 years); females averaged 66 years old (range 47 to 87). Fifty-five percent of the respondents were retired. Average forest area owned was 55.4 ha.

### Respondents' History of Timber Harvesting

Survey responses indicated that timber harvesting pressure had been widespread in the county with 94% of the respondents having been contacted by individuals wanting to purchase their timber, and nearly two-thirds (64%) had harvested timber. Most landowners who harvested timber (69%) did not have a forester assisting with the sale, but for the 31% that did engage a forester, 21 had private consultants, 6 had WV Division of Forestry Service Foresters, and 6 had industry foresters.

Three quarters of sales (76%) were completed by the respondent and a buyer and 18% had another family member involved; only 3% of the timber sales had a lawyer associated with the transaction.

Forester-assisted sales were predominately lump-sum sales (84%) where a timber prospectus that lists sale volumes and detailed harvesting requirements or restrictions is sent out to prospective timber buyers; buyers then submit closed bids that are opened and read on a predetermined date. On sales without foresters present, lump-sum sales accounted for 38% of the sales, 21% were pay-as-cut sales, and 32% were percentage sales, where the landowner and timber harvester would share the proceeds on an agreed basis (Figure 1).

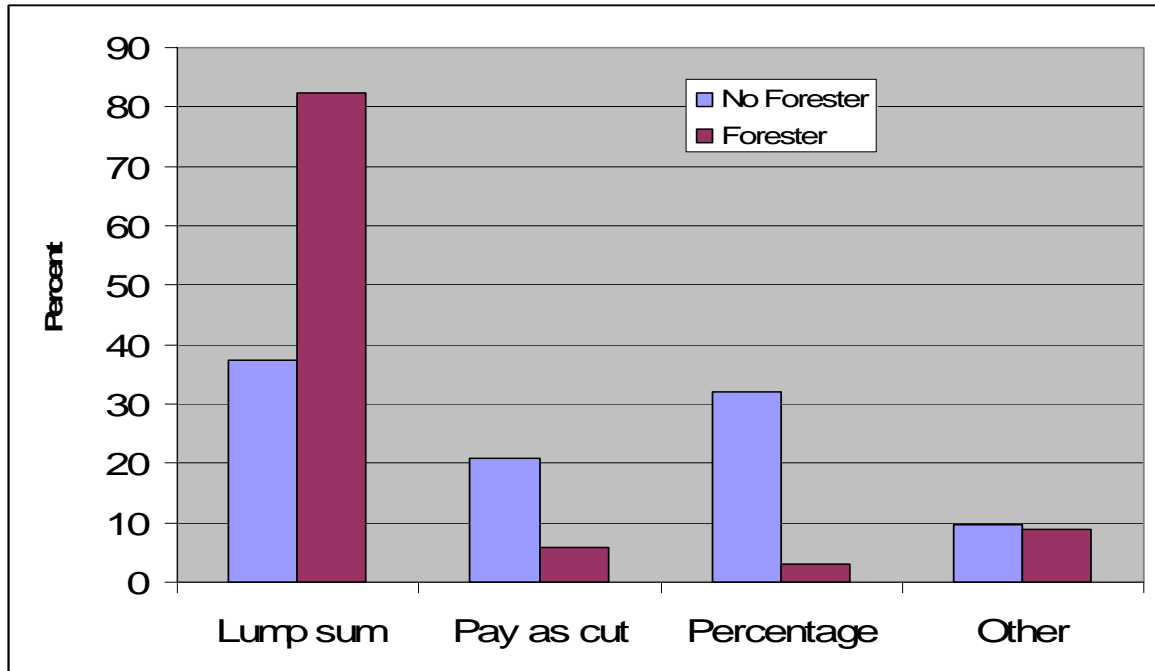


Figure 1. Type of timber sale made by respondents with and without the assistance of a forester

**Long-term Timber Leases – Attitudes and Issues**

Only one respondent claimed to have a long-term timber lease. Their returned questionnaire was accompanied by a note explaining that the timber rights were held by the previous landowner, who retained the rights to cut timber following sale of the property. Retention of timber rights is uncommon in West Virginia, although surface and mineral rights frequently have separate owners.

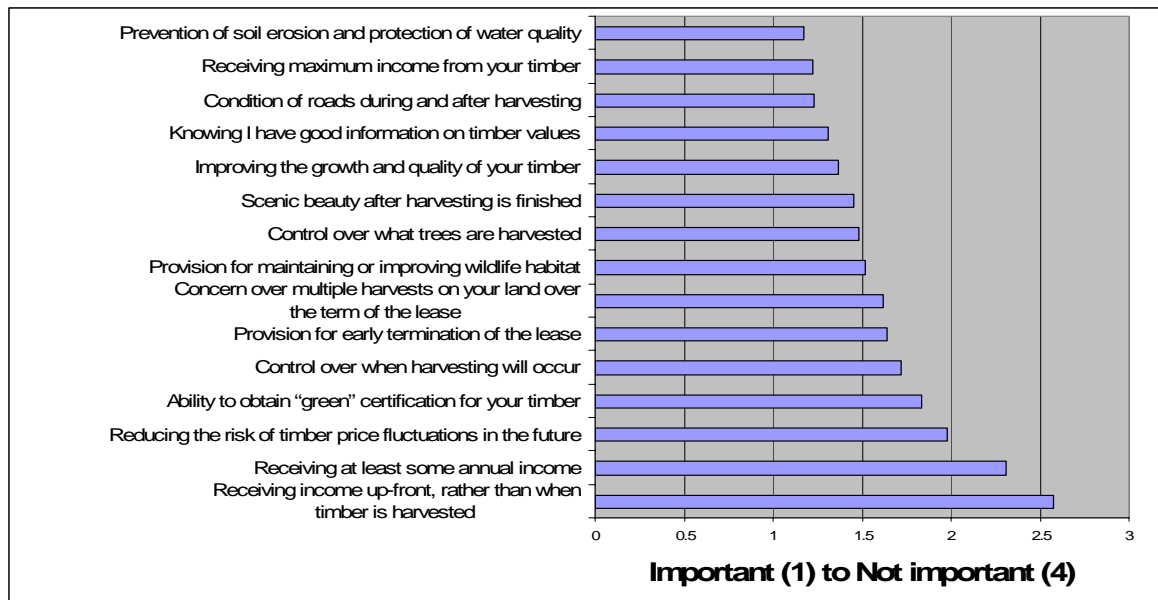
When asked ‘Would you be interested in finding out more about long-term timber leases?’, 57% said they would not, 42% were interested, and 1% said ‘maybe.’ Responding to the question ‘Would you be willing to enter into a long-term contract with a company that would pay you an annual lease fee for a set period of time (say 10 years) plus the average fair market value for timber when it is harvested?’, 66% answered no, 24% answered yes, and 10% were undecided.

The follow-up question to whether survey participants would be interested in entering into a long-term timber lease was open-ended, inquiring as to the greatest concern they had with entering into a lease agreement. The largest group of respondents (20%) wrote in concerns related to damage that might occur to their property (including residual trees, roads, and wildlife; (Table 1). Next most frequently listed concerns included loss of control (15%), liens against the property especially involving future estate transfers or sales (14%), and fear of being cheated (12%). About 30% stated that they were either not interested, were opposed to the idea, or had lifestyles (including senior ages) with much higher priorities for the undisturbed use of their properties.

**Table 1.** Main concerns about entering into a long-term timber lease

Concern	Response (%)
Postharvest conditions/Damage to property/trees/wildlife	20
Loss of control	15
Liens against property	14
Being cheated	12
Fair value for lease	11
Not interested; opposed	11
Lifestyle/age	8
Don't know/not familiar with it	9
Don't want to cut trees	2
Total	100

Importance rankings of issues related to long-term timber leases are shown in Figure 2. Concern for soil erosion and water quality ranks highest in average importance values. Receiving maximum income from timber ranks second in importance. In general, the advantages normally attributed to long-term leases – up-front payments, annual income, and reducing risk of timber price fluctuations – were considered the least important among the 15 issues.



**Figure 2.** Average importance values of various concerns by landowners with respect to entering long-term timber leases

**DISCUSSION**

Not surprisingly, landowners in the sample county, and likely across the rest of West Virginia, are not engaged in long-term timber agreements with forest products companies. Apart from a single respondent who owned property that had timber rights owned by another party, no other long-term timber harvesting agreement was found.

Wetzel county landowners have priorities other than the benefits that might accrue under long-term timber agreements, perhaps due to the lack of leasing experience in the region. With concrete examples of timber leases in place and defining a financial and supply arrangement between a company and a landowner, other landowners might be more easily sold on the idea of committing some or all of their timberlands as a wood supply for a forest-products firm or forestland owner cooperation.

Some West Virginia landowners are familiar with industry assistance in the form of cooperative forest management (CFM) groups. These programs might be the most common long-term agreement

currently available to landowners in West Virginia. Agreements made under industry-sponsored CFM programs in West Virginia are not legally binding agreements, but rather are programs where management planning and timber sale administration services are offered with the agreement that the company has an opportunity to bid on the timber if the landowner should decide to sell timber.

That landowners are unfamiliar with timber leasing agreements does not mean they are unwilling to consider long-term timber supply relationships. A large proportion (42%) of respondents in this study indicated that they would be interested in finding out more about timber leases, and nearly a quarter (24%) said they would be willing to enter into a 10-year lease that includes an annual lease fee plus fair market value for timber when it is harvested. With 11% claiming that securing the fair market value for a lease was their biggest concern, overcoming this apprehension might not be a great challenge for a forest products company that wants to develop a wood supply that has guaranteed access and mobilization efficiencies.

While the idea of forest cooperatives has not taken root to the same degree as in many European countries, some form of collaborative relationships among landowners, consulting foresters, and forest industries can likely lead to increased benefits for all participants (De Galembert 2003). Especially nowadays when stories from the field related to 'soft' timber prices are circulating, working in partnerships may become more of an attractive endeavour to help add value to various components of the wood supply chain, or to create more local components of a supply chain (e.g. via small-scale mills, co-owned moulding machines).

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