

Farm Forestry Extension Evaluation Report

Findings from Private Native Forestry
Field Day Workshops 2021.



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Introduction

As part of the National Forest Industries Plan, Local Land Services (LLS) has partnered with the North East NSW Forestry Hub to deliver a series of field days for landholders interested in learning about Private Native Forestry (PNF).

In June 2021 the first three of six currently funded field days were held at Grafton, Wauchope and Kyogle. The field days were designed to provide landholders with an opportunity to engage with LLS and to learn about:

- different forest management practices,
- how to enhance forest productivity,
- how to manage environmental values,
- how to conduct forest assessments including tree selection and production identification, and
- to provide participants with an outline of the rules and regulations that govern PNF in NSW.

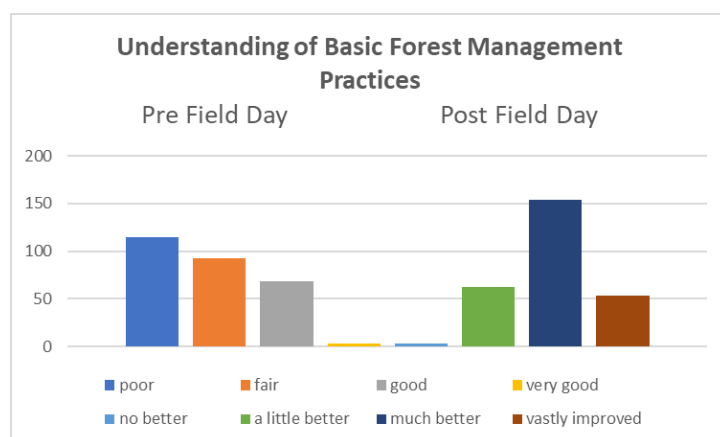
A total of 62 people attended the three field days across Northern NSW. The majority of participants were landholders either with an approved PNF Plan or those looking to apply for a PNF Plan in the future. Participants were asked to complete a short survey to measure the effectiveness of the field days in improving knowledge and understanding of the forest management and the regulatory framework. The participant survey consisted of a series of questions, with half being completed at the beginning of the field day and the other half at the end of the day. Through using a two point in time survey method, a clear indication of participants initial understanding of forest management was captured, as well as how their level of understanding changed through attending the field day. The survey also allowed for feedback to be provided about areas which were most useful, or areas where further training is required.

For the pre field day questions participants were asked to gauge their level of understanding of a series of areas rating it as either poor, fair, good, or very good, with the exception of Pre-Q 8 which asked them to indicate what practices they currently undertake on a scale of none, minimal, frequent, or extensive. For the post field day questions participants were asked to rate how their level of understanding has changed as a result of participating in the field day. A copy of the participant survey is provided at **Attachment A**.

Key Findings

- 88% of participants are more likely to undertake PNF as a result of participating in the PNF field days, demonstrating that the field days are a successful tool to improve engagement and forest management.
- The field days help to improve landholder understanding and confidence in basic forest management practices. For every pre field day survey question, the majority of participants had either a poor or fair understanding of the topic area (refer to figure 1) . For every post field day survey question, the majority of participants had either a much better or vastly improved understanding of the topic area (refer to figure 1), indicating that the field days were successful in communicating forest management practices to participants.
- Survey results indicate that the field days' content is comprehensive and well targeted. Participants indicated at the end of the field day that all of the topics covered were useful, and noted specifically that the content on thinning, basal area, and the how to enhance forest productivity and determine economic value were most useful.
- Further PNF training and extension workshops are highly desired, with 95% of participants interested in undertaking further PNF training and extension workshops. Participants have indicated that training and extension that focuses on key areas such as fire management, pest and weed management, practical forest management demonstrations, increasing forest productivity and value, and how to manage a PNF operation including managing contractors and completing Forest Operation Plans are all highly desirable.

Figure 1 – Participants' understanding of basic forest management practices before and after the field day



Detailed Findings

Each of the participant survey questions have been analysed, with an overview provided below.

Property and Forest area

To gauge the size of the properties that participants are managing, participants were asked to indicate their property area and forest area. These questions were mostly answered correctly; however, some participants misunderstood the question and listed the geographical areas of their properties.

Of those that correctly responded the Property Area ranged between 18-981 hectares with an average property size of 348 hectares. The Forest Area ranged between 4.5-786 hectares with an average forest size of 193 hectares.

Reasons for Participant attendance

Participants were asked to indicate what the main drivers to attending the field day were (Pre Q 10). While almost every participant indicated that it was due to a desire to increase their knowledge and understanding of PNF

management, some were also particularly interested in gaining a clear understanding of the PNF process, a few had a recently approved PNF Plan and were looking for guidance on next steps, and others were looking for information about how to manage their forest for further income, including through the use of carbon credits.

Figure 2: Safety First, participants in their complimentary hard hats at the Kyogle field day.



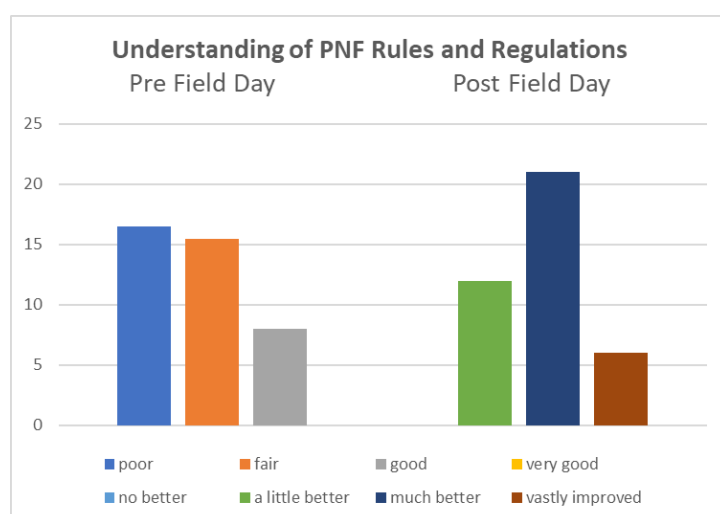
PNF Rules and Regulations

As the field days were targeted towards landholders new to or looking to become involved in PNF, and in order to ensure that the information provided was pitched to the correct level, it was important to gauge the level of understanding participants had regarding the PNF rules and regulations.

Participants were asked to indicate what their current understanding of the rules of regulations for PNF were at the beginning of the field day (Pre Q 1) and indicate how their understanding had improved as a result of attending (Post Q 1).

Prior to the field day, 80% had a poor or fair understanding of the PNF rules and regulations with only 20% having a good understanding. However, after the field day 69% of participants indicated that they had a much better or vastly improved understanding, indicating that the information regarding the PNF rules and regulations was effective in improving understanding and a useful tool for enhancing voluntary compliance.

Figure 3: Participants' understanding of PNF Rules and Regulation before and after the field day

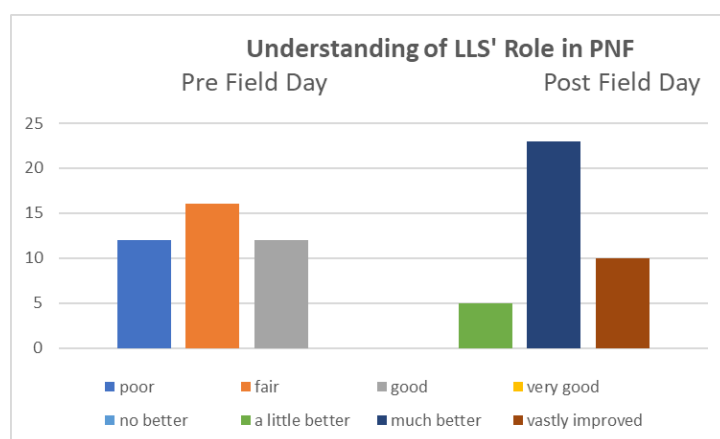


Local Land Services' Role in PNF

LLS' involvement in PNF is relatively new, taking on the approval and extension function in 2018. Given this recent transition, participants were asked to indicate what their understand of LLS' role in PNF was both before (Pre Q 2) and after (Post Q 2) the field day.

Prior to the field day, 70% of participants had a poor or fair understanding of LLS' role. However, after the field day, 87% of participants had a much better or vastly improved understanding. Although the field days were led by PFSQ, LLS staff coordinated the field days, were available for direct engagement with landholders, and spoke at various points throughout the day particularly on the rules and regulations for private forests in NSW. Based on the participants' feedback, this model is successful in educating participants about LLS' role within PNF.

Figure 4: Participants' understanding of LLS' role in PNF before and after the field day



Native Forest Management

Given that the field days were targeted towards landholders that were new to PNF or looking to improve their understanding of native forest management, it was important to gauge participants' understanding of forest management, including different forest management practices, and planning. A series of questions were developed to measure participants' understanding of native forest management, discussed below.

Figure 5: Participants learning about forest management in Grafton.

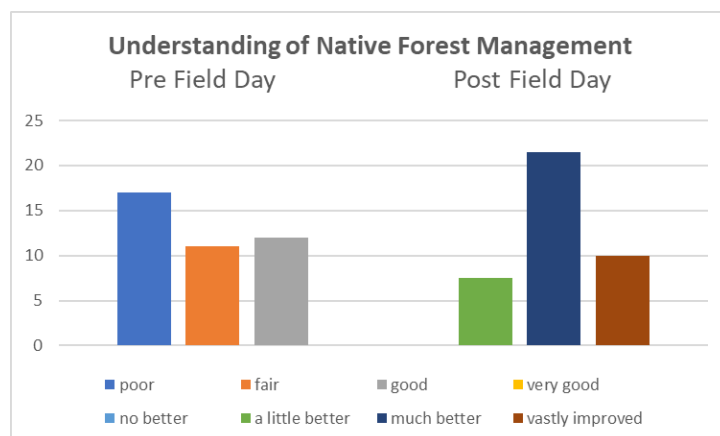


Forest Management

Participants were asked to indicate what their understanding of native forest management was before (Pre Q 3) and after the field day (Post Q 3). Prior to the field day 70% had a poor or fair understanding of native forest management, with 30% having a good understanding, but no participants indicated they had a very good understanding.

However, after the field day 81% of participants indicated that they had a much better or vastly improved understanding of native forest management, indicating that the field days were successful in delivering detailed and practical forest management information to participants.

Figure 6: Participants' understanding of native forest management before and after the field day



Tree Stocking and Basal Area

Participants were also asked to indicate their understanding of tree stocking and basal area, which are fundamental to effective forest management practices particularly when conducting forest assessments. Prior to the field day (Pre Q 4) 55% of participants indicated that they had a poor understanding, with 85% of participants indicated that they had either poor or fair understanding, identifying this as a significant area where education is required.

During the field day a demonstration was conducted on how to measure basal area. Participants were then provided with a dendrometer and invited to practice measuring basal area themselves (see Figure 12). In-depth discussions were also held regarding tree stocking and what stocking rates are most appropriate for different forest management and environmental objectives.

After the field day (Post Q 4), 69% of participants had a much better or vastly improved understanding of tree stocking and basal area. All participants were provided with a free dendrometer as part of the field day. This will help solidify the skills on basal area measurement and improve forest assessment practices.

Figure 7: Participants' understanding of tree stocking and basal area before and after the field day

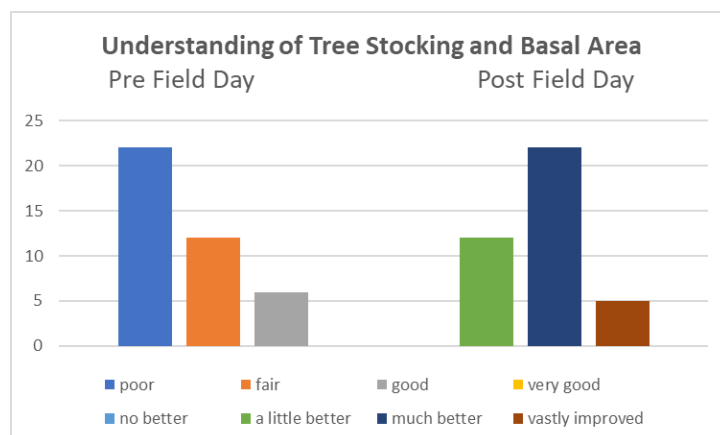


Figure 8: Participants measuring basal area at Kyogle field day



Forest Products

One focus of the field days was developing participants' understanding of forest products and helping them to determine which trees can be selected for harvesting, based on the tree's physical characteristics, tree species, and market demand, whilst also retaining trees as required by the PNF Codes of Practice.

Participants were asked to identify what their current understanding of forest products was before (Pre Q 5) and after (Post Q 5) the field day. Prior to the field day, 68% of participants had a poor or fair understanding (with the majority having a poor understanding) of forest products. However, after the field day, 76% of participants had a much better or vastly improved understanding of forest products.

Interestingly, one participant who indicated that they had a very good understanding of forest products before the field day commenced, still found the information useful, indicating that they had a vastly improved understanding of forest products following the field day.

This suggests that even participants who believe that they have a good understanding can still benefit from learning about forest products in an interactive practical setting.

Figure 9: Participants' understanding of forest products before and after the field day

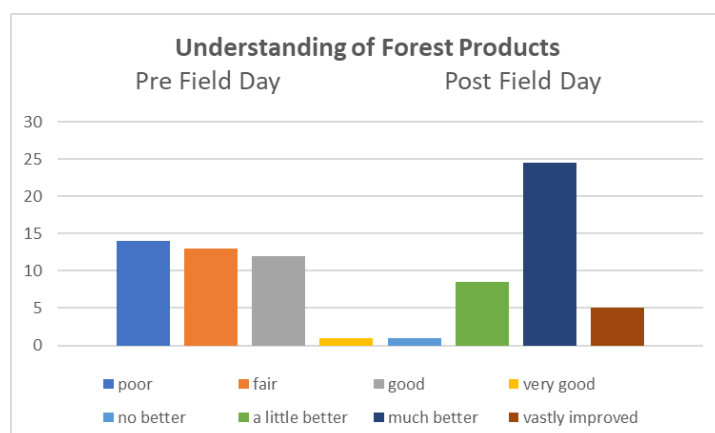


Figure 10: Forest products assessments at the Grafton field day.



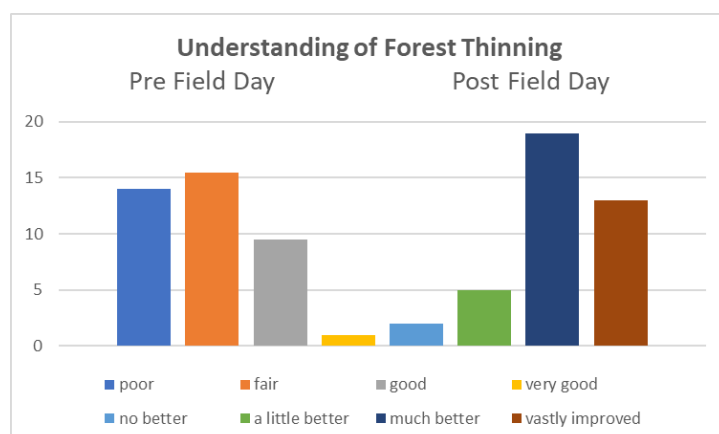
Forest Thinning

Forest thinning plays an important role in private native forestry management and is one of the silvicultural techniques under the PNF Codes of Practice. It is an important part of forest management, used to increase the health and long-term sustainability and value of a forest stand. Given its importance, the field day focused on ensuring that participants understood forest thinning, and how it could be used as a forest management technique within their own forest.

Participants indicated what their understanding of forest thinning was before (Pre Q 6) and after (Post Q 6) the field day. Prior to the field day 74% of participants has a poor to fair understanding of forest thinning. However, after the field day 82% have a much better or vastly improved understanding.

As outlined below in the PNF training and extension section, forest thinning was often singled out by participants as one of the most useful topics covered during the field day.

Figure 11: Participants' understanding of forest thinning before and after field day

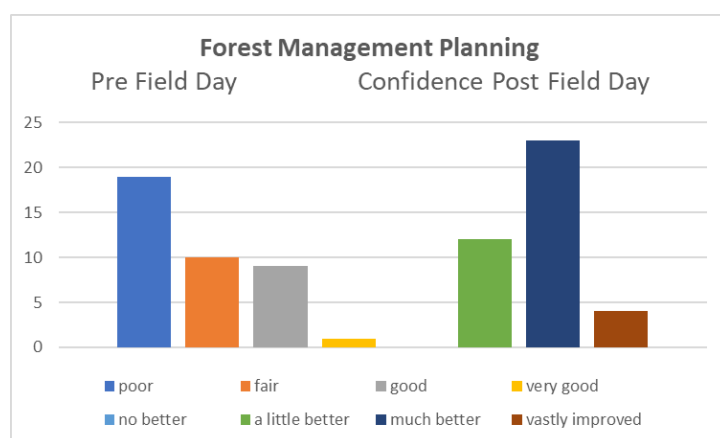


Forest Management Planning

The training was also designed to increase participants' understanding of forest management planning, providing an overview of how planning forest management practices that were tailored to their individual forests would help to ensure they are achieving the best economic, environmental, and sustainable outcomes.

Prior to the field day (Pre Q 9) 74% of participants rated their current forest management planning as either poor or fair. Although this is a high percentage, it was not totally unexpected given the training was tailored towards landholders new to PNF. However, after the field day (Post Q 8), 69% of participants indicated that they had much better or vastly improved confidence in planning forest management activities. Given that forest management planning is essential for effective forest management practices, this is a significant finding.

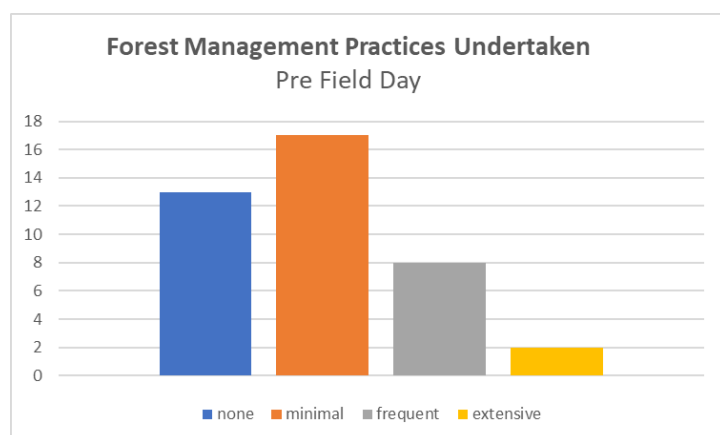
Figure 12: Participants' forest management planning prior to the field day and confidence in forest management planning after the field day



Current and Future Forest Management Practices

Participants were asked to indicate what native forest management practices they undertook prior to the field day (Pre Q 8), and if as a result of the field day they were more likely to undertake PNF in the future (Post Q 7). Prior to the field day, 42.5% of participants were undertaking minimal forest management practices, noting that the training was targeted at new PNF landholders this result was foreseeable.

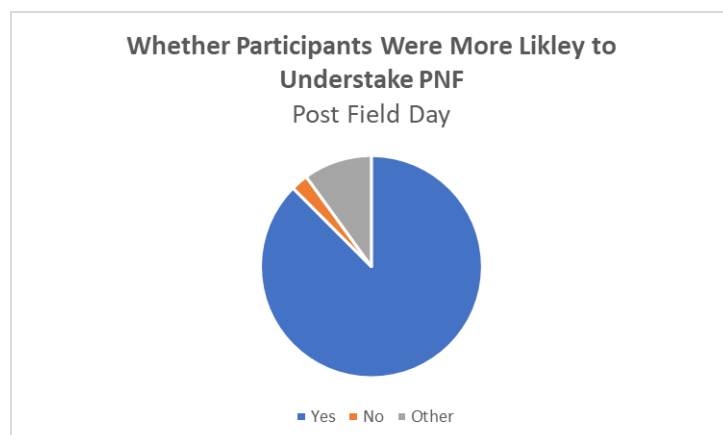
Figure 13: Level of forest management practices undertaken by participants prior to the field day



Following the field day there was a significant increase in the number of participant likely to undertake PNF in the future. 88% percent of participants were more likely to undertake PNF as a result of the training, with only one participant indicating they were not more likely to undertake PNF due to the training.

These results indicate that the PNF Field Days are an effective tool for not only increasing landholder understanding of forest management practices, but industry development and landholder participation.

Figure 14: Whether participants were more likely to undertake PNF as a result of the field day



When participants were asked what else could be done to improve their management of native forests on their properties (Post Q 13), consistent themes of increased forest management, especially thinning and fire management were highlighted. However other participants indicated a desire for further education and training, access to more information, getting a property assessment done, having a site visit from an expert, or interacting with the forest industry as areas which would help them improve their forest management in the future.

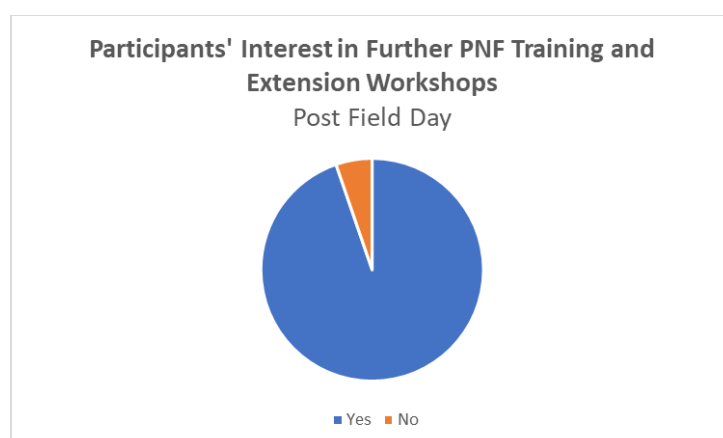
When asked what changes participants were likely to make to their forest management practices as a consequence of the workshop (Post Q 14), many participants indicated that they would commence long term forest planning including reassessing their forest management processes and engagement with contractors.

PNF training and Extension

It is clear that the field days were a success in increasing participants' knowledge and understanding of Private Native Forestry, including forest management practices and planning, as well as the rules and regulations that govern forestry in NSW.

The field days success can also be measured through the fact that 95% of participants indicated that they were interested in undertaking further PNF training and workshops (Post Q 9), with the majority of participants willing to complete further full days of training, with availability spanning across weekdays and weekends (Post Q 10).

Figure 15: Participants' interest in further PNF training and extension workshops



Field Day Topics

Participants were asked what topics covered in the field day were most useful (Post Q 11). A wide variety of answers were received which covered off on most if not all of the topics covered in the field day material. Many participants indicated that all the content was useful however forest management practices, identifying merchantable wood products and forest assessment techniques were identified as particularly useful components.

Topics for Future Training and Extension

Participants were also asked to indicate if there were any additional topics that could be included in the field day (Post Q 12). Topics suggested included:

- Fire management
- Managing steep slopes and erosion
- Pest and weed management
- Indigenous forest management practices
- Practical forest management exercises, or visual footage of a step by step harvesting operation
- Practice in identifying different tree species
- How to improve forest structure for long term forest productivity
- Habitat and seed tree requirements
- How to manage a PNF contract and contractors, and liability management
- Forest Operation Planning

Given the concerns from the other participants about the time constraints of adding additional content to the exiting field day structure, these additional topic areas will be considered as part of additional extension and training activities.

Field Day Presentation

Participants were asked for feedback about how the field days were presented (Post Q 15). Overwhelming positive feedback was received, with specific mention made about how the practical examples of the workshop were invaluable, how the presenters had great knowledge and experience, and how having the course that combined theory and practice was a sound delivery structure.

Figure 16 and 17: The two different training environments for the Wauchope field day



Conclusion

Local Land Services' partnership with the North East NSW Forestry Hub has demonstrated the value in extension and engagement in improving landholder's knowledge of forest management practices and the PNF regulatory framework. The training package was targeted towards landholders that were new to PNF, or looking to become involved in PNF, and the information provided to participants has resulted in the majority of participants leaving the field days with a vastly improved understanding of forest management which will improve forest productivity and environmental outcomes.

Based on the participants' feedback, there is clear evidence to support the continuation and expansion of the introductory field days across NSW to increase PNF participation, as well as the development of additional workshops and extension materials to complement the introductory field days and provide training opportunities to a wider audience. Based on the feedback received it is clear that topic specific workshops that target key areas of forest management are desirable to allow participants to gain an in depth understanding of these areas. The feedback provided indicates that key topic areas may include fire and pest and weed management, practical forest management demonstrations, how to increase forest productivity and value, and how to manage a PNF operation, including managing contractors and completing Forest Operation Plans.

Attachment A

Native Forest Management Evaluation – Pre Field Day



FIELD DAYS 2021

LOCATION—

FACILITATORS: SEAN RYAN/BILL SCHULKE

Please fill in the survey sheet at the beginning of the Field day and keep until the end, where there is another quick survey to gauge the effectiveness of the day for participants. Thankyou

Your Property Area _____

Area of Forest _____

Post Code _____

Name _____

Address _____

P: _____ E: _____

1. My current understanding of the rules and regulations for PNF is:
a. poor b. fair c. good d. very good

6. My current understanding of forest thinning is:
a. poor b. fair c. good d. very good

2. My current understanding of LLS' role in PNF is:
a. poor b. fair c. good d. very good

7. How easy is it to find out information about private native forestry?
a. poor b. fair c. good d. very good

3. My understanding of native forest management is at this point:
a. poor b. fair c. good d. very good

8. What native forest management practices do you undertake now?
a. none b. minimal c. frequent d. extensive

4. My understanding of tree stocking and basal area is:
a. poor b. fair c. good d. very good

9. How would you rate your current forest management planning?
a. poor b. fair c. good d. very good

5. My current understanding of forest products is:
a. poor b. fair c. good d. very good

10. What was the main driver for you to want to participate in this Field Day?

Please turn over for the post Field Day questions

Native Forest Management Evaluation – Post Field Day

Please circle the appropriate answer

1. My understanding of the rules and regulation for PNF is now: a. no better b. a little better c. much better d. vastly improved	5. My understanding of forest products is now: a. no better b. a little better c. much better d. vastly improved
2. My understanding of LLS' role in PNF is now: a. no better b. a little better c. much better d. vastly improved	6. My understanding of forest thinning is now: a. no better b. a little better c. much better d. vastly improved
3. My understanding of native forest management is now: a. no better b. a little better 4. much better d. vastly improved	7. Are you more likely now to undertake private native forestry? Yes/No
4. My understanding of tree stocking and basal area is now: a. no better b. a little better 5. much better d. vastly improved	8. My confidence in planning forest management activities is: a. no better b. a little better c. much better d. vastly improved

9. Would you be interested in participating in further PNF training and extension workshops? Yes / No

10. Please indicate your preference for future workshops (circle):

Day: Mon Tues Wed Thurs Fri Sat Sun

Full day

Half day: Morning Afternoon Night session

11. Which topics covered in today's field day were most useful, and why?

12. Should any additional topics be included in the PNF field day, and why?

13. What could be done to improve your management of native forests on your property?

14. What changes do you think you will make to your forest management practices as a consequence of this workshop?

15. Do you have any suggestions regarding the presentations or workshop format?

