



The Carbon Farmer Model

Volume One: Main Report

A report for the Rural Industries Research and Development Corporation

by Hassall & Associates

June 2001

RIRDC Publication No 01/059
RIRDC Project No HAS-8A

© 2001 Rural Industries Research and Development Corporation.
All rights reserved.

ISBN 0 642 58281 5
ISSN 1440-6845

The Carbon Farmer Model – Volume One: Main Report
Publication No. 01/059
Project No. HAS-8A

The views expressed and the conclusions reached in this publication are those of the author and not necessarily those of persons consulted. RIRDC shall not be responsible in any way whatsoever to any person who relies in whole or in part on the contents of this report.

This publication is copyright. However, RIRDC encourages wide dissemination of its research, providing the Corporation is clearly acknowledged. For any other enquiries concerning reproduction, contact the Publications Manager on phone 02 6272 3186.

Researcher Contact Details

Hassall & Associates Pty Ltd
Level 4, 52 Phillip Street
GPO Box 4625
SYDNEY NSW 1044

Phone: 02 9241 5655

Fax: 02 9241 5684

Email: hassyd@ozemail.com.au

RIRDC Contact Details

Rural Industries Research and Development Corporation
Level 1, AMA House
42 Macquarie Street
BARTON ACT 2600
PO Box 4776
KINGSTON ACT 2604

Phone: 02 6272 4539

Fax: 02 6272 5877

Email: rirdc@rirdc.gov.au

Website: <http://www.rirdc.gov.au>

Published in June 2001

Printed on environmentally friendly paper by Canprint

Foreword

In recent years there has been increasing international concern about the level of atmospheric gases that may increase the greenhouse effect, particularly carbon dioxide (CO₂). CO₂ is absorbed in the production of biomass, and so there is the possibility that emissions may be offset by storing CO₂ ('sequestering' it) in various biological 'sinks'. Many jurisdictions, including Australia, are contemplating markets for rights in sequestered carbon. In these markets, industries and other institutions may offset their emissions of CO₂ by buying rights to the carbon absorbed in the production of biomass, chiefly timber in plantations.

"Carbon farming" is the cultivation of trees in order to sequester carbon and then to obtain tradable rights in that carbon. These rights can then be sold to emitters of CO₂ and other interested parties.

The "Carbon Farmer" model has been developed to assist advisers and farmers to decide whether it is worth engaging in carbon farming. It does this by allowing them to explore the physical and financial consequences of different assumptions about the productivity and management of plantations, the costs of cultivation and administration, and the price for which the sequestered carbon (as well as the timber itself) may eventually be traded.

The specific project objectives are to:

- Develop a working model (the "Carbon Farmer") that can assist its users decide whether it is worth engaging in carbon farming;
- Train groups of personnel in the fields of forestry and agroforestry in the latest information concerning carbon farming and equip them with a copy of the Carbon Farmer model.

Volume One of this report contains the report on the project, including the consultation undertaken as part of the model development. Volume Two contains the User Manual that supports the Carbon Farmer model and a CR-rom.

This project was funded by the Joint Venture Agroforestry Program (JVAP). The JVAP is supported by three R&D Corporations — Rural Industries, Land & Water Australia and Forest and Wood Products. These Corporations are funded principally by the Federal Government.

This report, a new addition to RIRDC's diverse range of over 700 research publications, forms part of our Agroforestry and Farm Forestry R&D program, which aims to integrate sustainable and productive agroforestry within Australian farming systems.

Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at www.rirdc.gov.au/reports/Index.htm
- purchases at www.rirdc.gov.au/eshop

Peter Core

Managing Director

Rural Industries Research and Development Corporation

Acknowledgements

Hassall & Associates wishes to thank the numerous people who participated in the training workshops that helped to develop and refine the Carbon Farmer Model, the five independent evaluators who reviewed the model and manual from: Greening Australia, a Regional Plantation Committee, the Australian Greenhouse Office, a commercial timber company and a private consultant. Their comments have been extremely valuable. Liz Peterson, Andrew Macarthy, Peter Ritson and John Kaye who assisted in providing Western Australian data on Oil Mallees and Maritime Pine. Their contributions are appreciated.

This project has been funded by The Joint Venture Agroforestry Program.

Contents

Foreword	iii
Acknowledgements	iv
1. Introduction	1
1.1 Carbon Farming	1
1.2 Project Objectives	1
1.3 Approach.....	1
2. Results and Discussion	2
3. Next Steps	3
Appendix One: List of Participants	4
Appendix Two: Workshops.....	6

1. Introduction

1.1 Carbon Farming

In recent years there has been increasing international concern about the level of atmospheric gases that may increase the greenhouse effect, particularly carbon dioxide (CO₂). CO₂ is absorbed in the production of biomass, and so there is the possibility that emissions may be offset by storing CO₂ (“sequestering” it) in various biological ‘sinks’. Many jurisdictions (including Australia) are contemplating markets for rights in sequestered carbon. In these markets, industries and other institutions may offset their emissions of CO₂ by buying rights to the carbon absorbed in/by the production of biomass, chiefly timber in plantations.

“Carbon farming” is the cultivation of trees in order to sequester carbon and then to obtain tradable rights in that carbon. These rights can then be sold to emitters of CO₂ and other interested parties.

The “Carbon Farmer” model has been developed, through funding under the Joint Venture Agroforestry Program, to assist advisers and farmers to decide whether it is worth engaging in carbon farming. It does this by allowing them to explore the physical and financial consequences of different assumptions about the productivity and management of plantations, the costs of cultivation and administration, and the price for which the sequestered carbon (as well as the timber itself) may eventually be traded.

1.2 Project Objectives

The specific project objectives are to:

- Develop a working model (the “Carbon Farmer”) that can assist its users decide whether it is worth engaging in carbon farming;
- Train groups of personnel in the fields of forestry and agroforestry in the latest information concerning carbon farming and equip them with a copy of the Carbon Farmer model.

1.3 Approach

The approach taken was to develop a prototype of the model, conduct 12 training workshops to demonstrate and refine the model, make modifications on the basis of workshops, send out the model and manual to independent reviewers, receive comments and finalise the model.

The workshops aimed to:

- Explain the model and investigate how it could be useful;
- Discuss how the model can be made more user relevant;
- Identify data sources that could be put into the model (e.g. region specific data); and
- Raise and gauge awareness of carbon trading and carbon farming issues, as appropriate.

A collated list of participants is shown in Appendix One. A summary of each workshop is provided in Appendix Two.

Suggestions for improvement made by the participants and the reviewers have been collated and incorporated where appropriate.

Additional data has been sourced from Western Australia to cover two relatively new crops: Oil Mallees and Maritime Pine.

2. Results and Discussion

The outputs of this project are the Carbon Farmer model and associated manual. The model is written in Microsoft Excel 97 ® and the Visual Basic/Excel macros used in the model will not work in previous versions of Excel. The manual has been built into the model, as “on-line help” accessed through numerous help buttons, and is provided as Volume Two of this report. The user can create scenarios to suit their own circumstances, explore different situations and then compare the results. The model supplies some suggested values as well as gives a large degree of flexibility for people to input their own values.

The objectives of the project have been met, with the exception of providing a copy of the final model and manual to the workshop participants. It is better to do this step as part of a general release (see recommendation below).

The process of consultation used in the project has confirmed the need for people to understand whether carbon farming is an opportunity or not for them. The workshops have been successful in raising interest in the use and capabilities of the model. Over 100 people attended. The workshops also showed that there is still confusion about what is likely to happen with carbon trading generally and the overall awareness of carbon trading issues were low. The workshops acted as effective forums to discuss some of these issues, particularly those that related to the Carbon Farmer Model, and general feedback indicated that bringing together groups was very effective. Future updates with these people will improve awareness of the issues and use of a tool such as the Carbon Farmer.

In relation to the model, most people appreciated the instant feedback and low numbers of inputs. Specific suggestions have been incorporated into the model where appropriate. Suggestions included layout, appearance, content, inputs and desirable functions (including, for example, the scenario comparison option).

The project also confirmed two of the messages in Hassall & Associates (1999)¹. Carbon farming is generally only attractive where there is a profitable timber activity. This is because of the high initial costs of planting the trees and setting up the carbon activity. Secondly, carbon farming is difficult for small landholders (or small areas on larger holdings) largely because of the high set-up costs. The “scenario comparison” option can act as a “pool manager”, where different (smaller) holdings can be amalgamated and thus spread the costs.

The independent review process demonstrated the potential for the Carbon Farmer to be an important tool and test different scenarios. The fact that there is so much uncertainty about carbon farming probably enhances the potential. The reviewers found access to the model and manual difficult but, once they were in, the model was very easy to use and answered all their “what-if” scenarios. As a result of this review process we were able to improve the introduction to the model and manual. The appearance and structure have been modified. Assumptions that were questioned have been further explained. Additional features that were requested have been added, with the exception of a request to insert pictures of the screens in the on-line help and manual. This would take up too much room and we found we could achieve the same effect by inserting “road maps” (where you are) and links to other sections of the model and the manual. A further exception was a feature that allowed people to choose when they could be paid for the carbon stored. The main assumption is that people will not be paid until the end of the commitment period, whereas some schemes may pay farmers up front. This is quite a complex mechanism that may be added to future versions.

¹ Hassall & Associates (1999) *Greenhouse, Carbon Trading and Land Management*, Occasional Paper 23/99, Land and Water Resources Research and Development Corporation, Canberra

The reviewers and participants generally emphasised the difficulty of farmers using the model without professional advice on the appropriate inputs or how to interpret the results. Farmers were seen to have a low knowledge of forestry. The target audience was therefore seen to be forestry and farm forestry advisers, as well as companies with appropriate expertise, rather than individual farmers. Some forestry advisers might not use the model because they had better timber models available. By definition, carbon farming considers the timber activities, but the model does so from the viewpoint of biomass rather than product mixes, which introduces some limitations.

The limitations with the timber model do not impact on the usability of the model. Rather, the timber component can be further developed or investigated by using appropriate tools after the farmer decides that carbon farming is attractive or not.

In a similar way, carbon accounting issues such as tracking carbon flow between different ecological sinks are secondary to the decision. This implies there needs to be links between tools to be used at different stages in the process (see recommendation below).

3. Next Steps

Potential next steps include:

- Undertaking a coordinated release of the model. The model should be released on the internet via the RIRDC web-site as well as the production of a limited number of compact disks. Workshop participants should be sent a letter describing how to access the model and manual.
- Developing a feedback form to be included in the distribution package
- Reviewing the feedback and use of the model in a six to twelve month period, as part of an update or further revision of the model. This will also allow for any policy developments which may effect how carbon is calculated or traded.
- Liaising with other organisations to link the Carbon Farmer with other modelling programs, particularly forestry models and carbon accounting models. Some discussions have already taken place with the developers of the Farm Forestry Toolbox (relevant for Tasmania) to see if a carbon module can be included.
- Preparing communication materials, and perhaps conduct roadshows, to convey the basics of carbon trading. This is needed to correct the hype and misinformation.

Appendix One: List of Participants

Participant	Organisation
Jennifer Hoy	Agriculture, Fisheries and Forestry - Australia
Rebecca Ford	Australian Greenhouse Office
David Thompson	CARE Pty Ltd
Richard Stone	Central Victorian Farm Plantations
Alfred Kelly	Consultant
Rod Moore	Consultant
Royce Sample	Consultant
Graeme Hughes	Cooloolo Forest Growers and South QLD Farm Forestry Committee
David Fife	CSIRO (S.A.)
Greame Mohr	Dept Land and Water Conservation
Tissa Matwara	Dept Land and Water Conservation, NSW
Jim Burgess	Dept Natural Resources, QLD
Geoff Cameron	Dept Land and Water Conservation / New England Plantation Committee
Bo Robertson	Dept Primary Industries and Fisheries, NT
Don Page	Dept Primary Industries and Fisheries, NT
Mayor Warren Rex	Edenhope Shire Council (one other councilor present)
Judith Hodgson	Farmer
Phil Mason	Fletcher Challenge
Tony Cannon	Forest Enterprises Group
Peter Gould	Forest Futures Fund Pty Ltd
Mick Underdown	Forestry SA (also one other representative)
Don Jowett	GPFL
Diana Lloyd	Green Triangle Regional Plantation Committee
Mark Thomas	Greening Australia
Geoff Borschmann	Greening Australia QLD
Ron Dodds	Greening Australia SA
Mike Clark	Greening Australia, NT
Rob Downie	Greening Australia, TAS
Leigh Pearson	Master Tag / FFAQI
Murray Brown	Murray Riverina Farm Forestry
John Scott	Murray Riverina Farm Forestry
Cynthia Maher	National Farmers Federation
Andrew Merchant	Natural Resources and Environment, Victoria
Jane Ryan	Natural Resources and Environment, Victoria
John Reed	Natural Resources and Environment, Victoria
Mark Lee	Natural Resources and Environment, Victoria
Melanie Waters	Natural Resources and Environment, Victoria
Phillipa Noble	Natural Resources and Environment, Victoria
Rhodey Bowman	Natural Resources and Environment, Victoria
Rod Anderson	Natural Resources and Environment, Victoria
Hugh Harris	New England Regional Plantation Committee
Stephen Worley	North Forest Products
John McGregor-Skinner	Northern Regions Regional Plantation Committee
Anthony Signor	NSW Agriculture
Bob Farquharson	NSW Agriculture
Robyn Hean	NSW Agriculture
Heather McGilvary	NSW Farmers
Mike Edwards	Otway Agroforestry Network

Participant	Organisation
Bernie Evans	Plantations North East Inc
Peter Taylor	Private Forests Tasmania
Mike Anderson	QLD Dept Primary Industries
Moston Neck	QLD Dept Primary Industries
Amanda Snell	QLD Forestry Research Institute
Phil Wilson	Queensland Fire and Rescue Authority
Colin Joyce	South Queensland Farm Forestry Committee
Alison Specht	Southern Cross University
Dolan Nichols	Southern Cross University
Jerry Vanclay	Southern Cross University
Joe Harvey Jones	Southern Cross University
Martin Novak	Sub-Tropical Farm Forestry Association
Fatosh Assim	Sydney Futures Exchange
Braden Jenkin	Sylvia Systems Pty Ltd
Mark Leech	Tasmanian Farmers Graziers Association
Terry Moody	Upper Clarence Farm Forestry Association

Thirty attendees at the Australian Forest Grower's forum at Mt Gambier.

Appendix Two: Workshops

The following workshops have been conducted (alphabetical listing):

- Albury, NSW
- Brisbane, Qld
- Canberra, ACT
- Darwin, N.T.
- Edenhope, Vic
- Lismore, NSW
- Melbourne, Vic
- Mt Gambier, S.A.
- Sydney, NSW
- Tamworth, NSW
- Tas - Launceston
- WA – Albany

A summary of the workshops follow.

**Albury Workshop Report: The Carbon Farmer.
Monday 19/6/00**

Agenda items:

- Explain the model (and investigate how it could be useful)
- Discuss how the model can be made more user relevant
- Identify data sources that could be put into the model (region specific data)
- Raise and gauge awareness of carbon trading and carbon farming issues, as appropriate

Report:

Question	Response
Who was there?	6 people: Farm Forestry (FF) advisers and RPC
What were their main interests in carbon farming?	From FF end. General interest
How would you class their general awareness and understanding of the issues involved?	Quite high
In what circumstances would they make use of a tool such as The Carbon Farmer?	• One person has something similar • Main use would be for their own purposes rather than in advising (e.g. assess critical size, etc) • Could use at regional level – mapping capability • Could use for policy – e.g. what needed as incentive for revegetation • Could not see farmers using it
What did they like about the model?	• Could see changes immediately • Can enter data in any order
What did they dislike, or have difficulties with?	Mixed views on whether cluttered or not.
What modifications are needed in order to make the model more useful to them?	• Want to be able to enter own MAI (preferred to growth curve) • Fix up save/change tree model • Identify fixed costs as such • Buy thinnings at different rates. Do you need to buy back carbon from thinnings? • Change colours • Maybe, take timber out of picture and just isolate carbon. Model is not adequate for timber (as starts from biomass). • Critical size of plantings? • Options? • Links to sites with latest info
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	Have local data. In Victoria, see Ray Borsham from CFTT
Who else do we need to talk to in their state (if any)?	Farmers Forestry consultants
Other...	• Need prompts and probably a forestry adviser (for inputs?) • What is liability for use of model

Brisbane, Qld Workshop Report: The Carbon Farmer
Monday 26/6/00

Question	Response
Who was there?	9 people: FF groups; Advisers; Policy; Researchers
What were their main interests in carbon farming?	Hear more about it – opportunities
How would you class their general awareness and understanding of the issues involved?	One policy person, very high. Otherwise moderate.
In what circumstances would they make use of a tool such as The Carbon Farmer?	• “When we get big” (coops, groups - not by individuals and farmers) • Accountants • Not a panacea
What did they like about the model?	Help buttons Helps ask questions but doesn’t have answers
What did they dislike, or have difficulties with?	2 people: haven’t got Excel
What modifications are needed in order to make the model more useful to them?	• Summary screen for different sites • Use draft SFE system where sell and monitor for 30, 50, 70% of stored carbon (decreases accuracy needed. Model assumes sell 100%?) • Need statement re “Kyoto compliance requirements” and meeting them (<i>almost a tick box before allow to input parameters?</i>) • Include rotations • Include break even for area
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	(may in the future, when collated)
Who else should we talk to in their state (if any)?	Bill Burrow, DNR
Other...	• Insurance • Risk Management • Need to educate banks • Where does H&A liability end

Canberra Workshop Report: The Carbon Farmer
Wednesday 14/6/00

Question	Response
Who was there?	Greening Australia, Australian Greenhouse Office, National Farmers Federation, AFFA – Farm Forestry
What were their main interests in carbon farming?	GA - main interest in the Carbon Farmer Model is for the program Bush for Greenhouse. Also general interest as farm advisers. AFFA – farm forestry – full time carbon sequestration AGO – systems and structures around model CAMFor NFF – interested in the concepts national level farming interests, in the process of organising an internal working party on farm forestry. Working on policy for greenhouse accounting issues
How would you class their general awareness and understanding of the issues involved?	
In what circumstances would they make use of a tool such as The Carbon Farmer?	(mainly GA – see above)
What did they like about the model?	• Useful tool to enable economic decisions to be made about Carbon Farming. • Useful for extension officers • Simple therefore, easy to use. • Can compare other land uses • Freely available on website
What did they dislike, or have difficulties with?	-
What modifications are needed in order to make the model more useful to them?	• Could cover a pool of different ages
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	• AGO in the process of compiling growth curves (like a compendium) – call in 4 weeks to see if it can be used in ‘The Carbon Farmer’ • ANU may have data?
Who else do we need to talk to in their state (if any)?	Rod Keenan, NAFI
Other...	• Model should be refined and updated • They don’t see the point if the model stays static • Should be paid to maintain it • Available on website? • Website chat line • Manual – AGO would like to have input to the manual.

NT Workshop Report: The Carbon Farmer
Darwin, Tuesday 23/5/00

Question	Response
Who was there?	Greening Australia, DPIF (two)
What were their main interests in carbon farming?	Knowing how the operation of carbon credits work, so the Powerpoint presentation was more useful than the model..
How would you class their general awareness and understanding of the issues involved?	Moderate – Has been to RPC meeting at Coffs Harbour
In what circumstances would they make use of a tool such as The Carbon Farmer?	If was useful to calculate the returns from pure plantation activities, then it would have a lot more use than the carbon credits part.
What did they like about the model?	The opportunity to put in their own data.
What did they dislike, or have difficulties with?	Nothing in particular. It was not discussed in great detail
What modifications are needed in order to make model more useful to them?	Getting local data incorporated.
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	They have a number of data sets, but most are not as good as they would like due to a failure to thin the plots when required. So they have good data to first thinning (say up to 10 years old), some of which was planted 27 years ago by CSIRO and some of which was planted only recently. Contact Don Page for more details. In addition, because there is no plantation processing industry they are very uncertain as to what price may be obtained.
Who else do we need to talk to in their state (if any)?	Blair Wood (LP&E), Bryan Walsh, Director Natural Resource Protection DPIF), Annie Lane (Assistant to Bryan), R K Peng (NTU, Science Faculty), Sylvatech Pty Ltd (see below)
Other...	The major problems with timber in the NT is that the processing industry is a mess, with only one mill between Darwin and Katherine and that dependent on Government permits to harvest timber. Most of the timber available from land clearing is not harvested prior to clearing. There is some processing of suburban timber into horticultural products. NT imports 10,000 tonnes timber from Indonesia and elsewhere, but the timber has to be termite resistant to be of use. So a local market exists and timber could be exported, but until there are more processors the possibility of timber production is remote. At the same time Sylvatech Pty Ltd, a timber prospectus company has moved in, gained an agreement with the Tiwi people on Melville Island to plant 30,000 ha of <i>Acacia mangens</i> which they are estimating will grow 40 tonnes /ha/ year MAI (other estimates are 25 tonnes).

Edenhope Workshop Report: The Carbon Farmer
Thursday 22/6/00

Question	Response
Who was there?	10 people: local government, FF advisers, Forestry, Researchers
What were their main interests in carbon farming?	Find out more
How would you class their general awareness and understanding of the issues involved?	High awareness of difficulties (realistic expectations & not being a panacea)
In what circumstances would they make use of a tool such as The Carbon Farmer?	At field days (GA) (To scare everyone off)
What did they like about the model?	Graphical/visual instant feedback
What did they dislike, or have difficulties with?	Need to debug saving scenarios
What modifications are needed in order to make the model more useful to them?	• On-line help is OK, but need manual as well • Short term rotations (e.g. 12 years), not well catered for (also a BUG) • Include a MAI value for different growth curves. Want ability to change MAI • Conversion ratios need to be apparent • Ability to include mixed species • Interested in minimum (critical) scale
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	Melbourne University (Woomera) Mark Stewart: re Species
Who else do we need to talk to in their state (if any)?	-
Other...	Have a lot of questions on carbon trading and what it means (one problem was with perceived potential penalties if release carbon but remain outside scheme)

Lismore Workshop Report: The Carbon Farmer
Tuesday 27/6/00

Question	Response
Who was there?	• 11 people: Growers; Researchers; Farm Forestry Associations; Consultants
What were their main interests in carbon farming?	Hear more about it – opportunities
How would you class their general awareness and understanding of the issues involved?	Mixed. Some quite high, others very low.
In what circumstances would they make use of a tool such as The Carbon Farmer?	To explore “what-if” scenarios
What did they like about the model?	• Good if freely available • Good reality check (cf. hype) • Good layout • Can customise model
What did they dislike, or have difficulties with?	Larger fonts needed
What modifications are needed in order to make the model more useful to them?	• Modify so as suitable for pool managers (e.g. can amalgamate results of different scenarios, different ages, etc. This would be a great help for small growers. • Help with context – e.g. explaining commitment periods and saleable carbon (not yet included) • Insert further references
Do they have additional data (especially growth curves) that they would like incorporated?	• Southern Cross Uni has data – IP issues • Field trial of Greenhouse Challenge Workbook (AS, JM-S, Hugh Harris, Trevor Jilsen (North Power), Mark Jackson, Nick Emtage (James Cook Uni)
Who else do we need to talk to in their state (if any)?	-
Other...	• Need to tighten up rules. Main difficulties were not with the model but with the market • Negative view of market, brokers, SFE • Technical Query: If thin but saleable carbon is still stored, then do you need to buy back carbon (see diagrams)?

Melbourne Workshop Report: The Carbon Farmer
Wednesday 28/6/00

Question	Response
Who was there?	7 people: FF advisers, researchers, policy, consultant
What were their main interests in carbon farming?	Some: involvement in greenhouse projects
How would you class their general awareness and understanding of the issues involved?	Mixed. Some quite high. Others hadn't seen any figures/values for costs and benefits.
In what circumstances would they make use of a tool such as The Carbon Farmer?	Grant program – e.g. how much should government contribute to planting Assess significance of carbon in overall picture
What did they like about the model?	Buttons to move about
What did they dislike, or have difficulties with?	(one person) Need degree of expertise in order to input. As no links between productivity levels and costs of inputs, then results might be skewed because of input. Maybe, don't allow so many inputs.
What modifications are needed in order to make the model more useful to them?	(see above for one suggestion). Cash flow should be shown (make into a separate sheet?)
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	CFTT – has data from trials in Victoria
Who else do we need to talk to in their state (if any)?	-
Other...	

Mt Gambier Workshop Report: The Carbon Farmer
Thursday 22/6/00

Question	Response
Who was there?	About 30 people, following an invitation from Australian Forest Growers, for an evening presentation. 23 names were recorded by AFG (names collected to enhance their mailing list).
What were their main interests in carbon farming?	Diverse audience, though most had a very low basis. Most were growers or advisers for growers.
How would you class their general awareness and understanding of the issues involved?	See above
In what circumstances would they make use of a tool such as The Carbon Farmer?	(At present, just to learn about issues)
What did they like about the model?	Generally well received – some very positive comments.
What did they dislike, or have difficulties with?	No specific comments
What modifications are needed in order to make the model more useful to them?	No specific comments
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	No specific comments
Who else do we need to talk to in their state (if any)?	No specific comments
Other...	After discussion with the organisers, the presentation was designed to describe more about carbon farming issues, using the model as a basis, and less as an interactive session to obtain feedback on the model. There was a huge amount of interest – it had been advertised on local radio and some had driven from locations 2-3 hours away. This talk had been the second talk in the last year, and the organisers portrayed the group as gradually moving up a learning curve regarding carbon.

Sydney Workshop Report: The Carbon Farmer
Monday 31/7/00

Question	Response
Who was there?	DLWC (2), NSW Farmers, Sydney Futures Exchange
What were their main interests in carbon farming?	One was actively involved, others through farming and catchment management
How would you class their general awareness and understanding of the issues involved?	One was very high, others low.
In what circumstances would they make use of a tool such as The Carbon Farmer?	• Adviser level (because requires assumed knowledge) • Possibly Catchment Management Boards
What did they like about the model?	• Generally positive • Like instant feedback • Help features very good
What did they dislike, or have difficulties with?	• Requires links to information sources to be successful • Requires consistency for carbon accounting (and different markets and standards)
What modifications are needed in order to make the model more useful to them?	• Explanation of rationale for choosing tree models • Split charts and show carbon and timber separately • Effect of stocking/planting densities • Effect of management and fertiliser, etc (on growth) • Opportunities for different timber products
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	See State Forests
Who else do we need to talk to in their state (if any)?	See above
Other...	

Tamworth Workshop Report: The Carbon Farmer
Thursday 8/6/00

Question	Response
Who was there?	6 people: FF advisers, researchers
What were their main interests in carbon farming?	Varied
How would you class their general awareness and understanding of the issues involved?	Awareness of FF is high. Awareness of carbon is medium
In what circumstances would they make use of a tool such as The Carbon Farmer?	• Advising farmers (but unsure of how many farmers could use by self) • Show that Carbon is not a panacea
What did they like about the model?	• Low number of inputs • Straightforward • Only model that seen that looks at carbon • “good start”
What did they dislike, or have difficulties with?	-
What modifications are needed in order to make the model more useful to them?	• Include rotation length and harvest • Link thinnings to growth (done) • Confusion re NPV graph. Also needs enterprise on it (changed). • Consider alternatives to NPV – e.g. annuities, cumulative cashflow, present as MAI product x Price. • Include financial costs (e.g. interest)? (No, is in discount rate)
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	No, but can customise. Other models: Plantgro; BRS & State Forests have a model.
Who else do we need to talk to in their state (if any)?	Foresters Farmers
Other...	• Need draft models to play with to further comment • Groups need to come together (to investigate?) • Taxation implications (very important)

Tasmania Workshop Report: The Carbon Farmer
Wednesday 21/6/00

Question	Response
Who was there?	Six people: 4 private forestry firms, 1 Government, 1 Greening Australia
What were their main interests in carbon farming?	From forestry & farm forestry side (all involved in growing)
How would you class their general awareness and understanding of the issues involved?	High (some considering trades)
In what circumstances would they make use of a tool such as The Carbon Farmer?	Participants beyond model as such, but useful for first time landowners
What did they like about the model?	Ability to easily see if further investigation is worthwhile.
What did they dislike, or have difficulties with?	Not sure how closely relates to Tassie plantations data (they have better data).
What modifications are needed in order to make the model more useful to them?	• Simpler start screen. Put in enterprise at start • Include default values (where users might not have an idea) • Include user-defined growth models • How dealing with thinnings (in terms of buying back carbon) • Put scale on chart? (percentile measure?)
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	PFT and companies have growth prediction models (given characteristics of site) and some inventory information that is regarded as commercial in confidence.
Who else do we need to talk to in their state (if any)?	-
Other...	Had an existing model: Farm Forestry Toolkit. Very interested to see if it could take the core of our model and include it as a separate CARBON module for their toolkit. Their toolkit is much more sophisticated for the timber side and is also much more relevant for Tasmanian conditions as it uses many years of Tasmanian yield data (commercial in confidence information). Interesting discussion re Kyoto and carbon trading (especially re prices)

WA Workshop Report: The Carbon Farmer
Albany, 13-14/6/00, 9:00-17:00

This activity was not held as a workshop per se. Rather, the opportunity was to participate in a Salinity and Waterlogging Conference.

Activities:

- Early on Day One I explained in three minutes what the CF was, how it was relevant to the participants at the workshop and that I would be happy to demonstrate it to anyone present.
- Nobody asked for a demonstration, but I did give one to one member of CALM.

Question	Response
Who was there?	About forty research workers concerned with understanding waterlogging and salinity from CSIRO and WA state agencies, together with a number of farmers who suffered from these problems.
What were their main interests in carbon farming?	Apart from the CALM officers they had little interest in carbon farming and many of the agricultural research workers thought that trees were an unnecessary intrusion.
How would you class their general awareness and understanding of the issues involved?	Very low – there were certainly a number of misrepresentations in the comments made by the speakers and the audience.
In what circumstances would they make use of a tool such as The Carbon Farmer?	With the exception of the CALM staff, not at all.
What did they like about the model?	They did not ask to see the model.
What did they dislike, or have difficulties with?	N/R
What modifications are needed in order to make model more useful to them?	N/R
Do they have additional data (especially growth curves) that they would like incorporated? If so, ask them to send it...	Even the CALM staff are not rushing to get their data included.
Who else do we need to talk to in their state (if any)?	CALM staff, DofA staff in Perth, Bunbury and Albany. Private consultancy, especially timber prospectus companies (say about 50 people in all).
Other...	This was not a good opportunity to demonstrate the model, as (a) it was not the right audience and (b) those in the audience with an interest were fully absorbed in what the speakers were saying about completely different issues.