

Packing Shed Benchmarking

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OzTaste Pty Ltd

Project Number: AP05006

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This report is published by Horticulture Australia Ltd to pass on information concerning horticultural research and development undertaken for the apple & pear and industry.

The research contained in this report was funded by Horticulture Australia Ltd with the financial support of the apple & pear industry.

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ISBN 0 7341 1527 X

Published and distributed by:

Horticultural Australia Ltd

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50 Carrington Street

Sydney NSW 2000

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E-Mail: horticulture@horticulture.com.au

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Know-how for Horticulture™

FINAL REPORT

AP05006
Packingshed Benchmarking

JUNE 2007

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Oztaste Pty Ltd



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Horticulture Australia Project Number: AP05006

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Purpose

This report is the Final Report of the project known as AP05006 "Packingshed Benchmarking".

Funding

The authors wish to acknowledge the receipt of funding from the Australian Apple and Pear Levy and the Commonwealth of Australia via Horticulture Australia Limited.

Date

15 June 2007

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1. Media Summary

After labour, packing is one of the largest costs faced by fruit producers. Packing costs are of the order of 25-35% of total production costs.

Packing costs are notoriously hard to measure as they contain, many, sometimes hidden, components. These costs include fixed costs related to owned assets and leases, variable costs (labour and consumables such as packaging) and a basket of other costs such as services, insurances and other overheads, partial use of cool rooms and transport, palletisation costs, despatch costs etc.

One way of measuring the efficiency of a packhouse is to benchmark its performance against that of other packhouses.

This project has devised simple, web-based software that allows the owners and managers of packhouses to benchmark the performance of their shed against that of others.

Simple, readily available data related to each shift the packhouse works is collected and entered into the system via a web site. Data gathered includes the number of labour hours utilised that shift (number of people working x length of shift) and their cost, the weight of fruit tipped on to the grader and the packed outputs (cartons of various sizes and grades, hat bins of Class 2 fruit, bins of juice fruit etc).

All sheds participating in the program enter their data for a particular period by a set cut off time. The program then calculates the efficiency of each shed participating in the program. Outputs such as bins tipped per labour hour, bins tipped per person, labour cost per bin tipped, labour cost per kg tipped, labour cost per kg packed, standard cartons per packer, time(minutes) to pack a standard carton are then calculated.

Finally these are tabulated so that the shed which entered its data can compare its results with those of other packhouses in the program.

The system can be used with most, if not all, types of produce. The system will be made available to Apple and Pear Australia Limited for placement on their website and accordingly access for all industry members.

2. Technical Summary

A web-based system for benchmarking the efficiency of packhouses has been developed.

After simple installation of the free "Formatta" software, the packhouse is registered on the system and various profiles established for that packhouse. These include the crop types, varieties, pack types used, labour types and costs and the benchmarking criteria (e.g. bins tipped per labour hour) required.

To create a packout record, data is entered relating to a particular shift of packing (one record for each produce type per shift). This includes identifying the variety, length of the shift and hours worked by particular types of labour, bins tipped during the shift, and outputs (cartons packed of particular sizes, hatbins packed, bins of juice etc). The system allows checking of data entered then provides a summary.

This record, with the packhouse's unique identifier is then tabulated against other records for that crop type.

The system is intuitive and easy to use. It requires little or no training for personnel experienced with normal packing computer software.

The system can be used with any type of produce, not just pome and stone fruit.

It is intended that the system eventually be hosted by Apple and Pear Australia Limited and so made available to all users.

3. Introduction

Packing costs can be as much as 35% of total costs of production.

Packing costs are notoriously difficult to measure as they contain, many, sometimes hidden, components. These costs include fixed costs related to owned assets and leases, variable costs (labour and consumables such as packaging) and a basket of other cost components such as services, insurances and other overheads, partial use of cool rooms and transport, palletisation costs, despatch costs etc.

Packhouses are the hubs of value chains. As the industry consolidates into fewer, larger value chains (instead of many small or micro chains) more and more growers will not be able to afford to own the equipment they need to pack their fruit and will have it packed by a local packhouse. As the costs are high it is important that industry has some way of comparing the efficiency of sheds. This is also important for packhouse operators who want to maximise efficiency and show they are competitive.

A packhouse benchmarking service is a first step to providing this service to industry.

4. Materials and Methods

The software was developed by Graeme Forsythe & Associates (GFA) and tested in the packhouses of OzTaste Pty Ltd, largely at Rocky Varapodio's packhouse at Ardmona near Shepparton in Central Victoria.

The program uses the "Formatta" software as a base. This is free and is well suited to use by low skilled operators as the various screens look like a normal , paper, form.

5. Results

The main features of the system are

- GFA infrastructure has been installed allowing the host (currently OzTaste) to include new packhouses external to the OzTaste value chain.
- Master profile forms for produce types, varieties, package types, labour classifications and performance indicators have been developed. This allows the system to be extended to any produce type and to include additional produce indicators.
- Pack houses can customise their reports by selecting various filters built into the software. Thus the packhouse can have customised reports for produce type, varieties, package types, labour classifications, packing lines and performance indicators.
- Records of a particular shift of packing can be created, viewed, edited and compared to those of other packhouses.

A manual for the use of the system is provided at Appendix 1.

6. Discussion and Conclusions

This system, while simple, is amazingly powerful and provides a service not readily available to date. Packhouse managers within the OzTaste value chain have enthusiastically welcomed the system as it allows them to compare their performance

- Within their own shed over time (Are we doing it better this year than last year? Has that new piece of equipment we bought made any difference to our efficiency?), and
- Between their shed and those of others. (Who is the most efficient packer of Granny Smith apples?)

We believe that the adage “you can manage what you can measure” applies here and the system will provide a new level of “management” (really comparison) so that decisions related to improving efficiency can be made.

Adoption of the system by the wider industry should be straight forward and low cost. We envisage the system being hosted by an industry organisation such as Apple and Pear Australia Limited (their levies funded the work) and maintained and developed (under contract) by GFA. Suitable publicity through industry journals such a Deciduous Fruits Quarterly would be used to notify packhouse operators of the service.

7. Recommendations

That the software developed in this project be made available to the wider industry by hosting by an industry organisation such as Apple and Pear Australia Limited with maintenance and development (under contract) by GFA.

Once hosting issues are dealt with that the wider industry be made aware of the system by suitable publicity through industry journals such as “Deciduous Fruits Quarterly”.

8. Acknowledgements

OzTaste would like to acknowledge the simple, practical approach of GFA to the project. They made it simple and straight forward rather than complex. We like the way they do things.

This project was facilitated by HAL in partnership with Apple and Pear Australia Ltd (APAL) and was funded by the Apple and Pear industry levy. The Australian Government provides matched funding for all HAL's R&D activities.

Appendix 1: User Instructions for Pack House Benchmarking System



PACK HOUSE BENCHMARKING SYSTEM

USER INSTRUCTIONS FOR PACK HOUSES

NO	FUNCTION ¹	PAGE
A	QUICK GUIDE (PRINT & KEEP HANDY TO YOUR COMPUTER)	2
B	Download & Install Formatta Filler	3
C	Login	3
D	Profile Forms	4
E	Packout Record	5
F	Benchmark Report	7

Prepared by

Graeme Forsythe & Associates Pty Ltd
24/5/2007

¹ Please note that the sample screens used in this document do not necessarily link together and are listed for demonstration only. Likewise the dates and data displaying are illustrative only.

QUICK GUIDE – PACK HOUSE BENCHMARKING SYSTEM

AVAILABLE THROUGH OZTASTE

How to install Formatta Filler

1. Connect to www.formatta.com
2. Click on the Formatta Filler icon bottom right
3. Click on Formatta Filler 7.0 PC; save the "Fillersetup.exe" file to your PC
4. Double click on fillersetup.exe to install

How to set up Profile Forms

5. Connect to www.oztaste.com.au and log in.
6. Select menu option "Services" and then "Profile Forms".
7. Select each profile form listed in the "New Forms" column.
8. Fill the form and click "Send".
9. Profile forms can be updated at any time by selecting the link in the "Saved Forms" column.

How to create a Packout Record

1. Connect to www.oztaste.com.au and log in.
2. Select menu option "Services" and then "Benchmark Pack House".
3. Select "Create Packout Record" against "Menu Selection"; then select the produce type and packing line you are recording data for.
4. Click the "Submit" button to display a screen with a pink button.
5. Click the pink button to open the data capture form; fill the form; then click "Send".
6. Close the form after prompting that it has been sent to the server

How to view & edit Packout Records

1. Connect to www.oztaste.com.au and log in.
2. Select menu option "Services" and then "Benchmark Pack House".
3. Select "View Packout Records" against "Menu Selection".
4. After the screen has refreshed use the search filters to narrow the data displayed.
5. Click the "Submit" button to display the report screen.
6. Click on the link in the "Ref No" column to display the Packout Summary Record selected.
7. If editing data change the required data and click "Send".

How to view Benchmark Reports

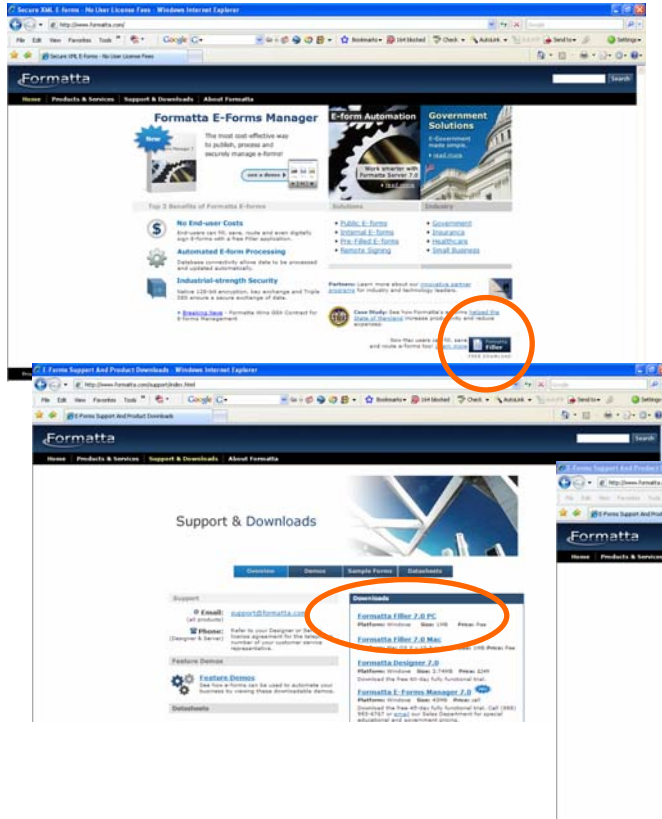
1. Connect to www.oztaste.com.au and log in.
2. Select menu option "Services" and then "Benchmark Pack House".
3. Select "View Packout Benchmark Report" against "Menu Selection".
4. Use the search filters to widen or narrow the display then click the "Search" button.
5. Click the "Submit" button to display the report screen.

If you need help

1. Contact Graeme Forsythe, Graeme Forsythe & Associates Pty Ltd – phone (02) 9874 1009; mobile (0409) 691 345; or email gforsythe@gfassociates.com.au.

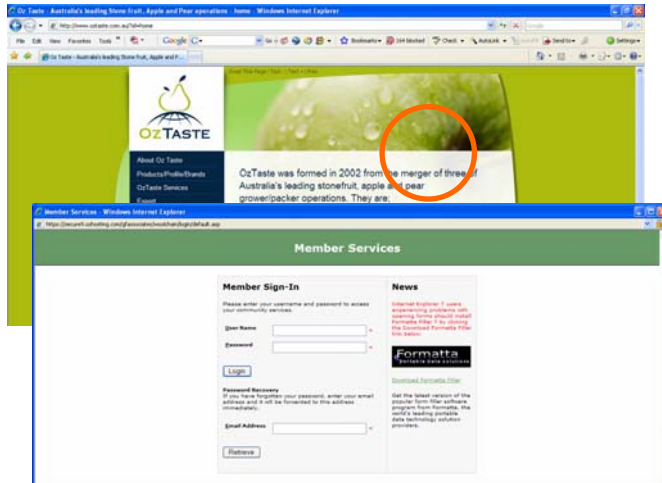
USER INSTRUCTIONS – PACK HOUSE BENCHMARKING SYSTEM AVAILABLE THROUGH OZTASTE

Download & Install Formatta Filler

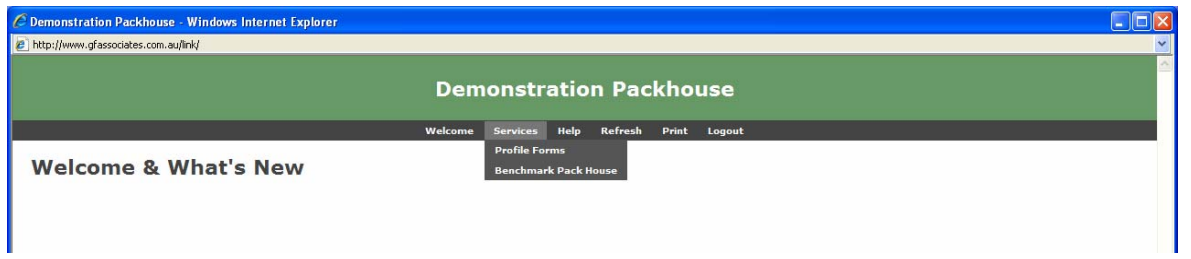


Connect to www.formatta.com
Click on Formatta Filler icon at bottom right of screen to display screen headed "Supports & Downloads"
Click "Formatta Filler 7.0 PC" link to display "File Download" window
Click "Save" and select a location on your computer to save the download file "fillersetup.exe" (1Mb and free)
When downloaded, double click the file name and follow the installation instructions
Installation is complete when a registration form displays;
registration is optional

Login



Connect to www.oztaste.com.au
Click on the Login button to display the login screen
Enter your Username & Password
Click the Login button to display the menu screen below
Hold mouse over "Services" and select "Profile Forms" for setup functions and "Benchmark Pack House" for the benchmarking system functions



USER INSTRUCTIONS – PACK HOUSE BENCHMARKING SYSTEM

AVAILABLE THROUGH OZTASTE

View Packout Records

SCREEN 7

To edit or view a Packout Record, select "View Packout Records" against "Menu Selection" Use the search filters to narrow the display if necessary Click the "Submit" button to display screen 8

SCREEN 8

Pack Date	Ref No	Line	Produce	Variety	Run Time (Min)	Total Labour (Hrs)	Labour Cost	Bins Tipped	Kg Tipped	Kg Packed	2L Ctn	3L Ctn	B Crate	Hat Bin	300Kg Bin	Bins Tipped / Labour Hour	Bins Tipped / Person	Bins Tipped / Packer	Labour Cost / Bins Tipped	Labour Cost / Kg Tipped	Labour Cost / Kg Packed	Standard Cartons / Packer	Minutes / Standard Carton
24/05/2007	BPS70009	Line A	Apple	Fuji	240	56.0	\$1,260.00	30	10,800	9,600	400	400		7	2	0.54	2.14	3.75	\$42.00	\$0.117	\$0.131	100	0.3
		totals			240	56.0	\$1,260.00	30	10,800	9,600	400	400		7	2	0.54	2.14	3.75	\$42.00	\$0.117	\$0.131	100	0.3

Screen 8 displays your packout summary data and the performance indicator outcomes you achieved eg Bins Tipped / Labour Hour. It also displays totals and averages where relevant To edit a Packout Summary Record and to display a Packout Summary Record Form click on the link under the "Ref No" column Business rules will be implemented so that editing must be completed by an agreed time Performance Indicator data displaying in red means that your target outcome has not been achieved

USER INSTRUCTIONS – PACK HOUSE BENCHMARKING SYSTEM

AVAILABLE THROUGH OZTASTE

View Benchmark Report

SCREEN 9

From screen 4, select “View Packout Benchmark Report” to display screen 9
 Select a “Produce Type”
 Select a Variety or leave “Variety” set at “All”
 Change the “Pack Date” Range to widen or narrow the selection
 Click “Submit” to display screen 10

SCREEN 10

Return to Menu Selection

Selection Criteria:- Produce(Apple) From(1/1/2007) To(24/05/2007)

Produce	Variety	Bins Tipped / Labour Hour	Bins Tipped / Person	Bins Tipped / Packer	Labour Cost / Bins Tipped	Labour Cost / Kg Tipped	Labour Cost / Kg Packed	Standard Cartons / Packer	Minutes / Standard Carton
Apple	Fuji	0.54	0.54	3.75	\$42.00	\$0.117	\$0.131	100	0.3
Apple	Golden Delicious	0.83	1.97	3.89	\$28.39	\$0.079	\$0.077	120	0.2
Apple	Golden Delicious	1.04	2.08	8.33	\$19.20	\$0.051	\$0.094	142	0.3
Apple	Granny Smith	0.93	3.80	8.26	\$25.24	\$0.070	\$0.121	143	0.4
Apple	Granny Smith	0.56	1.67	3.33	\$36.00	\$0.100	\$0.150	67	0.4
		0.87	2.33	6.20	\$26.07	\$0.072	\$0.105	128	0.3

Return to Menu Selection

Your data displays in red
 Other Participating Pack House data displays in black