

APAL Coolstore Stock System

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GFAP Pty Ltd

Project Number: AP09048

AP09048

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FINAL REPORT

AP09048
APAL Cool Store Stock System

November 2010

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Horticulture Australia Project Number: AP09048

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Purpose

This report is the Final Report of the project known as AP09048 "APAL Coolstore Stock System".

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Date

30 November 2010

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1. Media Summary

APAL collect industry apple & pear cool store stocks monthly and provide reports to industry. This is a continuing service delivered by APAL for industry against industry priorities.

Coolstore stock data is important data for managing crop flow.

The purpose of the new APAL Coolstore Stock System [CSS] project is to automate data capture, processing & reporting, and to allow all Australian coolstores to contribute data.

The current paper based system operates in the following way:

- a) The process is manual with a data capture form emailed to a sample of cool stores on the last day of each month for return on the first day of the new month
- b) Data supplied by cool stores is manually entered into an XLS
- c) This data is factored up to deliver numbers representative of all cool stores
- d) The XLS generates report tables & graphs
- e) A report is then compiled & distributed

Deployment of the web based CSS for apple & pear cool stock reporting will mean:

- a) Data can be contributed by all cool stores, not a sample
- b) Data is entered by electronic form direct to a web server database eliminating re-keying into XLS
- c) Automated generation of tables & graphs
- d) Application of access restrictions according to APAL rules eg only access reports if contribute data
- e) APAL management concentrating on ensuring coolstores submit data and reconciling reports before their release, rather than having to re-key data and process the XLS

2. Technical Summary

A web-based CSS for has been developed to allow:

- a) APAL to register coolstores
- b) Coolstores to enter fruit received in the month & closing stock at month end
- c) APAL to generate reports & graphs of this data

Each participating coolstore is registered on the system and must install the free Formatta Filler software.

The coolstore enters stock received & closing stock for each month of a year on a Coolstore Stock Record Form either by numbers of bins with specified average bin weight or by kilogram. The system aggregates the data for reporting and shows comparisons against the previous year and the previous five years with breakdowns by variety & state.

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

The system could be used with any type of produce that is stored for longer periods, not just apples & pears.

3. Introduction

APAL collect industry apple & pear cool store stocks monthly and provide reports to industry. This is a continuing service delivered by APAL for industry against industry priorities. The current system is very manual and extrapolates data to a national level based on data provided by a small sample of coolstores in each state.

GFAP provide the systems & infrastructure that operate industry based data capture & reporting systems for the Australian & New Zealand avocado industries, and citrus, macadamia, onion & stone fruit. These are operated respectively by Avocados Australia, NZ Avocado Industry Council, Citrus Australia, Australian Macadamia Handlers, Onions Australia & Summerfruit Australia.

At the invitation of the APAL R & D Committee GFAP prepared a scoping document to automate data capture & processing and to allow all coolstores to contribute data. The project was subsequently approved by the APAL Board.

The current paper based CSS operates in the following way:

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Deployment of the web based CSS for apple & pear cool stock reporting will mean:

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- e) APAL management concentrating on ensuring coolstores submit data and reconciling reports before their release, rather than having to re-key data and process the XLS

Investing in a collaborative web based system will also provide an opportunity to upgrade the functionality of the CSS to include parameters such as pack out estimates.

The APAL "community" infrastructure installed can provide the platform to run other systems that may be required in the future.

4. Materials and Methods

The software was developed by GFAP Pty Ltd and tested with the entry of historical data and then by APAL entering the latest data for 2010.

The program uses the Formatta Filler software to display data entry forms. This software is free and is well suited to use by less skilled operators as the various screens look like a paper form.

The following tasks have been undertaken to bring the new web based collaborative CSS to fruition:

- a) Functional specification for CSS finalised & confirmed
- b) APAL "community" infrastructure installed to provide APAL with:

User Management – allowing APAL to register new Coolstores, change registration details, suspend Coolstores etc [initial registrations will be bulk uploaded]

Content Management - allowing APAL to publish content accessible under login by registered users in the APAL "community"

Profile Management – allowing APAL to maintain lists of varieties and other parameters required for the CSSS

- c) CSS developed
- d) Historical data uploaded into CSSS database
- e) CSS tested internally
- f) CSS tested by pilot group of coolstores
- g) CSS updated based on internal & pilot group testing
- h) CSS rollout

5. Results

The main features of the system are:

- a) GFA infrastructure has been installed allowing APAL to manage coolstore registrations
- b) Master profile forms have been developed
- c) Coolstores can login to enter data for each new month
- d) Coolstores can view their own detailed data but cannot view detailed data belonging to another coolstore
- e) Coolstores can view the aggregated industry data reports & graphs
- f) APAL can generate graphs & reports from the system that they can publish

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

6. Discussion and Conclusions

This system, while simple, is powerful and will provide a level of efficiency that is unattainable with the current paper based system.

More importantly all Australian coolstores can participate and contribute data. This ensures more accurate data than is currently reported.

7. Recommendations

8. Acknowledgements

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 Cool Store Stock System

Download & Install Formatta Filler on PC



You must download Formatta Filler

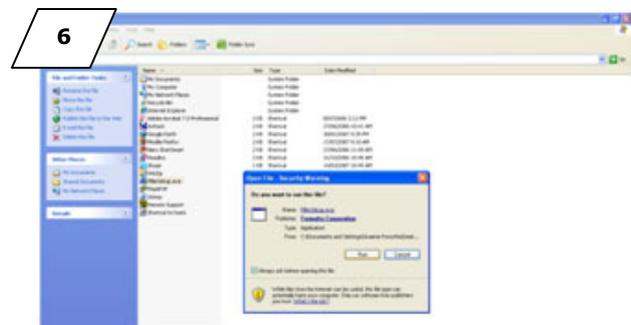
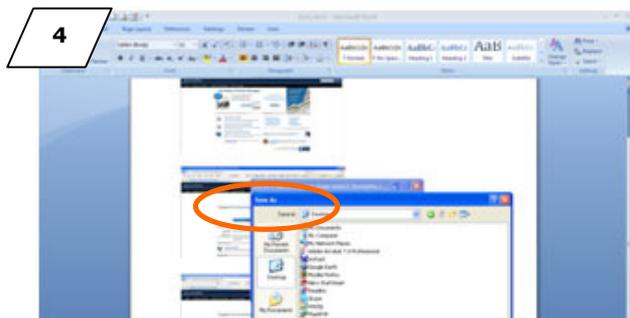
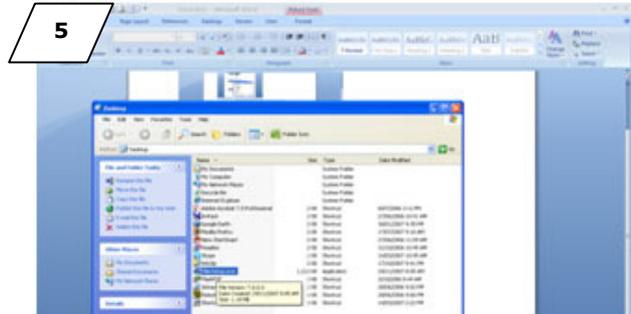
1. Connect to www.formatta.com
2. Click on "Products" [screen 1] to display screen 2
3. Click on "Formatta Filler 7.0 PC" [screen 2]
4. Click "Save" [screen 3]
5. Select location on PC to save the downloaded file such as "Desktop" [screen 4]
6. Download file "FillerSetup.exe" displays in file list [screen 5]



You must now install Formatta Filler

1. Double click "FillerSetup.exe" [screen 5] to display screen 6
2. Click "Run"
3. Follow the installation steps
4. Installation is complete when a Formatta Registration Form displays
5. Registration is optional

Note - If you use the Agrofresh system to order Smartfresh treatments you will already have Formatta Filler installed



Login & Setup of User Profile Data

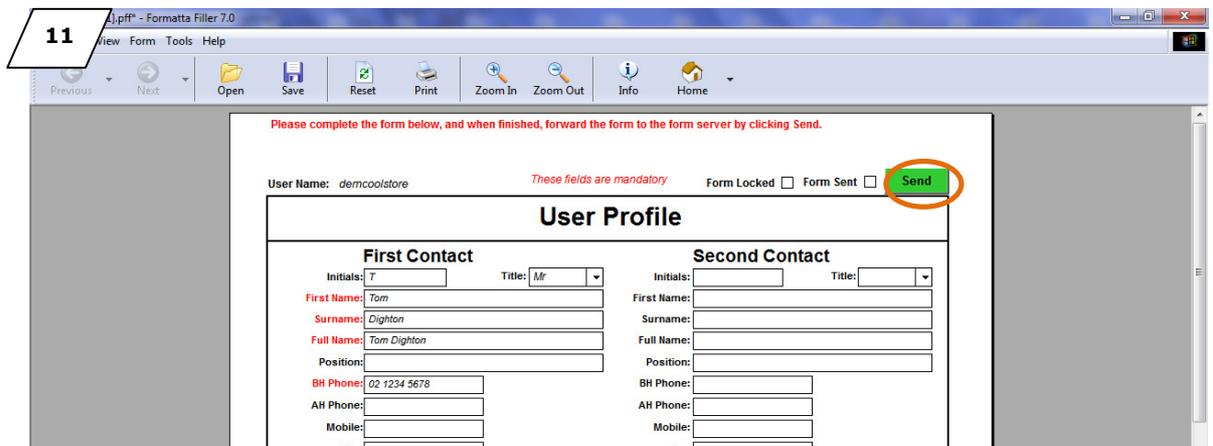
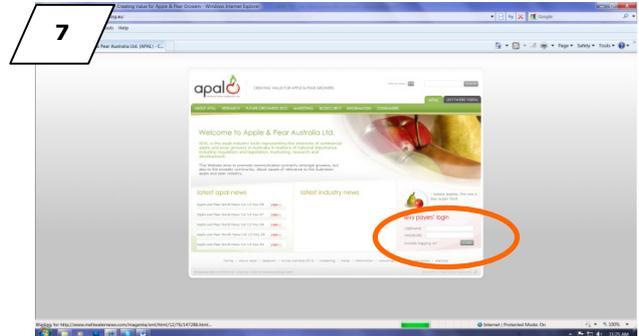
Login

1. Connect to www.apal.org.au
2. Click on "Login" for CSS System [screen 7] to display screen 8
3. Enter your Username & Password; click "Login" to display screen 9

User Profile

1. Select "Services/Profile Forms" in menu bar on screen 9 to display screen 10
2. Click the date link in third column [screen 10] to open User Profile Form" [screen 11]
3. Update User Profile data
4. Click "Send" button top or bottom right

Phone & fax no format – 99 9999 9999
 Mobile no format – 9999 999 999
 ABN format – 99 999 999 999
 Use upper & lower case where possible



Create Coolstore Stocks Record

Coolstore Stocks Record – First Month

1. Select "Cool Store Stocks System" in menu bar under "Services" [screen 9] to display screen 12
2. Function button will display "Coolstore Stocks"
3. Select "Create Cool Store Stocks" against "Menu Selection", select "Produce" type & "Input Year"; then click "Submit" to display screen 13
4. Click the pink button to generate "Cool Store Stocks" Form [screen 14 next page]
5. Enter data for the first month
6. You can enter No's of Bins or '000Kg
7. If you enter No's of Bins change the Av Bin Weight if different to 360Kg
8. Click "Send" button top or bottom right
9. Close Form [click red "X" at top right of Filler browser]
10. Click "Refresh" in menu bar to update the "Create Seed Sales Record" report screen 15

Red labels on Form are mandatory data

Coolstore Stocks Record – Subsequent Months

1. The same form is used to enter data for the balance of the year
2. You can access the form by repeating "3" to display screen 15; then click the green "Ref No" link to display the form, add the next month's data and click "Send"
3. Alternatively you can select View Cool Store Stocks against Menu Selection to display screen 17
4. Click one of the green "Ref No" links to display the form, add the next month's data and click "Send"

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NSW Coolstores
Apple and Pear Australia Limited

Cool Store Stock System > Coolstore Stocks > Create Coolstore Stocks

Menu Selection: Create Coolstore Stocks
Produce: Apple
Input Year: 2010

Submit

13

NSW Coolstores
Apple and Pear Australia Limited

Cool Store Stock System > Coolstore Stocks > Create Coolstore Stocks

Create Coolstore Stocks

Return to Menu Selection | Refresh after Sending a Form | Return to Prior Menu

15

NSW Coolstores
Apple and Pear Australia Limited

Cool Store Stock System > Coolstore Stocks > Create Coolstore Stocks

Selection Criteria: Produce(Apple)InputYear(2010)

Ref No	Produce	Input Year	Variety	Unit in Bins
CBS100028	Apple	2010	Rui	Yes
CBS100028	Apple	2010	Gala	Yes
CBS100028	Apple	2010	Golden Delicious	Yes
CBS100028	Apple	2010	Granny Smith	Yes
CBS100028	Apple	2010	Lady William	Yes
CBS100028	Apple	2010	Pink Lady	Yes
CBS100028	Apple	2010	Red Delicious	Yes
CBS100028	Apple	2010	Sandover	Yes
CBS100028	Apple	2010	Other Apple	Yes

Return to Menu Selection | Refresh after Sending a Form | Return to Prior Menu

14

Please complete the form below, and when finished, forward the form to the form server by clicking Send.

VERSION: 14

Form Locked Form Sent

Send

Coolstore Stocks for Apple - Production Year 2010													
Coolstore	NSW Coolstores							Units	Bins	'000Kg	Ref No	CSS100029	
Variety	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Fuji	Opening	202	9	3	157	879	846	707	559	295			
	Stock In	0	0	154	722	0	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out	-193	-6			-33	-139	-148	-264	-295			
	Closing	9	3	157	879	846	707	559	295	0			
Gala	Opening	1	1	1534	1476	1285	1100	911	633	464	464		
	Stock In	0	1533	0	0	0	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out			-58	-191	-185	-189	-278	-169				
	Closing	1	1534	1476	1285	1100	911	633	464	464			
Golden Delicious	Opening	8	3	13	26	30	32	27	23	10	10		
	Stock In	0	10	13	4	2	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out	-5					-5	-4	-13				
	Closing	3	13	26	30	32	27	23	10	10			
Granny Smith	Opening	156	1	1	812	1253	1234	1097	979	791	791		
	Stock In	0	1	811	441	0	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out	-155	-1			-19	-137	-118	-188				

Red Delicious	Opening	1386	540	24	3208	2862	2488	2159	1763	1398	1398		
	Stock In	0	0	3184	0	0	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out	-846	-516		-346	-374	-329	-396	-365				
	Closing	540	24	3208	2862	2488	2159	1763	1398	1398			
Sundowner	Opening	510	245	1	6	367	533	528	519	403	403		
	Stock In	0	0	5	361	166	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out	-265	-244				-5	-9	-116				
	Closing	245	1	6	367	533	528	519	403	403			
Other Apple	Opening	19	19	63	329	573	484	321	117	63	63		
	Stock In	0	44	266	244	0	0	0	0	0			
	Av. Bin Weight	360											
	Stock Out					-89	-163	-204	-54				
	Closing	19	63	329	573	484	321	117	63	63			
Total	Opening	2470	826	1643	6014	8668	8372	7217	5809	4211	3916		
	Stock In		1592	4433	3191	404							
	Av. Bin Weight	360											
	Stock Out	-1644	-775	-62	-537	-700	-1155	-1408	-1598	-295			
	Closing	826	1643	6014	8668	8372	7217	5809	4211	3916			

Delete

Version No: 14 Date: 30/11/10

Send

View Coolstore Stocks

View Coolstore Stocks

1. Select View Cool Store Stocks against Menu Selection to display screen 17
2. Use the filters to narrow the selection as required
3. Click "Submit" to display the equivalent of screen 18

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NSW Coolstores
Apple and Pear Australia Limited

Home Services Change Password Help Refresh Print Logout

Cool Store Stock System > Coolstore Stocks > View Coolstore Stocks

Coolstore Stocks | APAL Reports and Graphs | APAL Management Reporting

Menu Selection: View Coolstore Stocks Refresh

Produce: Apple Refresh

Year: 2008 2009 2010

State: NSW

Variety: Beurre Bosc Fuji Gala Golden Delicious Granny Smith Lady William Other Apple Other Pear Packham
 Pink Lady Red Delicious Sanderson Williams

Sort Sequence: Produce

Reference No Range: To

Create CSV File:

Printer Friendly Report:

18

NSW Coolstores
Apple and Pear Australia Limited

Home Services Change Password Help Refresh Print Logout

Cool Store Stock System > Coolstore Stocks > View Coolstore Stocks

Selection Criteria: Produce(Apple)Year(2009, 2010)Variety(Fuji)

Ref No	Produce	Year	State	Variety	Bins	WT	Heading	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
CSS100028	Apple	2010	NSW	Fuji	Yes	360	Opening	202	9	3	157	879	846	707	559	295				876	
CSS100029	Apple	2010	NSW	Fuji	Yes	360	Stock In			154	722										
CSS100028	Apple	2010	NSW	Fuji	Yes	360	Stock Out	-193	-6			-53	-139	-148	-264	-295				-1076	
CSS100028	Apple	2010	NSW	Fuji	Yes	360	Closing	9	3	157	879	846	707	559	295						
CSS100028	Apple	2009	NSW	Fuji		360	Opening			634	3988	3474	3060	2708	2231	1687	960	435		3988	
CSS100028	Apple	2009	NSW	Fuji		360	Stock In			634	3334										
CSS100028	Apple	2009	NSW	Fuji		360	Stock Out				-514	-414	-392	-477	-544	-727	-525	-233		-3766	
CSS100028	Apple	2009	NSW	Fuji		360	Closing			634	3988	3474	3060	2708	2231	1687	960	435	202		

APAL Reports & Graphs

APAL Reports & Graphs

- From screen 12 click Function button for APAL Reports and Graphs to display screen 17
- Select from the various report & graphing options against "Menu Selection" to display various reports & graphs
- Use the filters to narrow the selection as required

- Click "Submit" to display the equivalent of screen 18-21
- Reports & graphs are available in various formats for each variety & variety comparisons, for each state & state comparisons

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NSW Coolstores
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Cool Store Stock System > APAL Reports and Graphs > Comparison Report

Menu Selection: Comparison Report

Produce: Comparison Report

State: TAS

Variety: Bosc Fuji Gala Pinkham Golden Delicious Williams Granny Smith Other Pear Lady Pink Lady Red Delicious Bundowner Other Apple

Year: 2008 vs 2010

State Summary

Variety Summary

Create CSV file

Printer Friendly

Submit

18

NSW Coolstores
Apple and Pear Australia Limited

Cool Store Stock System > APAL Reports and Graphs > Comparison Report

Return to Menu Selection | Return to Prior Menu

Selection Criteria: Produce(Apple) State(NSW) Variety(Fuji) From Year 2008 to 2010

Produce : Apple ('000Kg)

	2008	2010
Jan	0	66
Feb	0	2
Mar	496	91
Apr	2,147	832
May	1,990	394
Jun	1,748	428
Jul	1,408	238
Aug	1,077	178
Sep	622	0
Oct	277	126
Nov	104	0
Dec	0	339

Return to Menu Selection | Return to Prior Menu

19

NSW Coolstores
Apple and Pear Australia Limited

Cool Store Stock System > APAL Reports and Graphs > Coolstore Stocks Statistics Report

Return to Menu Selection | Return to Prior Menu

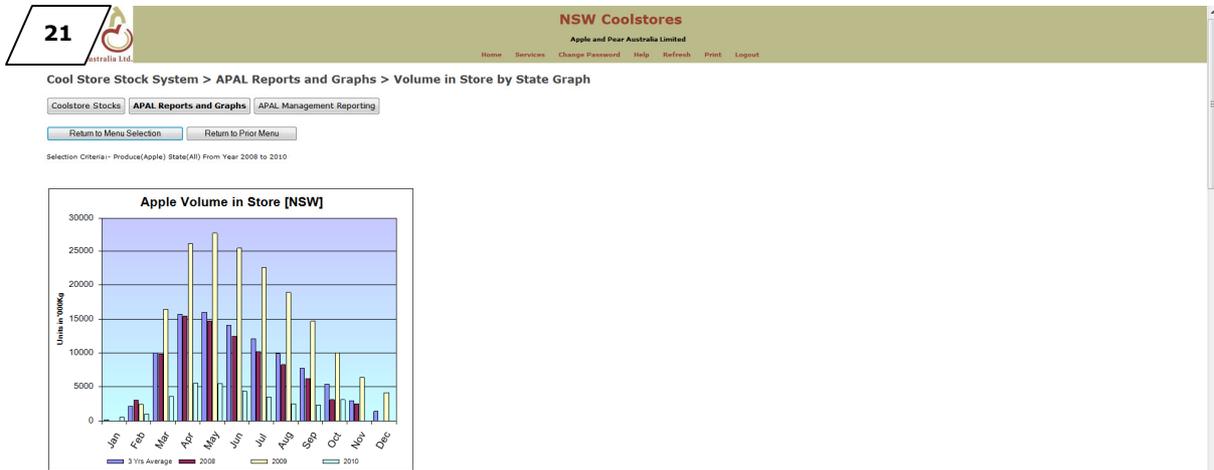
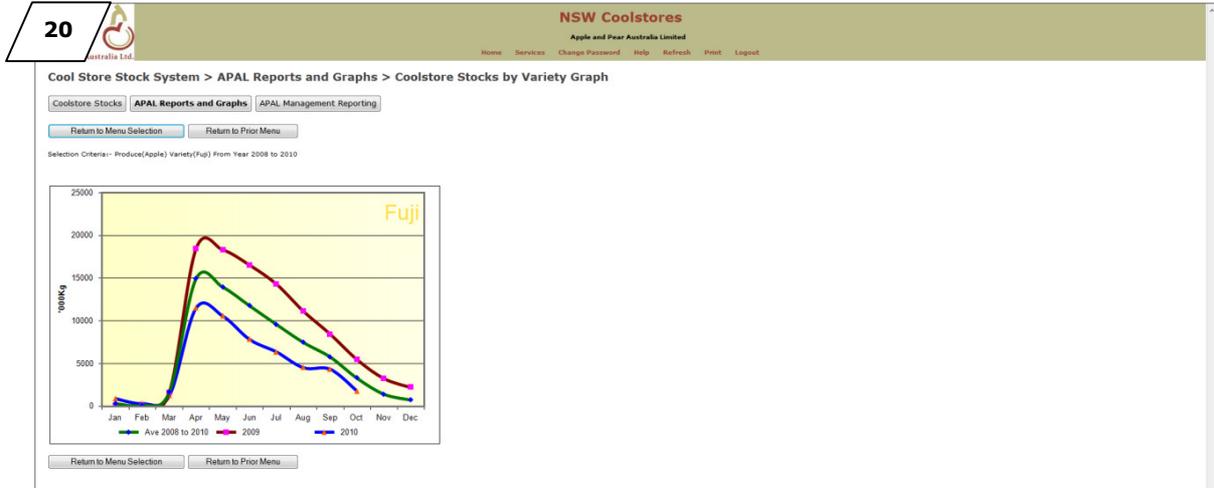
Selection Criteria: Produce(Apple) Variety(Fuji) From Year 2008 to 2010

Produce : Apple ('000Kg)

	2007	2008	2009	Clearance Rate	% Crop Left	% Crop Comparison
2008 Jan	0	0	0			
2008 Feb	7	0	7			
2008 Mar	2,082	0	2,082			
2008 Apr	14,850	0	14,850	100%	100%	0%
2008 May	12,943	0	12,943	13%	87%	0%
2008 Jun	10,916	0	10,916	14%	72%	0%
2008 Jul	8,055	0	8,055	19%	54%	0%
2008 Aug	6,753	0	6,753	9%	45%	0%
2008 Sep	4,498	0	4,498	15%	30%	0%
2008 Oct	2,615	0	2,615	13%	18%	0%
2008 Nov	975	0	975	11%	7%	0%
2008 Dec	0	0	0	7%	0%	0%

Produce : Apple ('000Kg)

	2007	2008	2009	Clearance Rate	% Crop Left	% Crop Comparison
2009 Jan	27	0	27	0%	0%	100%
2009 Feb	4	0	4			
2009 Mar	1,851	0	1,851			
2009 Apr	16,660	0	16,660	100%	100%	10%
2009 May	15,621	0	15,621	6%	94%	19%
2009 Jun	12,718	0	12,718	11%	62%	17%
2009 Jul	11,166	0	11,166	15%	67%	22%
2009 Aug	8,524	0	8,524	13%	54%	20%
2009 Sep	6,466	0	6,466	15%	39%	47%



APAL Management Reporting

APAL Management Reporting

1. From screen 12 click Function button for APAL Management Reporting
2. This function is primarily for APAL administration to generate reports & graphs for publication in the monthly CSS Report
3. The function has been made available to Coolstores
4. Examples of reports & graphs display in screens 22-23 below

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NSW Coolstores
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Home Services Change Password Help Refresh Print Logout

Cool Store Stock System > APAL Management Reporting > Coolstore Stocks by Variety Report

Coolstore Stocks
APAL Reports and Graphs
APAL Management Reporting

Return to Menu Selection
Return to Prior Menu
Select All & Copy click this button to paste tables/graphs onto a MS Word document

Selection Criteria:- Produce(Apple) Variety(All) From Year 2008 to 2010

Produce: Apple						Produce: Apple							
Fuji						Gala							
Ave 2008 to 2010	2008	2009	2010	Ave Month	Clearance Rate	Ave 2008 to 2010	2008	2009	2010	Ave Month	Clearance Rate		
Jan	315	0	54	893	5%	1%	Jan	301	0	234	378	0%	0%
Feb	108	7	0	317	2%	0%	Feb	9,084	12,157	6,980	8,115		
Mar	1,840	2,682	1,600	1,218			Mar	22,464	29,042	22,437	19,929		
Apr	14,941	14,623	18,467	11,305			Apr	18,940	19,305	20,110	17,206		
May	13,929	12,943	16,300	10,344	7%	8%	May	17,508	18,707	18,459	15,358	8%	11%
Jun	11,745	10,516	16,513	7,806	15%	24%	Jun	14,735	16,007	16,254	11,845	15%	20%
Jul	9,561	8,055	14,278	6,350	15%	13%	Jul	11,253	13,073	11,188	9,528	18%	13%
Aug	7,439	6,733	11,123	4,309	14%	14%	Aug	8,622	10,322	8,079	7,469	14%	12%
Sep	5,754	4,498	8,433	4,331	11%	2%	Sep	6,567	6,840	5,291	7,469	11%	0%
Oct	3,204	2,615	5,468	1,760	17%	22%	Oct	2,598	2,852	2,479	2,964	21%	30%
Nov	1,404	975	3,237	1,174	15%	1%	Nov	417	350	500	500	12%	1%
Dec	733	0	2,200	0	4%	0%	Dec	29	0	87	0	2%	0%

Produce: Apple						Produce: Apple							
Golden Delicious						Granny Smith							
Ave 2008 to 2010	2008	2009	2010	Ave Month	Clearance Rate	Ave 2008 to 2010	2008	2009	2010	Ave Month	Clearance Rate		
Jan	425	0	145	1,140	13%	0%	Jan	1,850	0	1,782	3,767	11%	0%
Feb	664	1,235	274	483			Feb	462	211	32	1,144		
Mar	6,003	7,500	7,455	4,528			Mar	13,881	17,362	8,261	15,880		
Apr	6,093	6,706	7,534	4,038			Apr	39,573	39,299	35,989	43,430		
May	3,549	6,108	6,868	3,728	8%	4%	May	37,879	37,417	34,262	41,629	4%	4%
Jun	5,067	6,134	6,287	3,810	8%	23%	Jun	32,446	29,750	31,734	38,855	11%	6%
Jul	3,880	3,914	5,383	2,345	19%	12%	Jul	28,277	26,008	26,211	32,452	13%	15%
Aug	3,177	3,151	4,906	1,836	13%	13%	Aug	24,202	24,384	21,646	26,575	10%	14%
Sep	2,630	2,506	3,348	1,834	9%	0%	Sep	20,976	18,399	18,083	26,243	8%	1%
Oct	1,437	1,116	2,329	626	20%	20%	Oct	16,163	16,490	13,662	18,377	12%	18%
Nov	780	392	1,947	0	11%	0%	Nov	6,329	9,076	9,912	0	25%	0%
Dec	529	0	1,586	0	4%	0%	Dec	2,699	0	6,037	0	9%	0%

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NSW Coolstores
Apple and Pear Australia Limited

Home Services Change Password Help Refresh Print Logout

Cool Store Stock System > APAL Management Reporting > Coolstore Stocks by Variety Graph

Coolstore Stocks
APAL Reports and Graphs
APAL Management Reporting

Return to Menu Selection
Return to Prior Menu
Select All & Copy click this button to paste tables/graphs onto a MS Word document

Selection Criteria:- Produce(Apple) Variety(All) From Year 2008 to 2010