Agricultural Produce Commission

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APC–Pomewest FFS Income 2016–17

Project	$
General Account Budget	500,000
Biosecurity Account Budget	70,000

APC-Pomewest projects 2016–17

Project	$
Commercialisation for WA (FW Co-operative Ltd) Note less 50% salary reimbursed for professional services of Nardia Stacy as executive officer as in 15–16 financial year.	120,000
Dormancy and New Technology Project (Susie Murphy White)	68,135
Medfly Surveillance Trapping Network (Ashmere Consulting)	58,025
Codling Moth (DAFWA)	35,620
Maturity Standards legislation and compliance (Ashmere Consulting)	25,000
Flavonoid Project	25,000
Natural Mite control Project (shared with the Stone Fruit Subcommittee) (Stewart Learmonth DAFWA)	7,900
Promotion & Publicity Local Project (Fresh Finesse)	16,000
Industry Sponsorships and Association Memberships	12,000
Administration	123,500
APC Administration Charge	45,000

APC fee for service charge

POME Fruit effective from 1 January 2015

Type of fruit	$/kg
Fresh fruit — Apples, Pears, Nashi, other	0.015
Processing fruit	0.005
Biosecurity FFS for fresh fruit	0.002
Biosecurity FFS for processing fruit	0.001

From the Executive Manager

BY NARDIA STACY
EXECUTIVE MANAGER, POMEWEST

With the end of 2017 drawing near, with flowering and fruit set established we look forward to the next season.

All indications point for good production 2017, thinning has been more efficient for growers this year with more compact flowering and chill hours are well above average which is excellent for producing fruit.

Susie Murphy White will be performing fruit sizing and determining yield estimates shortly and provides statistics for chill this year — see below.

How cold was winter 2016?

Its felt like a cold and wet winter in WA and it was. Winter chill accumulation has been good for 2016 compared to the last few years (see Table 1).

October 2016 Committee Meeting

The Pomewest Committee recently met on 12 October in Bunbury. Outcomes of the meeting include:

- FFS review of compliance and identifying orchards, growers and varieties who contribute majority of production;
- Establishing legislated maturity standards with compliance and market testing;
- Biosecurity and strategic planning and projects for codling moth, medfly and Q fly aligning with the strategic and biosecurity strategic plans;
- Clarifying fumigation practices at State Borders;
- Increasing market access for WA export; and
- Roadshow visits early in 2017 to consult with growers.

TABLE 1 Total accumulated dynamic chill portions 1 March – 31 August using DAFWA weather stations daily minimum and maximum air temperatures

	2016	2015	2014	2013
Donnybrook	67	50	45	52
Manjimup	76	64	56	62
Newlands	75	58	45	61
Nannup	68	55	46	55
Pemberton	76	58	53	57
Mt Barker	76	69		
Bickley (BoM)			53	53
Karragullen (MEA)	65	53		54

Source: DAFWA Weather Stations

This edition

The strategic plan is displayed in this edition which will help explain how the Committee decides on supporting projects to align with the basic principles. We also feature reporting on the latest future orchard walk along with an article on sunburn and how to minimise risk, along with reporting promotional events.

I would like to take this opportunity to wish you all greetings for the season from both myself and the Pomewest Committee.

We wish our members a very Merry Christmas and a very Fruitful New Year. Personally I would like to thank you all for your support during the year and look forward to another great year for Pome fruit in 2017.

MORE INFORMATION ▶

Contact Nardia Stacy on (08) 9368 3869 or nardia@pomewest.net.au

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Serving WA Pome Growers

Strategic Plan 2015–20

Pomewest is the subcommittee of the pome, citrus and stone Fruit Producers' Committee of the Agricultural Produce Commission of WA

Vision

A profitable and sustainable Western Australian pome fruit industry that meets market requirements and consistently satisfies consumers with high quality fruit.

Mission

Working in partnership with our stakeholders to provide industry leadership, strategic direction and innovative solutions to support a profitable and sustainable Western Australian pome fruit industry.

Objectives

1. To increase the profitability and sustainability of the Western Australian pome fruit industry
2. To increase the quality and consumption of Western Australian pome fruit
3. To provide industry leadership, unity and purpose

Objective 1 — Increase profitability and sustainability

Improve the productivity and domestic and international competitiveness of the Western Australian pome fruit industry and safeguard against potential pest threats by:

- Securing the production base
- Improve production efficiency and innovation
- Develop and maintain market opportunities.

Objective 2 — Increase quality and consumption

Increase the quality and consumption of Western Australian pome fruit by product development, product enhancement and developing maturity standards to meet consumer expectations by:

- Product development
- Product enhancement
- Developing maturity standards for Western Australian pome fruit.

Objective 3 — Leadership, unity and purpose

Support industry development through enhancement of the operating environment, encompassing leadership and skills development, partnerships, communication, extension, planning and R&D capability by.

- Provide leadership and a supportive operating environment
- Development of capacity and capability.

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Serving WA Pome Growers

Thinning apple flowers to improve fruit

BY SUSIE MURPHY WHITE
PROJECT MANAGER, POMEWEST

Atherton Orchards, Donnybrook, was the venue for the spring Future Orchards walk in WA.

As part of the Future Orchards® program, Apple and Pear Australia Ltd (APAL) and leading horticultural consultants from AgFirst in New Zealand shared the latest technologies and knowledge about thinning to Australia.

Every spring, growers remove a proportion of the flowers from their apple and pear trees and keep the optimal number to produce the healthiest and best-sized fruit.

But if they get this thinning process wrong it can spell disaster, because no flowers means no fruit.

"Thinning is one of the most critical parts of orchard production and, with so many factors in play, it is also one of the most complex," explains APAL Technical Manager Angus Crawford.

"When left alone, apple and pear trees will naturally set heavy crops that lead to small, poor quality fruit and leave the tree with biennial bearing tendencies meaning that every second year the trees produce a much lighter crop.

"To effectively intervene, growers normally need to thin out 85-90% of the crop."

Not all of this thinning is done at flowering, but getting the right amount of thinning done at flowering can reduce labour costs and improve the size and quality of fruit produced.

"An excellent thinning result at flowering can mean significantly lower hand thinning costs with fewer fruit to be removed later," says AgFirst's Steve Spark.

TOP: Growers listening to guest speakers Brett Freehan and Steve Spark from AgFirst NZ at Atherton's orchard.

ABOVE: Discussion in Atherton's Orchard about the thinning fruit.

"When flower numbers are reduced to the optimal number early in the season, the potential yield of the block will also be increased."

"Atherton Orchards was a great back drop for the September orchard walk. Attendees from Donnybrook, Manjimup and Pemberton had the opportunity to discuss the approaching thinning season and time to take home the key messages and implement in their own orchards" says WA Front Line Advisor for Future Orchards Susie Murphy White.

"It has been a wet and cold winter for Donnybrook with the average minimum and maximum temperatures lower than the long term average," says WA Front Line Advisor for Future Orchards Susie Murphy White.

"Winter chill accumulation has been excellent, and the trees are primed and ready for what should be a strong flowering."

MORE INFORMATION ▶

For more information contact Susie Murphy White, Project Manager, Pome, Pomewest (08) 9777 0151 or email susan.murphy-white@agric.wa.gov.au

Is it worth investing in netting?

A risk assessment on sun damaged apples

BY SUSIE MURPHY WHITE
PROJECT MANAGER,
POMEWEST

How many days above 34.1ºC did we have in January 2016? How many will we have in 2017? Do we have enough hot days to make netting viable option to protect apples from sun damage?

A risk assessment of sun damaged Royal Gala apples was completed as part of the Crossing the Threshold Climate Change project*. The assessment found that those apple growing regions with very warm summers are at higher risk of sun damaged fruit occurring after extreme heat days.

Sun damage occurs in apples as a result of exposure to extreme heat. Apple quality is downgraded and yield is reduced as a result of browning.

Browning in apples is characterised by yellow, brown, bronze or dark brown spots on the sun exposed side of the fruit due to a combination of high fruit surface temperature and light exposure. Over tree netting can reduce the impact of sunburn browning.

Impact assessments of the risk of browning for Royal Gala apples have been conducted for fruit growing regions across Australia now and into the future. These assessments indicate the risk of sustaining browning for open orchards and those with over tree nets.

When air temperatures exceed 34.1ºC in open orchards and 37.9ºC in netted orchards Royal Gala apples can sustain browning damage (Darbyshire *et al.*, 2015). An analysis using daily maximum temperatures for January the harvest month for Royal Gala apples, estimated future potential browning risk and showed how over tree netting might reduce this risk. The results were calculated as the number browning risk days in January (Table 1).

TABLE 1 Median number browning risk days in January (31 days) for pome fruit growing regions across Australia for a 30 year period centred on 1995, 2030, 2050 and 2090

	1995	2030	2050	2090
Manjimup WA un-netted	2.5	3.9	4.5	6.1
Manjimup WA netted	0	0	0.5	1.4
Donnybrook WA un-netted	7	8.9	10.3	12.8
Donnybrook WA netted	1	2	3	5
Lenswood SA un-netted	3	4.5	5.1	6
Lenswood SA netted	1	1.5	1.8	2.3
Tatura VIC un-netted	6	9.4	10.4	13
Tatura VIC netted	2	2.8	3.6	5.6
Huonville TAS un-netted	0	1	1	1.5
Huonville TAS netted	0	0	0	0

Browning risk categories and colour coding.

≤ 1.6 days ≤ 5.0%	1.7–3.1 days 5.1–10.0%	3.2–6.2 days 10.1–20.0%	6.3–9.3 days 20.1–30.0%	9.4–15.5 days 30.1–50.0%	≥ 15.6 days ≥ 50.1%

Source: Webb *et al.*, 2016

The highest risk 9 out of 31 days to browning can be seen in Tatura followed by Donnybrook in open orchards in 2030.

When over tree netting is installed the risk to browning is reduced to a 3 out of 31 days when apples are at risk of browning. There would be only one day when apples in Huonville are at risk to browning in the future, making netting in Huonville an uneconomical investment with respect to minimising browning damage.

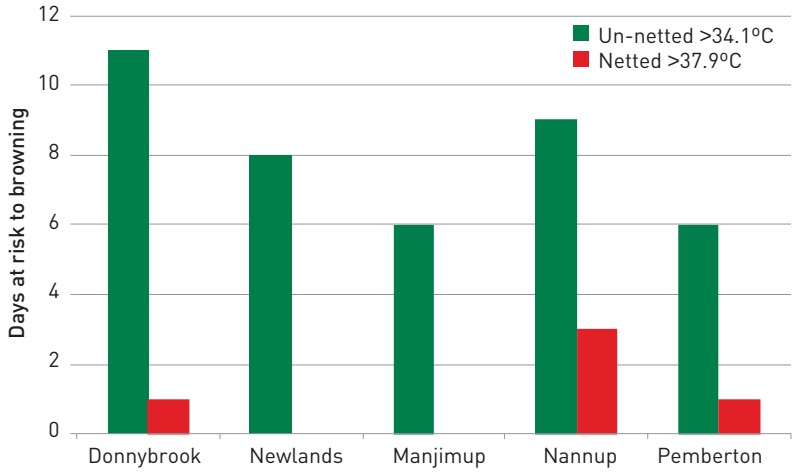

FIGURE 1 Number of days where Royal Gala apples were at risk to browning in January 2016 for the pome fruit growing regions of the South West of Western Australia

Source: DAFWA

While the browning risk is reduced to less than 1 day under netting for Manjimup compared to un-netted orchard with a 4 out of 31 day chance of browning after 2030.

If we look at the maximum air temperatures in the South West for January 2016 it shows that Donnybrook is already experiencing 11 days where Royal Gala apples are at risk to browning in un-netted orchards (Figure 1). In netted orchards, there was only 1 day in January 2016 where the maximum air temperature exceeded 37.9°C. The maximum air temperatures recorded at the Manjimup netting demonstration site over the last 3 summers has recorded no days over 37.9°C under black and white nets.

TOP: Sunburn browning in Royal Gala apples.

ABOVE: Thermocouple inserted into Royal Gala apple testing fruit surface temperature.

In January 2016 the number of days over 34.1°C in the un-netted orchard was 4, 2015 there were four days and six days in January 2014.

When using netting as management tool to reduce future browning-risk there are other benefits to consider; reduced risk to hail damage, reduced irrigation requirements and reduced bird damage.

The negative impact of netting can include skin colouration (pale blush and more intense green background colour) which can be managed using reflective surfaces. The orchard environment changes under netting and the risk of increased pest and diseases increases due to increases in humidity. But the there is also lower wind speed under netting improving spraying conditions. When all benefits are considered the economics of netting for WA appears favourable but is still dependent on grower attitude to risk, grower experience and financial position.

MORE INFORMATION ▶

*This risk assessment has been undertaken as part of The Crossing the threshold: Adaptation tipping points for Australian fruit trees project is supported by funding from the Department of Agriculture and Water Resources www.piccc.org.au/research/project/440.

REFERENCES

1 Darbyshire R, McClymont L and Goodwin I (2015) Sun damage risk of Royal Gala apple in fruit growing districts in Australia. *New Zealand Journal of Crop & Horticultural Science*. 43:222–232.

2 Webb L, Darbyshire R and Goodwin I (2016) A robust impact assessment that informs actionable climate change adaptation: Future sunburn browning-risk in apple. *International Journal of Biometeorology*. (accepted).

Apples twist and shout at the Perth Royal Show

BY NOELENE SWAIN
FRESH FINESSE

Apples were once again active at the IGA Perth Royal Show. This year, a move to the IGA Fresh Pavilion provided a prominent stand with excellent background signage illustrating the apple story and a steady flow of food lovers.

Fresh crisp apples and ice cold apple juice were on offer with the apple team armed with Apple Slinky machines to swirl and twirl their way through over 1,600 Pink Lady and Granny Smith apples whilst chatting to show goers about the importance of eating locally produced fruit.

Surrounded by other snack food options provided a sharp reminder of the need for apples to promote themselves as a delicious and convenient snack food.

Sale of the Apple Slinky machines appealed to those keen to continue the apple 'magic' at home. This simple tool provides a super easy mechanism for kids (of all ages!) to enjoy apples fresh or to prepare apples for cooking.

Slinky machines have a loyal following in Primary Schools and school canteens. Even young adults show customers drooled affectionately over the apples as they recalled their primary school memories.

The show provides an excellent opportunity to engage with the public. Unfortunately, extremely wet and windy weather conditions during show week created some challenges to achieve maximum engagement. We look forward to involvement in 2017 to create a strong educational engagement with the WA Community.

MORE INFORMATION ▶

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2016 Karragullen Expo

WA First, Let's Grow Together

BY NARDIA STACY
EXECUTIVE MANAGER, POMEWEST

Pomewest was pleased support the 2016 Karragullen Expo held on Saturday 8th October.

Despite the severe weather, the Hills Orchard Improvement Group (HOIG) soldiered on. Again, the Expo was hailed as a great success due to the massive support by the local community, the tireless commitment of the members of HOIG and the dedication and support of exhibitors and participants.

The Pomewest sponsorship assisted with the promotion of this year's theme of 'WA First, Let's Grow Together' by supplying 800 x 1kg bag fruit giveaways for children attending the Expo.

Pomewest also presented the 'Best Horticultural Machinery Display' and the kids colouring competition.

Nardia Stacy, Executive Officer of Pomewest attended the official presentations and presented awards at the event.

MORE INFORMATION ▶

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