

Final Report

National Passionfruit Breeding Program

Project leader:

Assoc. Prof. Tobias Kretzschmar

Delivery partner:

Southern Cross University

Project code:

PF15000

Project:

National Passionfruit Breeding Program PF15000

Disclaimer:

Horticulture Innovation Australia Limited (Hort Innovation) makes no representations and expressly disclaims all warranties (to the extent permitted by law) about the accuracy, completeness, or currency of information in this Final Report.

Users of this Final Report should take independent action to confirm any information in this Final Report before relying on that information in any way.

Reliance on any information provided by Hort Innovation is entirely at your own risk. Hort Innovation is not responsible for, and will not be liable for, any loss, damage, claim, expense, cost (including legal costs) or other liability arising in any way (including from Hort Innovation or any other person's negligence or otherwise) from your use or non-use of the Final Report or from reliance on information contained in the Final Report or that Hort Innovation provides to you by any other means.

Funding statement:

This project has been funded by Hort Innovation, using the Passionfruit research and development levy and contributions from the Australian Government. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Publishing details:

ISBN 978 0 7341 4624 3

Published and distributed by: Hort Innovation

Level 7
141 Walker Street
North Sydney NSW 2060

Telephone: (02) 8295 2300

www.horticulture.com.au

© Copyright 2020 Horticulture Innovation Australia

Content

Content	3
Summary	4
Public summary	
r! Bookmark not defined.	Erro
Keywords	5
Introduction	6
Methodology	7
Outputs	11
Outcomes	14
Monitoring and evaluation	15
Recommendations	17
Refereed scientific publications	
r! Bookmark not defined.	Erro
References	
r! Bookmark not defined.	Erro
Intellectual property, commercialisation and confidentiality	18
Acknowledgements	19
Appendices	20

Summary

- 1) The main aim of project PF15000 was to produce and select new scion varieties of passionfruit. In 2017, the project was increased in scope to include trials of rootstocks and a small Panama trial. In 2019, the duration of the project was extended by one year (to finish in June 2020, with the implementation of some of the recommendations made from a review of the project in early 2019).
- 2) In 2017, with the assistance of industry, 29 selections of passionfruit scions were made from 782 seedling vines planted in 2016. After the assessment of 2nd stage trials, a number of growers were keen to take the best twelve selections on to third stage. These were extensively tested at 3rd stage trials (759 vines at nine sites). Although they were ultimately found not to be of commercial standard, ten of the twelve have provided new elite selections that have been used as parents in the crossing program. This injection of new parents into the breeding program was sorely needed since PF15000 did not utilize the most recently bred commercial varieties as they were under private ownership and old selections were suffering from varietal decline. Crosses from these parents are currently under 1st stage trials at four sites.
- 3) In 2018, an arboretum and trial site for passionfruit vines was established on NSW DPI land at Alstonville, with irrigation and later fertigation systems in place. Experience in managing a trial site has now been gained as part of this program and 180 first stage trial vines at this site have been partially assessed and had some trait measurements taken in 2020. With current wide-spacing of vines the capacity is around 330 vines.
- 4) As recommended by the 2019 review, SCU staff now carry out all new crosses for the program, and have carried out large numbers of crosses over the last 1½ years, which are forming the current crop of 1st stage trials and if the project is extended, would flow on into trials run this season (2020 – 2021). There are currently 450 vines in total in first stage scion trials at four sites, and 30 vines in 2nd stage trialling at Alstonville. Unfortunately, no third stage trials are underway, as there was no high performing 2nd stage selections from 2018 to select for 3rd stage trialling.
- 5) Another aim of PF15000 was to create a genetic linkage map and discover useful markers for mass screening progeny. A linkage map was constructed for one parent of the cross Tom's Special x Lacey (TxL). This utilised funds from an SCU seed grant to carry out the DNA extractions and genotyping. SNP based markers segregating one to one from Tom's Special were mapped and used to find possible QTL for BRIX, pH, fruit weight and fruit colour. The map was based on 171 genotypes, of which, 121 produced fruit that was able to be analysed for fruit traits. Although this left low power for detection of QTL for the quantitative traits measured, some potential QTL locations were detected, and a number of markers scored in a second verification population of 57 TxL progeny. Markers for fruit colour and fruit weight (size) were verified in this population and applied to aid selection in a third population planted at Burringbar in 2018. However, since the TxL population did not seem to be producing vines that were close to commercial ranking, efforts with this population were abandoned.
- 6) True-breeding lines from past and recent seed stocks were grown up and used for controlled pollination to produce fresh, selfed lines and some F1 hybrids to compare with one another as rootstocks for commercial varieties and tested for potential as Panama lines. They were compared with the current rootstock lines and Panama lines. During spring in 2019, the trial of rootstocks at Bundaberg was assessed using on vine fruit counts. It was found that Misty Gem vines grafted onto the variety 'Lakelands' produced statistically significantly higher fruit counts compared with those grafted to 'Pandora' rootstocks. The yield increase is from 13-23 extra fruit on average per vine, depending on which Pandora isolate is compared. McGuffies Red was the second-best performing rootstock in the trial. This result must be considered in light of the very dry conditions under which trialling was occurring at the time.
- 7) From the experience SCU staff have gained from the project, the main recommendation for a continuation of passionfruit breeding for scion varieties would be to implement the estimation of breeding values for parent varieties/selections based on collecting data from a subset of 1st stage trial vines of crosses. This method would need to run for a number of years to obtain steady gains but is likely to yield improved breeding parents and increased probability of selecting good commercial vines into the future. This would be an improvement on the traditional approach where this probability remains virtually static as judgements of the best parents can be highly subjective.

Keywords

Passionfruit; passion fruit; breeding; *Passiflora edulis*.

Introduction

Passionfruit breeding has been carried out in Australia since the 1950's when the DPI in Queensland started crossing the purple fruited *Passiflora edulis* with the yellow fruited form known as *P. edulis f. flavicarpa*. The aim of these crosses was to transfer resistance to fusarium wilt from the flavicarpa form. After backcrossing to *P. edulis*, some useful selections were made that also had resistance to passionfruit woodiness virus (PWV).

A number of breeding projects have been funded in the past (by predecessors of HIA, HRDC and HAL) with the then NSW Dept. of Ag. (DoA) carrying out crossing and trialling at the Alstonville site particularly in the 1990s and the DPI in Queensland in the 1980s and into the 2000s. The DoA program appears to have produced both of the most successful current scion cultivars for the industry: cultivar Misty Gem was released in 1998 and the variety Sweetheart was released in 2004. They both have Tom's Special as the female parent. Tom's Special, although a poor yielding selection, had a number of disease resistance/tolerance properties that has made it a useful parent vine.

An immediate predecessor project to PF15000, run by QDAF was designed to try to implement strategies around viral infection problems. This project did not appear to produce any viral resistant lines that were of any commercial value and ended in 2015. In 2015 a joint project funded by PAI and SCU to develop DNA fingerprinting tools to genetically identify a test panel of around 20 varieties was successfully completed. This project was able to uniquely identify most of the 20 varieties using microsatellite DNA markers (also known as SSRs or STRs). There was one exception and it was suspected that in fact, since the two supposedly different clones appeared to be identical in the field as well, that there had been an error in the curation of the vines at some point in their history, which appears to happen quite commonly.

The main aim of project PF15000 was to select new scion varieties of passionfruit for the Australian industry, to replace the most commonly grown commercial scion varieties, Misty Gem and Sweetheart, which were showing evidence of varietal decline. The initial program (it was later supplemented with additional funding and additional tasks), was focused on trialling to select new varieties and the discovery and development of DNA markers to assist with future selection. The project was formulated before the 2017/2021 Strategic Investment Plan (SIP) for the passionfruit industry was produced, however, the project aligns with Strategy 2.1 of the SIP: "Develop and commercialise new varieties that increase production and also meet consumer expectations". PF15000 is very significant to industry as evidenced by the large proportion of the annual R & D budget which was awarded to the project, even though this strategy was not considered a priority strategy in the SIP. Without varieties that yield well and produce fruit to consumer standards and have reasonable disease tolerance/resistance, the industry will find it difficult to remain viable.

Methodology

PF15000 was designed to have a national reach, although its main target was passionfruit growers that grow scion varieties on the east coast region from NE NSW to North Queensland. The original timeframe for the program was three years, which in fact would only encompass two full seasons of trialling (or two generations of crosses). This is a very short timeframe for genetic improvement, especially since it is preferable to be able to evaluate new selections of passionfruit over at least a two-year timeframe (commercial growers currently keep vines for 2 -3 years). However, industry support for the project was strong, and the first crosses for trialling in the project were carried out in March 2016 by PAI members and Peasley Horticultural Services at Duranbah. This crossing pre-dated the project signoff and enabled planting to take place (in November/December 2016) for the 2016/2017 season. This enabled a part season head start for the project.

The initial PF15000 proposal was composed of eight tasks:

Task 1. Gather trial information, co-ordinate grower trials and establish a varietal and trial database

Task 2. In consultation with growers (1) determine best practice methods for trait measurements and (2) determine framework for trait-based selection in the national breeding program

Task 3. Establishing large single-family crosses for superior variety selection and genetic analysis

Task 4. Generate a reference genetic linkage map for *Passiflora edulis* using genome-wide DNA markers

Task 5. Trait resolution and analysis

Task 6. Initiate development of new inbred lines and create F1 varieties

Task 7. Establish a replicated industry seedbank

Task 8. Maintain and develop the industry arboretum

Staged trialling and selection process

The process of trialling and selection stages for scion varieties is represented in Figure 1 below, which was the vision for how the process would be carried forward in PF15000.

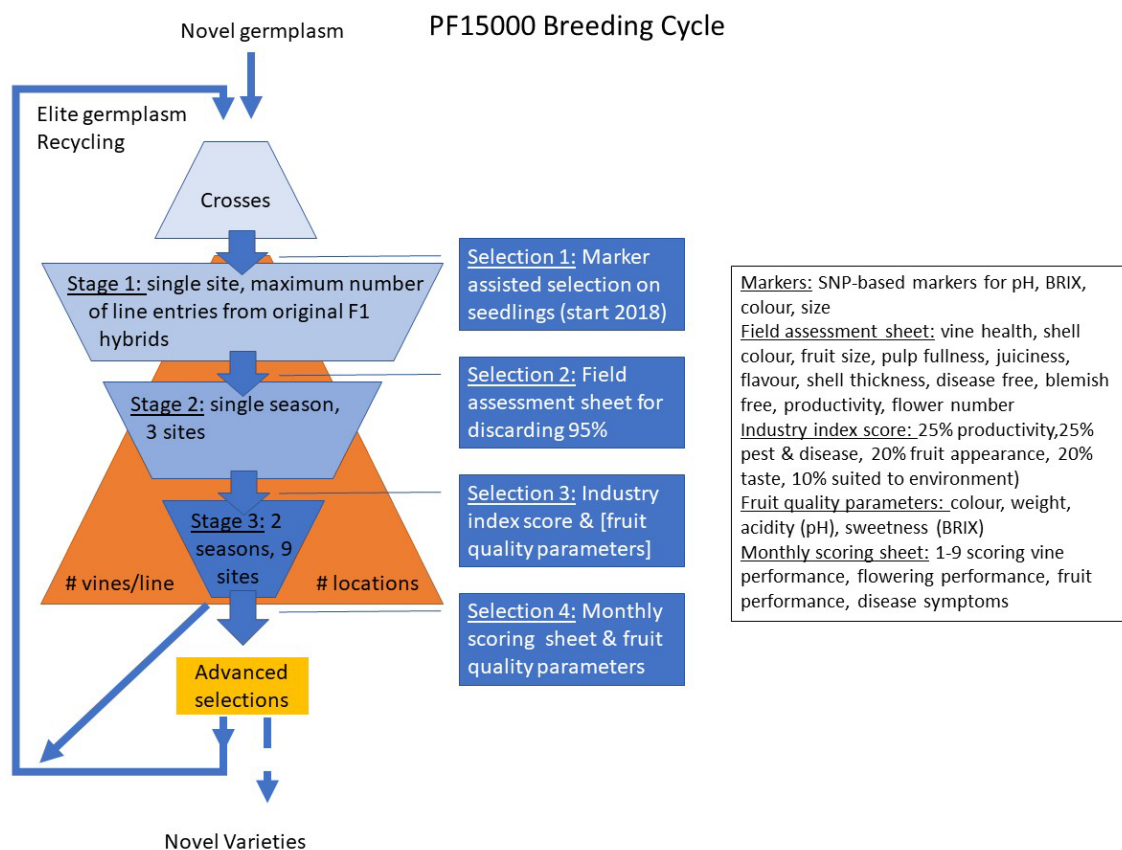


Figure 1: The breeding cycle for PF15000 indicating trialling stages and steps in the process of passionfruit breeding.

In essence, PF15000 would utilize the systems of trialling and trait scoring already established from previous projects but try to improve upon the overall process where possible. The most significant envisaged method of improvement was to detect useful DNA markers. Unlike the DNA markers used for DNA fingerprinting, which enabled different varieties or lines to be distinguished from one another, these markers (once discovered as being linked to traits of interest), would be used in the process of selecting vines. Large numbers of vines at seedling stage would have their DNA tested to see which form of marker was present. Those that had the best predicted DNA marker genotypes, would be taken on to the field trialling stage (the remainder discarded). This method of early selection to screen large numbers of vines at seedling stage would greatly improve the chances of selecting a vine of commercial use from the resulting pre-selected trial vines. In the short time frame, this strategy would depend on studying a suitable family which would be the target of both discovery, in the early phase, and then selection in later years, of any useful DNA markers.

Discovery and Application of DNA markers for selection

The Tom’s Special x Lacey family (TxL) was selected as the best available family at the time, because this cross had produced several commercially successful selections in the past (e.g. Supersweet varieties 96A, 96B, 96C and AV-1). The family also produced progeny that were resistant to Fusarium wilt, so they could be grown without grafting. This enabled large numbers of seedling vines to be produced and trialled at low cost. On paper it appeared to be a winning combination. In the 2015/2016 season, plantings at Burringbar had included a large number of TxL. The first two hundred of these vines were chosen as a mapping population for an SCU seed-grant funded DNA extraction and genotyping project. This would enable a linkage map(s) to be constructed which could be used to detect associations between DNA markers and traits of interest from phenotypic information which could be collected from this family of vines. DNA was extracted from the ungrafted seedling vines and a service provider, Diversity Arrays Technology, applied a DNA complexity reduction method, similar to genotyping-by-sequencing (GBS), to obtain the information on DNA variation (Single Nucleotide Polymorphisms) from the parent

clones (Tom's Special and Lacey) and 171 of their progeny.

Fruit quality traits were targeted for measurement as there was straightforward assessment available via refractometer and pH meter and fruit mass (a surrogate for size) size could be readily measured along with visual colour classification. It was considered that pH and BRIX measurements might be less likely to vary due to environmental influences compared with some other traits. An initial test of fruit measured from at least two fruits from a subset of the progeny in 2016 indicated relatively high within family broad-sense heritability. This meant that a good deal of variation between individuals for these two characteristics was likely to be due to genetic variation rather than environmental effects. This was a good sign that genetic selection using DNA markers might be successful. Based on these results a cloned set of the genotypes was planted at Newrybar, which was closer to SCU, enabling bagged fruit from each fruiting vine to be collected for later measurement. Measurements of fruit size, weight, BRIX and pH along with colour assessment were carried out during the winter of 2017. Marginal means for each character were calculated for each of 121 vines from which multiple fruit was collected. This data was combined with the unmapped markers to test for any associations between the 1:1 segregating markers and the traits. Several markers gave highly significant associations for the traits of fruit weight, pH, BRIX and simplified colour score (yellow/not yellow). About 1/5 of the population studied had yellow fruit – an undesirable characteristic for consumers.

Using DNA sequence from Tom's Special performed as part of the DNA fingerprinting project between PAI and SCU, we were able to get DNA sequence matches between the marker information (64 base DNA sequence) and longer regions e.g. 1,000 bp. This was done to enable the development of specific marker assays at relatively low cost to verify the associations we had observed. In a subsequent planting in 2018, of 64 Tom x Lacey vines at Newrybar, a fresh set of fruit measurements were carried out along with DNA genotyping. This was to verify the associations observed the previous year in a new set of progeny. Reliable specific marker assays were developed for six out of ten markers using the High-Resolution Melt (HRM) technique of SNP (Single Nucleotide Polymorphism) marker scoring. Three of the markers for fruit weight which were linked were found to have a highly statistically significant association with fruit weight in the validation population of 57 individuals with fruit measurements. Two linked markers for fruit pH were found not be associated with this trait in the validation population. Finally, the marker for fruit colour was also found to have the same association in the validation population. This same marker had been associated with fruit weight in the mapping population, but this association did not hold up in the validation population. All these markers were inherited from the Tom's Special parent. Unfortunately, reliable markers for BRIX were not developed.

At the suggestion of HIA, two of the test markers that had been verified as having an association in the validation population (one for fruit weight the other for fruit colour) were used to screen some TxL progeny to demonstrate the effect of the markers. Some 288 TxL seedlings were screened with these markers in late 2018. Since the TxL cross only rarely produced progeny with fruit that had sufficient size to warrant selection, a marker to select for large fruit size would be useful. The 288 progeny were screened with one fruit weight marker (a good surrogate for fruit size). One-hundred and sixty-seven individuals had inherited the desired marker. Of these 167, 160 were screened with the second marker for fruit colour, with 71 having the desired marker (three could not be scored). These 71 TxL marker selected vines were planted at Burringbar in December 2018, along with 13 selected with the fruit weight marker only and 30 unselected vines for comparison.

An assessment of the vines in June 2019 by visual inspection indicated that, as per previous iterations of TxL vines, there were few if any vines with any commercial potential. Two vines were cloned more for potential as future breeding stock rather than direct commercial potential and taken to 2nd stage trialling at the new Alstonville site. \

Creation of inbred lines

A subprogram to start the process of creating inbred scion lines was also carried out as part of PF15000. This initially started with the two parent varieties Tom's Special and Lacey as it was considered creating inbred lines would be one way to conserve some of the properties of these important varieties. Self-pollinations of these two varieties were carried out in 2016. Around 100 Lacey selfed, ungrafted, seedlings were planted in 2016 at Burringbar. These were assessed in 2017, when five selections were made as having sufficient vigour and properties such as yield, fruit colour and fruit size to be considered for continued inbreeding. These were left in place for the 2017/2018 season. In 2017, 20 inbred lines of Tom's Special were planted at Burringbar and around 70 ungrafted inbred seedlings of Sweetheart were also planted. All of the inbred Sweetheart lines died fairly quickly, from fusarium wilt, except one which was severely compromised but struggled on till the end of the season. Some inbred Tom's Special vines were also planted at Newrybar.

In 2018 an attempt was made to self-pollinate the inbred lines of Tom's Special vines that were in flower in Spring.

Surprisingly, virtually none of these pollinations were successful. Attempts to self-pollinate the vines at Newrybar in 2019, also resulted in few fruits forming. The results were found to be repeatable across vines, indicating that the characteristic of self-incompatibility was segregating in the selfed offspring from Tom's Special. Close to $\frac{3}{4}$ of the vines were found to be self-incompatible, whilst $\frac{1}{4}$ were able to be selfed. This is the typical genetic (Mendelian) ratio observed from the selfing of a heterozygote for a trait with dominant/recessive properties. Self-incompatibility in this case being the dominant trait. Selfing of Tom's Special inbred could only continue on the self-compatible lines. This indicated that Tom's Special was itself, a heterozygous for the trait. This would explain why it has so often been commented in the past that it is a poor yielding variety, since it generally requires cross-pollination to fruit. However self-pollinations can be carried out on this clone, and the story is likely more complex as is sometimes the case, and it is more likely partly self-fertile only. Self-incompatibility is the common condition of *P. edulis f. flavicarpa* in South America. Whereas, commercial scion cultivars and panama types are self-fertile in Australian germplasm. Selfed seed was obtained from the Lacey selfs in 2018 and a small number of individuals were grown up in that season at Burringbar and at Alstonville.

Project review, one-year no cost extension and 2017 project variation

Before the results of the marker screening were assessed, there was a review of PF15000 in Jan – Feb 2019. There was also insufficient funding for a new program to start in 2019 after the original end date of PF15000. SCU was given the option of either completing the project as scheduled or extending the program for one year at no cost while levy funds built up again. SCU chose the one-year extension option as being less damaging to the continuation of the breeding program into the future. The result from the review and the no-cost extension proposal was that it was decided that no further DNA marker discovery work would be conducted due to the necessity to keep costs low. A set of eleven recommendations were made for PF15000 and succeeding programs.

A variation was signed at the end of March 2017 to include additional key activities, which included new rootstock selection and trials and a 'Panama' trial of true-breeding lines and F1 hybrids. This variation stemmed from feedback from the steering committee in 2016. The main objectives of the extension to PF15000 were:

1. To produce seed of known provenance by carrying out self-fertilisation (of inbred lines) and selected crossing of inbreds (F1 plants).
2. Trial vines produced from the seed in 1 above to test for performance as rootstock and/or fruit production across two seasons under commercial production conditions. Trials to be carried out on growers' properties where there are known disease problems.
3. Recommend best performing rootstock and Panama lines for commercial production, by region, as informed by trial results.

Rootstock and Panama trials

Crossing and selfing of true-breeding Panama/rootstock lines from Duranbah arboretum was carried out by David Peasley. Some seed was obtained from the QDAF seed bank for lines unavailable at Duranbah. Open pollinated seed of the variety 'Lakelands' was obtained from fruit purchased in the marketplace. Seed for the rootstock trial was used

Trait measurements

Development of good methods for trait measurements is an ongoing exercise for some traits. For example, to estimate yield we are currently using on-vine fruit counts. Vines at commercial spacing intertwine and cannot give reliable single vine information. In this situation, on-vine fruit counting of the spaces between vines has been used successfully as an estimation method (as suggested by one grower). However, we are still developing methods for estimating yield of 1st grade fruit from small numbers of vines. Currently yield is estimated from counting fruit on-vine, with the vines spaced widely (5.5 m) to enable the vines to spread out. Vines are clipped at boundaries to stop crossover.

Outputs

Scion seedlings (crosses and selfs) trialled for new scion selections

Table 1 on the next page shows the approximate number of vines planted out and assessed each season by stage as part of the scion breeding program. More than 2,200 first stage vines were planted, with 1,750 being fully assessed up to the present time using traditional observational assessment methods as part of PF15000. Fifty-nine of these 1,750 have to date been taken on to second stage trialling. Four-hundred and fifty of these first stage vines are still to be fully assessed. Around 180 of these 450 have undergone an initial assessment at the Alstonville site (with 61% removed from contention for 2nd stage trialling so far). Only 14 vines made it through from 1st stage planting in 2016, to 3rd stage assessment in 2019, when around 760 grafted copies were made of these vines for trialling across 9 grower sites.

SCU seed bank for passionfruit

As recommended in the 2019 project review, SCU has since the beginning of 2019, conducted all pollinations for the project. A standard pollination system has been developed using clear perforated bags and for crosses checking stigmatic surfaces with a hand lens for pollen contamination after emasculation to reduce unwanted selfs. A large number of successful pollinations have been carried out and 195 seed accessions have been added to the SCU seed bank for passionfruit. These include accessions which are intended for 1st stage trialling this season and will be planted out before details of any continuing project are available. Three seed accessions have been added during the project which have been sourced from overseas. These have all been sampled and plants grown up and assessed for usefulness to the breeding program.

The seedbank includes seed from self-pollinations as part of the scion inbreeding subproject as well as self- and cross-pollinated seed remaining from the rootstock and panama subproject. Most of the 46 accessions provided by Peasley Horticultural Services as part of their PF15000 subcontract are of this type. There are an additional 14 accessions from seed provided by Keith Paxton and John McLeod. This has taken the seedbank to a total of 512 accessions, with 253 coming from QDAFF originally.

Milestone reports, presentations, meeting attendance, written communications for peak-body publications

Six milestone reports were delivered as part of PF15000. All milestones were met during this period.

Annual presentations across four years were made to Annual General meetings of the Industry peak body (PAI) by Peter Bundock. In addition, Graham King and Tobias Kretschmar presented a talk each in 2016 and 2018 respectively to the AGMs in those years. Peter Bundock also presented talks to a local growers meeting in 2016 in Murwillumbah and to a Special General meeting of PAI after the floods in Murwillumbah in April 2017. In addition, talks were presented to the reviewer of the program in January 2019 and at the July 2019 field day held at NSW DPI at Wollongbar. Peter Bundock also presented a talk on passionfruit breeding at the Plant Science open day in 2017 and to a group of plant pathologists from University of Southern Queensland in April 2018 and prepared a poster for the Wollongbar field day in August 2019.

Four face-to-face Steering Committee meetings were held during the program; in September 2016, July 2017, Feb 2018 and August 2018. Peter Bundock presented talks for each of these meetings to update the committee on progress and developments in the program. At least six articles were prepared for publication in the Passion Vine: Dec 2016, Sep 2017, Nov 2017, Feb 2018, August 2018, and Autumn 2020. An article on progress for her MSc has been prepared by Maddy Ianna for the Winter 2020 Passion Vine. Notes for the Passiflora News were prepared at the end of last year to report on the visit by Alon Samach, a passionfruit breeder from Israel.

Table 1: Number of passionfruit vines of each stage planted and assessed from 2016 to 2019 as part of PF15000

Year of 1st stage planting	Stage 1 (2016 - 2019)			Assessment 1st stage and planting 2nd stage	Stage 2 (2017 -2019) ¹			Assessment 2nd stage and planting 3rd stage	Stage 3 (2018/2019)			3rd stage assessed
	# fams	# lines	# sites		# lines	# grafted vines	# sites		# lines	# grafted vines	# sites	
2016	6	782	4	2017	29	111	3	2018	14	759	9	2019
2017	4	~500	2	2018	20	0	2	2019	-	-	-	
2018	9	477	4	2019	10	30	1	*				
2019	24	~450	4	*								
Totals	43	2,209	14		59	141	12		14	759	9	

* These vines have undergone partial assessment in 2020. Full assessment to be completed later in 2020.

1. Some 2nd stage trial vines were sent to a number of growers in 2016 from selections made from 2015 plantings before the project commenced. Additionally, four selections from 2016 plantings, selected in 2017, were sent to six additional growers for assessment.

International exchange

In October 2018 Peter Bundock traveled to Taiwan (added on to a personal trip to Japan to save costs) to meet with owners and staff of a nursery supplying grafted passionfruit vines to growers in SE Asia. He also met with local growers and Department of Agriculture staff associated with the virus-free program running there. A reciprocal visit was planned for 2020; however, this is likely now to be interrupted by the Covid-19 pandemic. One of the senior virologists wishes to visit to look at the potential to work on passionfruit viruses in Australia based at Southern Cross University for a year.

In late 2019 SCU hosted a visit from Associate Professor Alon Samach, who is a passionfruit breeder from Israel based at the Hebrew University of Jerusalem. Alon visited the Alstonville arboretum, freshly planted with many new vines, and gave a presentation at SCU entitled ‘Studies on Passionfruit seasonal flower abscission and fruit pigmentation within a breeding program for new cultivars’. This talk was attended by some locals involved in the industry and he also met with a number of local growers and visited a number of passionfruit farms in the area.

Tobias Kretschmar and Peter Bundock had a couple of Skype meetings with Dr John O’Campo a passionfruit breeder from Columbia. There were some ideas about the potential to collaborate but to date we have not been able to progress this. There are restrictions on providing germplasm to overseas organisations as Columbia has strict guidelines on sharing germplasm.

Partial inbred lines produced from scion varieties

Inbred line breeding and selection included:

Eighty-eight selfed Misty Gem seedlings grafted and sent to Tolga, Nth Qld in 2018. Three selections made by grower, cloned and located in multiple copies at Alstonville in 2019. One of these has produced selfed seed (2nd generation of inbreeding).

Vines and seed from 1st generation of inbreeding from the variety Lacey, from four first generation inbreds. Three second generation inbreds have been selected from Burringbar in 2019 and cloned and transferred to Alstonville.

Seed from six inbred Tom’s Special (2nd generation of inbreeding).

First generation inbred seed from another 9 varieties: Misty Gem, P12-16-37, Tom’s Special, SP-16-22D, SP-16-36D, SP-16-59, SP-16-90, SP-16-72 & Sweetheart.

Rootstock and Panama trials

Milestone report MS107 reported on these trials, which it was decided could not be assessed further during the one-year extension. Table 2 below summarises the extent of the trial.

Table 2: Rootstock trial design and number of vines

Grower	Scion variety	No. rootstock inbred lines	No. F1 hybrid rootstocks used	Total no. different types of rootstock	No. scions grafted to rootstocks
Bundaberg	Misty Gem	5	4	9	698
Clothiers Ck. (1)	Tango	5	2	7	97
Round Mtn.	Tango	5	2	7	99
Round Mtn.	Sweetheart	5	2	7	98
Clothiers Ck. (2)	Flamenco	5	2	7	96

Due to problems with inaccessibility and interpretation of plantings, only two trials provided useful data. These were the Bundaberg trial, which was large enough to produce useful results and the Clothiers Ck. 2 trial site. Since the MS107 report, fruit yield counts have been performed at both sites, with the results from the Bundaberg site reported in the Passion Vine Autumn 2020. Open pollinated seed from the variety Lakelands, performed significantly better at this site during this dry period, compared to the standard Pandora variety. McGuffies Red also performed well. Misty Gem vines grafted to Lakelands were producing 1

Forty-eight vines that had either been used in the crossing program during 2020, or were new to the arboretum were DNA fingerprinted.

Outcomes

<Insert content – approximately 1000 words. Detail the end-of-project outcomes. Use monitoring data collected to provide evidence of outcomes as per the project’s M&E Plan. For more advice, refer to Attachment A3: Final Report guide>

The M&E plan for end of project outcomes have all been met or exceeded

These were:

Stage 2 trials evaluated, and selections made for stage three trials (to be evaluated outside of this project).

In fact, a large stage three trial was carried out within the original period of the project, (see milestone report MS107) exceeding this outcome.

DNA markers located that are likely to be useful for selection of traits of importance.

DNA markers for two traits of importance were discovered and validated in a second population and then used to screen 288 progeny of the TxL cross. That these are not going to be continued to be used is a reflection of the cross chosen for study rather than the markers.

Some inbreeding carried out to produce new inbred lines.

This has been achieved with a number of selected lines being taken on to the second generation. Three varieties have been inbred and produced progeny which has been selected. These are: Tom’s Special, Lacey and Misty Gem. An attempt with Sweetheart failed as ungrafted seedlings were grown which succumbed to Fusarium infection.

Seedbank available for transfer,

The seed bank will be ready for transfer, when the outcome of the RFP for pF1900, the continuation project is known.

Arboretum maintained

In fact a new arboretum has been established at Alstonville DPI and is now fully populated with 329 vines

A linkage map produced

A linkage map for the Tom’s Special parent has been produced and an initial map was reported in MS104. A more condensed map has since been produced and used for QTL detection. A publication is in preparation to describe these results.

DNA fingerprints of important varieties obtained.

Three main DNA fingerprinting exercises have been undertaken. The first was before PF15000 and established the methods – the SSR markers to be used and fingerprinted around 20 vines. The second was in 2017 and was carried out on 96 vines at the Durambah Arboretum. The latest results were carried out on 48 vines located at the Alstonville arboretum. These were all vines that were either used in the crossing program in 2020 or vines that originated from seed stock from overseas. The results are reported on in the attached Appendix 4.

Information recorded in a database.

A database system known as CropStoire was initially used to store all of the pedigree information and also some trial information. However, this system was judged as too cumbersome and was abandoned. All data is currently recorded in Excel spreadsheets.

Monitoring and evaluation

It needs to be noted here that the project changed firstly due to the extra subproject on rootstock and Panama trials in 2017, and then at the beginning of 2019 due to the review, and also the extra one year extension with altered priorities.

The milestones for reporting after the 2019 variation are as follows:

Final reports delivered on trial data and information (in line with original proposal and recommendations 4.4 and 4.6), seed bank and DNA marker information.

Some of this information is embedded in this report in summary form, mainly in the Outputs section. It should be noted that 1st stage trial vines have only partly been assessed as it is too early in the season for complete assessments. Phenotypic information collected for 1st stage trial vines to date is included in an Excel spreadsheet (Appendix 1). The spreadsheet includes growth measurements recorded in December, growth score recorded in May and flowering and fruit disease scores from May. Initial assessments for progression to 2nd stage were made at Alstonville in early June (Appendix 2). This is basically an elimination system.

Report on final DNA fingerprinting of progeny and other material

A brief summary of the findings from the DNA fingerprinting carried out on 48 vines which were included in the 2020 crossing program or are new to the arboretum in 2020. Two Lilikoi vines from 2019 were added in as they also have not been fingerprinted before. A brief summary of the fingerprinting is found in Appendix 3.

Final report on performance of F1 hybrids and report on generation of inbred lines (Contribution from MSc project if this goes ahead). Report on rapid generation generation techniques, and generation of inbred lines in line with recommendation 4.2 and 4.3 (subject to MSc project).

The MSc student, Madeline Ianna, started in March this year and her main tasks have been: to commence a literature review on her thesis topic, carry out some self-pollinations at Alstonville arboretum and also to start some tissue culture work on shortcut seed germination (embryo rescue) in passionfruit.

Until recently we did not know of the existence of any highly inbred scion (or *P. edulis f. edulis*) lines at the Alstonville arboretum to use in crosses to create an F1. So, we were not able to create any F1s, either with each other or with a Panama type. We now have confirmed one new line from NZ seed is inbred based on DNA fingerprinting only recently obtained. We know of the existence of two different sources of inbred *P. edulis*, which share the same fingerprint which we will endeavor to obtain for the Arboretum should the project continue. It should also be noted that due to the Covid-19 situation, the MSc student has not been able to visit DPI sites as freely as anticipated as work there was for a time limited to essential maintenance.

A report written up for the Passion Vine by Maddy is included here as Appendix 4.

Seed submitted to seed bank for F1 and partial inbred lines (Contribution from MSc project if this goes ahead).

As mentioned above there are no highly inbred scion lines as yet at Alstonville and due to this fact and that the MSc was only started in March there are no F1s that can be produced. To date, some 2nd generation inbred crossing has been performed on Misty Gem inbreds at Alstonville. However, the fruits are still on the vine at present or are the seed is being processed (cleaned, dried, bagged and labelled)

Final seed lots submitted to seedbank and records created in seedbank records.

The final seed lots are being entered into the seedbank spreadsheet and will be complete before the beginning of any subsequent project. Currently there are 513 accessions in the seedbank, with a few to add from the MSc inbred self-pollinations. These few will need to remain with SCU in the advent of the program moving elsewhere as they are required for the MSc project. Appendix 6 is an Excel spreadsheet which contains all of the seed bank

records up to June 2020.

Seedbank ready for any possible transfer.

Seed bank will be ready to go by the time decisions about subsequent programs have been decided upon. However, some seed will need to be utilized for the germination of seedlings for the 2020/2021 1st stage trialling season.

Attend and engage with Project Reference Group

Peter Bundock attempted to organize a Steering Committee meeting in October 2019 around the time of the PAI AGM. Unfortunately, only one member of the Steering Committee planned on attending the AGM and the NSW representative had decided to retire from PAI executive and from administrative duties such as the Steering Committee. Peter met with the one member who attended the AGM and discussed plans for the remainder of the project. He sent out the latest milestone report, MS107, to the Steering Committee members for discussion. Since there was not a great deal of time left in the project, and there were no issues raised on either side, it was decided that the project could go to completion with the directions already set in place by the review earlier in the year.

Finalisation of exploitation plan.

An exploitation plan was started for the 3rd stage trial vines planted in 2018. However, based on the assessment of these vines as reported in MS107, there are no vines of commercial significance amongst these extensively trialled vines. Therefore, an exploitation plan was not necessary.

Final report on Alstonville arboretum.

A final report on the Alstonville arboretum is appended as Appendix 5.

Recommendations

- (1) To set up a process to find new selections of scions, in any continuing project, continue trials of progeny from crosses between highly heterozygous (non true-breeding) parental selections. However, implement a system of estimating breeding values to assess and rank the parents. With this method, a small number of new parents would be added in for ranking based on progeny from crosses carried out each year. The best parents are kept but the lowest ranking ones are removed from contention. The trialling is continued in this fashion with a large number of crosses each with a small number of progeny each measured for key traits to enable the estimation of breeding values. Planting out a large number of progeny from a cross would usually only be warranted where that cross is predicted to have high performance (based on parent breeding values) and where there is spare capacity for 1st stage trialling.
- (2) The passionfruit industry does not, at this time, have the R & D funds to fund DNA marker work, other than some limited DNA fingerprinting. Continuing with DNA fingerprinting of any accession used in crossing can provide useful information such as evidence of inbreeding, new alleles brought in from overseas material, misidentifications at seed or grafting stages, or from curation. And any unexpected variation present within clones of a variety.
- (3) Continuation of the inbreeding program should have minimum focus on those current inbred lines which have used Tom's Special and Lacey as parents. This is because these are old clones that do not have their original phenotypes and it is uncertain what has caused their decline and if it is transmitted by seed. There may be more than one reason behind decline and some effects may be transmitted to offspring through seed. The poor condition of the seedling vines from selfing could be due to inbreeding depression or they could be due to unknown genetic, epigenetic or viral problems in the parent varieties. It is recommended that grafted Misty Gem, Sweetheart or more recent healthy selections are used for most of the future inbreeding so that varietal decline problems can be avoided and not confused with inbreeding depression. The poor performance of the TxL population suggests the poor vigour is somewhat heritable.
- (4) Since finances are likely to be restraining, it would be useful if future breeding projects could be nimble and change direction readily if the researchers find that the direction is not producing results likely to provide the desired outcomes. This could be done in consultation with the steering committee of industry representatives and of course HIA and would likely involve rewriting the milestones to suit the new direction. This process needs to be made as simple as possible to enable change of direction.

Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report

Acknowledgements

Many individuals have contributed time and resources to PF15000 and it would be remiss not to mention at least some of them here. The contributions themselves would take too long to list.

Passionfruit Industry

John & Vicki McLeod
Peter & Sally Griffith
Shane Adams
Leo Burgoyne
Nick Hornery
Jim Gordon
David Peasley
Keith Paxton
Megan Crowhurst
Ross Brindley
Ian and David Constable
Sue & Peter Granger
Tim Johnson
Joel Dunne
Moo Price & Price family
Chris & Lani Newman

PAI

Jane Richter
Tina McPherson
Margie Milgate
Amanda Roy

HIA

Vino Rajandran
Anthony Kachenko
Kathryn Young

SCPS Staff

Graham King
Tobias Kretzschmar
Mike Cross
Gary Ablett
Priya Bhorpatra-Gohain
Frances Elliott
Will Petrie
Alicia Hidden

Other SCU staff

Research Services SCU

International

Alon Samach – Israel
Staff at Egretta nurseries in Taiwan

Appendices

<Insert content –list all documents to be appended and attach them to the Final Report. Please note that all appendices are published with the Final Report. If an appendix includes information that should not be published, such as commercially or institutionally-sensitive material such as sensitive meeting minutes, provide it to Hort Innovation separately>

Result of DNA fingerprinting analysis – Principal Components analysis of fingerprints.

Row	From top of row	Short Code for each vine	Days from planting	Distance from top wire (cm)	May Growth score (0to9)	Comments - distance from wire	2020 Seedling family
1	1	AD-12	#####	61	50	8	AD
1	2	AD-15	#####	61	90	5	AD
1	3	AD-2	#####	61	100	2	AD
1	4	AD-14	#####	61	100	6	AD
1	5	AD-13	#####	61	60	5	AD
1	6	AD-4	#####	54	50	3	AD
1	7	SH	#####	81	50	6	
1	8	SH	#####	81	60	3	
1	9	AD-3	#####	54	40	2	AD
1	10	AD-10	#####	61	45	2	AD
1	11	AD-1	#####	61	60	3	AD
1	12	AD-9	#####	61	0	2	broken tipAD
1	13	AD-6	#####	61	0	2	broken tipAD
1	14	AD-7	#####	61	80	3	AD
2	1	AA-1	#####	54	60	3	AA
2	2	AA-3	#####	54	35	5	AA
2	3	AA-6	#####	54	80	7	AA
2	4	AA-4	#####	46	40	4	AA
2	5	AA-9	#####	46	25	7	AA
2	6	AA-2	#####	46	85	4	AA
2	7	AR-1	#####	61	65	4	AR
2	8	AR-5	#####	25	-25	2	AR
2	9	AR-2	#####	25	-60	6	AR
2	10	AR-3	#####	25	-55	3	AR
2	11	AB-2	#####	25	-55	6	AB
2	12	AY-1	#####	46	25	2	AY
2	13	AC-3	#####	46	-5	4	AC
2	14	AC-2	#####	54	35	4	AC
3	1	AG-12	#####	61	80	7	AG
3	2	AG-7	#####	61	60	3	AG
3	3	AG-6	#####	61	50	5	AG
3	4	AG-1	#####	61	100	8	AG
3	5	AG-14	#####	54	90	7	AG
3	6	AG-16	#####	54	70	3	AG
3	7	AR-6	#####	25	-65	6	AR
3	8	AR-4	#####	25	-105	1	AR
3	9	AJ-2	#####	54	95	8	AJ

3	10 AJ-3	#####	54	85	4	AJ
3	11 AJ-4	#####	54	55	8	AJ
3	12 AJ-1	#####	54	30	4	broken tipAJ
3	13 AI-2	#####	54	-40	6	AI
3	14 AI-9	#####	61	25	8	AI
4	1 No. 27	#####	.		6	
4	3 No. 25	#####	46	-90		
4	4 MGB	#####	25	-15	3	
4	5 MGB	#####	25	10	8	
4	6 MGB	#####	25	70	8	
4	7 SH	#####	81	120	7	
4	8 SH	#####	81	120	7	
4	9 Flamenco	#####	75	85	2	
4	10 Flamenco	#####	75	.	2	broken tip
4	11 MG (Smitl	#####	75	25	4	broken tip
4	12 MG (Smitl	#####	75	80	4	
4	13 TL18-A68	#####	75	80	5	
4	14 TL18-A68	#####	75	25	3	
4	16 TL18-B5	#####	75	85	4	
4	17 TL18-A68	#####	75	25	5	
4	18 MGC	#####	25	-45	6	
4	19 MGC	#####	25	-65	6	
5	4 No. 12	#####	25	-40	4	
5	7 Z3	#####	25	.		not measured
6	1 Z1	#####	25	5	8	
6	2 Z2	#####	25	75	7	
6	3 Z3	#####	25	120	8	
6	6 Z1	#####	25	10	6	
6	7 Z2	#####	25	90	6	
6	10 SH	#####	74	80	3	
6	13 Z1	#####	25	50	5	
6	17 Z3	#####	25	20	4	
7	4 Z4	#####	25	.	7	not measured
7	5 Z5	#####	25	.	6	not measured
7	13 Z4	#####	25	60	5	
7	15 Z5	#####	25	45	6	
7	19 Z2	#####	25	35	8	
8	1 36D (M3)	#####	.			not measured
8	2 36D (M3)	#####	.			not measured
8	3 MG (Smitl	#####	.		4	not measured
8	6 SP-90 (M3	#####	.			not measured
8	7 SP-90 (M3	#####	.			not measured
9	3 MG (Smitl	#####	.			not measured
9	10 Z3	#####	25	55	6	

9	11 Z1	#####	25	0	8	
9	12 Z5	#####	25	15	6	
9	16 MGA	#####	25	-40	7	
9	17 MGA	#####	25	-35	7	
9	18 MGA	#####	25	-50	7	
9	19 MGC	#####	25	-45	8	
10	1 McL P	#####	54	0		
10	3 McL P	#####	54	-55		
10	5 295 (1)	#####	75	-40		
10	6 SH	#####	81	90	8	
10	7 SH	#####	81	90	8	
10	8 295 (4)	#####	75	-30	4	
10	12 Z4	#####	25	0	8	
10	13 295 (12)	#####	75	15	3	
10	14 295 (12)	#####	75	80	3	
10	15 295 (12)	#####	75	55	3	
10	16 Toms Spec	#####	81	105	8	
10	17 Toms Spec	#####	81	120	8	
10	18 MG (Smith)	#####	75	60	7	
10	19 MG (Smith)	#####	75	45	7	
11	1 AI-4	#####	61	10	7	AI
11	2 AI-5	#####	54	25	7	AI
11	3 AI-3	#####	54	90	8	AI
11	4 AI-1	#####	54	35	7	AI
11	5 AI-10	#####	54	0	7	AI
11	6 AI-6	#####	46	-15	7	AI
11	7 AV-2	#####	61	120	7	AV
11	8 AV-3	#####	54	15	7	AV
11	9 AO-10	#####	54	60	4	AO
11	10 AO-15	#####	61	125	6	AO
11	11 AO-20	#####	61	30	7	AO
11	12 AO-18	#####	61	60	3	AO
11	13 AO-13	#####	61	70	8	AO
11	14 AO-9	#####	61	120	7	AO
12	1 AH-12	#####	61	130	8	AH
12	2 AH-8	#####	61	45	4	AH
12	3 AH-17	#####	54	95	8	AH
12	4 AH-18	#####	46	90	6	AH
12	5 AH-14	#####	46	80	7	AH
12	6 AH-16	#####	46	110	5	AH
12	7 AV-1	#####	46	15	6	AV
12	8 AV-4	#####	25	-90	6	AV
12	9 AA-14	#####	25	-50	7	AA
12	10 AA-11	#####	25	-105	2	AA

12	11 AA-12	#####	25	-25	7	AA
12	12 AA-7	#####	46	60	6	broken tipAA
12	13 AA-8	#####	46	60	9	AA
12	14 AA-5	#####	46	5	8	broken tipAA
13	1 AN-19	#####	61	125	7	AN
13	2 AN-13	#####	61	85	8	AN
13	3 AN-7	#####	61	85	8	AN
13	4 AN-20	#####	54	60	7	AN
13	5 AN-6	#####	54	50	6	AN
13	6 AN-17	#####	54	45	7	AN
13	7 AV-8	#####	25	-40	3	AV
13	8 AV-7	#####	25	-55	1	AV
13	9 AL-6	#####	54	90	7	AL
13	10 AL-12	#####	54	55	9	AL
13	11 AL-13	#####	54	75	5	AL
13	12 AL-14	#####	54	95	9	AL
13	13 AL-7	#####	54	105	6	AL
13	14 AL-8	#####	61	75	7	AL
14	1 AX-6	#####	25	-110	2	AX
14	2 AX-5	#####	25	-30	7	AX
14	3 AX-2	#####	25	-30	2	AX
14	4 AU-6	#####	54	100	6	AU
14	5 AU-5	#####	54	60	0	broken tipAU
14	6 AU-3	#####	61	85	5	AU
14	7 AU-1	#####	61	115	3	AU
14	8 AU-2	#####	61	150	4	AU
14	9 AH-19	#####	46	55	7	AH
14	10 AH-13	#####	46	30	7	broken tipAH
14	11 AH-15	#####	54	90	7	AH
14	12 AH-2	#####	54	55	8	AH
14	13 AH-9	#####	61	115	6	AH
14	14 AH-7	#####	61	85	8	AH
15	1 AK-6	#####	61	170	8	AK
15	2 AK-7	#####	61	100	8	AK
15	3 AK-3	#####	54	90	7	AK
15	4 AK-2	#####	54	50	6	broken tipAK
15	5 AK-9	#####	54	140	8	AK
15	6 AK-12	#####	46	110	8	AK
15	7 Griffs MG	#####	71	-5	6	
15	8 Griffs MG	#####	71	-40	6	
15	9 Griffs MG	#####	71	-25	6	
15	10 AM-3	#####	46	-25	7	AM
15	11 AM-8	#####	54	45	8	broken tipAM
15	12 AM-2	#####	54	55	8	AM

15	13 AM-10	#####	54	60	7	AM
15	14 AM-14	#####	54	85	7	AM
16	1 AM-9	#####	61	45	7	AM
16	2 AM-4	#####	54	65	7	AM
16	3 AM-5	#####	54	-60	2	AM
16	4 AM-7	#####	54	90	8	AM
16	5 AM-13	#####	54	95	5	AM
16	6 AM-1	#####	46	90	8	AM
16	7 SH (AG)	#####	74	130	7	
16	8 SH (AG)	#####	74	55	6	
16	9 AN-11	#####	54	90	6	AN
16	10 AN-18	#####	54	100	8	AN
16	11 AN-8	#####	54	105	4	AN
16	12 AN-10	#####	54	0	7	broken tip AN
16	13 AN-1	#####	61	160	8	AN
16	14 AN-14	#####	61	90	6	AN
17	1 AF-1	#####	61	45	8	AF
17	2 AE-6	#####	61	85	9	AE
17	3 AF-5	#####	61	60	7	AF
17	4 AE-2	#####	54	10	7	AE
17	5 AE-7	#####	54	90	7	AE
17	6 AE-5	#####	54	55	8	AE
17	7 AT-2	#####	25	-90	2	AT
17	8 AT-1	#####	25	-75	4	AT
17	9 AT-3	#####	25	-80	6	AT
17	10 AW-10	#####	25	-10	3	AW
17	11 AW-4	#####	25	-10	6	AW
17	12 AW-6	#####	25	-30	7	AW
17	13 AW-7	#####	25	-10	7	AW
17	14 AW-3	#####	46	60	7	AW
18	1 AY-2	#####	61	180	8	AY
18	2 AY-3	#####	25	-150	0	AY
18	3 AC-1	#####	46	105	7	AC
18	4 AB-1	dead			8	AB
18	5 AP-2	#####	61	115	9	AP
18	6 AP-1	#####	54	75	7	AP
18	7 AP-7	#####	25	-50	4	AP
18	8 AP-14	#####	25	-45	6	AP
18	9 AP-15	#####	25	-55	3	AP
18	10 AP-3	#####	25	-60	6	AP
18	11 AP-11	#####	25	-60	3	AP
18	12 AX-3	#####	25	-60	6	AX
18	13 AX-4	#####	25	-50	5	AX
18	14 AX-1	#####	25	-60	7	AX

19	1 AL-3	#####	61	60	7	AL
19	2 AL-11	#####	61	25	7 broken tip	AL
19	3 AL-17	#####	54	100	8	AL
19	4 AL-18	#####	54	65	7 broken tip	AL
19	5 AL-4	#####	54	60	9	AL
19	6 AL-2	#####	54	105	5	AL
19	7 Regal	#####	71	-20	7	
19	8 Regal	#####	71	-15	7	
19	9 AF-3	#####	54	85	8	AF
19	10 AF-6	#####	54	150	9	AF
19	11 AE-1	#####	54	105	7	AE
19	12 AE-3	#####	54	170	4	AE
19	13 AF-2	#####	61	10	7	AF
19	14 AE-4	#####	61	95	9	AE
20	1 AO-4	#####	61	75	7	AO
20	2 AO-14	#####	61	150	9	AO
20	3 AO-7	#####	61	60	6 broken tip	AO
20	4 AO-8	#####	61	130	8	AO
20	5 AO-16	#####	61	130	3	AO
20	6 AO-21	#####	54	150	4	AO
20	7 Regal Gerr	#####	71	50	7	
20	8 Regal Gerr	#####	71	0	6	
20	9 AK-4	#####	46	65	6 broken tip	AK
20	10 AK-1	#####	54	90	7	AK
20	11 AK-5	#####	54	105	6	AK
20	12 AK-8	#####	54	95	8	AK
20	13 AK-10	#####	54	150	8	AK
20	14 AK-11	#####	61	60	6	AK
21	1 AW-1	#####	46	10	5	AW
21	2 AW-2	#####	46	10	6	AW
21	3 AW-5	#####	25	-40	6	AW
21	4 AW-12	#####	25	-50	6	AW
21	5 AW-9	#####	25	-50	4	AW
21	6 AW-11	#####	25	-65	3	AW
21	7 SH	#####	74	115	7	
21	8 SH	#####	74	160	6	
21	9 AG-17	#####	54	50	7	AG
21	10 AG-8	#####	54	150	3	AG
21	11 AG-4	#####	61	130	6	AG
21	12 AG-2	#####	61	0	7	AG
21	13 AG-3	#####	61	100	4	AG
21	14 AG-13	#####	61	140	5	AG

Short Code for each measured vine	Cross group code	Days from planting	Approximate	May No. flowers West	Flowering score (0to9)	May No. Flowers East	May Growth score (0to9)	Disease free fruit (0to9)
			total growth (using - 150 as start)					
AD-12	AD	61	200	4	9	8	8	6
AD-15	AD	61	240	0	0	0	5	7
AD-2	AD	61	250	0	0	0	2	3
AD-14	AD	61	250	1	0	1	6	8
AD-13	AD	61	210	2	5	3	5	6
AD-4	AD	54	200	2	4	2	3	4
SH		81	200	2	6	3	6	8
SH		81	210	0	0	1	3	6
AD-3	AD	54	190	0	0	0	2	3
AD-10	AD	61	195	0	1	1	2	2
AD-1	AD	61	210	0	0	0	3	4
AD-9	AD	61		0	0	0	2	5
AD-6	AD	61		0	0	0	2	3
AD-7	AD	61	230	0	1	0	3	6
AA-1	AA	54	210	0	0	0	3	6
AA-3	AA	54	185	0	0	0	5	8
AA-6	AA	54	230	10	9	5	7	8
AA-4	AA	46	190	0	0	0	4	8
AA-9	AA	46	175	0	2	3	7	9
AA-2	AA	46	235	0	0	1	4	5
AR-1	AR	61	215	0	0	0	4	4
AR-5	AR	25	125	0	1	0	2	5
AR-2	AR	25	90	2	5	1	6	7
AR-3	AR	25	95	0	1	1	3	5
AB-2	AB-AC-AY	25	95	0	1	0	6	6
AY-1	AB-AC-AY	46	175	0	0	0	2	2
AC-3	AB-AC-AY	46	145	1	0	0	4	4
AC-2	AB-AC-AY	54	185	10	9	13	4	8
AG-12	AG	61	230	0	0	0	7	5
AG-7	AG	61	210	1	0	0	3	6
AG-6	AG	61	200	0	0	0	5	6
AG-1	AG	61	250	0	0	0	8	
AG-14	AG	54	240	1	7	5	7	8
AG-16	AG	54	220	0	0	0	3	6
AR-6	AR	25	85	0	0	1	6	6
AR-4	AR	25	45	0	0	0	1	
AJ-2	AI-AJ	54	245	8	9	6	8	6

AJ-3	AI-AJ	54	235	0	1	0	4	4
AJ-4	AI-AJ	54	205	2	3	2	8	7
AJ-1	AI-AJ	54		0	0	0	4	5
AI-2	AI-AJ	54	110	0	0	0	6	7
AI-9	AI-AJ	61	175	7	9	6	8	7
				0	2	0	6	9
No. 25		46	60					
MGB		25	135	0	4	0	3	
MGB		25	160	3	9	5	8	7
MGB		25	220	6	8	1	8	9
SH		81	270	3	3	0	7	8
SH		81	270	4	8	7	7	7
Flamenco		75	235	0	0	0	2	6
Flamenco		75		0	0	0	2	7
MG (Smith)		75		0	0	0	4	8
MG (Smith)		75	230	0	0	0	4	8
TL18-A68		75	230	0	1	0	5	4
TL18-A68		75	175	0	2	0	3	
TL18-B5		75	235	1	0	0	4	7
TL18-A68		75	175	0	3	1	5	2
MGC		25	105	1	2	1	6	7
MGC		25	85	1	3	1	6	7
No. 12		25	110	2	4	1	4	9
Z3		25		0	0	0		
Z1		25	155	0	0	0	8	8
Z2		25	225	0	0	0	7	7
Z3		25	270	0	0	0	8	6
Z1		25	160	0	0	0	6	7
Z2		25	240	0	0	0	6	5
SH		74	230	0	0	0	3	6
Z1		25	200	0	0	0	5	7
Z3		25	170	0	0	0	4	5
Z4		25		0	0	0	7	6
Z5		25		0	0	0	6	6
Z4		25	210	0	0	0	5	8
Z5		25	195	0	0	0	6	8
Z2		25	185	0	0	0	8	8
				0	0	0		
				3	1	0	4	8
				0	0	0		
				0	0	0		
				2	1	2		
Z3		25	205	0	0	0	6	5

Z1		25	150	0	0	0	8	8
Z5		25	165	0	0	0	6	6
MGA		25	110	0	2	0	7	9
MGA		25	115	0	4	0	7	9
MGA		25	100	1	3	1	7	9
MGC		25	105	0	3	1	8	8
McL P		54	150	4	5	8		
McL P		54	95	1	1	1		
69x69=295 (1)		75	110	0	0	0		
SH		81	240	13	7	8	8	8
SH		81	240	9	9	4	8	8
69x69=295 (4)		75	120	0	0	0	4	7
Z4		25	150	0	0	0	8	6
69x69=295 (12)		75	165	0	0	0	3	5
69x69=295 (12)		75	230	0	0	0	3	6
69x69=295 (12)		75	205	0	0	0	3	6
Toms Special		81	255	1	2	3	8	8
Toms Special		81	270	0	0	1	8	7
MG (Smith)		75	210	0	0	0	7	9
MG (Smith)		75	195	1	0	0	7	8
AI-4	AI-AJ	61	160	2	2	2	7	4
AI-5	AI-AJ	54	175	0	0	1	7	8
AI-3	AI-AJ	54	240	0	0	0	8	8
AI-1	AI-AJ	54	185	2	3	2	7	
AI-10	AI-AJ	54	150	0	0	0	7	
AI-6	AI-AJ	46	135	0	1	3	7	8
AV-2	AV	61	270	16 9+		12	7	5
AV-3	AV	54	165	1	4	0	7	3
AO-10	AO	54	210	0	0	0	4	6
AO-15	AO	61	275	7	5	5	6	8
AO-20	AO	61	180	0	0	0	7	8
AO-18	AO	61	210	0	0	0	3	6
AO-13	AO	61	220	0	0	0	8	6
AO-9	AO	61	270	0	0	0	7	6
AH-12	AH	61	280	0	0	0	8	8
AH-8	AH	61	195	0	0	0	4	7
AH-17	AH	54	245	0	0	0	8	
AH-18	AH	46	240	0	1	1	6	8
AH-14	AH	46	230	0	0	0	7	5
AH-16	AH	46	260	0	0	0	5	8
AV-1	AV	46	165	0	0	0	6	4
AV-4	AV	25	60	0	0	0	6	8
AA-14	AA	25	100	1	1	0	7	9
AA-11	AA	25	45	0	0	0	2	

AA-12	AA	25	125	0	0	0	7	7
AA-7	AA	46		0	1	0	6	8
AA-8	AA	46	210	0	0	0	9	
AA-5	AA	46		0	0	0	8	6
AN-19	AN	61	275	0	0	0	7	4
AN-13	AN	61	235	0	0	0	8	
AN-7	AN	61	235	0	1	1	8	7
AN-20	AN	54	210	1	2	2	7	6
AN-6	AN	54	200	2	1	0	6	8
AN-17	AN	54	195	0	2	0	7	9
AV-8	AV	25	110	5	9	4	3	
AV-7	AV	25	95	0	0	0	1	
AL-6	AL	54	240	0	0	0	7	8
AL-12	AL	54	205	5	3	1	9	9
AL-13	AL	54	225	0	0	0	5	8
AL-14	AL	54	245	0	0	0	9	
AL-7	AL	54	255	0	0	0	6	8
AL-8	AL	61	225	0	0	0	7	8
AX-6	AX	25	40	0	0	0	2	
AX-5	AX	25	120	0	1	0	7	8
AX-2	AX	25	120	0	0	0	2	
AU-6	AU	54	250	0	0	0	6	8
AU-5	AU	54		0	0	0	0	7
AU-3	AU	61	235	0	0	0	5	6
AU-1	AU	61	265	0	0	0	3	6
AU-2	AU	61	300	0	0	0	4	7
AH-19	AH	46	205	0	0	0	7	7
AH-13	AH	46		1	1	1	7	6
AH-15	AH	54	240	1	1	0	7	7
AH-2	AH	54	205	0	0	0	8	6
AH-9	AH	61	265	0	0	0	6	8
AH-7	AH	61	235	1	2	0	8	9
AK-6	AK	61	320	0	0	0	8	9
AK-7	AK	61	250	1	3	0	8	
AK-3	AK	54	240	11	9	9	7	8
AK-2	AK	54		0	0	0	6	8
AK-9	AK	54	290	12	8	3	8	9
AK-12	AK	46	260	0	0	0	8	7
Griffs MG		71	145	0	0	0	6	9
Griffs MG		71	110	1	1	1	6	9
Griffs MG		71	125	1	1	0	6	9
AM-3	AM	46	125	1	0	0	7	
AM-8	AM	54		0	2	0	8	9
AM-2	AM	54	205	3	8	3	8	9

AM-10	AM	54	210	1	1	2	7	8
AM-14	AM	54	235	0	1	1	7	8
AM-9	AM	61	195	0	0	1	7	6
AM-4	AM	54	215	1	0	0	7	8
AM-5	AM	54	90	0	0	0	2	9
AM-7	AM	54	240	0	0	0	8	7
AM-13	AM	54	245	0	0	1	5	7
AM-1	AM	46	240	0	0	1	8	9
SH (AG)		74	280	2	1	0	7	9
SH (AG)		74	205	1	3	4	6	8
AN-11	AN	54	240	0	0	0	6	6
AN-18	AN	54	250	0	0	0	8	9
AN-8	AN	54	255	2	1	0	4	6
AN-10	AN	54		1	7	0	7	7
AN-1	AN	61	310	4	9	3	8	7
AN-14	AN	61	240	0	0	0	6	8
AF-1	AE-AF	61	195	0	0	0	8	9
AE-6	AE-AF	61	235	0	0	1	9	
AF-5	AE-AF	61	210	0	0	0	7	8
AE-2	AE-AF	54	160	0	0	1	7	9
AE-7	AE-AF	54	240	1	1	1	7	6
AE-5	AE-AF	54	205	2	1	0	8	8
AT-2	AT	25	60	0	0	0	2	
AT-1	AT	25	75	0	0	0	4	
AT-3	AT	25	70	0	1	0	6	
AW-10	AW	25	140	0	2	0	3	8
AW-4	AW	25	140	0	0	0	6	9
AW-6	AW	25	120	0	0	0	7	8
AW-7	AW	25	140	2	2	2	7	8
AW-3	AW	46	210	1	2	1	7	9
AY-2	AB-AC-AY	61	330	0	0	0	8	8
AY-3	AB-AC-AY	25	0				0	
AC-1	AB-AC-AY	46	255	1	1	0	7	7
AB-1				6	9	10	8	
AP-2	AP	61	265	6	8	6	9	6
AP-1	AP	54	225	0	0	0	7	5
AP-7	AP	25	100	2	3	0	4	4
AP-14	AP	25	105	1	2	1	6	6
AP-15	AP	25	95	0	1	0	3	7
AP-3	AP	25	90	0	1	0	6	5
AP-11	AP	25	90	0	0	0	3	
AX-3	AX	25	90	5	9	11	6	
AX-4	AX	25	100	0	2	1	5	7
AX-1	AX	25	90	0	0	1	7	8

AL-3	AL	61	210	0	0	0	7	8
AL-11	AL	61		0	0	0	7	8
AL-17	AL	54	250	0	0	0	8	8
AL-18	AL	54		0	1	0	7	9
AL-4	AL	54	210	4	3	1	9	
AL-2	AL	54	255	0	0	0	5	8
Regal		71	130	1	0	1	7	8
Regal		71	135	0	0	0	7	8
AF-3	AE-AF	54	235	9	9	3	8	
AF-6	AE-AF	54	300	18	9	17	9	9
AE-1	AE-AF	54	255	0	1	0	7	7
AE-3	AE-AF	54	320	0	0	0	4	8
AF-2	AE-AF	61	160	0	0	0	7	7
AE-4	AE-AF	61	245	3	2	0	9	8
AO-4	AO	61	225	0	0	0	7	6
AO-14	AO	61	300	2	2	1	9	8
AO-7	AO	61		0	0	0	6	6
AO-8	AO	61	280	0	0	0	8	8
AO-16	AO	61	280	0	0	0	3	6
AO-21	AO	54	300	1	0	0	4	4
Regal		71	200	2	1	0	7	7
Regal		71	150	0	0	0	6	8
AK-4	AK	46		0	0	0	6	8
AK-1	AK	54	240	22	9	13	7	8
AK-5	AK	54	255	0	0	0	6	7
AK-8	AK	54	245	0	0	0	8	8
AK-10	AK	54	300	2	5	1	8	6
AK-11	AK	61	210	0	0	0	6	6
AW-1	AW	46	160	0	0	0	5	7
AW-2	AW	46	160	0	0	0	6	7
AW-5	AW	25	110	3	2	4	6	8
AW-12	AW	25	100	1	2	0	6	8
AW-9	AW	25	100	0	0	0	4	8
AW-11	AW	25	85	0	0	0	3	8
SH		74	265	1	1	1	7	8
SH		74	310	2	1	0	6	7
AG-17	AG	54	200	0	0	0	7	8
AG-8	AG	54	300	0	0	0	3	6
AG-4	AG	61	280	0	0	0	6	8
AG-2	AG	61	150	0	0	0	7	9
AG-3	AG	61	250	1	1	0	4	6
AG-13	AG	61	290	1	0	0	5	8

Comments

100+flowers&buds

pear shaped

100 flowers/buds, small purple, good taste

nice vine, fruit falling green

large purple fruit, sweet good flavour
120+ flowers..mostly flowers on 22 May 2020

no fruit

no fruit
photo 1, approx 180 flowers/buds

90+ flowers/RFI/buds

2018

broken shoot, no fruit

90+ flowers/buds/old flowers

80+ flowers/buds/old flowers

3 flowers open, + mostly/partly closed

11 flowers open, + some mostly closed

a bit straggly south end

a bit straggly south end, overrun

a bit straggly south end, overrun

straggly, overrun by Lilik

overrun on north side 1(wr)

overrun on north side and sth

overrun on north side and sth, good flavor

labelling?

labelling?

labelling?

labelling?

labelling?

good flavour fruit

good flavour fruit, purple

50+ fruit from flowes and buds if all take

7 old flowers/buds

90+

only 1 fruit

no fruit

1 Tday, 6y day flowers

no fruit

13 old and new flowers

7 flowers + buds

no fruit

2 fruit, ok
taste not great

no fruit

6 open, old

2 fruit, ok
no fruit

no fruit

no fruit
shrivelled fruit
no fruit

8

yellow fruit, taste is good
not much fruit, ok
133 flowers and buds

all fruit is young - green
all fruit is young - green
all fruit is young - green
no fruit

79 buds and flowers

young fruit

new fruit

no fruit

no fruit

no fruit

no fruit

new fruit

new fruit

new fruit

green fruit

dead

good flowering, purple fruit

1 fruit ok, approx 100 flowers and buds

poor fruit

not much fruit / approx 90 flowers and buds

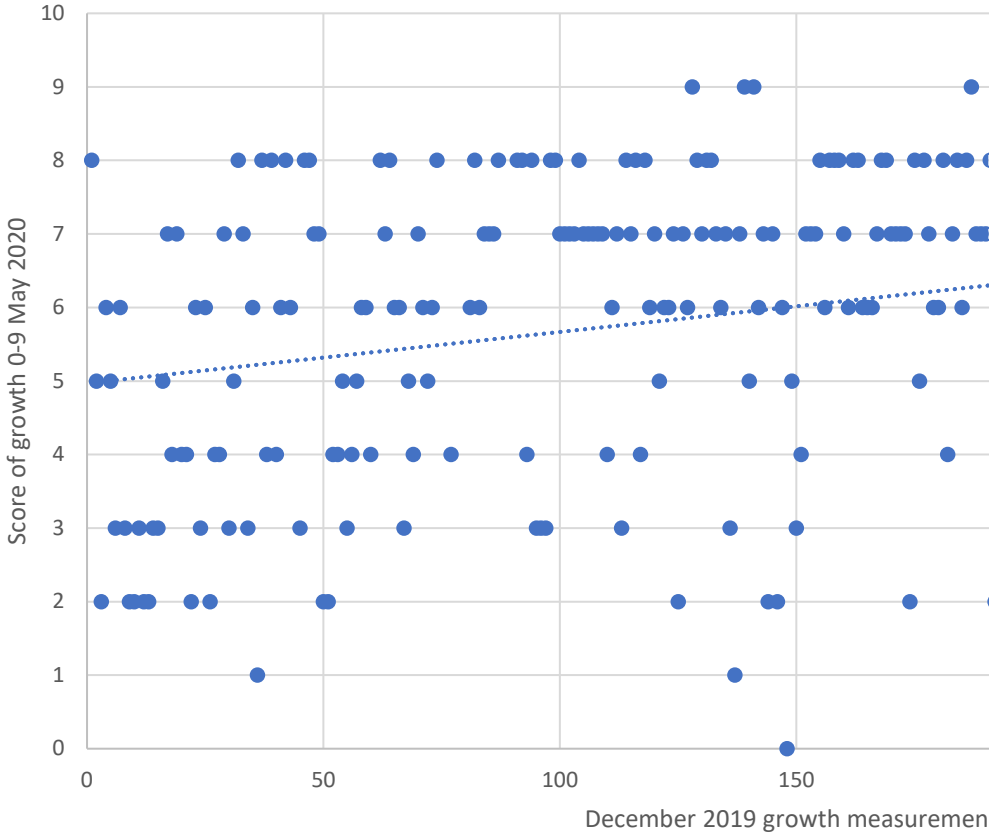
no fruit

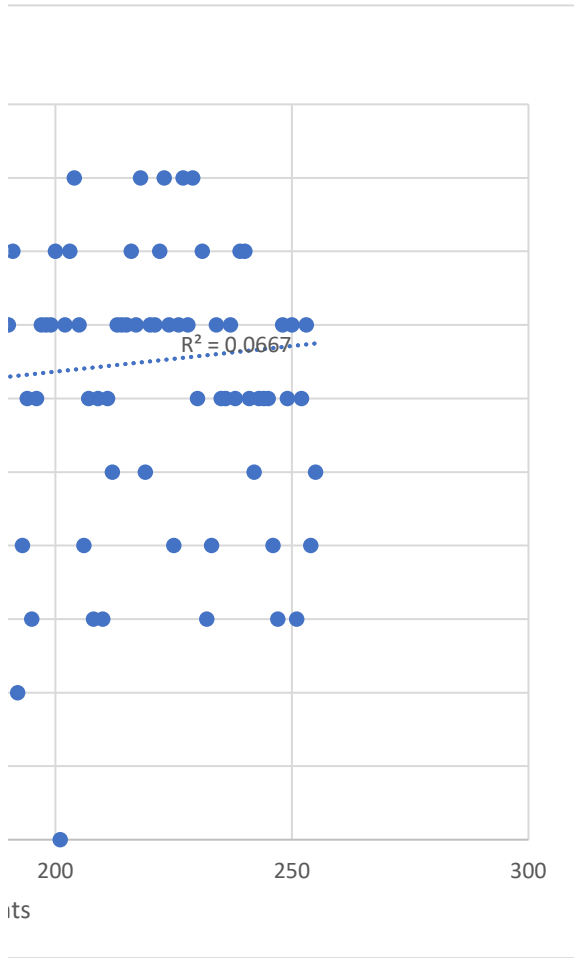
almost no fruit; 100+ flowers and buds
100+ flowers and buds

cracked fruit

green fruit, ok
green fruit, ok; 100+ flowers and buds

May Growth score (0to9)





Row	No. in row	Vine designation	Planting date	1. Vine health	2. Shell Colour	3. Fruit size	4. Pulp fullness	5. Juiciness	6. Flavour	7. Shell thick.	9. Blemish free	Date: 29 May 2020 Location: Alstonville Comments
9	14	T12-16-4 (M1)	N/18									
9	15	SP-16-90 (M2)	N/18									
9	16	MGA	N/19									
9	17	MGA	N/19									
9	18	MGA	N/19									
9	19	MGC	N/19									
10	1	McL Pandora	O/19									NO FRUIT/FLOWERS
10	2	LL99XLL99 (302)	N/18									
10	3	McL Pandora	O/19									
10	4	FRED	N/18									
10	5	69x69=295 (1)	O/19								N	
10	6	SH	O/19									
10	7	SH	O/19									
10	8	69x69=295 (4)	O/19	N								
10	9	LL31XLL31 (296)	N/18									
10	10	LL31XLL31 (296)	N/18									
10	11	LL31XLL31 (296)	N/18									
10	12	Z4	N/19									
10	13	69x69=295 (12)	O/19	N								
10	14	69x69=295 (12)	O/19	N								
10	15	69x69=295 (12)	O/19	N								
10	16	Toms Special	O/19									
10	17	Toms Special	O/19									
10	18	MG (Smith)	O/19									
10	19	MG (Smith)	O/19									
11	1	AI-4 SP-72xMG	O/19									
11	2	AI-5	O/19									
11	3	AI-3	O/19									
11	4	AI-1	O/19									NO FRUIT/FLOWERS
11	5	AI-10	O/19									NO FRUIT/FLOWERS

Appendix 4:

DNA Fingerprinting of breeding vines located at Alstonville arboretum

DNA fingerprinting usually produces some surprises with regard to passionfruit vines and their identities and differences. From figure 1 it can be seen that there are two varieties at the top centre which have identical fingerprints and cannot be discriminated. In fact, these are four Sweetheart vines located in different places which have all been used for crossing, and a vine known as No. 12 which is derived from the PAI crossing program. It would appear likely that this is in fact a Sweetheart graft by mistake.

Some new alleles, not previously seen in our fingerprinting, were found in the two Lilikoi vines tested that had been obtained from overseas seed sources. As appears likely from their very different characteristics, they harbour alleles that are rare or not present in the Australian germplasm. These two vines had the largest average genetic distance from all other vines, indicating they are likely the most different from the others.

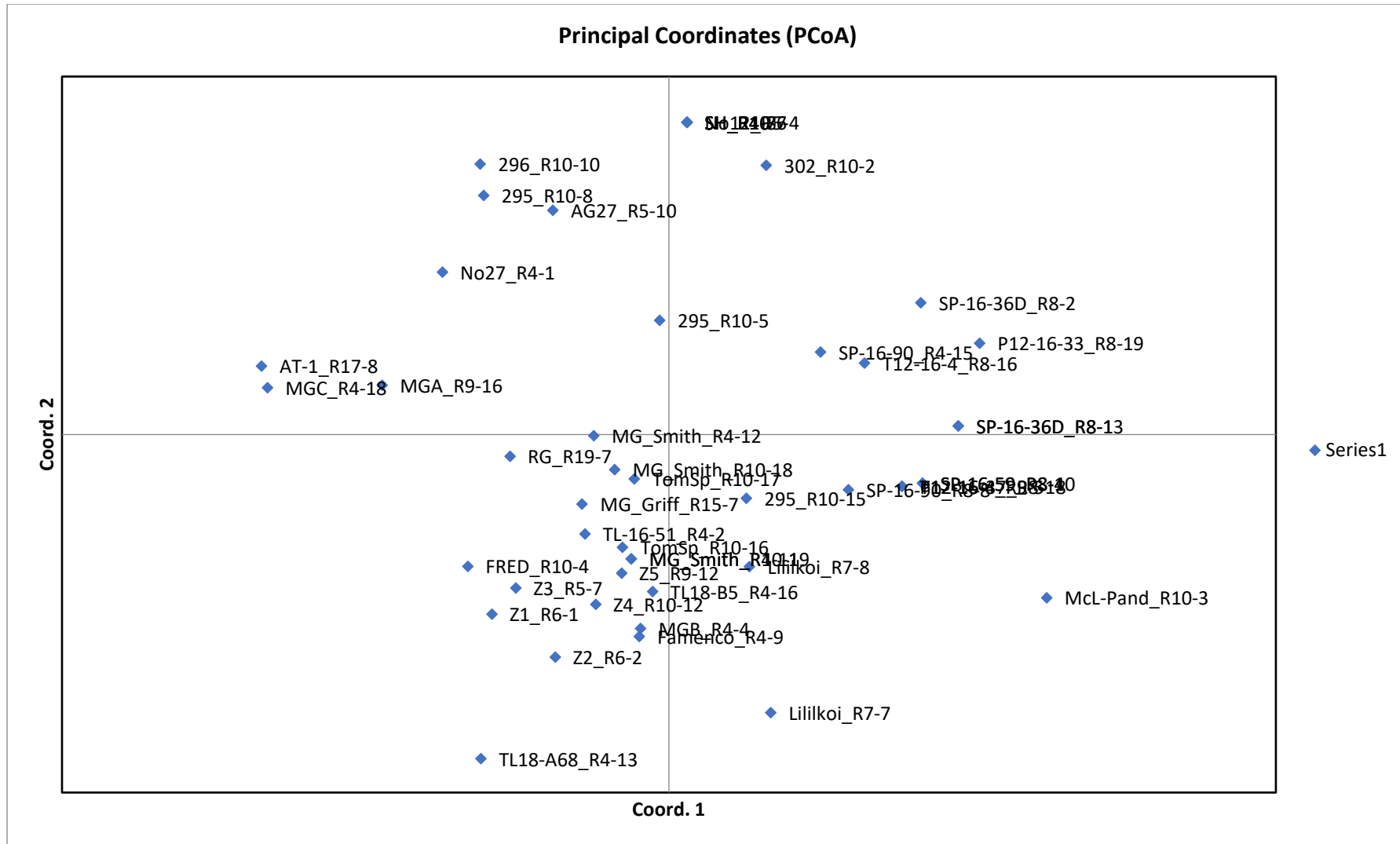


Figure 1: A principal components analysis of the genetic distance results plots the genetic distances obtained from multidimensional space in a way that we can visualise using two summary 'components'.

Update on Rapid Generation Advancement in Passionfruit Project

Madeline Ianna, Southern Cross Plant Science

I am pleased to be writing the first update for my project on 'establishing protocols for rapid generation advancement in passionfruit.' It is a privilege to be working on a project where I can apply my skills to assist the Australian growers. As the granddaughter of a banana farmer and the daughter of a macadamia farmer, I am accustomed to and understand the hard work and dedication required to produce quality product for Australian consumers. I strive to put the same hard work and dedication into this project.

I have enjoyed reading and learning hands-on about passionfruit and developing potential methods for rapid generation advancement. In the first week, I conducted controlled pollination on vines at the Alstonville arboretum and the resulting fruit have been used to conduct an initial trial experiment. In this trial, tissue culture is being tested as a method to germinate immature passionfruit seeds. Using tissue culture, growth conditions including temperature, light, humidity and nutrient levels can be manipulated. I am also concurrently testing seed scarification and treatment with a plant hormone to determine whether these methods may assist in promoting germination in the immature seed.

So far, I have had some success in germinating immature seed through a combined treatment of mechanical scarification and addition of gibberellic acid into the growth media. I have transferred these plantlets to larger growth containers and hope to acclimatize them to normal growth conditions. I hope to optimise this method further and obtain a higher rate of germination in immature seed. This would provide the potential to reduce the time waiting for fruit to mature, as well as overcome seed dormancy.

In the coming months, I will be working on methods to grow vines in soil free media in a polytunnel and/or glasshouse. This may assist in manipulating growth conditions to reduce the time required for vegetative growth and reproductive development. I am looking forward to investigating further methods to reduce generation time in passionfruit and sharing the progress with you here in the passion vine.



Image 1

Sweetheart fruit used in the trial experiment to germinate immature seed. Fruits from Misty Gem and Tom Special were also used.

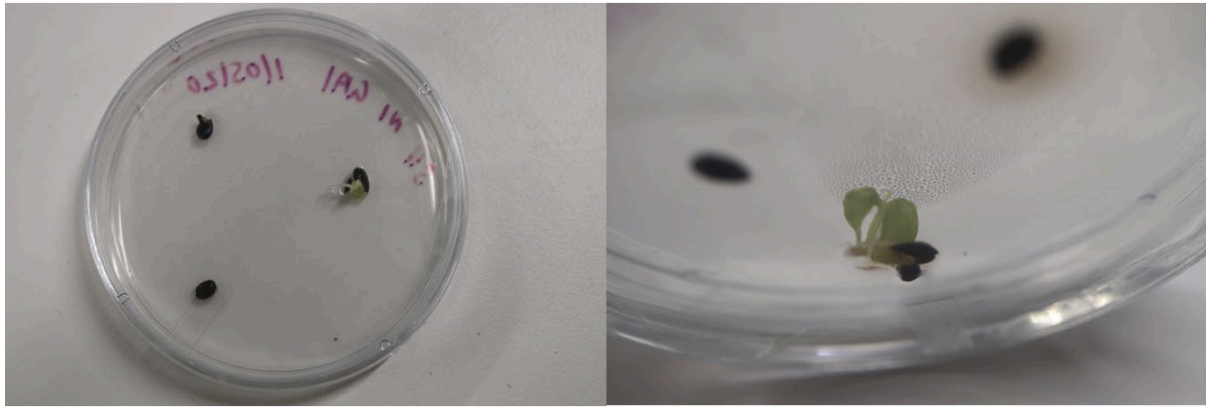


Image 2

Sweetheart seeds that were lightly damaged on a plate with plant growth media containing gibberellic acid. One seed has germinated whilst the other two remain unchanged.



Image 3

Plantlet germinated from immature seed that has been transferred from the plate to a larger container.

Appendix 5

Report on Alstonville Arboretum – June 2020

There are 21 rows each of 75 m, with rows 3 m apart currently at the Alstonville trial/arboretum site. This covers an area of 4500 m² excluding the edge space. There are currently 329 vines in place at Alstonville. There are 14 rows of 14 vines each (196 vines) dedicated to the first stage trials including some reference vines.

Seventy-six vines were planted in the arboretum section of seven rows, in 2018. All the other 253 vines were planted in October and November 2019. The 2019 plantings are composed of 196 vines which form part of the 1st stage trial for 2019/2020 as mentioned above. These being either progeny grown from crosses performed by SCU in 2019 or grown from seedbank seed inherited from QDAFF or are grafted standard vines from three nurseries in NSW and Queensland. There are 26 seed accessions represented in the 1st stage trials from 19 different crosses, represented by 183 vines. In the central band of the 14 rows with first stage trial vines are located 13 different parental types and standards newly planted in 2019.

An additional new 24 vines of standard and parental vines have been planted into the arboretum section (rows 4 – 10 inclusive) in 2019. There are 10 second stage selections represented by 28 vines in this section and there are also 5 newly planted clones of inbred Lacey lines from Burringbar. This totals 253 vines planted in 2019.

Of the seventy-six vines that are remaining from 2018, 25 are Lilikoi from seed obtained from Florida. There are six older varieties or PAI varieties that are represented multiple times, 17 vines. There are four 2nd generation inbred lines from Lacey. Virtually all the rest are multiple copies of the 14 selections from 2016 plantings that were taken to 3rd stage trialling.

The grass in the rows in the trial site/arboretum are beautifully maintained by the acquisition of a ride on mower from a project that has concluded. Weeds are being controlled in the rows by the application of the herbicide Basta. Most vines have collars to protect them from spray drift. There is a fertigation system that is now operating on site. Spraying is carried out using a tow behind Silvan vine boom sprayer. Fungicide applications are carried out regularly. An agronomist has been visiting the site monthly to provide advice on vine maintenance.

In the figure below is a seedling vine from the 1st stage trial which has had some fruit sprayed with paint to try to mark fruit for identification purposes when they fall.



Figure 1: First stage trial vine photographed on 4 May at the Alstonville DPI site.

Accession	original seed collection date	seed processing (cleaning) date	storage date	Original Seed Quantity	units	Seed Remaining	units
PB170001						3 g	
PB170002					7 g	0 seeds	
PB170003						5 g	
PB170004						3 g	
PB170005						3 g	
PB170006						5 g	
PB170007						162 g	
PB170008						24 g	
PB170009						5 g	
PB170010						3 g	
PB170011						9 g	
PB170012						17 g	
PB170013						4 g	
PB170014						3 g	
PB170015						2 g	
PB170016						8 g	
PB170017						10 g	
PB170018						10 g	
PB170019	10/12/2001			5900		50 g	
PB170020	Nov 2004			355		6 g	
PB170021	7/5/2002			750		5 g	
PB170022				200		15 g	
PB170023	May 2001			200		5 g	
PB170024	21-Jun			200		5 g	
PB170025				200		6 g	
PB170026	Jun-03			128		1 g	
PB170027	2001			40		1 g	
PB170028				200		10 g	
PB170029	24/05/2012			175		4 g	
PB170030	23/04/2014			150		3 g	
PB170031	3/11/2002			2000			
PB170032	May 2003			13			
PB170033				200			
PB170034	1/6/2004			360			
PB170035	2001			200			
PB170036	May 2003			6			
PB170037	2002			16			
PB170038				40			
PB170039	23/6/2004			60			
PB170040	April 1985			100			
PB170041	May 2003			3			
PB170042				800			
PB170043	4/7/2000			200			
PB170044	3/10/2003			2			
PB170045	11/5/2002			23			

PB170046	March 2003	40
PB170047	21/06/2006	26
PB170048	21/5/2004	15
PB170049		75
PB170050		2030
PB170051	2002	270
PB170052	2002	10
PB170053	1/4/2004	125
PB170054		1000
PB170055		100
PB170056	2006	57
PB170057	12/4/2002	93
PB170058	11/4/2004	75
PB170059	11/4/2004	40
PB170060	2002	13
PB170061	May 2003	11
PB170062	July 2004	83
PB170063	July 2004	84
PB170064	Jul-04	247
PB170065	7/5/2002	750
PB170066	3/02/2006	48
PB170067		300
PB170068	May 2002	150
PB170069		300
PB170070		92
PB170071	2002	15
PB170072	2005	45
PB170073	23/6/2004	100
PB170074	23/6/2004	150
PB170075	16/8/2004	75
PB170076	24/6/2004	40
PB170077	23/6/2004	50
PB170078	July 2004	50
PB170079		170
PB170080	11/4/2004	250
PB170081		100
PB170082	23/6/2004	5
PB170083	Jul-05	890
PB170084		11000
PB170085		1000
PB170086	10/01/2005	105
PB170087	10/01/2005	65
PB170088	10/01/2005	279
PB170089	10/01/2005	316
PB170090	8/03/2005	297
PB170091	10/01/2005	316
PB170092	1/04/2005	10
PB170093	5/04/2005	10
PB170094	5/04/2005	10

PB170095	12/05/2005	91	
PB170096	12/05/2005	180	
PB170097	12/05/2005	149	
PB170098	12/05/2005	151	
PB170099		251	
PB170100		250	
PB170101		95	
PB170102		289	
PB170103		350	
PB170104	Mar-06	133	33
PB170105	9.8.2006	165	
PB170106	9.8.2006	210	
PB170107	9.8.2006	198	
PB170108	9.8.2006	201	
PB170109	9.8.2006	128	
PB170110	9.8.2006	118	
PB170111	9.8.2006	138	
PB170112	20.4.06	120	20
PB170113	29.4.06	40	
PB170114	24.4.06	219	
PB170115	24.4.06	406	
PB170116		60	
PB170117		140	
PB170118	19.3.07	20	
PB170119	22.3.07	2	
PB170120	22.3.07	11	
PB170121	22.3.07	6	
PB170122	22.3.07	6	
PB170123	22.3.07	1	
PB170124	22.3.07	1	
PB170125	22.3.07	2	
PB170126	26.3.07	2	
PB170127	1.4.07	605	
PB170128		1685	
PB170129		25	
PB170130		133	
PB170131		99	
PB170132		183	
PB170133		76	
PB170134	May-07	20	
PB170135		9	
PB170136	2.9.07	61	
PB170137	14.4.08	1	
PB170138	May-08	100	
PB170139		1600	

PB170140	May-09	2
PB170141	Jun-09	120
PB170142	Jun-09	70
PB170143	Jun-09	55
PB170144	Jun-09	120
PB170145	Jun-09	2
PB170146	Jun-09	3
PB170147	Jun-09	2
PB170148	Jun-09	1
PB170149	Jun-09	1
PB170150	Jun-09	5
PB170151	Jun-09	2
PB170152	Jun-09	5
PB170153	Jun-09	16
PB170154	Jun-09	2
PB170155	Jun-09	192
PB170156	Jun-09	1
PB170157	Jul-09	9
PB170158	Jul-09	2
PB170159	Jul-09	4
PB170160	Jul-09	13
PB170161	Jul-09	88
PB170162	Aug-09	2
PB170163	Aug-09	2
PB170164	Aug-09	3
PB170165	Aug-09	2
PB170166	Aug-09	1
PB170167	Aug-09	2
PB170168	Aug-09	1
PB170169	Aug-09	3
PB170170	Aug-09	2
PB170171	Aug-09	1
PB170172	Aug-09	1
PB170173	Aug-09	4
PB170174	Aug-09	3
PB170175	Aug-09	1
PB170176	Aug-09	3
PB170177	Aug-09	3
PB170178	Aug-09	2
PB170179	Aug-09	4
PB170180	Aug-09	4
PB170181	May-10	186
PB170182	June - 011	2
PB170183	June - 011	109
PB170184		1550
PB170185	Oct-11	1000
PB170186	June - 012	100
PB170187	24/05/2012	125
PB170188	24/05/2012	43

PB170189	24/05/2012	165
PB170190	24/05/2012	165
PB170191	24/05/2012	116
PB170192	24/05/2012	134
PB170193	24/05/2012	81
PB170194	24/05/2012	120
PB170195	24/05/2012	103
PB170196	24/05/2012	65
PB170197	24/05/2012	110
PB170198	24/05/2012	100
PB170199	7/08/2012	200
PB170200	7/08/2012	200
PB170201	7/08/2012	100
PB170202	7/08/2012	100
PB170203	7/08/2012	200
PB170204	7/08/2012	100
PB170205	14/08/2012	400
PB170206	14/08/2012	400
PB170207		80
PB170208		100
PB170209		269
PB170210	11/04/2014	20
PB170211	11/04/2014	100
PB170212	23/04/2014	35
PB170213	23/04/2014	100
PB170214	28/04/2014	179
PB170215	28/04/2014	70
PB170216	22/05/2014	10
PB170217	19/05/2014	4
PB170218	19/05/2014	141
PB170219	19/05/2014	121
PB170220	19/05/2014	58
PB170221	6/06/2014	11
PB170222	1/07/2014	11
PB170223	1/07/2014	74
PB170224	1/07/2014	55
PB170225	1/07/2014	118
PB170226	9/07/2014	97
PB170227	9/07/2014	111
PB170228	9/07/2014	229
PB170229	9/07/2014	6
PB170230	15/07/2014	174
PB170231	15/07/2014	4
PB170232	25/07/2014	39
PB170233	25/07/2014	92
PB170234	25/07/2014	4
PB170235	6/08/2014	9
PB170236	25/07/2014	80
PB170237	6/08/2014	121

PB170238	6/08/2014	127		
PB170239	6/08/2014	90		
PB170240	6/08/2014	106		
PB170241	6/08/2014	81		
PB170242	6/08/2014	83		
PB170243	25/07/2014	118		
PB170244	6/08/2014	17		
PB170245	6/08/2014	24		
PB170246	6/08/2014	13		
PB170247	6/08/2014	57		
PB170248	12/08/2014	133		
PB170249	27/08/2014	128		
PB170250	27/08/2014	7		
PB170251	24/05/2012	160		
PB170252	Sep-14	100		
PB170253	Sep-14	100		
PB170254				
PB170255				
PB170256				
PB170257				
PB170258				
PB170259				
PB170260				
PB170261				
PB170262				
PB170263				
PB170264		20		10
PB170265		20		10
PB170266		31		21
PB170267		24		14
PB170268		23		13
PB170269		10		0
PB170270			50	
PB170271			50	
PB170272			30	
PB170273			40	
PB170274			50	
PB170275			30	
PB170276			50 no.	
PB170277			150 no.	
PB170278	23/6/2017 ?	63		53
PB170279	27/03/2017 ?	70		60
PB170280				
PB170281		290	ind seeds	90 seed
PB170282				
PB170283				
PB170284				
PB170285				

PB170286							
PB170287							
PB170288	Feb-18			1100			
PB170289	Feb-18			900		400	
PB170290	Feb-18			450			
PB170291	Feb-18			67			
PB170292	Feb-18			1000			
PB170293	Feb-18			438			
PB170294	Feb-18			99 seeds		0	
PB170295	Mar-18			120			
PB170296	Mar-18			335			
PB170297	Mar-18			327			
PB170298	Mar-18			163		10	
PB170299	unknown		20			0	
PB170300	unknown		200			0	
PB170301	unknown		200			0	
PB170302	Jun-18		~200	seeds			
PB18-303	Jul-18		117	seeds			
PB18-304	Jul-18		90	seeds			
PB18-305	Jul-18		97	seeds			
PB18-306	Jul-18		109	seeds			
PB18-307	Jul-18		113	seeds		54	
PB18-308	Jul-18		100	seeds			
PB18-309	Jul-18		103	seeds			
PB18-310	Jul-18		191	seeds			
PB18-311	Jul-18		122	seeds			
PB18-312	Jul-18		96	seeds			
PB18-313	Jul-18		203	seeds		145	
PB18-314	2016		1000+	seeds	500+		
PB18-315	2011		800			500	
PB18-316				seeds			
PB18-317				seeds			
PB19-318	Apr-19	23/04/2019	20/05/2019	55	seeds		
PB19-319	Apr-19	23/04/2019	20/05/2019	123	seeds		
PB19-320	Apr-19	23/04/2019	20/05/2019	161	seeds		
PB19-321	Apr-19	23/04/2019	20/05/2019	104	seeds		
PB19-322	Apr-19	23/04/2019	20/05/2019	144	seeds		
PB19-323	Apr-19	23/04/2019	20/05/2019	170	seeds		
PB19-324	Apr-19	24/04/2019	20/05/2019	203	seeds		
PB19-325	Apr-19	24/04/2019	20/05/2019	173	seeds		
PB19-326	Apr-19	24/04/2019	20/05/2019	96	seeds		
PB19-327	Apr-19	24/04/2019	20/05/2019	224	seeds		
PB19-328	Apr-19	24/04/2019	20/05/2019	163	seeds		
PB19-329	Apr-19	24/04/2019	20/05/2019	188	seeds		
PB19-330	Apr-19	24/04/2019	20/05/2019	113	seeds		
PB19-331	Apr-19	24/04/2019	20/05/2019	54	seeds		
PB19-332	Apr-19	24/04/2019	20/05/2019	149	seeds		
PB19-333	Apr-19	26/04/2019	20/05/2019	45	seeds		
PB19-334	Apr-19	26/04/2019	20/05/2019	77	seeds		

PB19-335	Apr-19	26/04/2019	20/05/2019	172	seeds	
PB19-336	Apr-19	26/04/2019	20/05/2019	166	seeds	
PB19-337	Apr-19	26/04/2019	20/05/2019	28	seeds	
PB19-338	May-19	7/05/2019	20/05/2019	128	seeds	
PB19-339	May-19	7/05/2019	20/05/2019	62	seeds	
PB19-340	May-19	7/05/2019	20/05/2019	177	seeds	
PB19-341	May-19	7/05/2019	20/05/2019	233	seeds	
PB19-342	May-19	7/05/2019	20/05/2019	168	seeds	
PB19-343	May-19	7/05/2019	20/05/2019	266	seeds	
PB19-344	May-19	22/05/2019	7/06/2019	83	seeds	
PB19-345	May-19	22/05/2019	7/06/2019	124	seeds	
PB19-346	May-19	22/05/2019	7/06/2019	200	seeds	
PB19-347	May-19	22/05/2019	7/06/2019	230	seeds	130
PB19-348	May-19	22/05/2019	7/06/2019	182	seeds	
PB19-349	May-19	23/05/2019	7/06/2019	293	seeds	
PB19-350	May-19	23/05/2019	7/06/2019	280	seeds	
PB19-351	May-19	23/05/2019	7/06/2019	315	seeds	
PB19-352	May-19	23/05/2019	7/06/2019	318	seeds	
PB19-353	May-19	23/05/2019	7/06/2019	247	seeds	195
PB19-354	May-19	23/05/2019	7/06/2019	250	seeds	198
PB19-355	May-19	23/05/2019	7/06/2019	118	seeds	79
PB19-356	May-19	24/05/2019	7/06/2019	197	seeds	97
PB19-357	May-19	24/05/2019	7/06/2019	185	seeds	135
PB19-358	May-19	24/05/2019	7/06/2019	257	seeds	205
PB19-359	May-19	24/05/2019	7/06/2019	228	seeds	176
PB19-360	May-19	24/05/2019	7/06/2019	273	seeds	
PB19-361	May-19	24/05/2019	7/06/2019	251	seeds	151
PB19-362	May-19	24/05/2019	7/06/2019	123	seeds	82
PB19-363	May-19	24/05/2019	7/06/2019	310	seeds	
PB19-364	May-19	27/05/2019	11/06/2019	200	seeds	100
PB19-365	May-19	27/05/2019	11/06/2019	92	seeds	
PB19-366	May-19	27/05/2019	11/06/2019	167	seeds	
PB19-367	May-19	27/05/2019	11/06/2019	345	seeds	
PB19-368	May-19	27/05/2019	11/06/2019	352	seeds	
PB19-369	May-19	27/05/2019	11/06/2019	292	seeds	
PB19-370	May-19	27/05/2019	11/06/2019	53	seeds	
PB19-371	May-19	27/05/2019	11/06/2019	131	seeds	
PB19-372	May-19	27/05/2019	11/06/2019	91	seeds	
PB19-373	May-19	27/05/2019	11/06/2019	143	seeds	
PB19-374	May-19	27/05/2019	11/06/2019	48	seeds	
PB19-375	May-19	27/05/2019	11/06/2019	318	seeds	
PB19-376	May-19	28/05/2019	11/06/2019	305	seeds	
PB19-377	May-19	28/05/2019	11/06/2019	20	seeds	
PB19-378	May-19	28/05/2019	11/06/2019	120	seeds	
PB19-379	May-19	28/05/2019	11/06/2019	162	seeds	
PB19-380	May-19	28/05/2019	11/06/2019	179	seeds	79
PB19-381	May-19	28/05/2019	11/06/2019	179	seeds	127
PB19-382	May-19	29/05/2019	13/06/2019	144	seeds	92
PB19-383	May-19	29/05/2019	13/06/2019	296	seeds	196

PB19-384	May-19	29/05/2019	13/06/2019	238	seeds	138
PB19-385	May-19	29/05/2019	13/06/2019	124	seeds	
PB19-386	May-19	29/05/2019	13/06/2019	258	seeds	
PB19-387	May-19	30/05/2019	13/06/2019	198	seeds	
PB19-388	May-19	30/05/2019	13/06/2019	211	seeds	
PB19-389	May-19	30/05/2019	13/06/2019	210	seeds	
PB19-390	May-19	30/05/2019	13/06/2019	260	seeds	
PB19-391	May-19	30/05/2019	13/06/2019	138	seeds	92
PB19-392	May-19	7/06/2019	21/06/2019	96	seeds	
PB19-393	May-19	11/06/2019	26/06/2019	315	seeds	
PB19-394	May-19	11/06/2019	26/06/2019	293	seeds	
PB19-395	May-19	12/06/2019	26/06/2019	129	seeds	86
PB19-396	May-19	12/06/2019	26/06/2019	323	seeds	
PB19-397	May-19	12/06/2019	26/06/2019	206	seeds	
PB19-398	May-19	12/06/2019	26/06/2019	187	seeds	
PB19-399	May-19	12/06/2019	26/06/2019	158	seeds	
PB19-400	Jun-19	4/07/2019	23/07/2019	111	seeds	
PB19-401	Jun-19	21/06/2019	11/07/2019	176	seeds	76
PB19-402	Jun-19	4/07/2019	23/07/2019	260	seeds	
PB19-403	Jun-19	4/07/2019	23/07/2019	119	seeds	
PB19-404	Jun-19	4/07/2019	23/07/2019	156	seeds	
PB19-405	Jun-19	4/07/2019	23/07/2019	128	seeds	
PB19-406	Jun-19	4/07/2019	23/07/2019	211	seeds	
PB19-407	Jun-19	21/06/2019	11/07/2019	162	seeds	136
PB19-408	Jun-19	21/06/2019	11/07/2019	153	seeds	127
PB19-409	Jun-19	4/07/2019	23/07/2019	78	seeds	
PB19-410	Jun-19	21/06/2019	11/07/2019	155	seeds	55
PB19-411	Jun-19	5/07/2019	23/07/2019	51	seeds	
PB19-412	Jun-19	5/07/2019	23/07/2019	300	seeds	
PB19-413	Jun-19	5/07/2019	23/07/2019	290	seeds	
PB19-414	Jun-19	5/07/2019	23/07/2019	204	seeds	
PB19-415	Jun-19	5/07/2019	23/07/2019	96	seeds	
PB19-416	Jun-19	5/07/2019	23/07/2019	223	seeds	
PB19-417	Jun-19	8/07/2019	23/07/2019	225	seeds	
PB19-418	Jun-19	8/07/2019	23/07/2019	157	seeds	
PB19-419	Jun-19	8/07/2019	23/07/2019	172	seeds	
PB19-420	Jun-19	8/07/2019	23/07/2019	247	seeds	
PB19-421	Jun-19	8/07/2019	23/07/2019	149	seeds	
PB19-422	Jun-19	8/07/2019	23/07/2019	244	seeds	
PB19-423	Jul-19	8/07/2019	23/07/2019	114	seeds	
PB19-424	Jul-19	24/07/2019	13/08/2019	199	seeds	
PB19-425	Jul-19	24/07/2019	13/08/2019	220	seeds	
PB19-426	Jul-19	24/07/2019	13/08/2019	208	seeds	
PB19-427	Jul-19	24/07/2019	13/08/2019	196	seeds	
PB19-428	Jul-19	24/07/2019	13/08/2019	209	seeds	
PB19-429	Jul-19	24/07/2019	13/08/2019	93	seeds	
PB19-430	Jul-19	24/07/2019	13/08/2019	216	seeds	
PB19-431	Jul-19	24/07/2019	13/08/2019	171	seeds	
PB19-432	Jul-19	24/07/2019	13/08/2019	127	seeds	

PB19-433	Jul-19	24/07/2019	13/08/2019	308	seeds
PB19-434	Jul-19	15/08/2019	2/09/2019	427	seeds
PB19-435	Jul-19	15/08/2019	2/09/2019	268	seeds
PB19-436	Jul-19	15/08/2019	2/09/2019	221	seeds
PB19-437	Aug-19	15/08/2019	2/09/2019	94	seeds
PB19-438	Aug-19	15/08/2019	2/09/2019	214	seeds
PB19-439	Aug-19	9/09/2019	26/09/2019	30	seeds
PB19-440	Aug-19	9/09/2019	26/09/2019	113	seeds
PB19-441	Aug-19	9/09/2019	26/09/2019	78	seeds
PB19-442	Aug-19	9/09/2019	26/09/2019	111	seeds
PB19-443	Aug-19	9/09/2019	26/09/2019	169	seeds
PB19-444	Aug-19	9/09/2019	26/09/2019	155	seeds
PB19-445	Aug-19	8/10/2019	28/10/2019	81	seeds
PB19-446	Aug-19	8/10/2019	28/10/2019	116	seeds
PB19-447	Aug-19	8/10/2019	28/10/2019	136	seeds
PB19-448	Aug-19	8/10/2019	28/10/2019	120	seeds
PB19-449	Aug-19	8/10/2019	28/10/2019	123	seeds
PB19-450	Aug-19	8/10/2019	28/10/2019	49	seeds
PB19-451	Aug-19	8/10/2019	28/10/2019	91	seeds
PB19-452	Aug-19	9/10/2019	28/10/2019	144	seeds
PB19-453	Aug-19	9/10/2019	28/10/2019	125	seeds
PB19-454	Sep-19	9/10/2019	28/10/2019	155	seeds
PB19-455	Oct-19	5/12/2019		66	seeds
PB19-456	Oct-19	5/12/2019		63	seeds
PB20-457	Feb-20	16/04/2020	13/05/2020	247	seeds
PB20-458	Feb-20	16/04/2020	13/05/2020	61	seeds
PB20-459	Feb-20	16/04/2020	13/05/2020	278	seeds
PB20-460	Feb-20	16/04/2020	13/05/2020	169	seeds
PB20-461	Jan-20	16/04/2020	13/05/2020	299	seeds
PB20-462	Feb-20	16/04/2020	13/05/2020	71	seeds
PB20-463	Mar-20	16/04/2020	13/05/2020	41	seeds
PB20-464	Mar-20	17/04/2020	13/05/2020	192	seeds
PB20-465	Mar-20	17/04/2020	13/05/2020	252	seeds
PB20-466	Mar-20	17/04/2020	13/05/2020	167	seeds
PB20-467	Mar-20	17/04/2020	13/05/2020	76	seeds
PB20-468	Mar-20	17/04/2020	13/05/2020	120	seeds
PB20-469	Mar-20	18/04/2020	13/05/2020	159	seeds
PB20-470	Mar-20	18/04/2020	13/05/2020	146	seeds
PB20-471	Apr-20	20/04/2020	13/05/2020	194	seeds
PB20-472	Apr-20	20/04/2020	13/05/2020	275	seeds
PB20-473	Apr-20	20/04/2020	13/05/2020	23	seeds
PB20-474	Apr-20	20/04/2020	13/05/2020	247	seeds
PB20-475	Apr-20	21/04/2020	13/05/2020	265	seeds
PB20-476	Apr-20	21/04/2020	13/05/2020	44	seeds
PB20-477	Apr-20	21/04/2020	13/05/2020	179	seeds
PB20-478	Apr-20	21/04/2020	13/05/2020	202	seeds
PB20-479	Apr-20	21/04/2020	13/05/2020	154	seeds
PB20-480	Apr-20	21/04/2020	13/05/2020	225	seeds
PB20-481	Apr-20	22/04/2020	13/05/2020	64	seeds

PB20-482	Apr-20	22/04/2020	13/05/2020	181	seeds
PB20-483	Apr-20	22/04/2020	13/05/2020	206	seeds
PB20-484	Apr-20	22/04/2020	13/05/2020	125	seeds
PB20-485	Apr-20	22/04/2020	13/05/2020	29	seeds
PB20-486	Apr-20	22/04/2020	13/05/2020	155	seeds
PB20-487	Apr-20	22/04/2020	13/05/2020	179	seeds
PB20-488	Apr-20	22/04/2020	13/05/2020	169	seeds
PB20-489	Apr-20	22/04/2020	13/05/2020	25	seeds
PB20-490	Apr-20	27/05/2020			seeds
PB20-491	Apr-20	27/05/2020			seeds
PB20-492	Apr-20	27/05/2020			seeds
PB20-493	Apr-20	27/05/2020			seeds
PB20-494	Apr-20	28/05/2020			seeds
PB20-495	Apr-20	28/05/2020			seeds
PB20-496	Apr-20	28/05/2020			seeds
PB20-497	Apr-20	28/05/2020			seeds
PB20-498	Apr-20	28/05/2020			seeds
PB20-499	Apr-20	28/05/2020			seeds
PB20-500	Apr-20	28/05/2020			seeds
PB20-501	Apr-20	3/06/2020			seeds
PB20-502	Apr-20	3/06/2020			seeds
PB20-503	May-20	3/06/2020			seeds
PB20-504	May-20	3/06/2020			seeds
PB20-505	May-20	3/06/2020			seeds
PB20-506	May-20	3/06/2020			seeds
PB20-507	May-20	3/06/2020			seeds
PB20-508	May-20	3/06/2020			seeds
PB20-509	May-20	3/06/2020			seeds
PB20-510	May-20	3/06/2020			seeds
PB20-511	May-20	3/06/2020			seeds
PB20-512	May-20	3/06/2020			seeds

not known data from QDAFF	19/07/2017	Alicia Hidden	341
not known data from QDAFF	19/07/2017	Alicia Hidden	342
not known data from QDAFF	19/07/2017	Alicia Hidden	343
not known data from QDAFF	19/07/2017	Alicia Hidden	344
not known data from QDAFF	19/07/2017	Alicia Hidden	345
not known data from QDAFF	19/07/2017	Alicia Hidden	346
not known data from QDAFF	19/07/2017	Alicia Hidden	351
not known data from QDAFF	19/07/2017	Alicia Hidden	352
not known data from QDAFF	19/07/2017	Alicia Hidden	353
not known data from QDAFF	19/07/2017	Alicia Hidden	354
not known data from QDAFF	19/07/2017	Alicia Hidden	361
not known data from QDAFF	19/07/2017	Alicia Hidden	362
not known data from QDAFF	19/07/2017	Alicia Hidden	363
not known data from QDAFF	19/07/2017	Alicia Hidden	191(1)
not known data from QDAFF	19/07/2017	Alicia Hidden	none
not known data from QDAFF	19/07/2017	Alicia Hidden	none
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	4/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Alicia Hidden	
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	22/08/2017	Peter Bundock	none
	28/09/2017	Alicia Hidden	
	28/09/2017	Alicia Hidden	
	1/11/2017	Alicia Hidden	none
5/04/2018	9/04/2018	Peter Bundock	
5/04/2018	9/04/2018	Peter Bundock	
5/04/2018	9/04/2018	Peter Bundock	
5/04/2018	9/04/2018	Peter Bundock	
5/04/2018	9/04/2018	Peter Bundock	

5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
5/05/2020	27/05/2020	6/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	23/04/2020	Frances Eliott
	27/05/2020	27/04/2020	Frances Eliott
	27/05/2020	27/04/2020	Frances Eliott
	27/05/2020	1/05/2020	Frances Eliott
	27/05/2020	11/05/2020	Frances Eliott
	27/05/2020	19/05/2020	Frances Eliott
	27/05/2020	19/05/2020	Frances Eliott
	27/05/2020	19/05/2020	Frances Eliott
	27/05/2020	20/05/2020	Frances Eliott
	27/05/2020	13/05/2020	Frances Eliott
	27/05/2020	19/05/2020	Frances Eliott
	27/05/2020	19/05/2020	Frances Eliott
	27/05/2020	7/05/2020	Frances Eliott

G. Anderson from California
From USA Rec l'pilly

ex Alstonville
Ellison
Tony Kelly

All are flav. Selections

Fruit 5
Fruit 4

R53B
Fruit 2
Fruit 3
Fruit 6

Ellison

Homestead

Open pollinated
Ellison 2002
Tony Kelly

Open pollinated D'bah
Open pollinated D. Peasley
Open pollinated Don Ellison

Fruit 1

Improved Heuston, Open poll.

From 15th June 2000
Fruit 4
Fruit 6
Fruit 3
Fruit 2
Fruit 5
Fruit 1

Fruit 1
Fruit 3
Fruit 2
Fruit 1
Fruit 2
Fruit 3
Fruit 4
Fruit 5
Fruit 6

Open Pollinated

Fruit 1
Fruit 2
Fruit 3
Fruit 4
Fruit 5
Fruit 6

Fruit 1

Original vine, open pollinated

F1 open pollinated

P. edulis selfed

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Vine 'Heuston' x P. incarnata

Crosses made at Block C

from Bill's place??

C27V2 is a cross between Pandora and Sunshine Special

C28V2 is a cross between Sweetheart and Pandora

C28V2 is a cross between Sweetheart and Pandora

from Bill's place??

Check vine no w DP - Seed from open pollination

From block C - trying to get seed set

Row 31 Block C Durambah C31V7 - cutting rootstock of C16V3

Fruit taken from under C18V7 14.4.08 - only fruit to set seed of 53

Cutting of seedling vs cutting trial at Keith Paton's grew away. Keith collected seed.

Batch 05-281-07

Crossed 23.2.09
Crossed 23.2.09 (DP/PB)
Crossed 23.2.09 (DP/PB)
Crossed 12.2.09
Crossed 12.2.09
Crossed 23.2.09
2/03/2009
2/03/2009
2/03/2009
2/03/2009
2/03/2009
2/03/2009
16/03/2009
23/02/2009
16/03/2009
? Mar 2009
16/03/2009
23/02/2009
16/03/2009
16/03/2009
23/02/2009
16/03/2009
31-Mar-09
31-Mar-09
15-Apr-09
31-Mar-09
31-Mar-09
16-Mar-09
31-Mar-09
31-Mar-09
31-Mar-09
15-Apr-09
31-Mar-09
16 Mar 2009 (DP/PB)
31-Mar-09
31-Mar-09
31-Mar-09
16-Mar-09
15-Apr-09
15-Apr-09
15-Apr-09
May
June - 011
June - 011
Sep-11

Rob Vennard, Bowen,
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba

Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
Chisari Road block, Mutchilba
See column H, same for all
6 fruit

Ross Brindley
Ross Brindley

2 of 2

1 Of 2

Chisari Road block, Mutchilba

Fruit purchased from Rocklea markets Sept '14

Seed received from MHRS

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

Keith Paxton

Keith Paxton

Keith Paxton

Keith Paxton

Keith Paxton

Keith Paxton

Keith Paxton

Keith Paxton

David Peasley - Duranbah

David Peasley - Duranbah

Keith Paxton

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

David Peasley - Duranbah

open pollinated

open pollination

controlled cross

controlled cross

open pollinated

controlled cross

controlled cross

controlled cross

controlled cross

controlled cross

David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
Burringbar - Peter Bundock	controlled self		
Burringbar - Peter Bundock	controlled self		
Keith Paxton - Wombye	controlled cross		
Keith Paxton - Wombye	controlled cross		
trade Winds Fruit Santa Roas, Calif.	unknown		
trade Winds Fruit Santa Roas, Calif.	unknown		
trade Winds Fruit Santa Roas, Calif.	unknown		
Peter Bundock - Burringbar SCU self	controlled self		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
David Peasley - Duranbah	controlled cross		
John McLeod	controlled cross		
John McLeod	controlled cross		
Peter Bundock - Burringbar vines	controlled self		
Peter Bundock - Burringbar vines	controlled self		
Peter Bundock - Burringbar	controlled self	07/02/2019	123
Peter Bundock - Burringbar	controlled self	23/01/2019	54
Peter Bundock - Newrybar	controlled self	30/01/2019	100
Peter Bundock - Burringbar	controlled self	23/01/2019	12
Peter Bundock - Burringbar	controlled self	23/01/2019	43
Peter Bundock - Burringbar	controlled cross	08/02/2019	157
Peter Bundock - Burringbar	controlled cross	07/02/2019	126
Peter Bundock - Burringbar	controlled self	23/01/2019	55
Peter Bundock - Burringbar	controlled self	23/01/2019	42
Peter Bundock - Burringbar	open pollination	open pollination	283
Peter Bundock - Burringbar	controlled self	23/01/2019	56
Peter Bundock - Burringbar	controlled cross	07/02/2019	127
Peter Bundock - Newrybar	controlled self	30/01/2019	116
Peter Bundock - Newrybar	controlled self	30/01/2019	80
Peter Bundock - Newrybar	controlled self	30/01/2019	98
Peter Bundock - Newrybar	controlled self	30/01/2019	84
Peter Bundock - Newrybar	controlled self	30/01/2019	96

Peter Bundock - Newrybar	controlled self	30/01/2019	101
Peter Bundock - Newrybar	controlled self	30/01/2019	97
Peter Bundock - Newrybar	controlled self	30/01/2019	86
Peter Bundock - Burringbar	controlled self	22/01/2019	1
Peter Bundock - Burringbar	controlled self	22/01/2019	3
Peter Bundock - Burringbar	controlled cross	08/02/2019	144
Peter Bundock - Burringbar	controlled cross	08/02/2019	145
Peter Bundock - Burringbar	controlled self	08/02/2019	155
Peter Bundock - Burringbar	controlled self	22/02/2019	180
Peter Bundock - Burringbar	controlled self	7/02/2019	125
Peter Bundock - Burringbar	controlled self	8/02/2019	133
Peter Bundock - Burringbar	controlled self	8/02/2019	141
Peter Bundock - Burringbar	controlled cross	8/02/2019	142
Peter Bundock - Burringbar	controlled self	8/02/2019	153
Peter Bundock - Burringbar	controlled self	21/02/2019	170
Peter Bundock - Burringbar	controlled self	21/02/2019	171
Peter Bundock - Burringbar	controlled self	21/02/2019	173
Peter Bundock - Burringbar	controlled self	21/02/2019	174
Peter Bundock - Burringbar	controlled cross	22/02/2019	178
Peter Bundock - Burringbar	controlled cross	22/02/2019	179
Peter Bundock - Burringbar	controlled cross	22/02/2019	183
Peter Bundock - Burringbar	controlled cross	22/02/2019	185
Peter Bundock - Burringbar	controlled cross	22/02/2019	186
Peter Bundock - Burringbar	controlled cross	22/02/2019	194
Peter Bundock - Burringbar	controlled cross	22/02/2019	195
Peter Bundock - Burringbar	controlled self	22/02/2019	196
Peter Bundock - Burringbar	controlled cross	22/02/2019	197
Peter Bundock - Burringbar	controlled cross	22/02/2019	198
Peter Bundock - Burringbar	controlled self	22/02/2019	201
Peter Bundock - Burringbar	controlled cross	22/02/2019	210
Peter Bundock - Burringbar	controlled self	22/02/2019	214
Peter Bundock - Burringbar	controlled self	22/02/2019	215
Peter Bundock - Burringbar	controlled self	22/02/2019	216
Peter Bundock - Burringbar	controlled self	22/02/2019	217
Peter Bundock - Burringbar	controlled self	22/02/2019	218
Peter Bundock - Burringbar	controlled self	22/02/2019	219
Peter Bundock - Burringbar	controlled self	22/02/2019	227
Peter Bundock - Burringbar	controlled self	22/02/2019	228
Peter Bundock - Burringbar	controlled self	12/03/2019	248
Peter Bundock - Burringbar	controlled self	22/02/2019	259
Peter Bundock - Burringbar	controlled self	22/02/2019	260
Peter Bundock - Burringbar	controlled self	22/01/2019	8
Peter Bundock - Burringbar	controlled self	7/02/2019	121
Peter Bundock - Burringbar	controlled self	8/02/2019	149
Peter Bundock - Burringbar	controlled self	21/02/2019	168
Peter Bundock - Burringbar	controlled cross	22/02/2019	188
Peter Bundock - Burringbar	controlled cross	22/02/2019	192
Peter Bundock - Burringbar	controlled cross	22/02/2019	193
Peter Bundock - Burringbar	controlled cross	22/02/2019	202

Peter Bundock - Burringbar	controlled cross	22/02/2019	203
Peter Bundock - Burringbar	controlled self	22/02/2019	220
Peter Bundock - Burringbar	controlled self	22/02/2019	221
Peter Bundock - Burringbar	controlled self	22/02/2019	222
Peter Bundock - Burringbar	controlled cross	11/03/2019	230
Peter Bundock - Burringbar	controlled cross	11/03/2019	231
Peter Bundock - Burringbar	controlled self	12/03/2019	252
Peter Bundock - Burringbar	controlled cross	12/03/2019	261
Peter Bundock - Burringbar	controlled self	22/01/2019	2
Peter Bundock - Burringbar	controlled self	21/02/2019	175
Peter Bundock - Burringbar	controlled self	22/02/2019	206
Peter Bundock - Burringbar	controlled cross	22/02/2019	213
Peter Bundock - Burringbar	controlled self	22/02/2019	223
Peter Bundock - Burringbar	controlled self	22/02/2019	224
Peter Bundock - Burringbar	controlled cross	11/03/2019	232
Peter Bundock - Burringbar	controlled cross	11/03/2019	233
Peter Bundock - Burringbar	controlled self	22/01/2019	4
Peter Bundock - Burringbar	controlled cross	22/02/2019	181
Peter Bundock - Burringbar	controlled self	11/03/2019	229
Peter Bundock - Burringbar	controlled self	12/03/2019	239
Peter Bundock - Burringbar	controlled self	12/03/2019	242
Peter Bundock - Burringbar	controlled self	12/03/2019	243
Peter Bundock - Burringbar	controlled self	12/03/2019	253
Peter Bundock - Burringbar	controlled cross	12/03/2019	262
Peter Bundock - Burringbar	controlled cross	12/03/2019	263
Peter Bundock - Burringbar	controlled cross	12/03/2019	264
Peter Bundock - Burringbar	controlled cross	12/03/2019	266
Peter Bundock - Burringbar	controlled self	12/03/2019	267
Peter Bundock - Burringbar	controlled self	12/03/2019	274
Peter Bundock - Burringbar	controlled self	12/03/2019	275
Peter Bundock - Burringbar	controlled self	12/03/2019	277
Peter Bundock - Burringbar	controlled self	12/03/2019	278
Peter Bundock - Burringbar	controlled self	12/03/2019	282
Peter Bundock - Burringbar	controlled self	12/03/2019	284
Peter Bundock - Burringbar	controlled self	12/03/2019	286
Peter Bundock - Burringbar	controlled self	12/03/2019	287
Peter Bundock - Burringbar	controlled self	12/03/2019	288
Peter Bundock - Burringbar	controlled self	12/03/2019	290
Peter Bundock - Burringbar	controlled self	12/03/2019	356
Peter Bundock -Lindendale	open pollinated	OP	NA
Peter Bundock -Alstonville	controlled cross	12/04/2019	324
Peter Bundock -Alstonville	controlled cross	12/04/2019	325
Peter Bundock -Alstonville	controlled cross	12/04/2019	326
Peter Bundock -Alstonville	controlled cross	12/04/2019	327
Peter Bundock - Burringbar	controlled self	21/02/2019	167
Peter Bundock - Burringbar	controlled self	12/03/2019	249
Peter Bundock - Burringbar	controlled self	12/03/2019	258
Peter Bundock - Burringbar	controlled self	12/03/2019	272
Peter Bundock - Burringbar	controlled self	12/03/2019	285

Peter Bundock - Alstonville	controlled cross	5/02/2020	427
Peter Bundock - Alstonville	controlled cross	5/02/2020	430
Peter Bundock - Alstonville	controlled cross	5/02/2020	431
Peter Bundock - Alstonville	controlled cross	5/02/2020	433
Peter Bundock - Alstonville	controlled cross	5/02/2020	435
Peter Bundock - Alstonville	controlled cross	5/02/2020	436
Peter Bundock - Alstonville	controlled cross	5/02/2020	437
Peter Bundock - Alstonville	controlled cross	26/02/2020	453
Peter Bundock - Alstonville	controlled cross	30/01/2020	395
Peter Bundock - Alstonville	controlled cross	30/01/2020	396
Peter Bundock - Alstonville	controlled cross	30/01/2020	397
Peter Bundock - Alstonville	controlled cross	30/01/2020	401
Peter Bundock - Alstonville	controlled cross	30/01/2020	402
Peter Bundock - Alstonville	controlled cross	5/02/2020	428
Peter Bundock - Alstonville	controlled cross	5/02/2020	434
Peter Bundock - Alstonville	controlled cross	26/02/2020	460
Peter Bundock - Alstonville	controlled cross	26/02/2020	461
Peter Bundock - Alstonville	controlled cross	26/02/2020	462
Peter Bundock - Alstonville	controlled cross	26/02/2020	463
Peter Bundock - Alstonville	controlled cross	26/02/2020	456
Peter Bundock - Alstonville	controlled cross	26/02/2020	457
Peter Bundock - Alstonville	controlled cross	3/12/2019	369
Peter Bundock - Lindendale	controlled cross	5/02/2020	439
Peter Bundock - Alstonville	controlled cross	25/02/2020	441
Peter Bundock - Alstonville	controlled cross	26/02/2020	447
Peter Bundock - Alstonville	controlled cross	26/02/2020	448
Peter Bundock - Alstonville	controlled cross	26/02/2020	450
Peter Bundock - Alstonville	controlled cross	26/02/2020	451
Peter Bundock - Alstonville	controlled cross	26/02/2020	452
Peter Bundock - Alstonville	controlled cross	26/02/2020	458
Peter Bundock - Alstonville	controlled cross	26/02/2020	459

parent(s)	parent_accession
-----------	------------------

McLeod Pandora

Unknown

Unknown

ex. *F. solani* rest. Plants

Resist to *F. solani*

see "comments"

Selfed

Batch 000710

DPI rootstock x itself

P.e x P.e x P.e. f. flav.

Unknown

Unknown

P. edulis

Elongated Panama

Original Redlands strain

ATFRS Heust. Open poll

P.e. 2002 selfed

S1(M)xH.flav(F)

S1(M)xH.flav(F)

S1(M)xH.flav(F)

S1(M)xH.flav(F)

see "comments"

Healthy open pollinated fruit Don Ellison

Unhealthy open pollinated fruit Don Ellison

Open pollinated

S1(M)xH.flav(F)

Open pollinated

Open pollinated Don Ellison

Open poll. Ex. Duranb. Black

Batch 000615

?
?
?
?
?
?

Sweet Heart ♀ x Bills ♂
Sweet Heart ♀ x Bills ♂
Sweet Heart ♀ x Bills ♂
Sweet Heart ♀ x Bills ♂
Sweet Heart ♀ x Bills ♂
Sweet Heart ♀ x Bills ♂
Pandora ♀ x Bills ♂
Pandora ♀ x Sunshine Special ♂
Sweetheart ♀ x Pandora ♂
Sweetheart ♀ x Bill ♂

P. edulis selfed
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open Pollinated
Black Gem ♀ x Misty Gem ♂
Misty Gem ♀ x Tom's Special ♂

Black Gem ♀ x C27V2 ♂

Black Gem ♀ x C28V2 ♂

Black Gem ♀ x C28V13 ♂

Black Gem ♀ x Tom's Special ♂

('Heuston' x *P. incarnata*) x 'DPI'

Open pollinated fruit from Inc x Flav

Heuston' x *P. incarnata* open pollinated

Heuston' x *P. incarnata* open pollinated

Open pollinated
Open pollinated
Open pollinated
Open pollinated
Open pollinated
DPI rootstock x itself
DPI rootstock x itself
DPI rootstock x itself
DPI rootstock x itself
C18V9 (HxPi) x itself
C18V9 (HxPi) x itself
DPI rootstock x itself
DPI rootstock x itself
DPI rootstock x itself
C18V9 (HxPi) x itself
C18V9 (HxPi) x itself
DPI rootstock open pollinated
DPI rootstock open pollinated
DPI rootstock x itself
DPI rootstock open pollinated
DPI rootstock x itself
DPI rootstock x itself
C18V9 (HxPi) x itself
DPI rootstock x itself
C18V9 (HxPi) x itself
DPI rootstock open pollinated
DPI rootstock x itself
C18V9 (HxPi) open pollinated
C18V9 (HxPi) open pollinated
DPI rootstock open pollinated
Open pollinated

Open pollinated
Open pollinated
Open pollinated
DPI rootstock x itself
DPI rootstock x itself
DPI rootstock x itself

DPI rootstock x itself
DPI rootstock x itself
C18V9 (HxPi) open pollinated

Selection 2 x Sweetheart
2807 x Sweetheart
2801 x Sweetheart
2802 x Sweetheart
3807 x Lacey
2802 x 23-E
Lakelands
Cook Is. Pandora
Bunnings Pandora x Griffiths Pandora
McLeod Pandora x Griffiths Pandora
Lakelands

LxL17-69 x LxL17-69
LxL17-31 x LxL17-31
KP x Misty Gem
PAI#25 x Misty Gem

Lacey 2017 self #69
Lacey 2017 self #31
KP and Misty Gem
PAI #25 and Misty Gem

LxL17-99 x LxL17-99
Misty Gem X Pandora
Sweet Heart X Misty Gem
Sweet Heart X Misty Gem
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora
Sweet Heart X Pandora

L x L -99 (Lacey)

Toms Special x Lacey
Toms Special x Lacey
Tom x Tom (10) X self [Tom x Tom (10)]

TT10 x TT10

LxL17-99 x LxL17-99

LL17-99 x LL17-99 (Lacey)

PB25 x PB25

LL20 x LL20

TT28 x TT28

LL20 x LL20

TT20 x TT20

PB25 x P12-37

TT32 x PB25

PB12 x PB12

PB170012 Q.DPI.f x McLeod Pandora

TT20 x TT20

PB277 x ? (hopefully selfed)

PB170277 Cook Is. Pandora

PB12 x PB12

PB170012 Q.DPI.f x McLeod Pandora

TT32 x PB25

Sweet Heart x Sweet Heart

TT17 x TT17

TT28 x TT28

TT17 x TT17

TT33 x TT33

TT28 x TT28
TT22 x TT22
TT17 x TT17
LL43 X LL43
LL43 X LL43
LL99 X Tom Special
Tom Special x LL99
LL69 x LL69
SP16-36D x SP16-36D
PB25 x PB25
P12-16-37 x P12-16-37
Tom Special x Tom Special
Tom Special x P12-16-37
LL69 x LL69
PB268 x PB268
PB266 x PB266
PB5 x PB5
PB5 x PB5
SP-16-36D x Misty Gem
SP-16-36D x Misty Gem
T12-16-4 x Misty Gem
T12-16-4 x SP-16-36D
TL-16-51 x Sweet Heart
SP-16-72 x Misty Gem
SP-16-72 x Misty Gem
SP-16-72 x SP-16-72
SP-16-90 x Misty Gem
SP-16-90 x Sweet Heart
SP-16-90 x SP-16-90
SP-16-42D x T12-16-4
Griffiths Pandora x Griffiths Pandora
PB266 x PB266
PB265 x PB265
PB265 x PB265
PB266 x PB266
PB19 x PB19
PB16 x PB16
PB16 x PB16
PB18 x PB18
PB5 x PB5
PB5 x PB5
SP-16_22D x SP-16-22D
PB25 x PB25
Tom Special x Tom Special
LL20 x LL20
P12-16-37 x Sweet Heart
Misty Gem x T12-16-4
Misty Gem x T12-16-4
SP-16-90 x T12-16-4

PB170268 Bunnings x Griffiths
PB170266 McLeod x DPI
PB170005 Bunnings Pandora x McGuffies
PB170005 Bunnings Pandora x McGuffies

PB170266 McLeod x DPI
PB170265 DPI x McGuffies Red
PB170265 DPI x McGuffies Red
PB170266 McLeod x DPI
PB170019 DPI P. flavicarpa
PB170016 Bunnings Pandora x QPDI.f
PB170016 Bunnings Pandora x QPDI.f
PB170018 McGuffies red x McLeod Pandc
PB170005 Bunnings Pandora x McGuffies
PB170005 Bunnings Pandora x McGuffies

SP-16-4D x Misty Gem	
PB266 x PB266	PB170266 McLeod x DPI
PB266 x PB266	PB170266 McLeod x DPI
PB19 x PB19	PB170019 DPI P. flavicarpa
Sweet Heart x Griffiths Pandora (PB11)	
Sweet Heart x Griffiths Pandora (PB11)	
PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
Sweet Heart x SP-16-59	
LL43 x LL43	
PB5 x PB5	
SP-16_22D x SP-16-22D	
Misty Gem x SP-16-42D	
PB5 x PB5	PB170005 Bunnings Pandora x McGuffies
PB5 x PB5	PB170005 Bunnings Pandora x McGuffies
Griffiths Pandora (PB11) x Sweet Heart	
Sweet Heart x Griffiths Pandora (PB11)	
LL43 x LL43	
Sweet Heart x SP-16-36D	
Griffiths Pandora (PB11) x Griffiths Pandora (PB11)	PB170011 Griffiths Pandora
PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
PB266 x PB266	PB170266 McLeod x DPI
265 x 265	PB170265 DPI x McGuffies Red
PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
Misty Gem x SP-16-4D	
Misty Gem x SP-16-4D	
Misty Gem x Griffiths Pandora (PB11)	
Misty Gem x SP-16-59	
Misty Gem x Misty Gem	
PB17 x PB17	PB170017 McGuffies red x Bunnings Panc
PB17 x PB17	PB170017 McGuffies red x Bunnings Panc
PB17 x PB17	PB170017 McGuffies red x Bunnings Panc
PB17 x PB17	PB170017 McGuffies red x Bunnings Panc
PB16 x PB16	PB170016 Bunnings Pandora x QPDI.f
PB265 x PB265	PB170265 DPI x McGuffies Red
PB19 x PB19	PB170019 DPI P. flavicarpa
PB266 x PB266	PB170266 McLeod x DPI
PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
PB265 x PB265	PB170265 DPI x McGuffies Red
Lindendale Feral	
P12-53 x Misty Gem (Smith)	
SP-16-90 x Misty Gem (Smith)	
SP-36D x Misty Gem (Smith)	
SP-36D x Misty Gem (Smith)	
P12-16-37 x P12-16-37	
LL20 x LL20	
PB266 x PB266	PB170266 McLeod x DPI
PB267 x PB267	PB170267 Griffiths x McLeod
PB266 x PB266	PB170266 McLeod x DPI

PB18 x PB18	PB170018 McGuffies red x McLeod Pandc
Lilikoi open pollinated	
Lilikoi open pollinated	
Lilikoi open pollinated	
Lilikoi open pollinated	
Lilikoi open pollinated	
PB295 vine #1	LxL17-69 x LxL17-69
PB295 vine #1	LxL17-69 x LxL17-69
PB295 vine #1	LxL17-69 x LxL17-69
PB295 vine #4	LxL17-69 x LxL17-69
PB295 vine #4	LxL17-69 x LxL17-69
PB295 vine #4	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB295 vine #4	LxL17-69 x LxL17-69
PB295 vine #1	LxL17-69 x LxL17-69
PB295 vine #1	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB295 vine #12	LxL17-69 x LxL17-69
PB267 x PB267	BP267
PB296 open polinated vine # 4	LxL17-31 x LxL17-31
PB296 open polinated vine # 4	LxL17-31 x LxL17-31
SP-16-59 x SP-16-59	
Lilikoi x SP-16-59	
SP-16-90 x P12-16-33	
TL-16-51 x SP-16-90	
SP-16-59 x TL-16-51	
SP-16-59 x SP-16-36D	
Sweet Heart x P12-16-33	
Tom Special x P12-16-33	
P12-16-33 x Tom Special	
P12-16-37 x Misty Gem Smith	
Tom Special x SP-16-36D	
P12-16-33 x Misty Gem Smith	
SP-16-36D x P12-16-33	
P12-16-37 x P12-16-37	
Tom Special x P12-16-33	
P12-16-33 x Tom Special	
Misty Gem Smith x P12-16-33	
SP-16-90 x TL-16-51	
SP-16-90 x TL-16-51	
T12-16-4 x TL-16-51	
Tom Special x SP-16-36D	
Tom Special x SP-16-36D	
Tom Special x SP-16-36D	
SP-16-36D x Tom Special	
Sweet Heart x Misty Gem Smith	

P12-16-33 x Misty Gem Smith
SP-16-36D x P12-16-33
SP-16-36D x P12-16-33
Sweet Heart x P12-16-33
Misty Gem Smith x P12-16-33
Misty Gem Smith x P12-16-37
Misty Gem Smith x P12-16-37
T12-16-4 x TL-16-51
SP-16-90 x TL-16-51
SP-16-90 x TL-16-51
SP-16-90 x TL-16-51
TL-16-51 x T12-16-4
TL-16-51 x T12-16-4
SP-16-36D x P12-16-33
Sweet Heart x P12-16-33
Sweet Heart x Misty Gem Smith
Sweet Heart x Misty Gem Smith
Sweet Heart x Misty Gem Smith
Sweet Heart x Misty Gem Smith
SP-16-90 x T12-16-33
SP-16-36D x Tom Special
Lillikoi x SP-16-59
TL-16-51 x P12-16-37
P12-16-33 x 27
P12-16-37 x TL-16-51
P12-16-37 x TL-16-51
P12-16-37 x TL-16-51
P12-16-37 x Sweet Heart
P12-16-33 x TL-16-51
SP-16-36D x Tom Special
SP-16-36D x Tom Special

plant_line_name	Population	Source (originator organisation)	Genus	Species	ownership
McGuffies Red		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McLeod Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red x McLeod Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McLeod Pandora x McGuffies red		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Bunnings Pandora x McGuffies red		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Bunnings Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Q.DPI.f		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red x Griffiths Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Q.DPI.f x Bunnings Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Griffiths Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Q.DPI.f x McLeod Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Griffiths Pandora x McGuffies red		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Q.DPI.f x Griffiths Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red x Qdpi.f		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
Bunnings Pandora x QPDI.f		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red x Bunnings Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
McGuffies red x McLeod Pandora		Duranbah	<i>Passiflora</i>	<i>edulis</i>	
DPI P. flavicarpa		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Panama type - Scott Maltby		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Heuston		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Panama Whitsundays		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Rootstock seed		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Gin Gin flav.		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. flav		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Heuston		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
McLeod rootstock		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. flavicarpa		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Pandora		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
DPI x DPI		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Possum purple		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. incarnata 2000		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
McLeod rootstock		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Norfolk Black		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Johnson's		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. incarnata Louisville		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. incarnata		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Lou		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. coccinea		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Flav		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. incarnata 2000		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
96C x T. S.		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Colin Allard		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
Granger x Misty Gem		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	
P. edulis		Q.DAFF	<i>Passiflora</i>	<i>edulis</i>	

	Q.DAFF	<i>Passiflora edulis</i>
P. incarnata	Q.DAFF	<i>Passiflora edulis</i>
Misty Gem x ? Peter Beil?	Q.DAFF	<i>Passiflora edulis</i>
T/P <i>Passiflora ligularis</i>	Q.DAFF	<i>Passiflora edulis</i>
Heuston	Q.DAFF	<i>Passiflora edulis</i>
Heuston	Q.DAFF	<i>Passiflora edulis</i>
P. seemanii	Q.DAFF	<i>Passiflora edulis</i>
Panama Whitsundays	Q.DAFF	<i>Passiflora edulis</i>
Heuston	Q.DAFF	<i>Passiflora edulis</i>
RHRS Bulk A P. edulis flav	Q.DAFF	<i>Passiflora edulis</i>
P. edulis	Q.DAFF	<i>Passiflora edulis</i>
Johnson's special	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
P. edulis	Q.DAFF	<i>Passiflora edulis</i>
P. incarnata Georgea	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Heuston	Q.DAFF	<i>Passiflora edulis</i>
P. alata	Q.DAFF	<i>Passiflora edulis</i>
Bill	Q.DAFF	<i>Passiflora edulis</i>
P. suberosa	Q.DAFF	<i>Passiflora edulis</i>
Lacey x T5	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 V15	Q.DAFF	<i>Passiflora edulis</i>
P. pergranis	Q.DAFF	<i>Passiflora edulis</i>
	Q.DAFF	<i>Passiflora edulis</i>
P. alata	Q.DAFF	<i>Passiflora edulis</i>
P. alata	Q.DAFF	<i>Passiflora edulis</i>
Seln 1	Q.DAFF	<i>Passiflora edulis</i>
Seln 1	Q.DAFF	<i>Passiflora edulis</i>
P. coccinea	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 x Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 V11	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 X Heuston flav	Q.DAFF	<i>Passiflora edulis</i>
Seln 1 V17	Q.DAFF	<i>Passiflora edulis</i>
P. incarnata	Q.DAFF	<i>Passiflora edulis</i>
P. allata	Q.DAFF	<i>Passiflora edulis</i>
Heuston	Q.DAFF	<i>Passiflora edulis</i>
DPI P. flavicarpa	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A6-17 (F)Selection 1(M) A4-14	Q.DAFF	<i>Passiflora edulis</i>
Incarnata B Row 8 Open poll.	Q.DAFF	<i>Passiflora edulis</i>
Incarnata B7V7 Open Poll.	Q.DAFF	<i>Passiflora edulis</i>
Incarnata B7V8A Open Poll.	Q.DAFF	<i>Passiflora edulis</i>

Selection 1 A4-14 Selfed	Q.DAFF	<i>Passiflora edulis</i>
Selection 1 A4-14 Selfed	Q.DAFF	<i>Passiflora edulis</i>
Selection 1 A4-14 Selfed	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
Heuston flav A 6-17 x Incarnata	Q.DAFF	<i>Passiflora edulis</i>
New Zealand P. edulis	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Sweet Heart x Bills	Q.DAFF	<i>Passiflora edulis</i>
Pandora x Bills	Q.DAFF	<i>Passiflora edulis</i>
Pandora x Sunshine Special	Q.DAFF	<i>Passiflora edulis</i>
Sweetheart x Pandora	Q.DAFF	<i>Passiflora edulis</i>
Sweetheart x Bill	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
P. edulis 2002 selfed 2007	Q.DAFF	<i>Passiflora edulis</i>
C10V2	Q.DAFF	<i>Passiflora edulis</i>
C14V3	Q.DAFF	<i>Passiflora edulis</i>
C14V9	Q.DAFF	<i>Passiflora edulis</i>
C14V13	Q.DAFF	<i>Passiflora edulis</i>
C16V7	Q.DAFF	<i>Passiflora edulis</i>
C16V8	Q.DAFF	<i>Passiflora edulis</i>
C16V12	Q.DAFF	<i>Passiflora edulis</i>
C18V9	Q.DAFF	<i>Passiflora edulis</i>
P. alata	Q.DAFF	<i>Passiflora edulis</i>
Black Gem x Misty Gem 07	Q.DAFF	<i>Passiflora edulis</i>
Misty Gem x Tom's Special 07	Q.DAFF	<i>Passiflora edulis</i>
Black Gem x C27V2 07	Q.DAFF	<i>Passiflora edulis</i>
Black Gem x C28V2 07	Q.DAFF	<i>Passiflora edulis</i>
Black Gem x C28V13 07	Q.DAFF	<i>Passiflora edulis</i>
Black Gem x Tom's Special 07	Q.DAFF	<i>Passiflora edulis</i>
P. incarnata	Q.DAFF	<i>Passiflora edulis</i>
C14V13 x P.flav	Q.DAFF	<i>Passiflora edulis</i>
Incarnata x Flav	Q.DAFF	<i>Passiflora edulis</i>
C18V7 open pollinated	Q.DAFF	<i>Passiflora edulis</i>
C16V3 open pollinted	Q.DAFF	<i>Passiflora edulis</i>
Passiflora flavicarpa	Q.DAFF	<i>Passiflora edulis</i>

Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Pandora	Q.DAFF	<i>Passiflora edulis</i>
Misty Gem	Q.DAFF	<i>Passiflora edulis</i>
Sweetheart	Q.DAFF	<i>Passiflora edulis</i>
Misty Gem_Sweet H. mix	Q.DAFF	<i>Passiflora edulis</i>
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x DPI	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
DPI Open pollinated	Q.DAFF	<i>Passiflora edulis</i>
DPI Open pollinated	Q.DAFF	<i>Passiflora edulis</i>
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI x open	Q.DAFF	<i>Passiflora edulis</i>
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>
C18v9 x open	Q.DAFF	<i>Passiflora edulis</i>
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
DPI Open pollinated	Q.DAFF	<i>Passiflora edulis</i>
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>
DPI Open pollinated	Q.DAFF	<i>Passiflora edulis</i>
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>

Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>	
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>	
Pandora Open Pollinated	Q.DAFF	<i>Passiflora edulis</i>	
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>	
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>	
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>	
Misty Gem x Open	Q.DAFF	<i>Passiflora edulis</i>	
Misty Gem x Open	Q.DAFF	<i>Passiflora edulis</i>	
Misty Gem x Open	Q.DAFF	<i>Passiflora edulis</i>	
Misty Gem x Open	Q.DAFF	<i>Passiflora edulis</i>	
DPI x DPI ?	Q.DAFF	<i>Passiflora edulis</i>	
DPI X DPI	Q.DAFF	<i>Passiflora edulis</i>	
C18V9 x Self	Q.DAFF	<i>Passiflora edulis</i>	
Pandora	Q.DAFF	<i>Passiflora edulis</i>	
Sweet Heart	Q.DAFF	<i>Passiflora edulis</i>	
Sweet Heart	Q.DAFF	<i>Passiflora edulis</i>	
McGuffies Red Self	Peasley Hort.		SCU/HIA
McGuffies Red x Griffith Pandora			SCU/HIA
McGuffies Red X Q.DPI.F.			SCU/HIA
Q.DPI.F. x McLeod Pandora			SCU/HIA
McGuffies Red X Bunnings Pandora			SCU/HIA
Q.DPI.F. self			SCU/HIA
Griffith Pandora self			SCU/HIA
McGuffies Red x McLeod Pandora			SCU/HIA
Q.DPI.F. x Griffith Pandora			SCU/HIA
Griffith Pandora x Bunnings Pandora			SCU/HIA
McLeod x Bunnings			
DPI x McGuffies Red			
McLeod x DPI			
Griffiths x McLeod			
Bunnings x Griffiths			
Griffiths x Bunnings			
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
	Keith Paxton	<i>Passiflora edulis</i>	
Bunnings Pandora x Griffiths Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	
McLeod Pandora x Griffiths Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Lakelands	Keith Paxton	<i>Passiflora edulis</i>	
Griffiths Pandora x Bunnings Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Bunnings Pandora x Griffiths Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Griffiths Pandora x DPI flav.	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Griffiths Pandora x McGuffies Red	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Griffiths Pandora x McLeod Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	

McLeod Pandora x Griffiths Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Griffiths Pandora x DPI flav.	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Tom x Lacey	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Tom x PAI#10	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Black Gem x PAI#10	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Misty Gem x PAI #10	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Misty Gem x Misty Gem	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Lacey x Lacey	Peasley Hort. HIA	<i>Passiflora edulis</i>	
Tom x Black Gem	Peasley Hort. HIA	<i>Passiflora edulis</i>	
LxL17-69 x LxL17-69 Lacey	SCU HIA	<i>Passiflora edulis</i>	
LxL17-31 x LxL17-31 Lacey	SCU HIA	<i>Passiflora edulis</i>	
KPxMisty	Keith Paxton	<i>Passiflora edulis</i>	
PAI#25 x Misty	Keith Paxton	<i>Passiflora edulis</i>	
Purple Passion fruit	Trade Winds Fruit	<i>Passiflora edulis</i>	
Frederick Passion fruit	Trade Winds Fruit	<i>Passiflora edulis</i>	
Lilikoi	Trade Winds Fruit	<i>Passiflora edulis</i>	
number 99 2nd generation self of Lacey	Lacey inbred SCU HIA	<i>Passiflora edulis</i>	
Misty Gem X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Misty Gem	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Misty Gem	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart X Pandora	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom x Lacey	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom x Lacey	Peasley Hort. HIA	<i>Passiflora edulis</i>	SCU/HIA
TT10 x TT10		<i>Passiflora edulis</i>	SCU/HIA
L99 x L99		<i>Passiflora edulis</i>	SCU/HIA
PB25 x PB25	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL20 x LL20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT28 x TT28	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL20 x LL20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT20 x TT20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB25 x P12-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT32 x PB25	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB12 x PB12	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT20 x TT20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB277 x ? (hopefully selfed)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB12 x PB12	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT32 x PB25	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT17 x TT17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT28 x TT28	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT17 x TT17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT33 x TT33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA

TT28 x TT28	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT22 x TT22	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TT17 x TT17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL43 X LL43	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL43 X LL43	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL99 X Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom Special x LL99	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL69 x LL69	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP16-36D x SP16-36D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB25 x PB25	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom Special x Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom Special x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL69 x LL69	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB268 x PB268	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
T12-16-4 x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
T12-16-4 x SP-16-36D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TL-16-51 x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-72 x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-72 x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-72 x SP-16-72	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x SP-16-90	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-42D x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Griffiths Pandora x Griffiths Pandora	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB265 x PB265	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB265 x PB265	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB19 x PB19	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB16 x PB16	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB16 x PB16	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16_22D x SP-16-22D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB25 x PB25	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Tom Special x Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL20 x LL20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA

SP-16-4D x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB19 x PB19	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Griffiths Pandora (PB11)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Griffiths Pandora (PB11)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x SP-16-59	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL43 x LL43	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16_22D x SP-16-22D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x SP-16-42D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB5 x PB5	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Griffiths Pandora (PB11) x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Griffiths Pandora (PB11)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL43 x LL43	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x SP-16-36D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Griffiths Pandora (PB11) x Griffiths Pandora (PB11)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
265 x 265	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x SP-16-4D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x SP-16-4D	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x Griffiths Pandora (PB11)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x SP-16-59	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem x Misty Gem	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB17 x PB17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB17 x PB17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB17 x PB17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB17 x PB17	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB16 x PB16	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB265 x PB265	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB19 x PB19	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB18 x PB18	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB265 x PB265	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Lindendale Feral	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-53 x Misty Gem (Smith)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x Misty Gem (Smith)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-36D x Misty Gem (Smith)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-36D x Misty Gem (Smith)	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
LL20 x LL20	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB267 x PB267	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
PB266 x PB266	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA

P12-16-33 x Misty Gem Smith	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem Smith x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem Smith x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Misty Gem Smith x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
T12-16-4 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TL-16-51 x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TL-16-51 x T12-16-4	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x P12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Misty Gem Smith	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Misty Gem Smith	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Misty Gem Smith	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Sweet Heart x Misty Gem Smith	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-90 x T12-16-33	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
Lillikoi x SP-16-59	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
TL-16-51 x P12-16-37	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-33 x 27	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-37 x Sweet Heart	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
P12-16-33 x TL-16-51	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA
SP-16-36D x Tom Special	SCU HIA	<i>Passiflora edulis</i>	SCU/HIA

Cross No. 1

Cross No. 2

Cross No. 3

Cross No. 4

Cross No. 5

Cross No. 6

Fruit processed by SCU - fruit partly rotter

Fruit processed by SCU - fruit partly rotter

Fruit processed by SCU

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by David Peasley

Seed processed by Gary Ablett

Seed processed by Gary Ablett

Seed processed by Gary Ablett

Seed processed by Gary Ablett

Bought via internet from Trade Winds Fru

Bought via internet from Trade Winds Fru

Bought via internet from Trade Winds Fru

Priya & Peter

pollination date 12/4/18 - all of this acces

pollination date 12/4/18

pollination date 12/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

pollination date 7/4/18

Labelled as TL18-A (A001-A208) Mkr selec

Labelled as TL18-B (B001-B176) Mkr selec

pollination date 15/4/18

pollination date 15/4/18

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on
Seed envelopes sealed in zip-lock bags on

Seed envelopes sealed in zip-lock bags on

Feral from Peter Bundock's Lindendale pr

Comments (from QDAFF accession sheet)

Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial

approx 200 seeds given to APIA 14.7.10 for their aboretum see email Widebay nursery... 21.7.10

Parent vine selected in cold area in South Africa

88% germination, 100% Fusarium wilt resistance

Collected by JT & KP #3162

34 seeds to Dave Spence 190111

62.5 seeds/gm. Selfed in our glasshouse for our work

Heuston selfed in Glass House from F. solani resistant plants
Seeds from Peter Beal. Potted up 20 seeds 17/9/2008

For F.. oxy test

1gm = 29 seeds, total wt. 30.7gms

88% germ, 100% Fus wilt resistance, 100 seeds potted 11/7/2008. Potted up 20 seeds 17/9/2008. 5 gm posted to SGS 7/12/09. (Potted up 40 on 21/03/012) 21/05/2012

Crossed 10/1/2005

Crossed 10/1/2005

Crossed 10/1/2005

Crossed 10/1/2005

Crossed 10/1/2005

Crossed 10/1/2005

Packet says 1/4/2006 43 seeds to Dave Spence 190111

48 seeds to Dave Spence 190111

39 seeds to Dave Spence 190111

10/01/2005
10/01/2005
10/01/2005
Crossed 10/1/2005
Crossed 10/1/2005
Crossed 10/1/2005
Crossed 10/1/2005
Crossed 10/1/2005
Crossed 10/1/2005
50 seeds/g
52 seeds/g

50 seeds/g
47 seeds/g.
Paxton. Seed posted to SGS 7.12.2009
Paxton (40 potted up on 21/3/012)
Luke Smith

David Peasely kept 1/2 the seed
David Peasely kept 1/2 the seed

David Peasely kept 1/2 the seed

David Peasely kept 1/2 the seed

David Peasely kept 1/2 the seed
David Peasely kept 1/2 the seed

All seed came to IRC. 28 seeds to Dave Spence 190111
68 seed from 2 fruit bought back to IRC and extracted by JA

This was the vine that the cutting rootstock (C16V3) grew away and has set some fruit.

Open pollinated in amongst commercial varieties.
Sent from Nambour by Apollo (L.S. 14/5/08). Potted up 20 seeds 17/9/2008. 5 gm posted to SGS 7.12.09

Small fruit and less seed.

Large fruit but not much pulp, flower head 4 styles

40 seeds planted 191011

Collected by Ken Pegg

Collected by JT & KP #3160

Collected by JT & KP #3161

200 planted 21.07.2011

100 planted 21.07.2011

Collected by Jay Anderson

Collected by JT & KP #3163

Collected by JT & KP #3164

Collected by JT & KP #3165

Collected by JT & KP #3166

Collected by JT & KP #3167

Collected by JT & KP #3168

Collected by JT & KP #3170

Collected by JT & KP #3171

Collected by JT & KP #3172

Collected by JT & KP #3173

#3223 - 6 fruit

WP 108 12 months old

Pandora severe mosaic fruit

Collected by Cherie Gambley

Collected by Cherie Gambley

Collected by Cherie Gambley

Collected by JT & KP #3169

Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial
Requested by PB for NPBP Panama & Rootstock trial

All seed transferred to John McLeod 11/09/2017
All seed transferred to John McLeod 11/09/2017
All seed transferred to John McLeod 11/09/2017
All seed transferred to John McLeod 11/09/2017
All seed transferred to John McLeod 11/09/2017
All seed transferred to John McLeod 11/09/2017
Obtained from Andy & Anita Stemmler - Lakelands near Cooktown, Qld.

1

1

Requested by PB for NPBP scion cross

Requested by PB for NPBP scion cross

Requested by PB for NPBP scion cross

Cross of selection from 100 Lacey x Lacey selfs carried out by Peter B. as part of the inbred line breeding. First thought to be LL-70 then checke

Cross of selection from 100 Lacey x Lacey selfs carried out by Peter B. as part of the inbred line breeding

Cross of selection of Keith Paxton with Misty Gem carried out by Keith P.

Cross of PAI#25 with Misty Gem carried out by Keith P.

it Calif.

it Calif.

it Calif.

Self of selected self (#99) of Lacey

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Seed processed by Will

Fruit processed by J & V McLeod

Fruit processed by J & V McLeod

Seed processed by Will

Self of selected self (#99) of Lacey

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

Seed processed by Frances Eliott

**Accession
closed?**

Y



:d out as No.69

Y

Y







