



Department of  
**Primary Industries and  
Regional Development**

# A review of **five wine grape variety clones in Western Australia**

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**Wine  
Australia**

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## Limitations

The information herein is provided for the purpose to guide Western Australian (WA) producers on the availability of clones of Cabernet Sauvignon, Chardonnay, Merlot, Shiraz and Tempranillo. The listing and details of the various clones contained within this document is limited to information provided by the Western Australian Vine Improvement Association (WAVIA), Quarantine WA, a selection of nurseries and various publically available sources.

This publication does not state to be a comprehensive list of all clones available and privately held in WA nor Australia; nor does it recommend some clones over others and suggests readers utilise other information sources in conjunction with this document. It is likely some clones have been excluded due to information concerning their importation being confidential or not available to the authors at the time of publishing.





# Contents

- Introduction** ..... 4
  - Wine grape clones ..... 4
  - Abbreviations and accession numbers ..... 5
- Cabernet Sauvignon clones** ..... 6
- Chardonnay clones** ..... 9
- Merlot clones** ..... 11
- Shiraz clones** ..... 12
- Tempranillo clones** ..... 15
- Importation of grapevine material into WA** ..... 16
  - Interstate imports ..... 16
  - International imports ..... 17
- Germplasm Collections Contact Details** ..... 18
  - Western Australia ..... 18
  - Australia ..... 18
  - International ..... 20
- References** ..... 21
- Recommended reading** ..... 23



## Introduction

This booklet is designed as a reference for growers to understand the diversity of clones of Cabernet Sauvignon, Chardonnay, Merlot, Shiraz and Tempranillo available in WA and nationally. The purpose being to provide WA wine producers with improved knowledge of clonal availability and to identify any opportunities to further expand the holdings of superior clones in collections within the state. This aligns with the Department of Primary Industries and Regional Development (DPIRD) strategic priorities of delivering research, development and innovation to grow our primary industries, food processors and regional development.

Further details describing the technical aspects of these clones is available at [agric.wa.gov.au](http://agric.wa.gov.au)

### Wine grape clones

A wine grape clone can be described as “a population of vines derived vegetatively from a single (mother) vine; initially genetically identical”(1). Clonal selection involves the comparison, selection, and propagation of one or more clones of a variety possessing particular characteristics. These characteristics tend to include vigour, growth habit, yield, bunch compaction, berry size and wine quality.

In the past, Australian trials involving clonal selection used yield as a key selection criteria as low yields were impacting the profitability and competitiveness of the Australian wine industry. However today’s viticultural inputs and management techniques can influence yields to a greater degree without relying on clonal selection to ensure adequate yields. The profiling of grape and wine quality of clones is well behind our international competitors (2).

It is important to note that the protection of intellectual property is an increasing trend in the selection and distribution of wine grape variety clones. Some clones are trademarked and/or proprietary while others can be obtained from the public domain.

## Abbreviations and accession numbers

Abbreviations used are:

- **AHVII** = Adelaide Hills Vine Improvement Incorporated
- **ANTAV** = “Association Nationale Technique pour l’Amélioration de la Viticulture”, founded in 1963 and evolved into ENTAV in 1986
- **BVRC** = Barossa Viticultural Research Centre
- **EN** = Elite Nursery
- **ENTAV** = “Etablissement National Technique pour l’Amélioration de la Viticulture”, agency for viticulture improvement located in south of France at Domaine de L’Espiguette, Le Grau du Roi. ENTAV was known as ANTAV before 1986
- **FPS** = Foundation Plant Services, University of California, Davis. Updated acronym of FPMS
- **FSAC** = Fragmented shoot apex culture
- **INRA** = “Institut National de la Recherche Agronomique” is the principle research agency of the Ministry of Agriculture in France. It consists of 21 research centres throughout France
- **ITACyL** = Instituto Tecnológico Agrario de Castilla y León (Spain)
- **SARDI** = South Australian Research and Development Institute
- **SAVII** = South Australian Vine Improvement Incorporated
- **UCD** = University of California, Davis

### Accession numbers

Accession numbers are a code allocated to a grapevine importation, Australian selection or Australian bred grapevine. This Federal Government initiative has fallen away in recent times as private importations are now the common form. Historically the Australian Vine Improvement Association (AVIA) produced a ‘National register of grapevine varieties and clones’. For various reasons this publication has not been updated since 2006 and consequently no single reference of national material is current. Where possible an accession number has been attached to a clone but there are some instances where an accession number is not available.

## Cabernet Sauvignon clones

6

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
126 (AW692259, Nuriootpa)		126 (AV702259, Nuriootpa)	Believed to be the same as SA126. Introduced into WA in 1969 <sup>3</sup> .
125 (AW892351, Nuriootpa)		125 (AS702351, Nuriootpa)	Believed to be the same as SA125 and 125 FSAC which was put through fragmented shoot apex culture by DPI Victoria. Introduced into WA in 1989 <sup>3</sup> .
CW44 (AS805400, Coonawarra)		CW44 (AS805400, Coonawarra)	Selected from SARDI trial at Coonawarra in 1973 with local selections <sup>4</sup> . Released 1980 and introduced into WA in 1989 <sup>3</sup> .
G9V3 (IW892217, UCD)		G9V3 (IV692217, UCD)	Believed to be the same as FPS 07, FVG9V3, G9V3 FSAC CSIRO and G9V3 FSAC DPIV. Sourced from Concannon, CA and underwent 62 days heat treatment <sup>5</sup> . Introduced into WA in 1989 <sup>3</sup> .
LC9 (IW026122, Langhorne Creek)			Selected from a SARDI trial in Langhorne Creek 1977-1980 <sup>4</sup> . Introduced into WA in 2002 <sup>3</sup> .
LC10 (IW026123, Langhorne Creek)		LC10 (AS805397, Langhorne Creek)	Selected from a SARDI trial in Langhorne Creek 1977-1980 <sup>4</sup> . Introduced into WA in 2002 <sup>3</sup> .
LC14 (IW056133, Langhorne Creek)		LC14 (AS805398, Langhorne Creek)	Selected from a SARDI trial in Langhorne Creek 1977-1988 <sup>4</sup> . Introduced into WA in 2005 <sup>3</sup> .
LC84 (IW056132, Langhorne Creek)		LC84 (Langhorne Creek)	Selected from a SARDI trial in Langhorne Creek 1977-1980 <sup>4</sup> . Introduced into WA in 2005 <sup>3</sup> .
	169	169	Believed to be the same as ENTAV-INRA® N° 169.
	CH2 (UCD)		Napa selection.
	CH4 (UCD)		Napa selection.
	LC7	LC7 (AS805396, Langhorne Creek)	Selected from a SARDI trial in Langhorne Creek 1977-1988 <sup>4</sup> .
	Houghton mass selection (Swan Valley)		Mass selection of Cabernet Sauvignon from a 5 acre block at Houghton Vineyard, Middle Swan planted in 1930.
	M337 (France)	M337 (IS905624, France)	Selected in Bordeaux and released in 1975. Believed to be the same as FPS Clone 47 <sup>6</sup> . FPS imported 337 in 1989, underwent micro-shoot tip culture to remove virus.
	M191 (France)	M191 (IS905623, France)	Selected in Bordeaux and released in 1973. Believed to be the same as ENTAV-INRA® N° 191, EN191 and FPS Clone 34 <sup>6</sup> . FPS imported 191 in 1989, underwent micro-shoot tip culture to remove virus <sup>6</sup> .
	M412 (France)	ENTAV-INRA® N° 412	M412 and ENTAV-INRA® No 412 are believed to be the same clone.
	Roche 5-2 (Great Southern)		Selected from the Westfield vineyard, Frankland River, originally sourced from Houghton vineyard, Swan Valley <sup>7</sup> .

# Cabernet Sauvignon clones



7

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
	Roche 5-7 (Great Southern)		Selected from the Westfield vineyard, Frankland River, originally sourced from Houghton vineyard, Swan Valley <sup>7</sup> .
	Roche 9-7 (Great Southern)		Selected from the Westfield vineyard, Frankland River, originally sourced from Houghton vineyard, Swan Valley <sup>7</sup> .
	Roche 20-4 (Great Southern)		Selected from the Westfield vineyard, Frankland River, originally sourced from Houghton vineyard, Swan Valley <sup>7</sup> .
		12 (Nurioopta)	Selected from a SARDI trial in Nuriootpa 1973-1976 <sup>8</sup> .
		14 (Nurioopta)	Selected from a SARDI trial in Nuriootpa 1973-1976 <sup>8</sup> .
		15	Possibly the same as ENTAV-INRA® N° 15.
		17 (Nurioopta)	Selected from a SARDI trial in Nuriootpa 1973-1976 <sup>8</sup> .
		36 (Nurioopta)	
		C22-4 (AC728187, Merbein)	Selected by CSIRO.
		57 (IC708157, France)	INRA Pont de la Maye (BX 5186/CX/P. de la M.).
		58 (IC708158, France)	INRA Pont de la Maye (BX 5197/CX/P. de la M.).
		59 (IC708159, France)	INRA Pont de la Maye (BX 5325/CX/P. de la M.).
		74 (Nurioopta)	A selection made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		84 (Nurioopta)	A selection made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		90 (Nurioopta)	A selection made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		110 (Nurioopta)	A selection made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		126 H88-1 (Nuriootpa)	Heat treated.
		126 H88-2 (Nuriootpa)	Heat treated.
		126 H88-3 (Nuriootpa)	Heat treated.
		126 H88-4 (Nuriootpa)	Heat treated.
		126 H88-5 (Nuriootpa)	Heat treated.
		126 H88-6 (Nuriootpa)	Heat treated.
		126 H88-7 (Nuriootpa)	Heat treated.
		126 H88-8 (Nuriootpa)	Heat treated.
		Bord (Bordeaux)	Held in CSIRO collection which may not be accessible. Believed to be the same as 1959/ NX/Bordeaux ex Griffith



# Cabernet Sauvignon clones

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
		C7V5 (IV642092, UCD)	Held in CSIRO collection which may not be accessible. Believed to be the same as FPS 02. FPS 02 was sourced from Oakville, CA and originally selected by Olmo from the Kunde Estate vineyards in Sonoma County before 1940. This material is believed to have been sourced from Chateaux Margaux and Lafite Rothschild in Bordeaux in the 1880's <sup>6</sup> .
		CW46 (Coonawarra)	Selected from SARDI trial at Coonawarra in 1973 with local selections <sup>4</sup> .
		CW51 (Coonawarra)	Selected from SARDI trial at Coonawarra in 1973 with local selections <sup>4</sup> .
		ENTAV-INRA® N° 338	Selected in Bordeaux and released in 1975. Believed to be the same as clone 338.
		FPS 10 (IS915611, UCD)	Originally sourced from Germany in 1959 and has undergone 148 days heat treatment. This material was not derived from a clonal development program <sup>5</sup> .
		FPS 12 (IS915612, UCD)	Originally sourced from Chile in 1973 and underwent 103 days heat treatment. Selected from the single vine from Cachopoal Valley vineyard (Concha y Toro Vina) linked to an importation from Bordeaux in 1880's <sup>5</sup> . Believed to be the same clone as 12R.
		Griffith (Griffith)	
		GW (Great Western)	Selected by CSIRO.
		ISV-FV6	
		LC6 (Langhorne Creek)	
		LC30 (Langhorne Creek)	
		LCR2V11	Selected from a SARDI trial in Langhorne Creek 1977-1988 but original material sourced from the Clare Valley <sup>4</sup> .
		MD10-13/15	Held in CSIRO collection which may not be accessible. Originated from McWilliams.
		Penfolds (France)	
		Q390-05 (Sidney)	Imported from Centre for Plant Health, Sidney, British Columbia. Originally from France <sup>4</sup> .
		R3V19E (Coonawarra)	Selection from Coonawarra <sup>4</sup> . Believed to be the same as R3V19E FSAC (propagated by DPI Victoria by fragmented shoot apex culture).
		Reynella selection	Mass selection from McLaren Vale.
		SAVII01	
		SAVII02	
		Vereb 1 (Coonawarra)	Local selection from a Barossa nurseryman.
		Vereb 2 (Coonawarra)	Local selection from a Barossa nurseryman.
		WA Cape Selection	Houghton mass selection.



# Chardonnay clones



Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
277 (IW998547, France)		277 (IC888547, France)	Commonly referred as the Bernard or Dijon clone. Believed to be the same as SAVII 04.
G9V7 (IW892306, UCD)		G9V7 (IV712306, UCD)	Believed to be the same as FPS Clone 5. Sourced from the Martini vineyard in Carneros, CA. Heat treated for 90 days <sup>11</sup> .
G9V7 H90.1 (IW728130, UCD)			Heat treated. Commonly referred as Clone 7 in WA.
I10V1 (IW728127, UCD)		I10V1 (IC698127, UCD)	Believed to be the same as FPS Clone 6 and in NZ, Clone 6. Sourced from the Martini vineyard in Carneros, CA. Heat treated for 164 days <sup>11</sup> . Commonly referred as Clone 1 in WA.
I10V3 HT134-2 (IW728128, UCD)	I10V3 (UCD)	I10V3 (IC698128, UCD)	Believed to be the same as FPS Clone 7. Heat treated. Commonly referred as Clone 3 in WA.
I10V5 (IW728129, UCD)		I10V5 (IC698129, UCD)	Believed to be the same as FPS Clone 8. Sourced from the same vines as FPS Clone 6 but underwent 114 days heat treatment <sup>11</sup> . Commonly referred as Clone 5 in WA.
	76 (France)	76 (IC888544, France)	Commonly referred as the Bernard or Dijon clone. Believed to be the same as SAVII 01 <sup>12</sup> .
	95 (France)	95 (IC888545, France)	Commonly referred as the Bernard or Dijon clone. Believed to be the same as SAVII 02 <sup>12</sup> .
	96 (France)	96 (IC888546, France)	Commonly referred as the Bernard or Dijon clone. Believed to be the same as SAVII 03 <sup>12</sup> .
	ANTAV 84	84 (IN700180, France)	84 and ANTAV 84 are believed to be the same clone. May have fleck virus <sup>4</sup> .
	EN548	ENTAV-INRA® N° 548 (France)	Believed to be the same as 548, EN548, ENTAV-INRA® N° 548 and SAVII 15 <sup>4</sup> .
	Gingin (IW576002, UCD)		Unique clone to Western Australia imported directly from UCD in 1957. Believed to have GVL1.
	IC1 (UCD)		Napa selection.
	IC-2 (UCD)		Napa selection.
	Mendoza (IC688025)	C2V16 (IC688025, UCD)	Believed to be the same as FVC2V16/CX/UCD and FPS Clone 1A.
	ND1 (UCD)		Napa selection.
	ND-2 (UCD)		Napa selection.
	Penfolds 58 (France)		Believed to be the same as P58, Pen 58 and 1959/CX/Europe. Introduced from France into NSW by Penfolds Wines in 1958. May contain one or more viruses.
		13 (IS800189, France)	Believed to be the same as 13 ANTAV.
		78 (France)	Commonly referred as the Bernard or Dijon clone. Believed to be the same as SAVII 09 <sup>4</sup> .



# Chardonnay clones

10

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
		118 (France)	Imported from Burgundy in the late 1980's – early 1990's <sup>13</sup> .
		121 (France)	Believed to be the same as SAVII 10 <sup>4</sup> .
		124 (France)	Imported into Tasmania <sup>4</sup> .
		125 (France)	Believed to be the same as SAVII 08 <sup>4</sup> .
		131 (France)	Believed to be the same as SAVII 16 <sup>4</sup> .
		352 (France)	From l'Espigutte, France (near Montpellier). Imported in the late 1980's – early 1990's <sup>13</sup> . Believed to be the same as FPS Clone 41.
		415 (France)	Imported from Burgundy in the late 1980's – early 1990's <sup>13</sup> .
		ENTAV-INRA® N° 809 (France)	Musque clone <sup>13</sup> .
		ENTAV-INRA® N° 1066 (France)	Isolated from Burgundy <sup>14</sup> .
		F1V3 (IC688026, UCD)	Believed to be the same as OF and OFF1V3. Sourced from the Old Foundation source block at FPS Davis <sup>2</sup> .
		FPS 15 (UCD)	Known in Washington State as the "Prosser clone". Underwent 173 days of heat treatment <sup>15</sup> . Believed to be the same as SAVII 17 <sup>4</sup> .
		G9V5 (IV712305, UCD)	Believed to be the same as FPS Clone 4. Heat treated for 90 days <sup>16</sup> .
		Merbein (IC858498)	
		Q233-03 (Sidney)	Imported by SARDI from Centre for Plant Health, Sidney, British Columbia in 1992. Believed to be the same as SAVII 05 <sup>4</sup> .
		Q390-09 (Sidney)	Imported by SARDI from Centre for Plant Health, Sidney, British Columbia in 1992. Believed to be the same as SAVII 07 <sup>4</sup> .
		Q45-11B (IC748252, Sidney)	Imported from Centre for Plant Health, Sidney, British Columbia. May not be available through CSIRO.
		Q661-04 (Sidney)	Imported by SARDI from Centre for Plant Health, Sidney, British Columbia in 1992. Believed to be the same as SAVII 06 <sup>4</sup> .
		Q949-03 (Sidney)	Imported from Centre for Plant Health, Sidney, British Columbia. Believed to be the same as Clone 76 <sup>17</sup> and SAVII 01 <sup>4</sup> .
		Q949-08 (Sidney)	Imported from Centre for Plant Health, Sidney, British Columbia. Believed to be the same as Clone 277 <sup>17</sup> and SAVII 04 <sup>4</sup> .
		SF 1 (Tasmania)	
		SF 2 (Tasmania)	

# Merlot clones

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
D3V5 HT81 (IW892315, UCD)			Heat treated.
D3V7 (IW892408, UCD)		D3V7 (IS762408, UCD)	Believed to be the same clone as FPS 03 <sup>4</sup> . This clone was selected in Inglenook, CA <sup>18</sup> .
D3V14 (IW672093, UCD)		D3V14 (IC658013 & IS672093, UCD)	Believed to be the same clone as FPS 01.
FPS 18		FPS 18	Imported in 2001.
	8R (UCD)	FPS 08 (IS915615, UCD)	8R and FPS 08 are believed to be the same.
	181		181, BDX 181, EN181 and ENTAV-INRA® N° 181 may be the same clone.
	EN181		181, BDX 181, EN181 and ENTAV-INRA® N° 181 may be the same clone.
	M 343		M343 and ENTAV-INRA® N° 343 may be the same clone.
	PDFS		
	Q45-14	Q45-14 (IS905613, UCD)	Sourced from Italy via UCD.
	RVC 13 (Rutherglen)	RVC 13 (Rutherglen)	Selected from an old variety block at DPI Rutherglen.
		347	
		D3V5 (IV712315, UCD)	Believed to be the same clone as FPS 02 <sup>4</sup> .
		D3V7 HT	Heat treated.
		D3V14 HT	Heat treated.
		ENTAV-INRA® N° 181	181, BDX 181, EN181 and ENTAV-INRA® N° 181 may be the same clone.
		ENTAV-INRA® N° 343	M343 and ENTAV-INRA® N° 343 may be the same clone.
		FPS 06 (IS915614, UCD)	Believed to be the same clone as 6R.
		SAVII 01	Believed to be the same clone as FPS clone 3 <sup>19</sup> .
		SAVII 02	Believed to be the same as Italian clone ISV-F-V4 <sup>19</sup> and FPS 13.
		Rauscedo (Italy)	Rauscedo selection from Vivai Cooperativi Rauscedo (VRC), released in 1969 <sup>19</sup> .
		Rauscedo 12 (Italy)	Rauscedo selection from Vivai Cooperativi Rauscedo (VRC).
		VCR 1 (Italy)	Vivai Cooperativi Rauscedo (VRC) selection.

## Shiraz clones

12

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
12 (IW946118, Nuriootpa)	BVRC12	12 (Nuriootpa)	A selection made in 1970's at SARDI trial at BVRC <sup>8</sup> . Believed to be the same as BVRC12.
1127 (AS702274, Loxton)	BVRC1127	1127 (AS702274, Nuriootpa)	Selection from SARDI trial at Loxton 1972-1978 <sup>4</sup> . 1127 believed to be the same as BVRC1127.
1654 (IW932271, Nuriootpa)		1654 (AS702271, Nuriootpa)	A selection originally made in 1958 at SARDI trial at BVRC <sup>9</sup> .
PT15 (IW920019, Griffith)	PT15	PT15 (AN610019, Griffith)	Selected from a pruning trial in Griffith, NSW in the 1960's. Believed to be the same as NSW15.
R6WV28 (IW056134, Tahbilk)	R6WV28	R6WV28	R6WV28 is believed to be the same as R6W. Selected from the Chateau Tahbilk '1860' Selections <sup>4</sup> . Incorrectly listed as R6V28W in a previous reference.
	174		Released by ENTAV in 1972 <sup>18</sup> .
	470	ENTAV-INRA <sup>®</sup> N° 470	Released by ENTAV in 1975 <sup>18</sup> .
	1125	1125	A selection originally made in 1958 at SARDI trial at BVRC <sup>9</sup> . May contain fleck virus <sup>4</sup> .
	Bests old block	Bests Selection	Originates from the Bests vineyard at Great Western, Vic established in 1866.
	Waldron (NZ)		New Zealand clone selected for high quality attributes.
	PT23 (Griffith)	PT23 (AN610020, Griffith)	Selected from a pruning trial in Griffith, NSW in the 1960's. PT23 FSAC is a result from PT23 put through FSAC by DPI Vic. Believed to be the same as NSW23.
	WA Selection		Believed to be a mass selection from old plantings at the Houghton Vineyard, Middle Swan.
		8 (Nuriootpa)	A selection made in 1970's at SARDI trial at BVRC <sup>8</sup> .
		30	A selection made in 1970's at SARDI trial at BVRC <sup>8</sup> . Believed to be the same as BVRC30.
		33	A selection made in 1970's at SARDI trial at BVRC <sup>8</sup> . Believed to be the same as BVRC33.
		41	A selection made in 1970's at SARDI trial at BVRC <sup>8</sup> . Believed to be the same as BVRC41.
		107	
		121	
		174	
		373	From SARDI trial at Loxton 1972-1978 <sup>4</sup> .



## Shiraz clones

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
		712 (AS702272, Nuriootpa)	From SARDI trial at Loxton 1972-1978 <sup>4</sup> .
		1413	Selection made by Harry Tulloch from a trial at the Nuriootpa Research Centre.
		2412 (AS702273, Nuriootpa)	A selection originally made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		2626 (AS702275, Nuriootpa)	A selection originally made in 1958 at SARDI trial at BVRC <sup>9</sup> .
		C6-17 (AC728189, Merbein)	Selected by CSIRO.
		CW 73-3 (Coonawarra)	Selected from a clonal trial in Coonawarra planted in 1973.
		CW 73-11 (Coonawarra)	Selected from a clonal trial in Coonawarra planted in 1973.
		CW 73-16 (Coonawarra)	Selected from a clonal trial in Coonawarra planted in 1973.
		BVOVS5	Yalumba selection <sup>10</sup> .
		BVOVS10	Yalumba selection <sup>10</sup> .
		Caracosa (Rutherglen)	Selected from an old variety block at DPI Rutherglen.
		ESA3021 (Hunter)	Hunter Valley selection.
		EVOVS3	Yalumba selection <sup>10</sup> .
		EVOVS12	Yalumba selection <sup>10</sup> .
		Grippat B	Northern Rhone selection <sup>20</sup> .
		HBP (Irymple)	
		Merbein	Held in CSIRO collection which may not be accessible.
		Murray (Merbein)	Held in CSIRO collection which may not be accessible.
		PT10 (AN610018, Griffith)	Selected from a pruning trial in Griffith, NSW in the 1960's. Believed to be the same as NSW10.
		PDFS	
		R2E (Tahbilk)	1970's selection made from a block in the Chateau Tahbilk, Nagambie vineyard, reputedly planted around the 1860s.
		R5W (Tahbilk)	1970's selection made from a block in the Chateau Tahbilk, Nagambie vineyard, reputedly planted around the 1860s.
		R6E (Tahbilk)	1970's selection made from a block in the Chateau Tahbilk, Nagambie vineyard, reputedly planted around the 1860s.
		R7E (Tahbilk)	Imported into South Australia as R7EV13.
		SARDI 1	SARDI Heritage Shiraz clone.
		SARDI 3	SARDI Heritage Shiraz clone.
		SARDI 4	SARDI Heritage Shiraz clone.



# Shiraz clones

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
		SARDI 6	SARDI Heritage Shiraz clone.
		SARDI 7	SARDI Heritage Shiraz clone.
		SARDI 8	SARDI Heritage Shiraz clone.
		SARDI 9	SARDI Heritage Shiraz clone.
		SARDI 10	SARDI Heritage Shiraz clone.
		SAVII 97	Identified from a selection of low yielding Shiraz heritage vines <sup>21</sup> .
		SAVII 98	Identified from a selection of low yielding Shiraz heritage vines <sup>21</sup> .
		Yalumba 1	Imported in 2001 from Côte-Rôtie <sup>10</sup> .
		Yalumba 2	Imported in 2001 from Côte-Rôtie <sup>10</sup> .

# Tempranillo clones

Western Australia		Australia	Comments
Publically held (accession #, origin)	Privately held (accession #, origin)	Public and privately held (accession #, origin)	
D8V12 (IW022330, UCD)	D8V12	D8V12 (IV712330, UCD)	Introduced as Valdepenas <sup>17</sup> .
Requena (IW918007, Spain)	Requena	Requena (IC648007, Spain)	
	EN51		EN51 and PLANSEL 51 may be the same clone.
	EN232		
	EN595		EN595 and PLANSEL 595 may be the same clone.
	ITACyL32	ITACyL32	Selection from Ribera del Duero (Tinta del Pais).
	ITACyL98	ITACyL98	Selection from Ribera del Duero (Tinta del Pais).
	ITACyL261	ITACyL261	Selection from Ribera del Duero (Tinta del Pais).
	ITACyL306	ITACyL306	Selection from Toro (Tinta de Toro).
	ITACyL326	ITACyL326	Selection from Toro (Tinta de Toro).
	M776 (France)		
		D8V13 (IC668019, UCD)	
		ENTAV-INRA® N° 770	Selection from Rioja.
		ENTAV-INRA® N° 776	Selection from Rioja.
		PLANSEL 51	EN51 and PLANSEL 51 may be the same clone.
		PLANSEL 224	
		PLANSEL 595	EN595 and PLANSEL 595 may be the same clone.
		Provedo 8	Imported by AHVII.
		Provedo 25	Imported by AHVII.
		R12 (Italy)	Rauscedo selection from Vivai Cooperativi Rauscedo (VRC).
		RJ43 (Spain)	Imported by AHVII.
		Tinta Roriz (Portugal)	
		VCR 1 (Italy)	Vivai Cooperativi Rauscedo (VRC) selection.

## Importation of grapevine material into WA.

There are different requirements for the importation of grapevine material into WA depending on whether it is imported from interstate or internationally. The following information should only be used as a guide to outline the importation procedures and processes. Please contact Quarantine WA for interstate movements and the Department of Agriculture and Water Resources (DAWR) for international imports.

Both domestic and international importation requires different types of import permits and there is a cost involved in applying for an import in both cases.

The importation of grapevine material into WA is governed by the *Biosecurity and Agricultural Management Act 2007* (BAM Act 2007). To bring material into WA the material must have legal status. The current legal status of grapevine material can be found using the Western Australian Organisms List (WAOL) database, found here at [agric.wa.gov.au/bam/western-australian-organism-list-waol](http://agric.wa.gov.au/bam/western-australian-organism-list-waol) (search function on the right). At the time of writing *Vitis vinifera* was listed as Permitted – S11 meaning that it can be brought into WA but will require an import permit to do so.

### Interstate imports

#### Cuttings or budwood.

- Requirements for the importation of 'Grapes (other than table grapes)' as cuttings or budwood is found via the Quarantine WA Import Requirements Search website ([agric.wa.gov.au/iaquarantine/](http://agric.wa.gov.au/iaquarantine/)). This link provides access to the list of the post entry quarantine conditions that the cuttings will be subjected to. Specific information that is required for the import permit can also be found.
- The import permit application form can be accessed at [agric.wa.gov.au/invasive-species/invasive-species-permits-applications-and-fees](http://agric.wa.gov.au/invasive-species/invasive-species-permits-applications-and-fees). The template to use is 'Import a Potential Carrier' which requires permit (BAM Act (r72)).
- As the material will come across without any active growth it will be planted within a post entry quarantine facility so to grow green tissue in order to conduct the appropriate tests and assessments on the growing tissue. This will require a minimum of a year in post entry quarantine.

#### Interstate import costs

- There are a number of costs involved with importing grape material on top of the cost of the import permit.
- Costs may include visual inspections of the imported material upon arrival in WA, maintaining the vines in the post entry quarantine facility and testing for pest and diseases. These charges are subject to change so it is important to check the Department of Primary Industries and Regional Development (DPIRD) current services, product and fees document to estimate costs. This can be found at [agric.wa.gov.au/invasive-species/biosecurity-fees-and-charges](http://agric.wa.gov.au/invasive-species/biosecurity-fees-and-charges).

#### Contacting QWA

- The QWA contact details:  
Website: [agric.wa.gov.au/qtine/default.asp](http://agric.wa.gov.au/qtine/default.asp)  
Email: [QWA\\_Followup@agric.wa.gov.au](mailto:QWA_Followup@agric.wa.gov.au)  
Phone: +61 (0)8 9334 1800





## International imports

- International imports are governed by the Department of Agriculture and Water Resources (DAWR).
- DAWR have developed a Biosecurity Import Conditions database known as BICON, the website address is: [bicon.agriculture.gov.au/BiconWeb4.0/](https://bicon.agriculture.gov.au/BiconWeb4.0/).
- In order to bring grape material into Australia you must complete the information within BICON and await a response to the import application.
- The online database will provide a guide as to what to expect in regards to the import conditions prior to submitting the application.
- A fee is charged for each application to be assessed.
- The importation requirements will differ depending on the phytosanitary conditions where the cutting or material was sourced.

### Cuttings or budwood

- They will be tested for a number of pathogens for a minimum 12 month period in closed quarantine before 4 months in screenhouse.

### Tissue culture

- They will be tested for a number of pathogens for a minimum 12 month period in closed quarantine facility.

### International import costs

- Fees and charges can be found at [agriculture.gov.au/fees/charging-guidelines](https://agriculture.gov.au/fees/charging-guidelines).

### Contacting DAWR

- There is a contact tab on the BICON homepage where you can submit an enquiry.
- Alternatively:  
Website: [agriculture.gov.au/biosecurity](https://agriculture.gov.au/biosecurity)  
Email: [imports@agriculture.gov.au](mailto:imports@agriculture.gov.au)  
Phone: 1800 900 090.

# Germplasm Collections Contact Details

## Western Australia

### ARM Nursery

Steve Partridge  
PO Box 140, Capel WA 6271  
Phone: +61 (0)429 772 221  
Email: [steve@armnursery.com.au](mailto:steve@armnursery.com.au)

### Bumbak & Sons - GraftnGrapes

Mark and David Bumbak  
449 North River Road, Carnarvon WA 6701  
Phone: +61 (0)8 9941 8006  
Email: [bumbak@wn.com.au](mailto:bumbak@wn.com.au)

### Vinitech Nursery

Jock Riddell  
19 Bertie Street, Guildford WA 6055  
Phone: +61 (0)417 096 078  
Email: [jriddell@iinet.net.au](mailto:jriddell@iinet.net.au)

### Western Australian Vine Improvement Association (WAVIA)

Jim Campbell-Clause (Chairperson)  
PO Box 941, Margaret River WA 6285  
Phone: +61 (0)418 479 476  
Email: [jim@ahaviticulture.com.au](mailto:jim@ahaviticulture.com.au)  
Website: [wavia.org.au](http://wavia.org.au)

## Australia

### Agromillora Australia – Agromillora Nurseries

Alan Saunders  
PO Box 5047, Mildura VIC 3501  
149 Newton Avenue Irymple VIC 3498  
Phone: +61 (0)458 291 888  
Email: [asaunders@agromillora.com](mailto:asaunders@agromillora.com)  
Website: [agromillora.com.au](http://agromillora.com.au)

### Australian Grapevine Foundation Planting Service (AGFPS)

AGFPS includes the previous group South Australian Vine Improvement Inc. (SAVII) and is composed of the following six vine improvement groups:

- Adelaide Hills - [agfps.org.au/regional-suppliers/adelaide-hills/](http://agfps.org.au/regional-suppliers/adelaide-hills/)
- Barossa - [agfps.org.au/regional-suppliers/barossa-valley/](http://agfps.org.au/regional-suppliers/barossa-valley/)
- Clare Valley – n/a
- Langhorne Creek - [agfps.org.au/files/9314/9515/6341/Order\\_form\\_conditions\\_2017.pdf](http://agfps.org.au/files/9314/9515/6341/Order_form_conditions_2017.pdf)
- McLaren Vale - [agfps.org.au/regional-suppliers/mclaren-vale/](http://agfps.org.au/regional-suppliers/mclaren-vale/)
- Riverland (RVIC) - [agfps.org.au/regional-suppliers/riverland/](http://agfps.org.au/regional-suppliers/riverland/)

Phone: +61 (0)8 8583 5366

Website: [agfps.org.au/](http://agfps.org.au/)

**Binjara Vine Nursery**

Justin Turner  
 PO Box 75, Euston NSW 2737  
 Phone: +61 (0)3 5026 1661  
 Email: [binjara@bigpond.com](mailto:binjara@bigpond.com)  
 Website: [binjara.com.au/](http://binjara.com.au/)

**Chalmers**

Bruce Chalmers  
 Phone: (0)419 807 283  
 Email: [nursery@chalmers.com.au](mailto:nursery@chalmers.com.au)  
 Website: [chalmers.com.au/about-chalmers-nurseries](http://chalmers.com.au/about-chalmers-nurseries)

**Elite Nursery**

Wayne Farquhar  
 PO Box 495, Freeling SA 5372  
 Phone: +61 (0)8 8525 2245  
 Email: [sales@elitenursery.com.au](mailto:sales@elitenursery.com.au)  
 Website: [elitenursery.com.au/](http://elitenursery.com.au/)

**Glenavon Nurseries**

Mark Cleggett  
 101 South Bremer Road, Langhorne Creek SA 5255  
 Phone: +61 (0)417 883 826  
 Email: [markanni@bigpond.net.au](mailto:markanni@bigpond.net.au)  
 Website: [glenavon.com.au/](http://glenavon.com.au/)

**Golding Nurseries**

Darren Golding  
 Phone: +61 (0)413 942 272  
 Email: [darren@goldingwines.com.au](mailto:darren@goldingwines.com.au)  
 Website: [goldingwines.com.au/nursery/](http://goldingwines.com.au/nursery/)

**KC Vines & Rootstocks**

Andy Gordon  
 Phone: +61 (0)407 309 961  
 Justin Gordon  
 Phone: +61 (0)427 808 998  
 PO Box 1054, Mildura VIC 3502  
 Email: [info@kcvines.com.au](mailto:info@kcvines.com.au)  
 Website: [kcvines.com.au/](http://kcvines.com.au/)

**Victorian and Murray Valley Vine Improvement Association (VAMVVIA)**

Gary Thomas  
 PO Box 5051, Mildura VIC 3502  
 Phone: +61 (0)418 997 730  
 Email: [vamvvvia@bigpond.com](mailto:vamvvvia@bigpond.com)  
 Website: [vamvvvia.org/](http://vamvvvia.org/)

**Woodlea Nursery**

49 Whish-Wilson Road, Scottsdale TAS 7260  
 Phone: +61 (0)3 6352 7252  
 Email: [info@woodleanursery.com.au](mailto:info@woodleanursery.com.au)  
 Website: [woodleanursery.com.au/](http://woodleanursery.com.au/)

**Yalumba Nursery**

Nick Dry  
 PO Box 10, Angaston SA 5353  
 Phone: +61 (0)8 8568 7700  
 Email: [ndry@yalumba.com](mailto:ndry@yalumba.com)  
 Website: [yalumbanursery.com/varieties](http://yalumbanursery.com/varieties)



## International

### **ENTAV INRA**

Etablissement National Technique Amélioration Viticulture  
Institut Français de la Vigne et du Vin  
Domaine de l’Espiguet, 30240 Le Grau du Roi  
Email: [institute@vignevin.com](mailto:institute@vignevin.com)  
Website: [vignevin.com/entav-inra.html](http://vignevin.com/entav-inra.html)

### **Foundation Plant Services**

University of California Davis  
One Shields Avenue, Davis CA 95616  
Website: [fps.ucdavis.edu/aboutfps.cfm](http://fps.ucdavis.edu/aboutfps.cfm)  
\*FPS no longer exports plant material out of the United States.

### **Mercier Groupe**

Mercier Frères SARL – Siège social  
16, Rue de la chanignée  
857700 Vix FRANCE  
Website: [mercier-groupe.com/en](http://mercier-groupe.com/en)

### **Riversun Nursey Limited**

PO Box 1199, Gisborne NZ 4040  
Email: [info@riversun.co.nz](mailto:info@riversun.co.nz)  
Website: [riversun.co.nz/](http://riversun.co.nz/)

### **Vivai Cooperativi Rauscedo**

Via Udine, 39  
33095 Rauscedo (PN) - Italy  
Email: [vcr@vivairauscedo.com](mailto:vcr@vivairauscedo.com)  
Website: [vivairauscedo.com/](http://vivairauscedo.com/)



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## Recommended reading

PI@ntGrape website – provides a detailed summary of varieties and clones grown in France. Available at <http://plantgrape.plantnet-project.org/en/>.



