



Review of Grapevine Germplasm Collections in Australia

Project GWR 1112
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July 2013 (Summary)



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HAMILTON VITICULTURE





The Brief

REVIEW:

1. The status of existing collections
2. Best practice management of genetic resources
3. Priority collections
4. Potential business models



Project Outputs

- **Updated germplasm register**
- **Germplasm management and resources**
- **Other collections** – perennials; international

- **Recommendations**



Libby Tassie
Tassie Viticultural Consulting

Updated germplasm register

- a valuable industry resource
- remains confidential
- wine, table, dried grapes; rootstocks
- approx. 900 varieties (multiple clones)
 - New, missing, lost entries – since 2006
 - Private collections
 - Virus testing and identification verification



Example – updated database

Extract from database

Product ID	Variety	Clone	Accession	Origin	Colour	Type	Location 2006	Virus tested	Virus detected	Identity verified	Editing comments
1703	Zinfandel	C11V7	IV642101	FPS	R	W	V				Not held
1705	Zinfandel	F11V6	IV712335	FPS	R	W	V				Not held
3078	Zante Currant	F2V6 FSAC		FPS	R	M	V	2007	-ve	GHK	New entry has number
2366	Waltham Cross	E11V5	IV692214	FPS	W	M	V	2008	-ve	GHK	
2332	Viognier	HTK		Koorlong	W	W	V				Not held
2505	Viognier	642	IV953528	France	W	W	V	2008	-ve	GHK	
2304	Verdelho	Kosovich		WA	W	W	V	2011	-ve		



Knowledge gaps and data limitations

At present data are inconsistent and incomplete

- *Traceability*
- *Naming*
- *Health status*
- *Identification*

A refined, complete and maintained database will increase inventory awareness and management



To achieve complete inventory knowledge...

We need: National guidelines, co-ordination and resolution of these issues

- Capture of relevant private import details
- National agreement on accepted synonyms
- National clonal registration
- Elimination of varietal and clonal name duplication
- Agreed health testing methodology, frequency
- Agreed identity verification methodology
- Agreed evidence of traceability
- Consistent reporting of imposed treatments



Richard Hamilton
Hamilton Viticulture

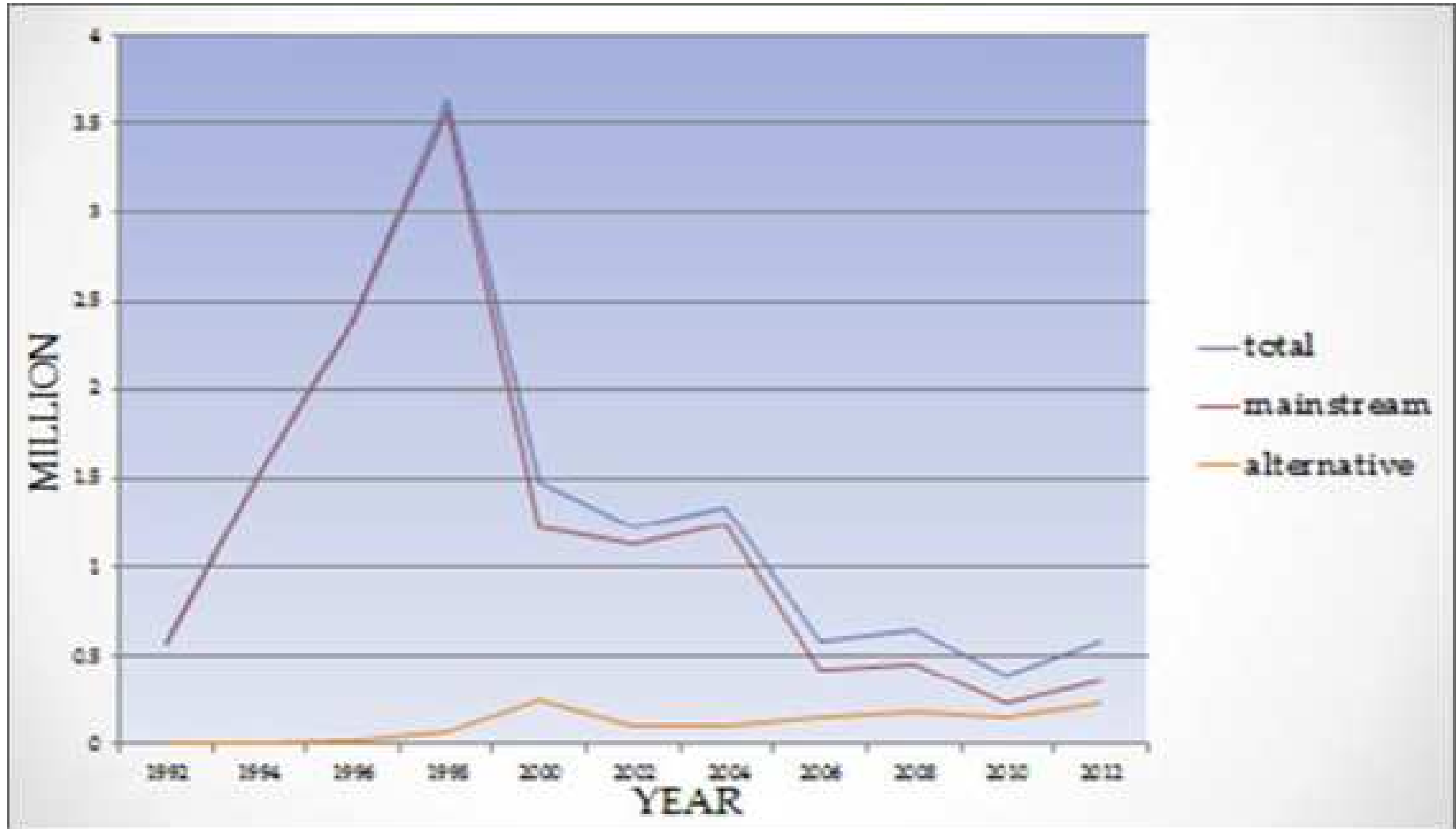
Germplasm management and resources

- How did we fund collections in the past ?
- What has changed?

Origins of Vine Improvement resourcing

Collection	Code	Government	Vine Improvement	Private
AVIA	A			
AHVII	AH			
WA, ARM	Ar			
Browns	BB			
CSIRO	C			
Chalmers	Ch			
Kapunda	K			
NSW	N			
Queensland	Q			
RVIC	R			
SARDI	S			
Tas	T			
VAMVVIA	V			
Viticlone	Vs			
WA	W			
Yalumba	Y			
	KEY	National	National	Private entities
		State	Regional	
		Funding pressure	Mothballed	Destroyed

Example - Cutting sales from one 'collection' 1992 -2011





Prue McMichael

Scholefield Robinson Horticultural Services Pty Ltd

Common features of International grape collections

- **Government funding** –most at 100%
- **Income** – services and cuttings
- **Clear purpose** - drives entry and management practices
- **Alliances** - industry and research institutions
- **Multiple sites**
- **‘No’ private collections**



International schemes - acknowledged future challenges

- Technology
- Timeliness
- Regulations
- Resilience – climate change, biodiversity
- Space
- Funding



Recommendations

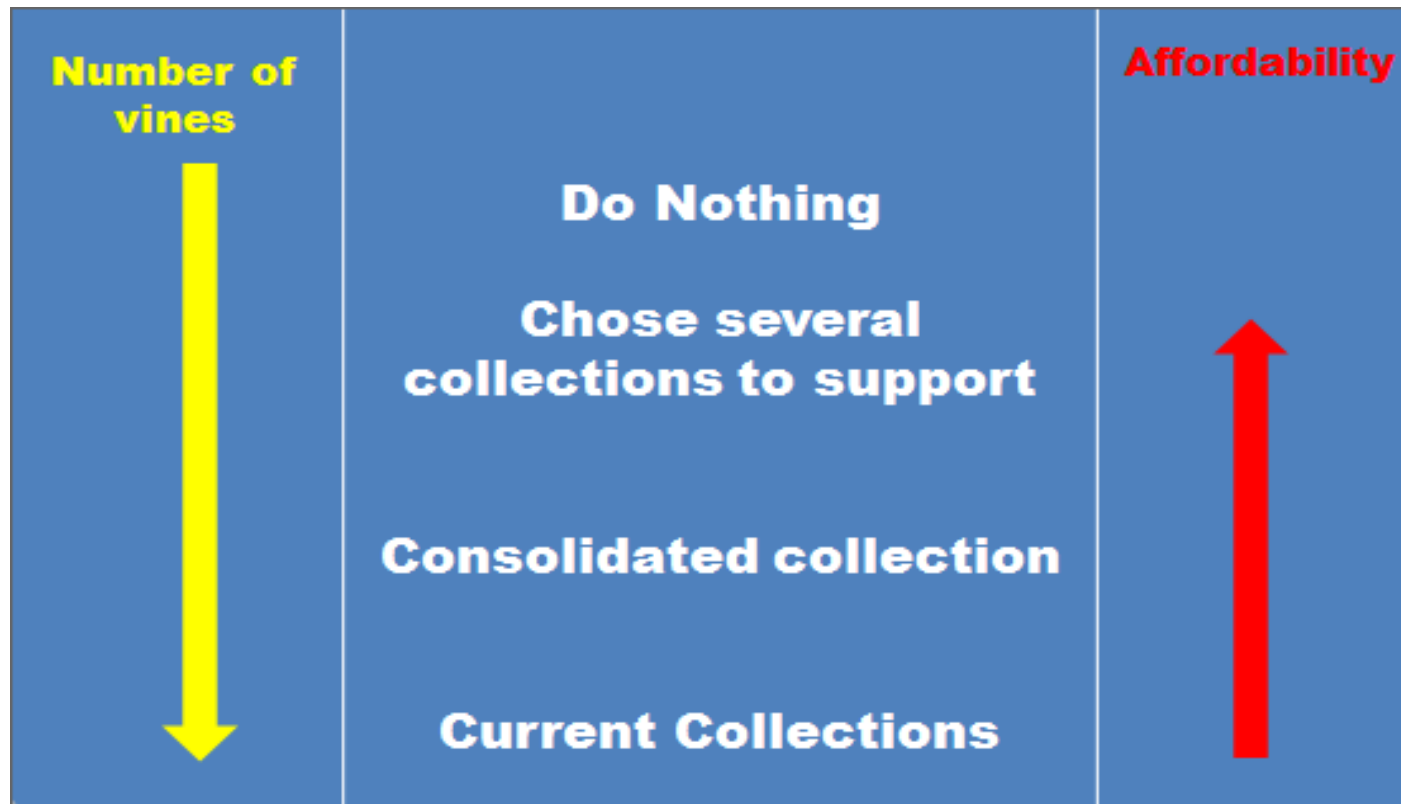
Formulated after consideration of:

- Options
- Relative (weighted) collection merit and capabilities
- Business ‘models’

- **1. Do nothing**
- **2. Secure (government) funding**
- **3. Rationalise***



A comparison of the impacts of the review recommendations





Further progress will need ...

- Industry-agreed national approach
- Industry-prioritised viticulture requirements
- Considered collection types and relative merits
- Industry-assessed options
 - Risk assessment
 - Strategic plan
 - Business models – funding, resources, alliances



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