

# AWRI Tannin Portal – Benchmarking



## Background

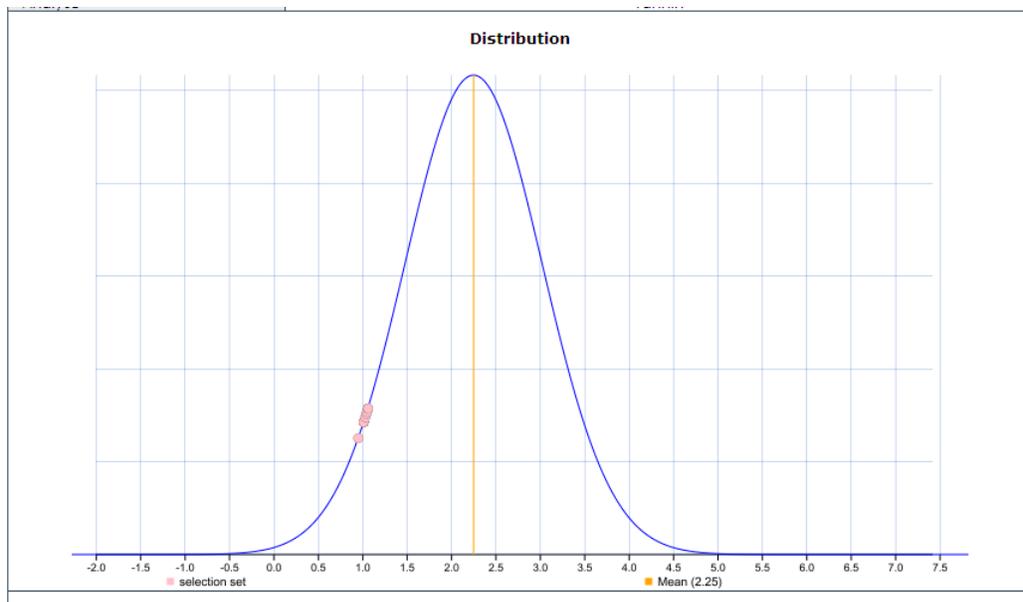
One of the key features of the AWRI Tannin Portal is the ability to benchmark your own data against the data in our extensive database. This allows you to put your results in context, based on combinations of variety, region, wine age and vintage. For example, if you're interested to see how your tannin results compare to those for other wines from the same region or variety, you can easily obtain a graphical representation of that information.

Our database currently contains data from more than 6,000 wine samples. Since its inception in 2010, the size of the database has grown dramatically and this will continue as more users subscribe to the Portal. All data are stored securely on the website and confidentiality is maintained at all times, so that the identity of users and their data are protected when benchmarking. Individual accounts provide users with secure areas to process and analyse their data, as well as carry out administration for their organisation.

It's important to note that the benchmarking function of the portal has been primarily designed for comparing results for **post-ferment** wines (i.e. wines that have finished primary fermentation), rather than fermenting samples. Now that a field for wine age has been added to the database, it will be possible to benchmark ferments based on day of fermentation, but there is not currently a large selection of data from ferments available for benchmarking.

## What does a Benchmarking plot look like?

A typical benchmarking plot looks something like this:



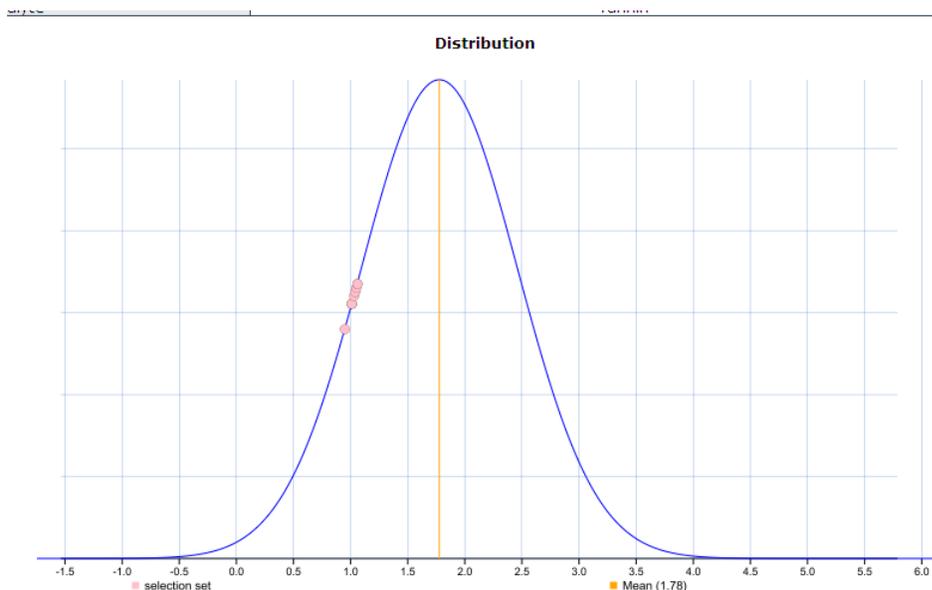
User's Cabernet Sauvignon wines (pink dots) plotted against all Australian Cabernet Sauvignon wines (blue normal distribution line) for tannin.

It is made up of pink dots (representing individual results from one set of data) – overlaid on a blue line (a normal distribution describing a second set of data).

Depending on what the user wants to see, they can choose which data are represented as pink dots (called the SELECTION set) and which data are represented by the blue distribution line (called the COMPARISON set). A mean is always calculated for the COMPARISON set (i.e. for the blue distribution line) – shown by the vertical yellow line, and numerically displayed underneath the plot.

In the example above the SELECTION set (i.e. the pink dots) show tannin levels in Cabernet Sauvignon wines analysed by the user, and the COMPARISON set (blue line) represents the distribution of all tannin levels in Australian Cabernet Sauvignon wines in the database (mean 2.25). This allows the user to see that tannin levels in their Cabernet Sauvignon wines are generally lower than the average across all Australian Cabernets.

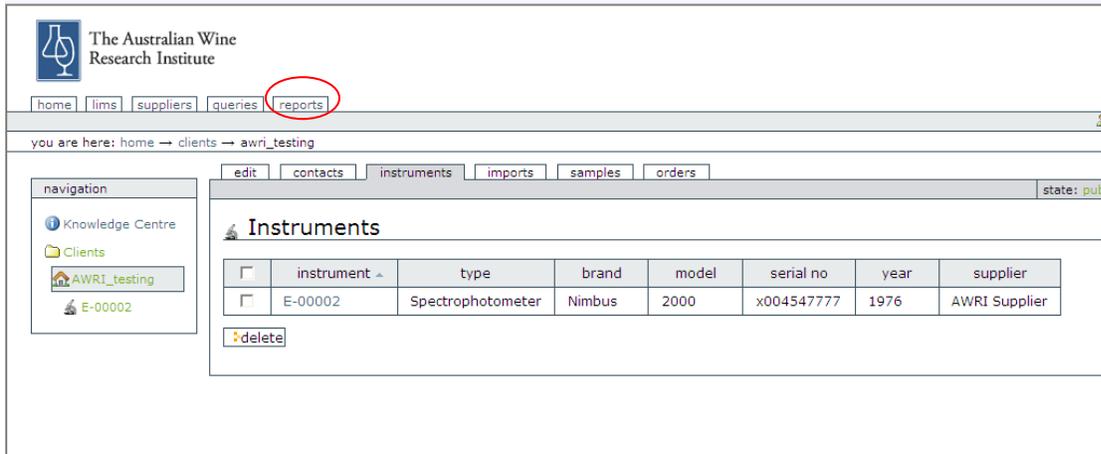
Having found out this information, the user might then decide to compare their results against those from only their own region – in this case the Riverland, where they see that their tannin levels are closer to the mean (1.78), than when comparing against all Australian Cabernets.



**User's Cabernet Sauvignon wines (pink dots) plotted against all Riverland Cabernet Sauvignon wines (blue normal distribution line) for tannin.**

## How do I generate these Benchmarking plots?

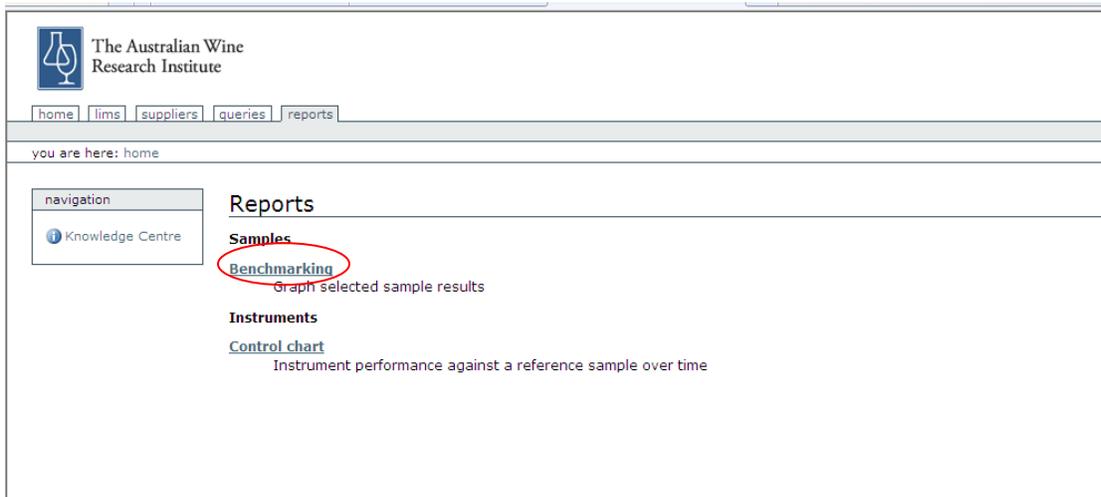
After going to <http://tannin.awri.com.au/> and logging on, choose the **reports** tab at the top of the screen.



The screenshot shows the top navigation bar of the AWRI website. The 'reports' tab is highlighted with a red circle. Below the navigation bar, the breadcrumb trail reads 'you are here: home → clients → awri\_testing'. The main content area displays a table of instruments. The table has columns for instrument ID, type, brand, model, serial number, year, and supplier. A 'delete' button is visible below the table.

<input type="checkbox"/>	instrument	type	brand	model	serial no	year	supplier
<input type="checkbox"/>	E-00002	Spectrophotometer	Nimbus	2000	x004547777	1976	AWRI Supplier

Then choose the **Benchmarking** option



The screenshot shows the 'Reports' section of the AWRI website. The 'Benchmarking' option is highlighted with a red circle. Below it, there is a description: 'Graph selected sample results'. Other options include 'Samples', 'Instruments', and 'Control chart'.

**Reports**

- Samples**
- Benchmarking** - Graph selected sample results
- Instruments**
- Control chart** - Instrument performance against a reference sample over time

This will bring up the following screen, which is where you enter information to generate your plot. The left hand box is where you enter data to choose which wines will be in your SELECTION set (pink dots) and the right hand box is where you choose which wines will make up your COMPARISON set (blue line, with mean calculated).

### To fill in this page:

- Analyte –choose between tannin, total pigment, total phenolics, free anthocyanins and pigmented tannins.

### For the selection set (pink dots) – [left hand box]:

- You can choose just an individual Sample number or Batch number if you wish to benchmark only a single sample or batch. In that case, just enter the specific Sample or Batch number and ignore the rest of the left hand box. You can also enter multiple sample or batch numbers, separated by commas.

Benchmark samples

Samples benchmarked

Selection criteria

Analyte  
Tannin

Select

Selection set

Sample  
S-03233

OR

Benchmark samples

Samples benchmarked

Selection criteria

Analyte  
Tannin

Select

Selection set

Sample

or

Batch  
B-0032

- More commonly, however, you will probably prefer to select a group of data based on search criteria. In this case, first choose if you would like your selection set (pink dots) to come from your own data or from the whole database. If choosing your own data, you can either specify a single instrument OR just choose your Client ID (company name). If choosing a selection set from the whole database, click on ALL.
- Next you can (optionally) use the Date Published field to choose the range of data publication dates you wish to consider. If no dates are entered, data from all dates will be considered.
- Finally choose from Sample Type, Variety, Vintage, Country, Region and Wine Age, depending on how you wish to limit the data. All of these fields are optional, and if they are left blank, will not be used to filter the data selection – i.e. data with all values for the field will be considered. Note that many of the samples in the database do not have a value recorded for Wine Age (as this is a new field), so filtering by Wine Age should be done with caution.

Benchmark samples

Samples benchmarked

Selection criteria

Analyte  
Tannin

Select

Selection set

Sample

or

Batch

or

Instrument Client  
or  AWRI\_testing  All

Date published

From

to

Sample Type  
Post-Ferment

Variety  
Durif

Vintage

Country

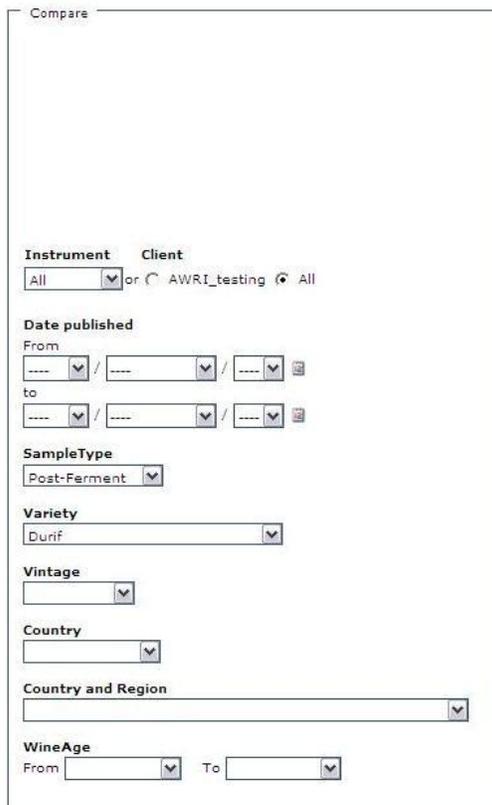
Country and Region  
Australia: Alpine Valleys

Wine Age  
From To

**Selection Set Example:** In this example the user has chosen for their SELECTION set all Post-ferment samples of Durif from Alpine Valleys.. Any samples meeting these criteria will be shown as pink dots in the resulting benchmarking plot.

### For the comparison set (blue line) – [right hand box]:

- First decide if your comparison set (blue line) data should come from your own data, or from the whole database.
- Then (optionally) use the Date Published, Sample Type, Variety, Vintage, Country, Region and Wine Age fields to choose the appropriate data you wish to benchmark against. There are over 6,000 samples in the database, so be aware when plotting data from the whole database that if you do not limit the data selection, the plot may be very slow to generate

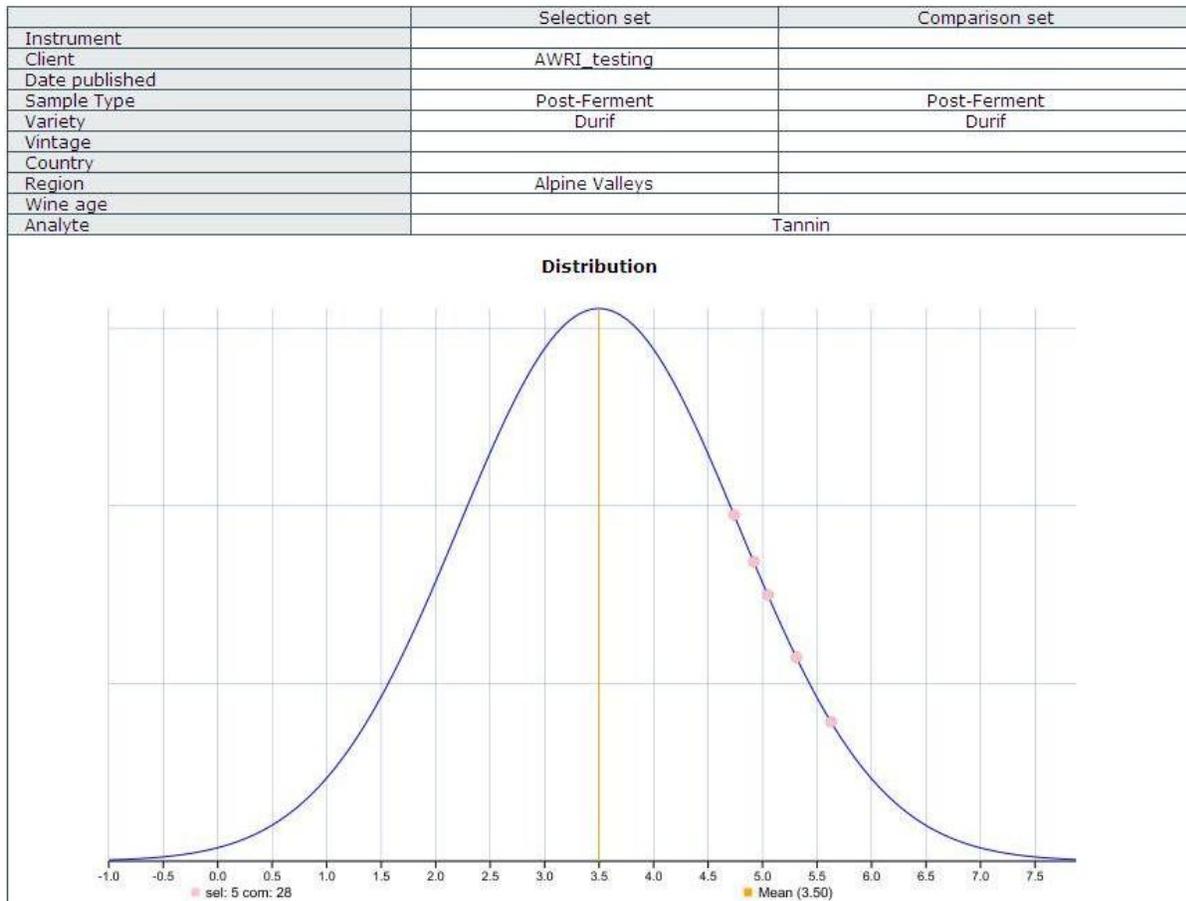


The screenshot shows a 'Compare' form with the following fields and values:

- Instrument:** All
- Client:** AWRIL\_testing
- Date published:** From and to fields are empty.
- SampleType:** Post-Ferment
- Variety:** Durif
- Vintage:** (empty)
- Country:** (empty)
- Country and Region:** (empty)
- WineAge:** From and To fields are empty.

**Comparison set example** In this example the user has chosen to compare against all Post-ferment samples of Durif wine that are in the database. No Vintage, Date, Region or Wine Age restrictions have been chosen. Any data that meets these criteria will be used to calculate the blue normal distribution line and mean value displayed on the plot.

These selections then generate the following plot:



This particular example demonstrates that the user's post-ferment Durif samples from the Alpine Valleys (pink dots) are higher in tannin than the average (3.50) of all post-ferment Durif samples in the Tannin Portal database (blue distribution line).

**Note:** When producing a benchmarking plot, a comparison set of data (used to produce the blue distribution line) **MUST** be chosen. However, a selection set (pink dots) is optional. If you just want to have a look at the distribution for a particular set of data, without comparing it against specific samples, you can do this by deselecting the SELECTION set box.

If you then decide that you would like to know how individual points are spread to make up that distribution, you can see this by producing a plot with the SAME data chosen for both the SELECTION and COMPARISON sets.

## What does the table under my plot mean?

When you generate a benchmarking plot, you will notice a table underneath the plot itself. Sometimes this is very small – and just specifies how many samples make up the selection set and comparison set for the plot.

sample	client	batch	instrument	date published	sample type	variety	vintage	country	region	wine age	result
<b>selection set</b>											<b>11</b>
<b>comparison set</b>											<b>11</b>

Other times, it will be larger, and will contain details about some of the points on the plot.

sample	client	batch	instrument	date published	sample type	variety	vintage	country	region	wine age	result
● S-07913	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2011	Australia	Alpine Valleys	3 months	5.03
● S-07914	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2011	Australia	Alpine Valleys	3 months	4.54
● S-07915	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2011	Australia	Alpine Valleys	3 months	4.82
● S-07916	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2011	Australia	Alpine Valleys	3 months	5.06
● S-07917	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2011	Australia	Alpine Valleys	3 months	4.51
● S-07918	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2010	Australia	Alpine Valleys	3 months	5.16
● S-07919	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2010	Australia	Alpine Valleys	3 months	5.15
● S-07920	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2010	Australia	Alpine Valleys	3 months	4.97
● S-07921	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2010	Australia	Alpine Valleys	3 months	5.40
● S-07922	AWRI_testing	B-0276	E-00002	21 Oct 2011 09h53	Post-Ferment	Shiraz	2010	Australia	Alpine Valleys	3 months	5.28
<b>selection set</b>											<b>10</b>
<b>comparison set</b>											<b>168</b>

This is because, whenever a benchmarking plot is generated, if any of the data chosen in either the SELECTION or COMPARISON sets belongs to the user, that data will be explicitly shown in table form below the plot. The rest of the data, which comes from other users are NOT shown in table form, and are only used ANONYMOUSLY to generate the plots.

Note that the tables under benchmarking plots can be sorted by clicking on any of the table headers.

## Who should I contact if I need help with Benchmarking?

If you are having difficulties with producing Benchmarking plots, or have questions you would like answered, contact the AWRI on [tanninportal@awri.com.au](mailto:tanninportal@awri.com.au) or +61 8 83136600