

The Lab Approach – Line Blend

by Gordon Barnes

Picture this, you are at a blind tasting with 6 glasses in front of you. Each taster progresses through the flight, carefully considering the appropriateness of the colour, the amount of fruit in the nose, the complexity in the flavor, the sugar/acid balance, plus the duration and character of the aftertaste. These subjective judgments are translated into numbers and scribbled onto the score sheets. The columns of dispassionate numbers are summed.

Then the discussion begins. There is little disagreement on the faults, but the passion appears as the favourite entries are discussed. After musing over the deficiencies of each sample, you pour some of the flat, too-sweet wine into the sharp acid sample. Presto, a “cuvée-in-the-glass”. In local lingo- A Blend.

The same process happens in most winemaker’s cellars. You have some wine with great flavor and bouquet but low in acid. A second wine is just OK but acid sharp. Your task is to find if you can balance the acid without wrecking the other good qualities.

An immediate pragmatic approach is to start mixing and see if you have a winner. Quickly one learns the folly of starting with the whole batch. There is no UNDO button like on your computer word processor – a blend is forever. When you go too far, it is forever.

The solution is to test on a small batch and then expand it to the whole lot. If you take a glass with a measured amount of the first wine, you can add small measured amounts of the second until it is about right. The problem here is that you keep tasting along the way. This changes the volume of the base to which you are making the additions, thereby rendering your blending calculations increasingly inaccurate. You also lose the ability to back up and taste the last couple earlier samples.

A solution to all this, is a standard laboratory process called a LINE BLEND that will give you a high level of accuracy with minimum fuss.

You need 6 glasses in a row, a measuring spoon (Tablespoon size) and your two wine samples.

Put 1 cup of sample B in the glass #6.

Using the Tablespoon , transfer 1 Tbsp. of B into glass #2.

Likewise transfer 2 Tbsp. in #3; 3 Tbsp. into #4, and 4 Tbsp. into #5.

Put glass #6 back into position.

Put 1 cup of sample A into glass #1.

Using the Tablespoon , transfer 1 Tbsp. of A into glass #5.

Likewise transfer 2 Tbsp. in #4; 3 Tbsp. into #3, and 4 Tbsp. into #2.

Put glass #1 back into position.

The result is a very accurate set of samples changing composition at 20%.

Now, without altering the samples, you can go back and forth to find the dividing line between too high and too low.

Note: a Tablespoon = 15ml. if you would rather measure that way.

Record your results and dump the samples.

Mix up a cup of the ‘too low’ sample and put it in glass #1.

Mix the 'too high' sample in glass #6 and repeat the tablespoon exercise. You will now have increments of 4% which should allow most selections to be made. If not, repeat the process and you will have 0.8% increments.

You can also use this process to make samples for testing your taste and smell threshold levels. These samples are also good for training in quantity recognition of components like sugar, tannin and acid.

The general formula for these calculations will make the process more easily applied to diverse applications.

Where...

- L is the low addition percentage
- H is the high addition percentage
- N is the number of glasses
- I is the percent of increment

$$I = (H-L) / (N-1)$$

Glass #	1	2	3	4	5	6
Tbsp of "A"	0	1	2	3	4	5+
Tbsp of "B"	5+	4	3	2	1	0

If you want a larger sample to drink, use a measure larger than a Tablespoon. If you want a smaller increment between glasses, use more glasses or be more accurate on the High/Low guess on round one.