Figure S1. Diagram depicting the methods to obtain inputs to feed the proposed models to obtain the specific outputs.
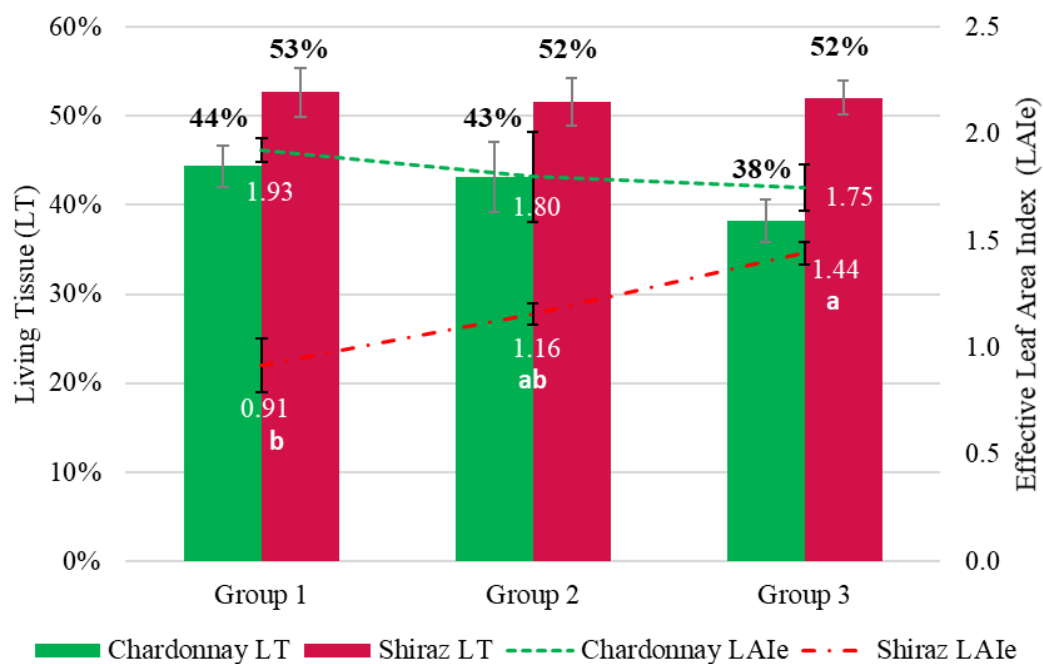
Figure S2. Means of living tissue and effective leaf area index of the three groups of samples of Chardonnay (green) and Shiraz (red) at harvest time. Error bars depict the standard error. Different letters [ab] represents significant differences between groups based on ANOVA (p < 0.05) and Tukey post hoc test (α = 0.05).

Table S1. Means (top values) and standard error (bottom values) of sensory descriptors of the three groups of samples of Chardonnay and Shiraz wines.

Sample/Attribute	Clarity	Color	Aroma Floral	Aroma Citrus	Aroma Spicy	Aroma Oak	Aroma Smoke	Aroma Sweet	Aroma Cut Hay	Overall quality
					Chardonnay					
Wine Group 1	4.88 ±1.22	4.93 ±1.05	5.23 ±1.32	5.64 ±1.30	2.36 ±1.04	3.71 ±0.75	2.45 ±1.19	5.95 ±1.65	6.25 ±1.03	9.90 ±0.43
Wine Group 2	3.77 ±1.25	5.92 ±0.87	6.33 ±1.10	7.11 ±1.07	3.24 ±0.81	2.89 ±0.88	2.77 ±0.76	6.86 ±1.60	6.43 ±1.25	9.66 ±0.54
Wine Group 3	4.89 ±1.20	3.3 ±1.23	8.04 ±0.97	6.15 ±1.45	2.57 ±0.77	2.25 ±1.24	1.58 ±0.81	7.73 ±1.45	4.61 ±0.96	10.58 ±0.39

Sample/Attribute	Clarity	Color	Aroma Floral	Aroma Red Fruits	Aroma Black Fruits	Aroma Sweet	Aroma Pepper	Aroma Oak	Aroma Mushrooms	Overall quality
					Shiraz					
Wine Group 1	5.31 ±0.88	5.36 ±0.84	5.33 ±1.35	7.27 ±1.2	6.71 ±1.23	7.96 ±1.48	2.56 ±0.94	3.37 ±1.45	4.91 ±1.17	10.20 ±0.57
Wine Group 2	8.04 ±1.05	6.80 ±0.88	4.42 ±1.01	7.33 ±1.02	6.51 ±1.42	7.56 ±1.43	1.89 ±0.37	4.85 ±1.26	5.39 ±1.16	10.90 ±0.40
Wine Group 3	6.49 ±1.03	6.65 ±0.66	5.21 ±1.32	8.38 ±1.19	5.45 ±0.82	5.72 ±1.54	2.97 ±1.16	4.03 ±1.31	5.75 ±1.49	10.72 ±0.50