

Supplementary Table 1: ANOVA analysis representing the significance level among different parameters under study

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
<i>Preservative Solutions</i>	848.5011	11	77.13647	1.432467	0.159212	2.325297
Biochemical Parameters	73402.91	21	3495.377	64.9111	1.54E-84	1.93469
Error	12439.04	231	53.84867			
Total	86690.45	263				

Significant at $p < 0.01$

Supplementary Table 2: Eigen analysis of correlation matrix

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11
Eigenvalue	16.690	0.560	0.422	0.152	0.066	0.054	0.024	0.017	0.010	0.004	0.002
Variability (%)	92.721	3.111	2.345	0.845	0.364	0.303	0.133	0.095	0.055	0.020	0.009
Cumulative %	92.721	95.832	98.176	99.021	99.385	99.688	99.821	99.916	99.971	99.991	100.000

Supplementary Table 3: The variable loading scores for each principal component

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11
DPPH	-0.926	-0.170	0.279	0.170	0.074	0.022	-0.023	-0.025	-0.026	0.002	0.015
ABTS	-0.864	-0.258	0.401	-0.144	0.038	-0.047	-0.013	0.026	0.023	-0.005	-0.008
SO	-0.987	-0.013	0.039	-0.093	-0.080	0.069	-0.045	-0.048	0.024	-0.007	0.000
NO	-0.977	0.008	0.152	-0.093	-0.062	0.043	0.089	-0.008	0.003	0.023	0.004
CHL	-0.928	0.329	-0.017	-0.116	0.060	-0.089	-0.065	0.013	-0.005	0.015	0.007
CARO	-0.897	0.415	0.142	0.001	0.016	0.028	0.003	-0.001	-0.029	-0.008	-0.018
PRO	-0.973	-0.161	-0.135	0.049	-0.016	0.003	-0.049	-0.049	0.016	0.022	-0.009
TS	-0.942	-0.264	-0.176	-0.018	0.016	0.073	-0.037	0.072	-0.019	0.000	-0.007
RS	-0.980	-0.115	-0.117	0.034	0.071	-0.056	0.038	-0.007	-0.018	0.023	0.000
PH	0.993	0.025	0.095	0.025	-0.014	-0.016	-0.003	0.049	0.011	0.013	0.004
OPH	0.982	0.097	0.148	0.028	-0.044	0.018	-0.041	-0.012	-0.010	0.006	0.012
FLV	0.983	0.045	0.136	0.056	-0.064	0.053	-0.037	0.031	0.001	0.032	-0.007
SCW	-0.977	0.180	-0.086	0.030	0.030	0.023	0.018	0.019	0.051	0.012	0.008
SSW	-0.993	0.069	-0.041	-0.003	0.004	0.078	-0.002	0.033	0.011	-0.012	0.019
SR	-0.991	0.036	-0.061	-0.083	-0.050	0.043	-0.003	0.002	-0.049	0.005	0.005
GI	-0.966	0.148	0.058	0.196	0.029	0.029	0.003	0.010	0.027	-0.006	-0.010
ERR	-0.981	0.014	0.076	0.119	-0.115	-0.061	0.015	0.021	-0.017	-0.004	-0.002
MR	0.981	0.048	0.065	-0.052	0.123	0.108	0.015	-0.015	-0.009	0.008	-0.006

[DPPH= diphenyl-1-picrylhydrazyl, ABTS= 2,2-azino-bis 3-ethylbenzthiazoline-6-sulphonic acid, SOS= Superoxide scavenging, NO= Nitricoxide, CHL= Total Chlorophyll, PRO=Total Protein, TS= Total Sugar, RS= Reducing Sugar, PH= Phenol, OPH= Ortho Phenol, FLV= Flavonoid, GI= Growth index, SCW= Single cocoon weight, SSW= Single shell weight, SR= Shell ratio, ERR= Effective Rate of Rearing, MR= Mortality rate]