

**Table S3.** Analysis of variance for DHA productivity using coded values and regression equation

Source	DF <sup>a</sup>	SS <sup>b</sup>	MS <sup>c</sup>	F-Value	P-Value
Model	6	155540	25923.4	17.50	0.001
Blocks	1	122	122.4	0.08	0.782
Linear	2	34510	17254.9	11.65	0.006
X1 (SOS)	1	30922	30921.7	20.87	0.003
X2 (YE)	1	3588	3588.0	2.42	0.164
Square	2	107076	53538.1	36.13	0.000
X1*X1	1	65612	65612.5	44.28	0.000
X2*X2	1	9320	9320.2	6.29	0.041
2-Way Interaction					
X1*X2	1	3474	3473.6	2.34	0.170
Error	7	10372	1481.7		
Lack-of-Fit	3	1082	360.7	0.16	0.921
Pure Error	4	9290	2322.5		
Total	13	165913			

<sup>a</sup>DF. degree of freedom; <sup>b</sup>SS. sum of squares; <sup>c</sup>MS. mean squares