

**Supplementary Information 3. Composition of nutrient contents of high-concentration antioxidant diet in the experiments**

<b>Ingredient composition (%)</b>	<b>Content</b>
Corn	48.30
Wheat middlings	12.00
Wheat	17.00
Choline chloride	0.20
Bean pulp	6.80
Fish meal	4.00
Chicken powder	5.00
Animal Premix (antioxidants) *	4.00
Stone powde	1.10
Soybean oil	1.00
Secondary sodium chloride	0.45
Secondary magnesium chloride	0.15
<b>Total</b>	<b>100</b>

\* **Hight concentration** antioxidants represent EQ, FA, rutin and resveratrol add 300mg/kg respectively.