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Rosa hybrid Flowers as Natural Carotenoid Source for Enhancing the Pigmentation and Growth of Ornamental Goldfish (*Carassius auratus*)

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The attractive pigmentation of ornamental fishes, such as Goldfish (*Carassius auratus*), is mainly due to the carotenoids present in their tissues. To optimize the colour of aquarium fish, their feed is supplemented with carotenoid pigments in sufficient concentrations. With this objective, four different varieties of *Rosa hybrida* flower petals (Double delight, Jubileums, Brisbane blush and Restless) at three different concentrations (2, 4 and 6 gm/kg) were added to the formulated control feed, and fed at 3% of the body weight of the fishes, for 45 day period. The effect on pigmentation and growth parameters was studied. The effect of increasing the concentrations of the different Rose varieties on the length of the fishes was significant ($P < 0.001$), with the highest concentration being the most effective. As regards the effect on weight gain, the effect of different concentrations of Rose flower were significantly different ($P < 0.001$), and 4 gm/1000 gm of formulated control feed was seen to be most effective, with a decrease in weight at higher concentrations. The increase in carotenoid content of the fishes was clearly proportionate to the increase in concentration of the Rose petal, with 6 gm/1000 gm of formulated control feed being most effective.