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**RESULTS OBTAINED REGARDING GROWTH PERFORMANCE FOLLOWING THE
ADMINISTRATION OF A WHEAT GRASS JUICE DIET TO COMMON CARP (CYPRINUS
CARPIO L.)**

Mălina-Andreea DĂNCIUG (ROTARU), Bianca-Petruța POPA (TIHINIUC-POPA), Benone PĂȘĂRIN
Ion Ionescu de la Brad " University of Life Sciences Iasi, Aleea Mihail Sadoveanu no. 3, 700490, Iasi, Romania

*Corresponding author's
email: danciugmalina@gmail.com

Abstract: Wheat grass juice (WGJ) is a juice made from young plants (*Triticum aestivum* L.) that is used around the world for its health benefits. In this study, different feeds containing WGJ were tested on common carp (*Cyprinus carpio* L.): Control (C), WGJ 1% (P1), WGJ 2% (P2), WGJ 3% (P3). The results suggest that WGJ can be a beneficial feed additive for common carp. The current study aims to assess the impacts of wheat grass juice on growth performance and body composition to suggest the best concentration for feeding carp.

• **Introduction**

Wheat grass juice is a liquid made from young wheatgrass plants of *Triticum aestivum* Linn. It is thought to have many health benefits, including being an antioxidant, boosting the immune system, protecting the heart, and helping to manage blood sugar. The chemical makeup of wheat grass juice is complicated but mainly includes chlorophyll.

• **Material and method**

The experiment took at the Research Station. *Cyprinus carpio* L., each starting with a weight of 105 g, were raised in a recirculating aquaculture system indoors.

Table 1. Average values obtained of water parameters in RAS

Parameters	Wee k 1	Wee k 2	Wee k 3	Wee k 4	Wee k 5
Temperature (°C)	21	21	21	21	21
pH (pH units)	7.8	7.9	7.8	7.9	8.1
Dissolved oxygen (mg/L)	9.80	9.02	8.80	8.60	8.92
Conductivity (μS/cm ²)	1275	1245	1223	1307	1278
Nitrates (NO ₃ ⁻) (mg/L)	39.6	37.8	45	35.8	26.5
Nitrites (NO ₂ ⁻) (mg/L)	0.11	0.12	0.14	BD	BD
Ammonia (NH ₃ ⁺) (mg/L)	BD	BD	BD	BD	BD
Phosphates (mg/L)	0.01	0.01	0.005	0.007	0.02

Table 2. Feed composition

Parameters	C	P1	P2	P3
Moisture	9.33	8.98	9.10	9.97
Protein	27.89	27.33	27.3	26.92
Fat	4.2	4.16	4.03	3.92
Ash	9.04	9.47	9.67	9.43
Phosphorus	1.03	1.03	1.04	1.06
Fiber	2.30	2.47	2.49	2.78

• **Results and discussions**

The impact of WGJ on the weight of carp is shown in Figure 1. The findings show that carp that ate diets with added WGJ gained more weight by the end compared to the control group in all WGJ diets (P1-10%, P2-38%, AND P3-22%) especially P2.

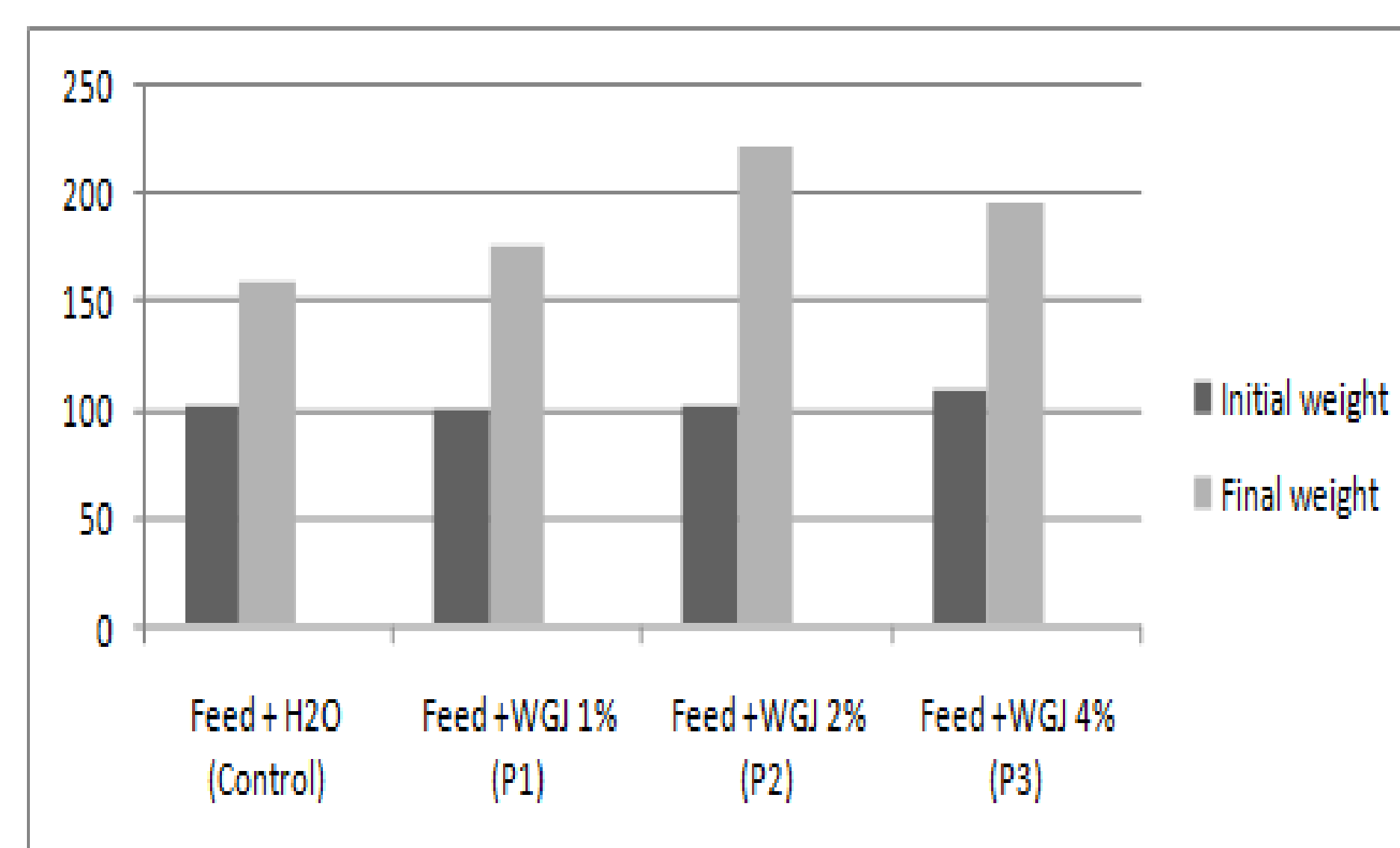


Figure 1. Initial body weight final body weight of common carp fed four diets with different amounts of wheat grass juice (WGJ)

• **Conclusions**

Wheat grass juice (WGJ) was tested as a food additive for common carp. WGJ has active compounds like chlorophyll pigments and phenolic compounds, which have strong antioxidant effects. The quality of the meat improved with a significant reduction in fat content and a significant rise in collagen and ash, while protein levels stayed the same. Additionally, adding WGJ also improves blood markers, such as total protein and calcium, and lowers cholesterol.