MartinBauer

MartinBauer Animal Nutrition

ADD VALUE WITH TEA

BOTANICAL FACTS

TEA
Camellia sinensis

Target species	Various aquaculture species
Target effect	oxidative stress, growth performance, lipid metabolism, immune response, and antioxidant capacity
Origin	Asia, Sri Lanka, Indonesia, Japan, Kenya, Argentina
Procurement	Cultivation
Used parts	Leaves

Prove of benefits

Several studies have shown that tea polyphenols can significantly enhance growth performance, lipid metabolism, immune response, and antioxidant capacity in fish species. For example, adding green tea (GT) to tilapia diets at 0.8% to 1.6% significantly supported weight gain and improved feed conversion ratios (Zheng et al., 2016; Abdel-Tawwab et al., 2010). Similarly, tea polyphenols (TPs) at 50 mg/kg in juvenile black carp enhanced growth performance and digestive enzyme activity, contributing to better resilience and health (Zhong et al., 2019; Ma et al., 2021). TPs also reduced liver fat by over 50% in tilapia and improved survival rates by 15% (Qian et al., 2021; Guo et al., 2018). Moreover, TPs increased liver antioxidant capacity in Wuchang bream, reducing oxidative damage and enhancing nitrite stress resistance (Guo et al., 2020; Long et al., 2017). Tea extract (TE) improved immune responses in Nile tilapia, boosting survival rates against Streptococcus agalactiae nearly threefold (Hien Van Doan et al., 2019; Ramasamy Harikrishnan et al., 2011). Additionally, TE enhanced immune function in kelp grouper and improved overall health (Ramasamy Harikrishnan et al., 2011; Shahab Nootash et al., 2013). In Koi carp, TPs improved antioxidant activity, alter intestinal microbiota, and enhanced health (Zhang et al., 2020; Soleiman Hasanpour et al., 2019), while in black rockfish, TE reduced oxidative stress, aiding recovery from environmental stress (Hwang et al., 2012; Suzuki et al., 2006). Finally, TPs provided growth benefits and intestinal protection against bacterial infections in grass carp, offering a natural alternative to antibiotics in aquaculture (Ma et al., 2021).

Active ingredients

- Polyphenols (9.4-26.8% | e.g. catechins, epi catechins, flavonols)
- Purine Alkaloids (2-6% | e.g. caffeine, theobromine, theophylline)
- Triterpene saponins
- Essential Oil
- Minerals

Associated benefits

- Antioxidant
- Centrally stimulating
- Positively inotropic
- Antidiarrheal
- Diuretic

FORMATS

Cut

Powder

Blend

Extract

Tincture

GMP+ Feed Safety Assurance

FAMI QS

References

TEA

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