

Saponins

Description

Saponins are naturally occurring foam-producing triterpene or steroidal glycosides (Tacon, 1997). Acting as a detergent, they can damage the intestinal mucosa disrupting the nutrients transport. They are capable of binding with proteins, forming sparingly digestible complexes and reducing consequently the protein digestibility (Francis *et al.*, 2001). Their bitterness is known to affect the ingredients palatability (Guillaume *et al.*, 1999). Saponins are commonly used as a fish-poison. When added to the water, they damage the respiratory epithelium of the gills (Francis *et al.*, 2001). Levels below 1 g/kg are unlikely to affect growth performance of common aquaculture fish (Francis *et al.*, 2001).

Occurrences

They occur in many plant species and are particularly concentrated in the leaves (Guillaume *et al.*, 1999).

Treatment

Saponins are highly soluble in water and can be removed by aqueous extraction (Francis *et al.*, 2001).