

pine crush

NATURAL DIGESTION AID



Pine Crush is made from a sweet pineapple that is grown in small volumes on the Queensland Sunshine Coast. It is rich in an enzyme at the time of harvest that is capable of very efficiently breaking down polysaccharide molecules such as the lipopolysaccharides that coat the outside of Gram-negative bacteria and some Gram-positive bacteria and the polysaccharide slime that encapsulates some bacteria. For some of these bacteria, the polysaccharide coating hides the bacterial membrane proteins from being broken down by Biohawk's ginger products which are specific for digesting a particular type of protein commonly found on the outer-membranes of bacteria and that are essential for the bacterial function. For most Gram-positive bacteria where there is no lipopolysaccharide coating and for some medically important Gram-negative bacteria such as *Salmonella*, *E. coli*, and *Pseudomonas aeruginosa* where the lipopolysaccharide coating does not hide all the outer-membrane proteins, the ginger enzymes are able to do their job of digesting the outer-membrane proteins and expressed toxins. However, for some medically important bacteria, especially those that infect the throat and lungs such as *Streptococcus pneumoniae* and *Haemophilus influenzae b*, the Biohawk ginger is unable to remove the infection. Consequently Professor Cliff Hawkins searched for a common food that had an enzyme capable of efficiently breaking down the polysaccharide coatings of bacteria. Pine Crush is the result of these studies.

Chronic fatigue syndrome can arise from a cytokine peptide expressed by a hypersensitized immune system competing with insulin in the binding of glucose to energy cells. Another cause can be a saccharide competing with glucose for binding via insulin to the energy cell receptor. Pine Crush was also developed as a means of breaking down these saccharides.

No independent clinical trials have been conducted with Pine Crush and bacteria or with chronic fatigue syndrome. The Pine Crush is provided as an aid to the digestion of polysaccharides.

For further information contact Biohawk:
22 Clinker Street, Darra QLD 4076
T: +617 3376 9518
E: info@biohawk.com.au
www.biohawk.com.au

