

An α -amylase inhibitor from ryegrass (*Lolium multiflorum* Lam) seed

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Inhibitory activity against wheat α -amylase has been found in extracts of seeds of ryegrass but not any other grass species tested. Preliminary studies aimed at characterising the inhibitor(s) are presented. Inhibitory activity can be precipitated from crude aqueous extracts of quiescent seed by ammonium sulphate and resolved by gel-filtration using Sephadex G100. The optimum pH for inhibition of α -amylase activity is pH 6.2 and the inhibitor appears to be active against ryegrass α -amylase as well as the wheat enzyme. Initial experiments suggest that the inhibitor may interact with the enzyme substrate complex rather than the free enzyme.