

ホップによる微生物生育阻害作用

Inhibitory Function of *Hop* (*Humulus lupulus* L.) toward cell Growth of Microorganisms

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In regards to the antimicrobial function of *hop* (*humulus lupulus* L.), which is added to give a refreshing aroma and bitterness in the making of beer, fresh and old *hop* were compared. For this, the growth inhibiting pattern of polyphenols and resins found in *hop* was investigated.

Hop showed an inhibitory pattern in synthetic and natural medium against *Leu. mesenteroides* P-60 that was quite similar to that showed by quercetin and *o*-coumaric acid. Old *hop* had a lower inhibiting activity towards lactic acid bacterial growth compared with that of fresh *hop*. Contrary to this, old *hop* showed a higher inhibiting activity against other microorganisms like *Acetobacter* sp., *Pseudomonas* sp., *E. coli* and yeast strains. Results can be attributed to the fact that old *hop* has a lower inhibiting activity of resins against *Leu. mesenteroides* P-60, while the polyphenols in the old *hop* have a higher inhibiting activity against the growth of *Ps. fluorescens* and *S. cerevisiae* studied.

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