

Perancangan konsep biodegradable active intelligent packaging untuk meningkatkan kualitas dan keamanan produk perishable = Concept development of biodegradable active intelligent packaging to improve the safety and quality of perishable products / Rahma Utari

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Abstrak

[ABSTRAK

Produk perishable adalah produk yang akan mengalami kerusakan atau penurunan kualitas sehingga tidak layak atau aman untuk dikonsumsi karena perubahan kondisi yang terjadi terhadap produk. Salah satu contoh produk perishable yang paling umum adalah makanan. Penelitian ini bertujuan untuk merancang konsep biodegradable active & intelligent packaging untuk digunakan pada produk makanan, terutama produk muscle-based. Jenis plastik yang dibuat adalah plastik oxo-degradable. Melalui survei menggunakan kuesioner dan analisis AHP, diketahui fitur active packaging dan intelligent packaging yang dianggap paling penting secara berurutan adalah antimicrobial packaging dan spoilage/freshness indicator, yang dibuat dengan penambahan bahan antimikroba berbahan dasar perak dan indikator berbahan dasar antosianin terhadap masterbatch plastik pada proses ekstrusi.

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ABSTRACT

Perishable products are products which eventually degrade in quality and safety as time passes by. One example of perishable product is food. This research aims to design the concept of biodegradable active & intelligent packaging used for food products, particularly muscle-based products. The type of biodegradable plastic chosen is oxo-degradable. Based on survey conducted through questionnaire and AHP analysis, the most important features for active and intelligent packaging, in sequence, are antimicrobial packaging and spoilage/freshness indicator. These features can be integrated to aforementioned oxo-degradable by the addition of silver-based antimicrobial agent and anthocyanine-based pH indicator into plastic masterbatches during extrusion process., Perishable products are products which eventually degrade in quality and safety as time passes by. One example of perishable product is food. This research aims to design the concept of biodegradable active & intelligent packaging used for food products, particularly muscle-based products. The type of biodegradable plastic chosen is oxo-degradable. Based on survey conducted through questionnaire and AHP analysis, the most important features for active and intelligent packaging, in sequence, are antimicrobial packaging and spoilage/freshness indicator. These features can be integrated to aforementioned oxo-degradable by the addition of silver-based antimicrobial agent and anthocyanine-based pH indicator into plastic masterbatches during extrusion process.]