

APLIKASI TRANSFER GEN DALAM AKUAKULTUR
Application of Gene Transfer in Aquaculture

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ABSTRACT

Recently, global food security has become a hot issue by the public in national as well as out of the country. Aquacultural output will need to be increased several fold in order to meet the rising demands for **fish** in coming years as the increasing of mankind population. The intensity and capacity of production is expected to increase using biotechnology approach. One of the advances biotechnologies that expected to be a powerful approach for aquaculture development is transgenic technique. This technique has been applied to several commercially valuable species. This review describes various techniques of gene transfer, persistence and expression of transferred gene, application and future aspect of gene transfer research in aquaculture.

Key words: Gene transfer, gene expression, biotechnology, aquaculture

ABSTRAK

Saat ini, keamanan pangan telah menjadi isu hangat di masyarakat baik di dalam maupun di luar negeri. Produksi akuakultur diharapkan dapat ditingkatkan beberapa kali lipat untuk memenuhi kebutuhan pangan berupa ikan dimasa-masa mendatang akibat penmgkatan populasi manusia. Intensitas dan kapasitas produksi diharapkan meningkat dengan mcnggunakan pendekatan bioteknologi. Salah satu teknik modem yang diduga akan menjadi sarana yang berguna dalam pengembangan akuakultur adalah teknologi transfer gen. Teknik ini telah diaplikasikan pada spesies-spesies yang memiliki nilai ekonomis. Ulasan ini menggambarkan variasi metode transfer gen, persistensi dan ekspresi dan gen yang ditransfer, aplikasi dan prospeknya ke depan dari penelitian transfer gen dalam akuakultur.

Kata kunci : transfer gen, ekspresi gen, bioteknologi, akuakultur