

Developing Indonesian vegetables and medicinal plants for economically valuable products
(Oral Presentation)

Leonardus B.S. Kardono

Research Center for Chemistry, Indonesian Institute of Sciences, Kawasan PUSPIPTEK, Serpong 15314, Indonesia

Introduction

Various vegetables and medicinal plants have been developed for potential economically valuable products in our laboratory. Starting from α -glucosidase inhibitory evaluation, several anti-hyperglycemic drinks have been developed. These functional drinks were developed from Indonesian vegetables, namely, *salam* (*Eugenia polyanta*), *ruku-ruku* (*Ocimum sanctum*), *lamtoro* (*Leucaena glauca*), *paria* (*Momordica charantia*). Virgin coconut oil is famous in Indonesia preventive functional food to prevent various diseases.

Objectives

To use the α -glucosidase inhibitory data to control the dose compared to commercial available hypoglycemic drug acarbose. The effective dose and toxic dose were judged on published values. Several anti-hyperglycemic phytopharmaceuticals will also be developed from Indonesian medicinal plants.

Methods

The quality of the extracts was controlled based on chromatographic and GC-MS data. The formula selection was done through limited panel test data. Various techniques to produce virgin coconut oil were tested to established the optimum production techniques for industrial scale.

Results

Starting from α -glucosidase inhibitory screening data from many Indonesia medicinal plants, the anti-hyperglycemic evaluation through glucose tolerance test to rats of the ethanol-soluble extracts of *Mahkotadewa* (*Phaleria macrocarpa*) fruit carpel, *jambalang* (*Eugenia polyanta*) leaves, *sukun* (*Artocarpus altilis*) leaves were conducted. These data were used to judge daily traditional application and to develop potential phytopharmaceuticals. Several techniques to produce virgin coconut oil have been developed in Indonesia. Virgin coconut oil 5 tons per month has been successfully produced in our laboratory, using a new fermentation technique.

Conclusion

Our research institute continuously conducted research for developing functional food and drink for economically valuable products.

Keywords: functional food and drink, α -glucosidase inhibitor, virgin coconut oil.

Selected references (up to 3 only)

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Presenting author: Leonardus B.S. Kardono, l_kardono@yahoo.com, rcchem@bdg.centrin.net.id
