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ABSTRACT

INTERNATIONAL CONFERENCE ON BIODIVERSITY

SOCIETY FOR INDOONESIAN BIODIVERSITY

Bogor, 29-30 September 2018

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**NUSANTARA
BIOSCIENCE**





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SOCIETY FOR INDONESIAN BIODIVERSITY

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THEME:

Biodiversity for Sustainable Development and Human Welfare

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Note: A. Genetic Diversity, B. Diversity of Species, C. Diversity of Ecosystem, D. Ethnobiology and Socioeconomics, E. Bioscience (Life Science and Technology); O. Oral, P. Poster; AA. Keynote speech

treatments, namely positive control with administration of betadine ointment, negative control was not given and 4 other treatments with administration of catfish oil extract (A, B, C, D), treatment E was given tween 20. White rats were injured in the area back with a length of 2 cm and a depth of 2 mm. Rat treatment is done for 7 days topically. The results of analysis in this study showed that catfish oil extract has the potential to heal the wounds of white rats in the presence of decreased wound area of about 0.62 mm-0.84 mm and the percentage of wound healing around 79.00-84.45%.

Albumin, catfish, wounds, omega 3

EP-04

Potential of exopolysaccharide from *Lactobacillus plantarum* as cholesterol lowering on the hypercholesterolemic rats (Sprague Dawley)

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Exopolysaccharide is a polysaccharide produced from one of Lactic Acid Bacteria *Lactobacillus plantarum* which gives beneficial impact on human health such as cholesterol-lowering. This study aim was tested cholesterol-lowering activity of the crude exopolysaccharide in vivo against the Sprague Dawley rats were induced by feeding high cholesterol. The study was divided into six groups: normal control, negative control, positive control of atorvastatin, crude exopolysaccharide test group at the doses of 20, 40, and 60 mg/BW. The parameters tested were total of cholesterol, triglycerides, HDL, and LDL in blood plasma by using spectrophotometer UV-Vis. The results showed that the crude exopolysaccharide 60 mg is an effective dose which can lower total plasma cholesterol as big as 21.66%, triglyceride levels 16,86%, HDL levels 10,89%, and LDL levels 42,46%. Based on these results concluded that the crude exopolysaccharide has activity as a cholesterol-lowering.

Lactobacillus plantarum, Sprague Dawley rats, cholesterol, exopolysaccharide,

EP-05

Characteristics of collagen nanoparticles from skin of catfish (*Clarias gariepinus*) with desolvation method

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Collagen is the active ingredients that are often used in cosmetics application, especially antiaging cosmetics with the function to increase skin moisture, prevent wrinkles, keep the skin from bad effects of radiation, and maintain elasticity. Animal skin has been developed as a source of raw material for producing collagen. However, studies about application of nanotechnology in collagen production processes are still very rare. The purpose of this research was to study the effect of type desolvating agent (acetone and ethanol) and desolvating agent/collagen solution ratio (1: 1; 1: 2; 1: 3) on the characteristics of collagen nanoparticles from skin of catfish (*Clarias gariepinus*). Collagen nanoparticles from the skin of catfish have been successfully produced by desolvation method with variation of type and ratio desolvation agent. Collagen nanoparticles from skin of catfish showed the average particle size of 110,98 nm-203,4 nm and the yield between 3,81-4,78%. The smaller particle size was produced by using ethanol as desolvating agent with ethanol/collagen solution ratio of 1:1. Fourier transform infrared (FTIR) spectra of all collagens nanoparticle were similar and suggests that collagen nanoparticles was characterized as Type I collagen with have a β -sheet structure.

Catfish skin, characteristics, collagen nanoparticles, desolvation methods

EP-06

The effect of plant spacing at the growth and yield of shallot from true shallot seed in Sigi District, Central Sulawesi, Indonesia

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Generally, shallots are cultivated using seed bulb (vegetatively). The problem is the cost of providing seed bulbs is quite high. One of the ways to save the usage of seed bulbs is by using seed (True Shallot Seed). An effort to improve the yield of shallots from the true shallot seed (TSS) is the use of the right and suitable spacing. The objectives of this research were to determine the effect of various plant spacing on the growth and yield of shallots from true shallot seed. This research was conducted in the farmer's land in Kalukubula Village, Sigi District, Central Sulawesi, Indonesia from December 2017 to March 2018. This research was designed using a Randomized Block Design non Factorial consisting of 3 treatments of spacing and repeated 10 times, so that the total experimental plot was 30 plots. The treatment consisted of JT1 = 10 cm x 10 cm, JT2 = 8 cm x 10 cm, and JT3 = 6 cm x 10 cm. The observations included plant height/Length, number of leaves, number of bulbs per clump, weight of bulbs per clump, bulb weight, and bulb diameter. The results showed