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Hipocholesterolemic and hipoglycemic of Oyek with addition of cowpeas (Vigna unguiculata) sprout

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This research was aimed to determine the potency of hipocholestrolemic and hipoglycemic effects of Oyek from dried fermented Cassava with addition of cowpeas sprout through in vivo bioassay by using Sprague Dawley male rats. The treatments of the research were rat condition and feed treatment. The first treatment were normal rats and diabetic rats which was induced by aloxan injection, and the second treatment were standart feed and Oyek feed which was prepared by subtitution of corn strach in standart feed with the Oyek. The blood triglyceride, total cholesterol, High Density Lipoprotein (HDL), Low Density Lipoprotein (LDL), and glucose of rats were analysed on 3rd, and 18th days of the treatment and before the treatment as control (0th). The result of this research showed that the potency of hypocholesterolemic effects were shown by decreasing the blood triglyceride, cholesterol total, LDL, and increasing of blood HDL in diabetic rats with Oyek treatment. The potency of hypoglycemic effects were shown by decreasing of blood glucose level in diabetic rats with Oyek treatment. On 18th day treatment, the blood glucose of the diabetic rats with standard feed increased and they were still diabetic while the blood glucose of diabetic rats with Oyek feed treatment reduced 20% on the 18th day after the treatment, although they were still diabetic. This indicated that Oyek might be a potential agent to normalize blood glucose for more than 18 days feed treatment.

Biography

Bayu Kanetro is currenly a lecturer of Food Technology Department, Mercu Buana Yogyakarta University, Indonesia. He obtained doctoral degree of Food Science in Gadjah Mada University, Yogyakarta, Indonesia at 2009.

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