

As an Alternative to Soybeans, 'Komak' Beans is also Good for People with Diabetes

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Researcher at the Department of Food Science and Technology, Faculty of Agricultural Technology, Bogor Agricultural University (IPB), Dr. Arif Hartoyo has successfully studied the benefits and efficacy of komak beans. "These beans are a very suitable substitute for soybeans. Komak beans contain high levels of protein (21.42 percent) and low fat (0.98 percent). It can also be a main stuff of functional foods because it contains high dietary fiber, oligosaccharides, phytosterols, flavonoids, globulins 7 S and 11 S," said Dr. Arif in the Coffee Morning program on Friday (27/7) in the Darmaga Campus of IPB.

Some komak bean-based products are for example tempeh, sprouts, artificial meat and protein isolate that can be used as the major ingredient of meatballs. Protein isolates of komak bean also have functional properties such as antioxidants, anti-cholesterol, antidiabetic, and anti-obesity. "Research results show that mice with diabetes and high cholesterol treated with komak bean isolates had a normal similar condition of beta cells compared to normal mice. On the other hand, mice with diabetes and high cholesterol have invisible beta cells," explains Dr. Arif.

This is so, according to Dr. Arif, because isolates of komak bean stimulate the number of pancreatic beta cells and insulin secretion to increase and inhibit the damage of pancreatic beta cell, thus increasing the amount of insulin, which then causes blood glucose to decrease. The increased amount of insulin also inhibits the synthesis of VLDL (very low density lipoprotein) and increased the activity of LDL receptor (low density lipoprotein,) which causes cholesterol to drop. "Given the research results, komak beans are very good for those suffering from diabetes mellitus the beans can lower blood glucose levels," said Dr. Arif.

To increase the domestic production of soybean, Researcher of Department of Agronomy and Horticulture, Faculty of Agriculture, IPB, Prof. Dr. Ir. Munif Ghulamahdi said the government could carry out a mass movement of water-saturated culture to increase soybean production on tidal land of farmers. "Tidal marsh land of Indonesia is not at present optimally developed although it is a very vast area, that is, covering 20.1 million acres, 2 million acres of which is suitable for soybeans farming," said Prof. Munif. Cultivating on tidal marsh lands is one answer to the limitation of agricultural lands and the low national soybean production.

Prof. Munif proposes the technology of Water-Saturated Aquaculture (BJA) to deal with the problem of pyrite, which is commonly the main obstacle on tidal wetlands. With this technology, a production of 400 soybean pods per plant could be successfully developed. The experiments sites were on the farmers' land in the Village of Banyu Urip, District of Tanjung Lago, Banyuasin Regency, South Sumatra. (Mtd)

