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## Added value improvement of taro and sweet potato commodities by doing snack processing activity

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### ABSTRACT

Tubers processing is one of efforts to support program on food diversification utilizing local foods. Introduction of processing technology of taro and sweet potato tubers to be flour and snack products (stick and chip) was done to disseminate the technology in farmer level in order to improve the commodities' added value and later could improve farmer's welfare. The introduction was done in "Mekar Sari" women group in Bali on June up to December 2013. The result showed that women group can prepare good quality products by themselves. With R/C ratio is more than one, food processing activities are feasible to be done. By selling flour, prospective revenue accepted was IDR 85,125 or 3.4 times higher than selling fresh tubers and even could become IDR 191,906 or 7.7 times higher if they processed at least one of snack products (stick).

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## Introduction

High carbohydrate resource is well known from serealia and tubers. Two of tubers which are known as local commodities and have high carbohydrate content are taro and sweet potato although the content are not higher than cassava and serealia, like rice, corn, and wheat. Tubers of taro and sweet potato can be processed to be various food products, both intermediate products such as flour, paste, etc and also final ones such as snack, noodle, cakes, etc. The processing of taro and sweet potato to be food products is suitable to program of Indonesian government in food diversification using local food commodity.

Taro (*Colocasia esculenta*(L.) Schott), involved in tubers family (*Araceae*) is seasonal or perrenial crop. Taro has some of name such as Old cocoyam, Abalong (Phillipine), Taioba (Brazil), Arvi (India), Keladi (Malaysia), Satoimo (Japan), Tayoba (Spanyol), and Yu-tao (China). In Indonesia, centre of taro commodity are in Bogor (West Java) and Malang (East Java). The highest component of taro is starch (77.9%) with 17-28% of amylose and 72-83% of amylopectin. The high content of amylopectin causes sticky characteristic on taro like a sticky-rice. Starch of taro is digestable therefore it is suitable to be used as infant food products. Taro has some essential amino acids although it is lack for hystidin, lysin, isoleusin, triptophan, and metionin [1].

Sweet potato (*Ipomea batatas*) is the fourth of carbohydrate main resource after rice, corn, and cassave consumed by Indonesian people. It is usually consumed in its primary processed forms, such as steamed, boiled, and grilled or processed to be chip or 'kolak' (traditional food). Intermediate products of sweet potato such as flour, paste, puree, and mash produced by food industry generally to be used as export commodity, not for local consumption [2]. Sweet potato has complex carbohydrate therefore its energy is released gradually. Consumed with its peel, steamed or boiled sweet potato contain higher fiber than oatmeal so it is suitable for diet and can substitute rice, potato or boiled corn. With low glycemic index (GI), sweet potato is suitable for people with diabetic [3].

One of products processed from taro and sweet potato tubers is flour. The processing of flour from non-rice commodity is expected to be able to overcome Indonesian dependency on wheat flour which increases year by year. Caturini recorded that Indonesian's need of wheat flour in 2010 was 2.93 million tonnes and increased 2% in 2011 [4]. Besides, flour is one of suggested intermediate products because it is easy to be stored, to be composed, to be fortified, to be formed, and to be cooked as a demand of modern life-style [5]. The advantage of flour processing are its flexibility for food industry, safe in distribution, save in storage and storage cost [6]. Flour is grouped into single flour and composite flour. Single flour is produced from one of food

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