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ALTERNATIVE CORN PROCESSING FOR AUR SERUMPUN FARMER GROUP IN SIMPANG VILLAGE, PASAMAN DISTRICT, WEST SUMATERA PROVINCE

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ABSTRACT

Background: This activity was carried out in order to transfer corn processing technology to become a food product that could increase food product diversification in in Simpang village, Pasaman District, West Sumatera Province. Methodology: Tortilla chips as a derivative of corn were introduced through oral presentations and group discussion forums by the representative team from Andalas University together with "Aur Serumpun" Farmer groups at Simpang village, Pasaman District, West Sumatera Province. Conclusion: Information about corn processing into tortilla chips could be an alternative to multiple the types of products that can be produced by the farmer groups "Aur Serumpun". Recently, they only produce one type of product, namely raw corn products which are directly sold to the animal feed industry. Although farmers were not very enthusiastic, continuous communication with farmers will increase their awareness of diversifying maize products that can support their economy in the future.

Keywords: corn, chips, food diversification, tortilla, simpang village

INTRODUCTION

Planting corn and selling it in raw form is one type of business for farmers in Simpang village at this time. Farmers who are members of the "Aur Serumpun" farmer groups expect a variety of products that they can develop in order to increase their productivity and economy. For this reason, one of the community service teams from Andalas University tried to transfer information about the diversification of corn product to the "Aur Serumpun" farmer groups. The processing of raw corn to tortilla chips was

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introduce the farmer where this information might broaden farmers' knowledge that could affected to their productivity.

Tortilla chips are a corn snack product originating from Mexico. These crackers are produced by a nixtamalization process, which involves alkaline cooking, steeping, washing, and grinding the grains with stones to produce mass (Moreira et al., 1997, Kawas and Moreira, 2001). Snacks are foods that provide instant energy, because they are rich in nutrients such as B vitamins and protein in addition to general nutrients. The calcium content of this product is also high due to the alkaline treatment (nixtamalization) (Dasaur, 2001). Therefore, the introduction of this product to the community will be able to broaden their insight into the diversification of processed corn products.

METHODOLOGY

This activity was conducted on November and December 2020. This community service activity was started through informal discussion activities between one of Andalas University lecturers and the head of the "Aur Serumpun" farmer group. Then a preliminary survey was carried out to see firsthand the operational activities of the farmers in Simpang village, which is the working area of the "Aur serumpun" farmer group. After that, socialization was carried out by the community service team of Andalas University to the farmer grops "aur serumpun". Forums discussion group as well as discussing patterns of cooperation on the development of corn processing business for the "Aur Serumpun" farmer group for the future was also conducted as a part of community service activity.

RESULTS AND DISCUSSION

Figure 1 indicated the documentation of farmers' activity during existing corn processing an Simpang village. Harvested corn were dried before distribute to the animal feed industry. Based on in site discussion, it could be recognized that the farmer had a serious problem on drying process of fresh corn in rainy season. The traditional drying process by solar energy has a limitation in rainy season. Therefore, the information about dryong process also introduced to the farmer.

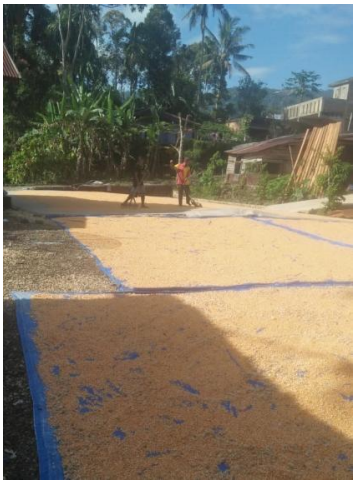

Fig. 1 Corn farmer activity at Simpang village, Pasaman District, West Sumatera Province

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Drying is a method for preservation of fruits and vegetables in which the moisture content and water activity of the Agricultural Product are decreased to minimize chemical, biochemical, and microbiological deterioration. The main objective of drying is to decrease the moisture content of agricultural products to a certain level, suitable for long-term storage (Doymaz, 2003). Drying includes complex processes of heat and mass transfer in which the moisture content of the material reduces through the application of thermal energy (Mujumdar, 1995). Although basic information about drying process had introduced to the farmers, further community service activity focus on drying problem need to be considered.

Figure 2 indicates the socialization and forum group discussion between community service team of andalas aniversity and farmer grup “Aur Serumpun”. Basic information about tortilla chips production and further activity on development of corn industry held by farmer grup “Aur Serumpun” was discussed. The utilization of mechanization technology on drying and processing as well as food diversification needs to be considered by the farmer to overcome the challenge of corn industry at present.



Fig. 2 Forum grup discussion between community service team from Andalas University and farmer group “Aur Serumpun”

CONCLUSION

The introduction of technology and diversification of processed corn products are needed by farmers to be able to broaden their knowledge in advancing their business. The introduction of drying technology and tortilla chips products has become a trigger for further collaboration between your university and the "Aur Serumpun" farmer group in Simpang village, Pasaman District, West Sumatera Province.

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