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**Address** : The Agency for Marine and Fisheries Research  
Ministry of Marine Affairs and Fisheries  
Jl. MT. Haryono Kav 52 – 53 Jakarta 12770  
Phone. (021) 79180303 Fax. (021) 79191202  
E-Mail: [budigis@cbn.net.id](mailto:budigis@cbn.net.id)

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# INTRODUCTION OF SEVERAL NEW DEVELOPED FISH PRODUCTS IN SIDOARJO AND PASURUAN, EAST JAVA

Hari Eko Irianto, Subaryono, Murniyati, Ijah Muljanah,  
Ninoek Indriati and Sugiyono

## ABSTRACT

Introduction of Processing technology of new developed products was carried out through demonstration. Respondents participating in the demonstration in Sidoarjo and Pasuruan were 59 and 19 respectively. Processing methods that were demonstrated were those of cheese stick like-product (tik-tik), fish snack, castengel, mini cracker (krupuk mini), and sweet dried fish (ikan manis). Evaluation using a questionnaire to reveal the response of participants was carried out. Results showed that according to respondents the easiest product to produce in terms of processing technology was tik-tik. In addition, tik-tik was also a product attracting most respondents to produce commercially. Monitoring performed 5 months after demonstration showed that 1 processor in Sidoarjo and 1 processor in Pasuruan adopted the 'tik-tik' technology.

## INTRODUCTION

Research institutions and universities have developed various fish products, but in fact fish products found in the market do not significantly change. There is a possibility that information about new developed products does not reach users or fish processors (Irianto et al, 2001).

An effort to bridge the information gap between researchers or technology producers and users has to be established. In relation to that, various activities for technology introduction can be performed, such as through extension, demonstration, and business meeting. Demonstration can be an effective method and an effective way to be carried out to introduce the technology; there is a direct contact between technology introducers and users in demonstration. Meanwhile, users can directly observe how processing technology to be performed and how difficulty level of technology to be applied.

This activity is aimed to introduce processing technology of new fish products developed by the Research Center for Marine and Fishery Product Processing Technology and Socio-economic. Prior to technology introduction, the introduced products were shown to either prospective respondents or participants to know their interest (Irianto et al, 2001). Therefore, the demonstrated technologies are really the ones that users are

## METHODOLOGY

Processing technologies introduced through demonstration were cheese stick like-product (tik-tik) (Peranginangin *et al*, 1998), fish snack (Indriati, 1993), castengel, mini cracker (krupuk mini) (Sugiyono *et al*, 200a), and sweet dried fish (ikan manis) (Sugiyono *et al*, 200b). The manual of processing methods was distributed to participants. The process of sweet dried fish was not demonstrated from the beginning, but prepared previous by the researcher team in the research center. All materials and equipments required for demonstration were provided by researcher team.

Product introduction was carried out in Sidoarjo and Pasuruan in June 2000. Activity in Sidoarjo was conducted through collaboration with District Office of Industry and Trades. After demonstration, participants in Sidoarjo practiced introduced products in their place, i.e. KUB Pondok Jati and Koperasi BUKA Assakinah. Total participant number in Sidoarjo was 59 people consisting of housewife already having business activity and those planning to have business.

The introduction in Pasuruan was conducted in a "pesantren" (a school with Moslem teaching style) at Junggunung, Desa Jatirejo, Kecamatan Lekok. Participants were 19 students from the pesantren.

\* Researchers at Research Center for Marine and Product Processing Technology and Socio-Economic, Jakarta

After demonstration, participants were asked to give comments to the activity by completing the questionnaire. Monitoring of post – demonstration was carried out to reveal whether the participants from both Sidoarjo and Pasuruan have applied the technology process into a business. Monitoring was performed by filling the questionnaire mailed to them in September 2000.

## RESULTS AND DISCUSSION

### 1. Technology Introduction

#### 1.1. Experience of Participants in the Production of Processed Fish Product

In terms of the experience in the production of processed fish products, there was significant difference between participants from Sidoarjo and Pasuruan. Only 37% of participants from Sidoarjo had experience in processing of fish products, compared to 95% for participants from Pasuruan. Products processed by participants from

Sidoarjo were cracker (8.57%), roasted minced fish "otak-otak" (6.78%), and fish ball (1.69%). Participants from Pasuruan experienced in the production of dried salted fish (95%) and crackers (95%).

### 1.2. Comments to Introduced Products

#### a. Product Idea

Positive responses were obtained for introduced product ideas. Participants from Sidoarjo and Pasuruan indicating the interest to introduced products were 95% and 100% respectively. This fact informed that the product ideas were acceptable to almost all participants.

#### b. Difficulty Levels of Processing Method

Processing of tik-tik was found to be the easiest method compared to others, in which 93.22% participants from Sidoarjo and 95%. Participants from Pasuruan commented that the processing method of tik-tik was easy. Comments of participants to other products can be seen in Table 1.

**Table 1.** Comments of Participants to Difficulty Levels of Processing Method (% Participants)

No	Products	Location of Introduction			
		Sidoarjo		Pasuruan	
		Easy	Moderate	Easy	Moderate
1.	Tik – tik	93.22	5.08	95	5
2.	Fish Snack	20.34	10.17	21	68
3.	Castangel	62.71	18.64	16	84
4.	Sweed Dried Fish	6.78	5.08	100	-
5.	Mini Crackers	3.39	6.78	21	74

#### c. Readiness to Process by themselves

Participants from Sidoarjo and Pasuruan showed different levels of readiness to process introduced products by themselves. Readiness level of participants from Sidoarjo was lower than participants from Pasuruan (Table 2).

Products which were ready to be processed by participants from Sidoarjo were tik-tik (91.53%) and castangel (74.58%). While, participants from Pasuruan were ready to process tik-tik (95%), fish snack (84%), sweet dried fish (95%) and mini cracker (74%).

**Table 2.** Number of Participants Stating "Ready to Process Introduced Product by them shelf" (% Participants)

No	Products	Location of Introduction	
		Sidoarjo	Pasuruan
1.	Tik – tik	91.53	95
2.	Fish Snack	23.73	84
3.	Castangel	74.58	5
4.	Sweed Dried Fish	10.17	95
5.	Mini Crackers	6.78	74



#### **d. Difficulty In Obtaining Raw Material**

About 84.75% of participants from Sidoarjo informed that there was no difficulty in obtaining the materials used for the production of introduced products. Meanwhile, 89.47% of participants from Pasuruan indicated that they would find difficulty in obtaining raw materials, especially materials for the production of castengel (73.68%), such as cheese

#### **e. Possibility to Process Using Existing Equipments**

Participants from Sidoarjo stated that products which could be processed using existing equipments were tik-tik (86.44%), castengel (66.10%), mini crackers (23.73%), fish snack (22.03%)

and sweet dried fish (15.22%). Participants from Pasuruan stated that products which could be produced using existing equipments were sweet dried fish (74%), mini cracker (37%), tik-tik (21%) and fish snack (5%).

There were different answers between participants from Sidoarjo and Pasuruan in terms of possibilities to process introduced products using existing equipments. According to participants from Sidoarjo. Tik-tik and castengel were the most possible products to process. Main equipments to use for tik-tik and castengel production were mini noodle forming unit and baking oven respectively. Those equipments seemed not to be a problem for urban people (Sidoarjo), but for rural

**Table 3.** Percentage of Participants Stating "the Products can be processed using existing equipments" (% participants)

No	Products	Location of Introduction	
		Sidoarjo	Pasuruan
1.	Tik – tik	86.44	21
2.	Fish Snack	22.03	5
3.	Castangel	66.10	0
4.	Sweed Dried Fish	15.25	74
5.	Mini Crackers	23.73	37

people from Legok – Pasuruan, in which they respected the equipments as luxurious ones. By considering existing equipments, a product which was possible to be processed by participants from Pasuruan was sweet dried fish. This fact could be understood, since processing method of this product was similar to dried salted fish, their main processed fish product.

#### **f. Prospect of Marketing**

Participants from both Sidoarjo and Pasuruan stated that a product which has a good prospect in the market was tik-tik. Percentage of participants from Sidoarjo and Pasuruan indicating that tik-tik had a good prospect was 83.05% and 89.47%

respectively. Other products showing moderate prospect in the market according to participants from Sidoarjo and Pasuruan were castengel (64.41%) and fish snack (63.12%) respectively (Table 4).

#### **g. Interest to Produce Introduced Products**

Interest of participant to produce the products reflected the prospect of marketing of introduced products. Most of participants, i.e. 89.93% in Sidoarjo and 95% in Pasuruan, were interested to produce tik-tik. Meanwhile, 68% participants from Pasuruan were interested to produce fish snack and 74.58% participants from Sidoarjo intended to

**Table 4.** Percentage of Participants Stating "the Product had Good Marketing Prospect" (% participants)

No	Products	Location of Introduction	
		Sidoarjo	Pasuruan
1.	Tik – tik	83.05	89.47
2.	Fish Snack	25.42	63.12
3.	Castangel	64.41	0
4.	Sweed Dried Fish	28.81	42.11
5.	Mini Crackers	30.51	26.32



**Table 5. Percentage of Participants Stating "Their Interest to Produce Introduced Products" (% participants)**

No	Products	Location of Introduction	
		Sidoarjo	Pasuruan
1.	Tik – tik	89.83	95
2.	Fish Snack	16.95	68
3.	Castangel	74.58	0
4.	Sweed Dried Fish	10.17	37
5.	Mini Crackers	20.34	32

produce castangel. In addition, only small percentage of participants was interested to produce other products as shown in Table 5. Participants from Sidoarjo and Pasuruan showed different problem, in terms of production planning.

Participants from Pasuruan faced financial problem, in which about 68% of them mentioned that they would start producing the product soon after they have financial support. Money was not likely a problem for the participant from Sidoarjo, since 59.32% of them stated ready to produce the product soon.

Participants have mentioned their marketing destination. Participants from Sidoarjo planned to market the products to cooperatives (25.42%), retail shops (32.2%) and friends (15.25%). Participants from Pasuruan preferred to sell the product to school (47%), retail shops (63%), market (5%) and supermarket (5%).

As a new product which will enter the market, the participants planned promotion of the product. Promotion, which would be performed by participants from Sidoarjo, were door to door promotion (25.42%), demonstration (6.78%), consumer meeting (28.82%), and entrust to the shop (3.39%). Participants from Pasuruan would promote the product through direct promotion (58%) and free of charge distribution to consumers (32%).

## 2. Monitoring

Monitoring revealed that only 1 participant each from Sidoarjo and Pasuruan who had produced the product commercially. Mrs. Soesy from Sidoarjo started producing tik-tik during National Sport Event (PON) XV. Her production volume was 10 kg/month and sold at Rp.1.500,-/onch. She added tuna into the product. She entrusted tik-tik to street traders and retail shops.

Mrs. Musannah from Legok – Pasuruan started producing tik-tik and fish snack a month after the introduction. Fish snack was made only if she got order. Tik-tik was produced 3 kg/day and sold Rp. 100,-/small pack. Lizardfish was added into her products.

## CONCLUSIONS

Introduction of the processing technologies of new products through demonstration in Sidoarjo and Pasuruan showed that tik-tik exhibited a good prospect. Two participants from Sidoarjo and Pasuruan have produced commercially tik-tik and they did not find any problem in marketing the products.

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