

## RINGKASAN

*Tape* adalah salah satu makanan tradisional Indonesia yang dihasilkan dari proses fermentasi bahan pangan berkarbohidrat, seperti singkong dan ketan. Ada berbagai nama *tape*, yaitu peyeum, *tape* tela dan *tape* pulut. Pembuatan *tape* tidak hanya berbahan baku singkong maupun ketan, *tape* juga dapat dibuat dari ubi jalar, karena kandungan karbohidrat ubi jalar relatif tinggi. Bahan pangan ini mulai banyak diminati masyarakat karena mempunyai gizi yang baik juga memiliki fungsi fisiologis tertentu bagi tubuh. Di Indonesia ubi jalar sudah dikenal sejak dulu kala, namun pemanfaatannya masih terbatas sebagai makanan selingan yang pada umumnya diolah secara sederhana. Ragi *tape* merupakan bibit atau starter untuk membuat makanan fermentasi; ragi *tape* berwujud padat dengan bulat pipih berwarna putih dan ragi *tape* pada pembuatan *tape* ubi jalar ungu (*Ipomoea batatas*) adalah jenis khamir. Ragi *tape* berfungsi sebagai sumber mikroba yang berperan dalam proses fermentasi dan sumber protein sel tunggal. *Tape* mempunyai tekstur yang lunak, rasa yang asam manis, dan memiliki aroma khas.

Penelitian ini dilaksanakan di Laboratorium Teknologi Hasil Pertanian Fakultas Pertanian UISU. Penelitian menggunakan rancangan acak lengkap (RAL) faktorial dengan dua faktor ulangan. Faktor I: Lama Pengukusan (P) yang terdiri atas empat taraf :  $P_1 = 20$  menit,  $P_2 = 25$  menit,  $P_3 = 30$  menit,  $P_4 = 35$  menit. Faktor II : Lama Fermentasi (F) yang terdiri atas empat taraf :  $F_1 = 48$  Jam,  $F_2 = 60$  Jam,  $F_3 = 72$  Jam,  $F_4 = 84$  Jam. Parameter yang diamati meliputi Rendemen, Total asam, Kadar pati, Tekstur, Aroma, dan Rasa. Hasil penelitian adalah sebagai berikut : Rendemen tertinggi adalah 89,413% (20 menit) dan 86,372% (48 jam), total asam tertinggi adalah 1,057% (35 menit) dan 1,109% (72 jam), kadar pati tertinggi adalah 5,962% (20 menit) dan 6,338% (48 jam), tekstur tertinggi adalah 3,413 (35 menit) dan 3,400 (4 jam ) rasa tertinggi adalah 3,150 (20 menit) dan 3,175 (48 jam), aroma tertinggi adalah 3,488 (35 menit), dan 3,513 (84 jam). Untuk menghasilkan *tape* ubi jalar ungu yang baik dan disukai dapat dibuat dengan pengukusan selama 20 menit dengan lama fermentasi 48 jam.

*Kata Kunci : Ubi Jalar Ungu, Fermentasi, Tape*

## SUMMARY

*Tape* is one of Indonesia's traditional foods that is produced from the fermentation process of carbohydrate foods, such as cassava and sticky rice. There are various names of *tape*, namely peyeum, *tape tela* and *tape pulut*. Making *tape* is not only from cassava and sticky rice; *tape* can also be made from sweet potatoes, because the carbohydrate content of sweet potatoes is relatively high. Sweet potatoes is starting to be of great interest to the public because it has good nutrition and also has certain physiological functions for the body. In Indonesia, sweet potato has been known for a long time, but its use is still limited as a snack which is generally processed simply. *Tape* yeast is a starter for making fermented food; it is solid that with a white flat. *Tape* yeast is used in the manufacture of yeast-type purple sweet potato (*Ipomoea batatas*) *tape*. *Tape* yeast has a functions as a source of microbes that plays an impontait role in the fermentation process and as a single cell protein source. *Tape* has a soft texture, a sweet and sour taste, and has a distinctive aroma.

This research was conducted at the Laboratory of Agricultural Product Technology, Faculty of Agriculture, UISU. This study used a factorial completely randomized design (CRD) with two factoes and two replications. Factor I: Steaming time (P) which consists of four levels:  $P_1 = 20$  minutes,  $P_2 = 25$  minutes,  $P_3 = 30$  minutes,  $P_4 = 35$  minutes. The Second factor: duration of fermentation (F) which consists of four levels:  $F_1 = 48$  hours,  $F_2 = 60$  hours,  $F_3 = 72$  hours,  $F_4 = 84$  hours. The parameters observed were yield, total acid, starch content, texture, aroma, and taste. The results of the study showed that; the highest yield was at 89.413% (20 minutes) and 86.372% (48 hours ), the highest total acid was 1.057% (35 minutes) and 1.109% (72 hours), the highest starch content was 5.962% (20 minutes) and 6.338% (48 hour ), the highest texture 3,413 (35 minutes) and 3,400 (84 hours) the highest flavor 3,150 (20 minutes) and 3,175 (48 hours), the highest flavor 3,488 (35 minutes) and 3,513 (84 hours). To produce good and preferred purple sweet potato *tape*, it can be made by steaming for 20 minutes with fermentation time for 48 hours.

*Keywords:* Purple Sweet Potatoes, Fermentation, Tape