

## **BAB V**

### **KESIMPULAN DAN SARAN**

#### **5.1. KESIMPULAN**

- a. Konsentrasi maizena berpengaruh nyata terhadap sifat fisikokimia *silken tofu* edamame yang meliputi kadar air, sineresis, dan tekstur (*firmness*), namun tidak berbeda nyata terhadap parameter pH.
- b. Peningkatan konsentrasi maizena menyebabkan kadar air *silken tofu* edamame semakin rendah dengan persentase 93,96%-91,16%, dan meningkatkan tekstur (*firmness*) dengan kisaran 1,9144 N – 2,8433 N.
- c. Terjadi peningkatan sineresis pada konsentrasi maizena yang lebih tinggi dari 0,75%, pada pengamatan hari ke 4 dan 7.
- d. Tingkat kelembutan *silken tofu* edamame tidak berbeda nyata antar perlakuan, namun pada konsentrasi maizena yang lebih tinggi dari 1,25% diduga menurunkan nilai kelembutan *silken tofu* edamame.

#### **5.2. SARAN**

Perlu dilakukan penelitian lebih lanjut dengan mengkombinasikan maizena dengan bahan lain agar dapat memperbaiki tingkat sineresis produk dalam waktu penyimpanan yang lebih lama.

## DAFTAR PUSTAKA

- Ang, C.Y.W., Keshun Liu, Yao-Wen Huang. 1999. *Asian Foods: Science and Technology*. Lancaster : Technomic Publishing Company, Inc. Page: 160.
- Aprianita, A, U. Purwandari, B Watson dan T Vasiljevic. 2009. Physico-chemical properties of flours and starches from selected commercial tubers available in Australia. *International Food Research Journal* 16 (4): 507-520.
- Asadi. 2009. Karakterisasi Plasma Nutfah untuk Perbaikan Varietas Kedelai Sayur (Edamame). *Buletin Plasma Nutfah*. 15(2): 59 – 69.
- Association of Official Agricultural Chemist. 1995. *Official Methods of Analysis of AOAC International*. USA : Association of Official Agricultural Chemists inc.
- Badan Ketahanan Pangan dan Penyuluhan DIY. 2014. Data Kandungan Gizi Bahan Pangan dan Olahan. <http://bkppp.bantulkab.go.id/filestorage/dokumen/2014/07/Data%20Kandungan%20Gizi%20Bahan%20Pangan%20dan%20Olahan.pdf>. (7 Juni 2017).
- Bank, W., C.T. Greenwood. 1975. *Starch Its Components*. Halsted Press, John Wiley and Sons, N.Y.
- BeMiller, J. and R. Whistler (Eds.). 2009. *Starch : Chemistry and Technology Third Edition*. USA : Academic Press
- De Kruif, C.G. and R. Tuinier, 2001. Polysaccharide protein interactions. *Food Hydrocolloids* 15: 555-563
- Dwijosepputro, D.1994. *Dasar-Dasar Mikrobiologi*. Jakarta: Djambatan.
- Eliasson, A. dan M. Gudmundsson. 2006. *Starch: Physicochemical and Functional Aspects*. Dalam: *Carbohydrates in Food*. A. Eliasson. United States of America: CRC Press.
- Hoseney, R.C. 1998. *Principal of Cereal Science and Technology 2nd Edition*. American Association of Cereal Chemist Inc., St. Paul, Minnesota, USA.

- Imeson A. 2010. *Food Stabilisers, Thickeners and Gelling Agents*. UK: Blackwell Publishing Ltd.
- J. O. Philips dan P. A. Williams (Ed). 2009. *Handbook of Hydrocolloids*. New York: Woodhead Publishing Limited.
- Johnson, D., Wang, S., dan Suzuki, A. 1999. *Edamame Vegetable Soybean for Colorado*. In: Janick, J. (eds.). *Perspective on New Crops and New Uses*, pp. 379 –388. ASHS Press, Alexandria.
- Jungbunzlauer .2008. Glucono-delta-Lactone. <http://www.jungbunzlauer.com/en/products/gluconates/glucono-delta-lactone.html>. (5 Juli 2017)
- Jungbunzlauer .2017. Gluconates in food applications. <http://www.jungbunzlauer.com/en/products/gluconates/glucono-delta-lactone.html>. (5 Juli 2017)
- Kartika, B., P. Hastuti, dan W. Supartono. 1988. *Pedoman Uji Inderawi Bahan Pangan*. Yogyakarta: Pusat Antar Universitas Pangan dan Gizi Universitas Gadjah Mada.
- Kohyama, K., Sano, Y. and Doi, E., 1995. Rheological characteristics and gelation mechanism of tofu (soybean curd). *Journal of Agricultural and Food Chemistry*, 43(7), pp.1808-1812.
- Liu, K. 1997. *Soybeans: Chemistry, Technology, and Utilization*. International Thomson Publishing, New York.
- Liputan6.com. 2017. Mengupas Edamame Jember yang Mendunia. <http://bisnis.liputan6.com/read/2892423/mengupas-edamame-jember-yang-mendunia>. (6 Juni 2017).
- Lukman, I., N. Huda, dan N. Ismail. 2009. Physicochemical and Sensory Properties of Commercial Chicken Nuggets. *As. J. Food Ag-Ind.*, 2(02), 171-180.
- Mauro D.J., Abbas I.R., Orthoefer F.T. 2003. *Corn Starch Modification and Uses* di dalam : White P.J., Johnson L.A., editor corn : *Chemistry and Technology*. Ed ke 2. Minnesota : American Association Cereal Chemists, Incn.
- Miles, Carol A. 2000. *Edamame : Farming west of the Cascades Volume 525 of PNW (Series)*. Washington State University Cooperative Extension.

- Milewski, S. 2001. *Protein structure and physicochemical properties*. In Sikorski ZE (Eds). *Chemical and Function Properties of Food Proteins*. P 35-55. Technomic Publishing Co mpany, Inc, Lancaster Pennsylvania.
- Nussinovitch, A. 1997. *Hydrocolloid Application: Gum Technology in The Food and Other Industries*. London: Chapman and Hall Ltd. 5-12, 40 - 54.
- Obatolu, V. 2007. Effect of different coagulants on yield and quality of tofu from soymilk. *European Food Research and Technology*. 226. Page : 467-472. 10.1007/s00217-006-0558-8.
- Oregon State University. 2012. Starch. <http://people.oregonstate.edu/~calverta/learn/starch.html> (21 Agustus 2017)
- PT. Mitratani Dua Tujuh. 2016. Fakta Gizi Edamame. <http://www.mitratani27.co.id/informasi/fakta-gizi-edamame> (18 Agustus 2017).
- Rackis, J.J. 1978. *Biochemical Changes in Soybeans: Maturation, Post-Harvest Storage and Processing, and Germination*. In: Hultin, H.O. and Milner, M. (eds.). *Post-Harvest Biology and Technology*. Food and Nutrition, Westport.
- Shurtleff W., Akiko Aoyagi. 1984. *Tofu & Soymilk Production: A Craft and Technical Manual*. Soyfoods Center.
- Soyfoods Association of America*. 1986. Tofu Standards. p : 5
- Soyfoods Association of North America*. 2005. *Whole Soybean*. [http://www.soyfoods.org/wpcontent/uploads/2006/12/whole\\_soybean.pdf](http://www.soyfoods.org/wpcontent/uploads/2006/12/whole_soybean.pdf). (5 Juni 2017).
- Sudarmadji, S. dkk. 2007. *Analisis bahan makanan dan pertanian*. Liberty. Yogyakarta.
- Suprapti, M.L. 2003. *Pembuatan Tempe*. Kanisius. Yogyakarta di dalam : Hamzah, Febri. 2014. Pengaruh Konsentrasi *Lactobacillus acidophilus* dan Tepung Sagu terhadap Umur Simpan dan Sifat Sensori Tempe Kedelai, *Skripsi S-1*, Fakultas Pertanian, Universitas Lampung, Lampung.
- Suyanti. 2008. *Membuat Mie Sehat Bergizi dan Bebas dari Pengawet*. Penebar Swadaya, Jakarta.

- Tjokroadikusoemo, S. 1986. *HFS dan Industri Ubi Kayu Lainnya*. Penerbit PT Gramedia, Jakarta.
- United States Department of Agriculture. 2013. Soybean (Glycine max). <http://plants.usda.gov/java/profile?symbol=glnma4>. (5 Juni 2017).
- United States Department of Agriculture. 2016. Glucono delta-lactone Handling /Processing. <https://www.ams.usda.gov/sites/default/files/media/GDL-TR-2-9-2016.pdf>. (5 Juli 2017).
- Winarno, F.G .1992. *Kimia Pangan dan Gizi*. PT Gramedia Pustaka Utama. Jakarta.
- Winarno, F.G .2004. *Kimia Pangan dan Gizi*. PT Gramedia Pustaka Utama. Jakarta.
- Zayas, J.F. 1997. *Functionality of Protein in Food*. New York: Springer.