

BAB V

KESIMPULAN, KETERBATASAN & SARAN

6.1. Kesimpulan

Berdasarkan hasil penelitian, dapat disimpulkan bahwa kembang gula *soft caramel* yang disukai konsumen adalah formula IV dengan formulasi: sukrosa 23,62%; sirup glukosa 35,43%; susu skim 6,89%; butter 11,81%, pati novation 2600 1,97%; gelatin 0,59% dan air 19,69%. Kembang gula ini mempunyai kadar gula reduksi 40,85%, kadar sukrosa 22,90%, kadar pati 1,54%, kadar air 6,75%, tekstur dari penetrometer 0,51 mm/15 detik, tingkat kesuraman 1,60 (dengan lovibond tintometer), tingkat kecoklatan 4,20 (agak coklat), tingkat kelunakan 5,87 (agak lunak), tingkat kelengketan 5,09 (agak lengket), tingkat kemanisan 6,46 (manis).

6.2. Keterbatasan

Penelitian kembang gula *soft caramel* ini mempunyai keterbatasan, yaitu faktor manusia sebagai subyek yang melakukan pengadukan memungkinkan terjadinya kecepatan pengadukan yang tidak konstan karena kondisi fisik dan mental yang tidak stabil.

6.3. Saran Untuk Penelitian Selanjutnya

Perlu diteliti lebih lanjut kemungkinan penggunaan jenis pati lain, atau bahan lain yang dapat digunakan untuk mendapatkan tekstur kembang gula *soft caramel* yang diinginkan konsumen.

DAFTAR PUSTAKA

- Awad, A. & Andy, C.C. 1993. A New Generation of Sucrose Product Made By CocrySTALLIZATION. *Food Technology*, Volume 47 No.1. Chicago, USA: Institute of Food Technology, The Society for Food Science and Technology.
- Carpenter, R.P., David, H. L. & Terry, A. H. 2000. *Guidelines for Sensory Analysis in Food Product Development and Quality Control* (2nd edition). Garthersburg, Maryland: An ASPEN Publication.
- Charley, H. 1982. *Food Science* (2nd edition). New York: John wiley and Sons.
- De Man, J. M. 1999. *Principles of Food Chemistry* (3rd edition). Garthersburg, Maryland: An ASPEN Publication.
- Dorrow, T. 1993. *The Manufacturing Confectioner*. Chicago, USA: Institute of Food Technologists.
- Dworschak. 1980. Effect of Maillard Reaction on The Chemical Properties of Various Proteins. Dalam Phillips, R.D. 1989. *Protein Quality and The Effects of Processing*. New York: Marcel Dekker, Inc.
- Dziedzic, S.Z. & M.W. Kearsley. 1984. Physico Chemical Properties of Glucose Syrups. Dalam Dziedzic, S.Z. & M.W. Kearsley (Ed.). *Glucose Syrups: Science and Technology*. London & New York: Elsevier Applied Science Publishers.
- Edwards, W.P. 1995. Gums and Gelling Agents. Dalam Jackson, E.B (Ed.). *Sugar Confectinery Manufacture* (second edition). Glasgow: Blackie Academic & Professional.
- Gaspersz, V. 1991. *Metode Perancangan Percobaan*. Bandung: CV. ARMICO.
- Hancock, J.N.S., R. Early, & P.D. Whitehead. 1995. Oil and Fats: Milk and Milk Product. Dalam Jackson, E.B (Ed.). *Sugar Confectinery Manufacture* (second edition). Glasgow: Blackie Academic & Professional.
- Harrow, B.& Abraham, M. 1954. *Texbook of Biochemistry*. USA: W.B. Saunders and Co.

- Hawling, D. 1992. Glucose syrups: Production, Properties, & Applications. Dalam Schenck, F. W. & Hebeda, R.E. (Ed.). *Starch Hydrolysis Products Worldwide Technology, Production, & Applications*. United Kingdom: VCH Publishers, Inc.
- Hodge, J.E. Chemistry of Browning Reaction in Model system, Agr. Food Chem, Vol. 1. Pp. 928-943, 1953. Dalam de Man. J.M. 1999. *Principles of Food Chemistry* (third edition). Gathersburg, Maryland: An ASPEN Publication.
- Indriantoro, N & Bambang S. 1999. *Metodologi Penelitian Bisnis*. 191-204. Yogyakarta: BPFE.
- Jones, N.R. 1977. Uses of Gelatin in Edible Products. Dalam Ward, A.G. & A, Court. *The Science and Technology of Gelatin*. London: Academic Press, Inc.
- Kim, C. S. & C. E. Walker. 1992. Changes in Starch Pasting Properties Due to Sugars and Emulsifiers as Determined by Viscosity Measurement. *Journal of Food Science*. Volume 57, No. 4, 1009-1013.
- King, J.A. 1947. Invert Sugar. Dalam C. D. Pratt et.al. (Ed.). *Twenty Years of Confectionery and Chocolate Progress*. 1970. Westport, Connecticut: The AVI publishing Company, INC.
- Knightly, W.H. 1958. The Use of Glycerol Monostearate and Related Emulsifiers in Candy. Dalam C. D. Pratt et.al. (Ed.). *Twenty Years of Confectionery and Chocolate Progress*. 1970. Westport, Connecticut: The AVI publishing Company, INC.
- Laura, L.J. & Smith, J.A. 1974. *Food Service Science*. Westport, Connecticut: The AVI Publishing Company, Inc.
- Lipscomb, A.G. 1965. Development in The Manufacture of Toffee and Caramels. Dalam C. D. Pratt et.al. (Ed.). *Twenty Years of Confectionery and Chocolate Progress*. 1970. Westport, Connecticut: The AVI publishing Company, INC.
- Mc Donald, M. 1984. Use of Glucose Syrups in The Food Industry. Dalam Dziedzic, S.Z. & M.W. Kearsley (Ed.). *Glucose Syrups: Science and Technology*. London & New York: Elsevier Applied Science Publishers.
- Mc Williams, M. 1974. *Foods Fundamentals*. New York: John Wiley and Sons.
- Meiners, K. K. & H. Joike. 1984. *Silesia Confiserie Manual no. 3. The New Handbook For The Confectionery Industry* (Volume 2). Germany: Fachbucherei.

- Minifie, B.W. 1970. *Chocolate, Cocoa, and Confectionary: Science and Technology*. Westport, Connecticut: The AVI publishing comp.
- Peckham, G.C. 1975. *Foundations of Food Preparation*. (3th edition). Westport, Connecticut: Macmillan Publishing Company, Inc.
- Pomeranz, Y. & Meloan, C.E. 1971. *Food Analysis Theory and Practice*. Westport, Connecticut: The AVI Publ. Co. Inc.
- Ronai, K.S. & R.M. boettger. 1963. The Behavior of The Starch Molecule and New Development. Dalam C. D. Pratt et.al. (Ed.). *Twenty Years of Confectionery and Chocolate Progress*. 1970. Westport, Connecticut: The AVI publishing Company, INC.
- Rosenthal, L. 1991. *Milk and Dairy Products*. Weinheim, New York: Balaban Publisher.
- Santoso, S. 2001. *SPSS Versi 10: Mengolah Data Statistik Secara Profesional*. Jakarta: PT. Elex Media Komputindo.
- Subhash Sharma. 1996. *Applied Multivariate Techniques*. 460-464. USA: John Wiley & Sons, Inc.
- Sudarmadji, S., Bambang, H., & Suhardi. 1997. *Prosedur Analisa Untuk Bahan Makanan dan Pertanian*. Yogyakarta: Liberty.
- Tegge, G. Glucose Syrups-The Raw Material. Dalam Schenck, F. W. & Hebeda, R.E. (Ed.). *Starch Hydrolysis Products Worldwide Technology, Production, & Applications*. United Kingdom: VCH Publishers, Inc.
- National Starch & Chemical. *The National Starch Guide*.
- Vail, G.E., J.A. Philips, L.O. Rust, R.M. Griswold, & M.M. Justin. 1978. *Foods* (7th edition). Boston: Houghton Mifflin Company.
- Watts, B.M. 1989. *Basic Sensory Methods for Food Evaluation*. Canada: The International Research and Development Centre.
- Webb, B. H. 1960. The Properties of Various Milk Product and Their use in Different Types of Candy. Dalam C. D. Pratt et.al. (Ed.). *Twenty Years of Confectionery and Chocolate Progress*. 1970. Westport, Connecticut: The AVI publishing Company, INC.
- Whistler, R. L. & James, N. B. 1999. *Carbohydrate Chemistry for Food Scientists*. St. Paul, Minnesota, USA: Eagan Press.

Zobel, H.F. 1992. Starch: Source, Production. And Properties. Dalam Schenck, F. W. & Hebeda, R.E. (Ed.). *Starch Hydrolysis Products Worldwide Technology, Production, & Applications*. United Kingdom: VCH Publishers, Inc.