

### XIII. KESIMPULAN DAN SARAN

#### 13.1. Kesimpulan

1. PT Indofood Sukses Makmur (ISM) Tbk Divisi Bogasari *Flour Mills* merupakan perusahaan industri yang bergerak di bidang pengolahan biji gandum menjadi tepung terigu, dengan total kapasitas produksi sebesar 6150 ton/hari.
2. PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya memperhatikan kesejahteraan karyawannya dengan menyediakan beberapa fasilitas penunjang kenyamanan tenaga kerja seperti THR, pelayanan kesehatan, bantuan kepemilikan dan perbaikan rumah, peminjaman uang dalam keadaan mendesak, beasiswa dan bantuan biaya pendidikan, koperasi, rekreasi, olahraga, kesenian, fasilitas transportasi, peribadatan, dana pensiun, dan kantin.
3. Bahan baku utama proses pengolahan tepung terigu di PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya adalah biji gandum yang diimpor dari berbagai negara (Australia, Kanada, Amerika, Argentina, India, Bulgaria, dan Brazil), sedangkan bahan pembantu yang digunakan yaitu air dan fortifikan.
4. Proses pengolahan yang digunakan oleh PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya adalah proses pengolahan kontinu, meliputi proses *unloading* biji gandum dari kapal, pembersihan pendahuluan, penyimpanan dalam *wheat silo*, *screening section* (*first cleaning*, *dampening* dan *conditioning*, serta *second cleaning*), *milling section* (*breaking* dan *reduction process*), dan pengemasan.
5. Berbagai merek tepung terigu utama yang dihasilkan PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya yaitu Cakra Kembar, Cakra Kembar Emas, Segitiga Biru, Segitiga Hijau, Kunci Biru, dan Lencana Merah, sedangkan produk hasil sampingnya berupa *bran*, *fine bran*, *pollard*, *industrial flour*, *germ*, dan *pellet*.
6. Jenis kemasan yang digunakan oleh PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya berupa karung PP, karung kain (*calico*), kemasan *multilayer*, dan kantong kertas.

7. Sanitasi di PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya diterapkan pada setiap tahap produksi yang dilakukan, meliputi meliputi sanitasi peralatan dan mesin, lingkungan pabrik, ruang produksi, dan pekerja. PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya telah menerapkan standar ISO 9001, ISO 14001, ISO 22000, dan OHSAS 18001.
8. Pengendalian mutu di PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya meliputi pengendalian mutu bahan baku, proses pengolahan, produk akhir, hingga penyimpanan produk.
9. Limbah PT ISM Tbk Divisi Bogasari *Flour Mills* Surabaya berupa limbah produksi, B3 (beracun dan berbahaya), dan limbah domestik yang melalui serangkaian proses pengolahan limbah.

### 13.2. Saran

1. Penggunaan aerasi pada *wheat silo* perlu dipertimbangkan kembali. Penerapan aerasi dilakukan untuk menurunkan kadar air gandum sehingga mampu meningkatkan *allowable storage time*. Pemasangan aerasi pada *wheat silo* cukup dilakukan pada beberapa silo atau seperempat dari total silo sebagai antisipasi adanya kondisi yang mana perusahaan harus menyimpan gandum dalam waktu yang cukup lama.
2. Konsistensi *rate* fortifikan *additive feeder* perlu ditingkatkan lagi agar lebih konsisten, yaitu dengan pengisian *premix* dalam *hopper* sesuai dengan batas yang telah ditetapkan, *upgrade* jenis *feeder*, pengecekan rutin isi *hopper* oleh operator, dan penambahan tangki penampung pada *additive feeder*.

## DAFTAR PUSTAKA

- [BPS] Badan Pusat Statistik. (2022). *Rata-rata Suhu dan Kelembaban Udara Menurut Bulan di Stasiun Meteorologi Juanda Jawa Timur*, 2017. <https://jatim.bps.go.id/statictable/2019/10/11/1826/rata-rata-suhu-dan-kelembaban-udara-menurut-bulan-di-stasiun-meteorologi-juanda-jawa-timur-2017.html> (Tanggal akses 24 Januari 2023).
- [BSN] Badan Standardisasi Nasional. (2018). *SNI 3751:2018 tentang Tepung Terigu sebagai Bahan Makanan*. Badan Standardisasi Nasional.
- [FAO] Food and Agriculture Organization. (1999). *Wheat Postharvest Operations*. [https://www.fao.org/fileadmin/user\\_upload/inpho/docs/Post\\_Harvest\\_Compedium\\_-\\_WHEAT.pdf](https://www.fao.org/fileadmin/user_upload/inpho/docs/Post_Harvest_Compedium_-_WHEAT.pdf) (16 januari 2023).
- [IFC] International Finance Corporation. (2018). *Food Fortification Global Agribusiness*. International Finance Corporation.
- [INACG] International Nutritional Anemia Consultative Group. (1993). *Iron EDTA for Food Fortification*. International life Sciences Institute.
- [IRRI] International Rice Research Institute. (2016). *How to Determine the EMC*. <http://www.knowledgebank.irri.org/step-by-step-production/postharvest/drying/drying-basics/how-to-determine-the-emc> (Tanggal akses 19 Januari 2023).
- [JCGM] Joint Committee for Guides in Metrology. (2008). *International Vocabulary of Metrology – Basic and General Concepts and Associated Terms (VIM)*. JCGM.
- [KBBI] Kamus Besar bahasa Indonesia. (2018). *Arti Kata Bahan Baku Menurut KBBI*. <https://kbbi.kata.web.id/bahan-baku/> (Tanggal akses 3 Januari 2022).
- [Kemenkes RI] Kementerian Kesehatan Republik Indonesia. (2013). *Pelayanan Gizi Rumah Sakit*. Kementerian Kesehatan Republik Indonesia.

- [Kemenkes RI] Kementerian Kesehatan Republik Indonesia. (2018). *Pedoman Pencegahan dan Penanggulangan Anemia pada Remaja Putri dan Wanita Usia Subur (WUS)*. Kementerian Kesehatan Republik Indonesia.
- [WHO] World Health Organization. (2017). *Nutritional Anaemias: Tools for Effective Prevention and Control*. World Health Organization.
- [WHO] World Health Organization. (2021). *Anaemia in women and children*. WHO. [https://www.who.int/data/gho/data/themes/topics/anaemia\\_in\\_women\\_and\\_children](https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children).
- Adawiyah, D. R., Muhandri, T., Subarna, & Sugiyono. (2019). Pengaruh fortifikasi zat besi menggunakan Fe-Sulfat, Fe-Fumarat, dan NaFeEDTA terhadap kualitas sensori produk-produk olahan tepung. *Jurnal Mutu Pangan*, 6(2), 54-62.
- Allen, L., de Benoist, B., Dary, O., & Hurrell, R. (2006). *Guidelines on Food Fortification with Micronutrients*. World Health Organization.
- Anggela, N. L. (2022). *Harga Gandum Global Naik, Harga Mi dan Tepung Terigu Bakal Terimbas?* <https://ekonomi.bisnis.com/read/20220526/12/1536916/harga-gandum-global-naik-harga-mi-dan-tepung-terigu-bakal-terimbas#:~:text=Berdasarkan%20data%20milik%20Aptindo%2C%20kebutuhan,setara%208%2C6%20juta%20ton>.
- Arief, L. M. (2016). *Pengolahan Limbah Industri: Dasar-dasar Pengetahuan dan Aplikasi di Tempat Kerja*. Andi Offset.
- Arslan, M., Yildirim, A., & Bektas, S. (2004). Length-weight relationship of Brown Trout, *Salmo trutta* L., Inhabiting Kan stream, Coruh basin, North-Eastern Turkey. *Turkish Journal of Fisheries and Aquatic Sciences*, 4, 45-48.
- ASHRAE (1995). *Drying and Storing Farm Crops*. Applications Handbook. American Society of Heating.
- Besenhard, M., O., Fathollahi, S., Siegmann, E., Slama, E., Faulhammer, E., & Khinast, J. G. (2017). Micro-feeding and dosing of powders via a small-scale powder pump. *International Journal of Pharmeceutics*, 519(1-2), 314-322.

- Budi, F. (2013). Teknologi proses ekstrusi untuk membuat beras analog, *Pangan*, 22(3), 263-274.
- Buhler. (2019). *Cyclone Separators*. [https://www.buhlergroup.com/content/buhlergroup/global/en/products/cyclone\\_separators.html](https://www.buhlergroup.com/content/buhlergroup/global/en/products/cyclone_separators.html).
- Buhler. (2019). *Moisture Control Unit*. [https://www.buhlergroup.com/content/buhlergroup/global/en/products/moisture\\_controlunit.html](https://www.buhlergroup.com/content/buhlergroup/global/en/products/moisture_controlunit.html).
- Buhler. (2019). *Ultratrieur*. <https://www.buhlergroup.com/content/buhlergroup/global/en/products/ultratrieur.html>.
- Buhler. (2021). *Magnetic Separator*. [https://www.buhlergroup.com/content/buhlergroup/global/en/products/magnetic\\_separators.html](https://www.buhlergroup.com/content/buhlergroup/global/en/products/magnetic_separators.html).
- Bustami, B. & Nurlela. (2013). *Akuntansi Biaya Edisi 4*. Mitra Wacana Media.
- Converse, H., Graves, A., & Chung, D. S. (1973). Transient Heat Transfer Within Wheat Stored in a Cylindrical Bin. *ASAE*, 16 (1), 0129-0133.
- Curtis, B. (2002). *Wheat in the world*. In B. C. Curtis, S. Rajaram, H. G. Macpherson. (Eds.), *Bread Wheat – Improvement and Production*. Food and Agriculture Organization of the United Nations.
- Daud, D. & Rahmianar. (2017). Karakteristik komponen karet *belt conveyor* menggunakan bahan pengisi arang tempurung kelapa. *Jurnal Dinamika Penelitian Industri*, 28(2), 138-146.
- DOTECO. (2016). *DOSO-ST – VOLUMETRIC ADDITIVE FEEDER*. <https://www.doteco.com/products/doso-st-volumetric-additive-feeder/>.
- Dunphy. (2009). *T' Series Axial Air Flow Burners*. [https://www.dunphy.co.uk/product\\_range/axial\\_air.html](https://www.dunphy.co.uk/product_range/axial_air.html).
- EBMS. (2020). *Jagonya Palet Plastik*. <https://www.ebms.co.id/palet-plastik/>.
- Enghiad, A., Ufer, D., Countryman, A. M., & Thilmann, D. D. (2017). An overview of global *wheat* market fundamentals in an era of climate concerns. *Int. J. Agron.*, 2017, 3931897.

- FAOSTAT (online database). (2021). *Rome: Food and Agriculture Organization of the United Nations*.  
<http://www.fao.org/faostat/en/#data>.
- Fardiaz, S. (1992). *Polusi Air dan Udara*. Kanisius
- Fauzan. (2012). *Kesadahan*. FT Univet JATIM.
- Fennema, O. R., Srinivasan, D., & Kirk, L. P. (1996). *Food Chemistry*. CRC Press.
- Friesen, O. H., & Huminiki, D. N. (1986). *Grain Aeration and Unheated Air Drying*. Winnipeg: Manitoba R3C 0P8.
- Gardner Business Media. (2023). *Feed Rate Basics*.  
<https://www.ptonline.com/knowledgecenter/plastics-feeding/feed-rate-basics>.
- Gaspary, E. & Moura, G. L. (2020). How does the organizational structure influence a work environment for innovation?. *International Journal Entrepreneurship and Innovation Management*, 24(2), 132-153.
- Gasperz, V. (2016). *Metode Analisis untuk Peningkatan Kualitas*. Gramedia.
- Gupta, A. K., Govindarajan, V., & Malhotra, A. (1999). Feedback-Seeking Behavior Within Multinational Corporations. *Strategic Management Journal*, 20, 205-222.
- Hanifa, H. N., Gusnadi, D., & Maulida, R. G. (2020). Penerapan Sistem *First In First Out* untuk Bahan *Perishable* Sebagai Upaya Menghasilkan Produk *Pastry* yang Berkualitas di Shertaon Bandung Hotels And Towers. *Proceeding of Applied Science*, 2227-2236.
- Harrison, J. F. (2006). *Why Naturally Soft And Softened Water Are Not The Same*. <https://wcpnline.com/2006/06/27/naturally-soft-softened-water-not/> (Tanggal akses 4 Februari 2023).
- Hasibuan, M. S. P. (2010). *Manajemen Sumber Daya Manusia*. Bumi Aksara.
- Helmyati, S., Yulianti, E., Pamungkas, N. P., & Hendarta, N. Y. (2017). *Fortifikasi Pangan Berbasis Sumber Daya Nusantara: Upaya Mengatasi Masalah Defisiensi Zat Gizi Mikro di Indonesia*. Gajah Mada University Press.

- Hemis, M., Choudhary, R., & Waston, D. G. (2012). A coupled mathematical model for simultaneous microwave and convective drying of *wheat* seeds. *Biosystem Eng.*, 112(2), 202-209.
- Heragu, S. S. (1997). *Facilities Design*. PWS Publishing Company.
- Hopkins, M. (2006). Loss in weight feeder systems. *Measurement Control*, 39(8), 237-240.
- Hoque, M. M., & Hoffmann, V. (2019). Safety and *Quality* of Food (Rice and *Wheat*) Distributed Through Public Food Distribution System (PFDS) in Bangladesh: Results from Laboratory Tests for Selected Contaminants. *International Food Policy Research Institute (IFRI)*.
- Hurrell, R. (2002). How to ensure adequate iron absorption from iron-fortified food. *Nutr. Rev.*, 60(7 Pt 2), S7-15.
- Hurrell, R. F. (1999). Iron. In R. F. Hurrell. (Ed.), *The Mineral Fortification of Food* (pp. 54-93). Leatherhead Publishing.
- Hurrell, R. F. (2002). How to ensure adequate iron absorption from iron-fortified food. *Nutrition reviews*, 60(7 Pt 2), S7-S15.
- IndiaMART. (n.d.). *Open-Mouth Bagging Carousel*. <https://www.indiamart.com/proddetail/open-mouth-bagging-carousel-1773662048.html>.
- Indriati, I. H. (2021). Pengaruh struktur organisasi, fasilitas kerja, dan beban kerja terhadap efektivitas kerja pegawai BPR Chandra Muktiartha Yogyakarta. *Jembatan: Jurnal Ilmiah Manajemen*, 18(1), 13-28.
- Irawan, D. (2017). Perancangan prototype bucket elevator. *Jurnal Ilmiah Multitek Indonesia*, 11(1), 1-11.
- Ismail, J. (2022). *Buku Ajar Akuntansi Keuangan*. PT Insan Cendekia Mandiri.
- Kaiser, K., Schmid, M., & Schlummer, M. (2018). Recycling of polymer-based *multilayer* packaging: a review. *Recycling*, 3(1), 1.
- Kaleta, A., & Gornicki, K. (2013). Criteria of Determination of Safe Grain *Storage time* - A Review. *Advances in Agrophysical Research*, 12, 295-318.

- Karunakaran, C., Muir, W. E., Jayas, D. S., White, N. D. G., & Abramson, D. (2001). Safe *Storage time* of High Moisture *Wheat*. *J. Stored Prod Res*, 37(3), 303-312.
- Kent-Jones, D. W. & Amos, A. J. (1967). *Modern Cereal Chemistry*. Food Trade Press Ltd.
- Keputusan Menteri Tenaga Kerja dan Transmigrasi Republik Indonesia No. KEP.102/MEN/VI/2004 tentang Waktu Tenaga Kerja dan Transmigrasi Republik Indonesia.
- Kumar, G. (2018). *Spoilage and Heating of Stored Agricultural Products*. Agricultural and Food Engineering Department, IIT Kharagpur.
- Kusnandar, F., Budi, F. S., Yustikawati, Regiyana, Y., & Budijanto, S. (2020). Pengembangan butiran premiks untuk fortifikasi zat besi dalam beras. *Jurnal Ilmu Pertanian Indonesia (JIPI)*, 25(4), 592-598.
- Laca, A., Mouisa, Z., Diaz, M., Webb, C., & Pandiella, S. S. (2006). Distribution of microbial contamination within cereal grain. *Journal of Food Engineering*, 72, 332-338.
- Lu, Z. X., Walker, K. Z., Moir, J. G., Mascara, T., & Dea, K. O'. (2000). ea. 2000. Arabinoxylan fiber, a by product of *wheat* flour processing, reduces the postprandial glucose response in normoglycemic subjects, *Am. J. Clin. Nutr.*, 71, 11.
- Mamuaja, C. F. (2016). *Pengawasan Mutu dan Keamanan Pangan*. Unsrat Press.
- Mardhia, D., Ayu, I. W., Suprianto, Edrial, & Prangeta, R. S. S. (2020). *Studi Kelayakan Pembangunan Pabrik Air Minum Dalam Kemasan (AMDK)*. Literasi Nusantara.
- Marwadi, I. & Lubis, H. (2018). *Proses Manufaktur Plastik dan Komposit*. Andi.
- Mason, H., Navabi, A., Frick, B., O'Donovan, J., Nizio, D., & Spaner, D. (2007). Does growing Canadian Western *Hard Red Spring wheat* under organic management alter its breadmaking quality?. *Renewable Agriculture and Food Systems*, 22(3), 157-167.



- McDonald, G. & Meylinah, S. (2019). Indonesia Grain and Feed Annual Report 2019. *USDA Foreign Agricultural Service, Global Agricultural Information Network*.
- Mhiko, T. A. (2012). Determination of The Causes and The Effects of Storage Conditions on The *Quality* of Silo Stored Wheat (*Triticum aestivum*) in Zimbabwe. *Natural Products and Bioprospecting*, 2(1), 21-22.
- Mobility Engineering. (2020). *Chain Conveyors*. <https://mobilityengineering.co.uk/chain-conveyors/>.
- Morrison, W.R., Arthur, F.H., Wilson, L.T., Yang, Y., Wang, J., & Athanassiou, C.G. (2020). Aeration to Manage Insects in Wheat Stored in the Balkan Peninsula: Computer Simulations Using Historical Weather Data. *Agronomy*, 10, 1927.
- Mountz. (2018). *Understanding and Using Cpk*. <https://www.mountztorque.com/Understanding-and-Using-Cpk>.
- Mujiarto, I. (2005). Sifat dan Karakteristik Material Plastik dan Bahan Aditif. *Traksi*, 3(2), 1-9.
- Muklas. (2010). Laporan Magang di PT Pundi Kencana Flour Mills Cilegon "Mempelajari Pengendalian Mutu (*Quality Control*) Pengolahan Tepung Terigu". *Tugas Akhir*, Fakultas Pertanian, Universitas Sebelas Maret, Surakarta.
- Noer, Z., & Irma, M. (2021). *Klasifikasi Jenis-jenis Gandum di Dunia*. GUEPEDIA.
- Nurlia. (2019). Pengaruh struktur organisasi terhadap kualitas pelayanan (perbandingan antara ekspektasi/harapan dengan hasil kerja). *Meraja Journal*, 2(2), 51-66.
- Nyachiro, J. M., Clarke, F. R., DePauw, R. M., Knox, R. E., & Armstrong, K. C. (2002). Temperature effects on seed germination and expression of seed dormancy in *wheat*. *Euphytica*, 126, 123-127.
- OCRIM. (2019). *Airlock* – *ST*. [https://www.ocrim.com/inglese/ST\\_en.html](https://www.ocrim.com/inglese/ST_en.html).
- OCRIM. (2019). *Bucket Elevator* – *ETS*. [https://www.ocrim.com/inglese/ETS\\_en.html](https://www.ocrim.com/inglese/ETS_en.html).

- OCRIM. (2019). *Classifier Aspirator* – TRC.  
[https://www.ocrim.com/inglese/TRC\\_en.html](https://www.ocrim.com/inglese/TRC_en.html).
- OCRIM. (2019). *Conveyor-SCE-SCS*.  
[https://www.ocrim.com/inglese/SCE\\_en.html](https://www.ocrim.com/inglese/SCE_en.html).
- OCRIM. (2019). *Dry Stoner* – TSV.  
[https://www.ocrim.com/inglese/TSV\\_en.html/](https://www.ocrim.com/inglese/TSV_en.html/).
- OCRIM. (2019). *Flowmatic* – FCC.  
[https://www.ocrim.com/inglese/SRP\\_en.html](https://www.ocrim.com/inglese/SRP_en.html).
- OCRIM. (2019). *Giant Plantsifter* – SFI/S-L.  
[https://www.ocrim.com/inglese/SFI%20S\\_L\\_en.html](https://www.ocrim.com/inglese/SFI%20S_L_en.html).
- OCRIM. (2019). *Gravity separator* – TDV.  
[https://www.ocrim.com/inglese/TDV\\_en.html](https://www.ocrim.com/inglese/TDV_en.html).
- OCRIM. (2019). *Hammermill* – MM.  
[https://www.ocrim.com/inglese/MM\\_en.html](https://www.ocrim.com/inglese/MM_en.html).
- OCRIM. (2019). *Intensive Dampening Screw Conveyor* – SCB/X.  
[https://www.ocrim.com/inglese/SCB\\_X\\_en.html](https://www.ocrim.com/inglese/SCB_X_en.html).
- OCRIM. (2019). *Intensive Horizontal Scourer* – SIG.  
[https://www.ocrim.com/inglese/SIG\\_en.html](https://www.ocrim.com/inglese/SIG_en.html).
- OCRIM. (2019). *Precleaning Rotary Separator* – SRP.  
[https://www.ocrim.com/inglese/SRP\\_en.html](https://www.ocrim.com/inglese/SRP_en.html).
- OCRIM. (2019). *Purifier* – SDI – SDX.  
[https://www.ocrim.com/inglese/SDI\\_en.html](https://www.ocrim.com/inglese/SDI_en.html).
- OCRIM. (2019). *Rectangular Filter* – FLR.  
[https://www.ocrim.com/inglese/FLR\\_en.html](https://www.ocrim.com/inglese/FLR_en.html).
- OCRIM. (2019). *Rollermill* – RMI.  
[https://www.ocrim.com/inglese/RMI\\_en.html](https://www.ocrim.com/inglese/RMI_en.html).
- OCRIM. (2019). *Rotary Separator* – DR – DR/X.  
[https://www.ocrim.com/inglese/DR\\_en.html](https://www.ocrim.com/inglese/DR_en.html).
- OCRIM. (2019). *Vibro finisher* – FVA – FVA/X.  
[https://www.ocrim.com/inglese/FVA\\_en.html](https://www.ocrim.com/inglese/FVA_en.html).
- Onipe, O. O., Jideani, A. I. O., & Beswa, D. (2015). Composition and Functionality of *Wheat Bran* and Its Application in Some Cereal Food Products. *International Journal of Food Science & Technology*, 50, 12.
- Prasetya, K. A. H., Wihandani, D. M., & Sutadarma, I. W. G. (2019). Hubungan antara anemia dengan prestasi belajar pada siswi

- kelas XI di SMAN I Abiansemal Badung. *E-Jurnal Medika*, 8(1), 46-51.
- Prihananto. (2004). *Fortifikasi Pangan sebagai Upaya Penanggulangan Anemia Gizi Besi*. Ilmu Pertanian Bogor.
- Putra, D., Rabaniyah, R., & Nasrullah. (2012). *Pengaruh Suhu dan Lama Perendaman Benih Terhadap Perkecambahan dan Pertumbuhan Awal Bibit Kopi Arabika (Coffea arabica (LENN))*. Fakultas Pertanian, Universitas Gadjah Mada, Yogyakarta.
- Putri, D. E. & Rimantho, D. (2022). Analisis pengendalian kualitas menggunakan kapabilitas proses produksi kantong semen. *Jurnal INTECH Teknik Industri Universitas Serang Raya*, 8(1), 35-42.
- Rahmah. (2011). Keragaman Genetik dan Adaptabilitas Gandum (*Triticum aestivum* L.) Introduksi di Lingkungan Tropis. *Skripsi*, Sekolah Pasca Sarjana IPB. Bogor.
- Rahman, A. (2017). Prototipe *screw conveyor* mesin pendaur ulang pasir cetak 10 ton/jam. *Seminar Nasional Sains dan Teknologi*, Fakultas Teknik Universitas Muhammadiyah Jakarta.
- Rangkuti, F. (2013). *Strategi Promosi yang Kreatif dan Analisis Kasus*. Gramedia Pustaka Utama.
- Ratule, M. T., & Aqil, M. (2018). *Teknologi Pascapanen Gandum. In Gandum Peluang Pengembangan di Indonesia*. IAARD Press.
- Rianti, A., Christoper, A., Lestari, D., & Kiyat, W. E. (2018). Penerapan Keamanan dan Sanitasi Pangan pada Produksi Minuman Sehat Kacang-kacangan UMKM Jukajo Sukses Mulia di Kabupaten Tangerang. *Jurnal Agroteknologi*, 12(2), 167-175.
- Saifi Automations. (2021). *What is Conveyor Belt System?* <https://www.saifiautomation.com/conveyor-belt-system-applications-benefits/>.
- Sawyer & McCarty. (1978). *Chemistry for Environmental Engineering and Science. Third Edition*. McGraw Hill.
- Setyaningtyas, Y. (2009). *Cerdas Sains Kelas 4-6 SD*. Pustaka Widyatama.

- Shipping and Freight Resource. (2016). *Considerations to make before buying wooden pallets*. <https://www.shippingandfreightresource.com/considerations-make-buying-wooden-pallets/>.
- Singh, R. P., & Heldman, R. (2001). *Introduction to Food Engineering. 3rd Edition*. Academic Press.
- Singh, S.S., & Singh, B. B. (2001). *IARI wheats for evergreen revolution*. Indian Agricultural Research Institute New Delhi, India.
- Sitompul, S. (2020). Mengenal sistem pneumatic, aplikasi dan perawatannya. *Nommensen Siantar Technology and Engineering Journal*, 1(1), 39-47.
- Smith, P. G. (2011). *Introduction to Food Process Engineering*. Springer.
- Sramkova, Z., E. Gregova, & E. Sturdik. (2009). Chemical Composition and Nutritional *Quality* of Wheat Grain. *Acta Chimica Slovaca*, 2(1):115-138.
- Sramkovaa, Z., Gregovab, E., & Sturdika., E. (2009). Chemical composition and nutritional *quality* of wheat grain. *Acta Chimica Slovaca*, 2(1):115-138.
- Stekel, A., Olivares, M., Cayazzo, M., Chadud, P., Llaguno, S., & Pizarro, F. (1988). Prevention of iron deficiency by milk fortification. II. A field trial with a full-fat acidified milk. *Am. J. Clin. Nutr.*, 47(2), 265-9.
- Suarni. (2009). Prospek Pemanfaatan Tepung Jagung untuk Kue Kering (Cookies), *Jurnal Litbang Pertanian*. 28(2): 63-71.
- Sucipta, I N., Suriasih, K., & Kencana, P. K. D. (2017). *Pengemasan Pangan: Kajian Pengemasan yang Aman, Nyaman, Efektif, dan Efisien*. Udayana University Press.
- Sudarmin, Sumarni, W., Tresnawati, N., Fathonah, S., Juliyanto, E., Firdaus, Annur, S., Harjito, Dewi, N. R., Jumini, S., Desy, R. M., Falah, M. F., Dahnuss, D., & Iskandar, H., & Siswanto. (2021). *Berkreasi Mendesain Pembelajaran Berbasis Etnosains untuk Mendukung Pembangunan Berkelanjutan*. Pustaka Rumah Cinta.

- Sunarsih, E. (2018). Konsep pengolahan limbah rumah tangga dalam upaya pencegahan pencemaran lingkungan. *Jurnal Ilmu Kesehatan Masyarakat*, 5(3), 162-167.
- Swain, J. H., Newman, S. M., & Hunt, J. R. (2003). Bioavailability of elemental iron powders to rats is less than bakery-grade ferrous sulfate and predicted by iron solubility and particle surface area. *Journal of Nutrition*, 133, 3546-3552.
- Syah, D. (2018). *Pengantar Teknologi Pangan*. Penerbit IPB Press.
- Talbert, R. (2013). *Clumping of Powder*. <https://www.pfonline.com/articles/clumping-of-powder>.
- Teknikon. (2022). *Teknikon Medikal*. <https://www.teknikonmedikal.com/>.
- The State of Queensland. (2009). *Wheat Quality and Markets in Queensland: Fact Sheet*. Department of Employment, Economic Development and Innovation.
- Thompson Cochran Wee Boiler. (2012). *Borderer Steam Boiler*. Cochran, Ltd.
- Tuhuloula, A. (2006). Studi Kasus: Pelunakkan Air Menggunakan Penukar Kation Amberlite IR-120. *Info Teknik*, 7(20), 97-102.
- Uauy, R., Hertrampf, E., & Reddy, M. (2002). Iron fortification of food: overcoming, technical, practical barrier. *The J. Nutr.*, 132(4), 849-852.
- Ulrich, G. D. (1984). *A Guide to Chemical Engineering Process Design and Economics*. John Wiley & Sons, Inc.
- Undang-undang No. 13 Tahun 2003 Pasal 1 Ayat 30 tentang Ketenagakerjaan.
- US Wheat Associates. (1981). *Pedoman Pembuatan Roti dan Kue*. Djambatan.
- Utama, C. S., Sulistiyanto, B., & Setiani, B. E. (2013). Profil mikrobiologis *pollard* yang difermentasi dengan ekstrak limbah pasra sayur pada lama peram yang berbeda. *J. Agripet*, 13(2), 26-30.
- Utama, C. S., Sulistiyanto, B., & Wicaksono, T. A. (2019). Pengaruh pemberian berbagai *pollard* terolah terhadap pertumbuhan organ pencernaan ayam *broiler* umur 7 minggu. *Jurnal Litbang Provinsi Jawa Tengah*, 17(1), 101-110.

- Vemulapalli, V. & Hosoney, R. C. (1998). Glucose oxidase effects on gluten and water solubles. *Cereal Chemistry*, 75(6), 859-862.
- Wheat Foods Council. (2011). *Grain of Truth*. <http://www.wheatfoods.org/sites/default/files/atachments/grains-truth-white-wheat.pdf> (Tanggal akses 5 Januari 2023).
- Wignjosoebroto, S. (2009). *Tata Letak Pabrik dan Pemindahan Bahan*. Guna Widya.
- Wish, W., McEachern, R., & Lehr, J. H. (2009). *Water Softening with Potassium Chloride*. A John Wilry & Sons Inc.
- Zimmermann, M. B., Zeder, C., Chaouki, N., Saad, A., Torresani, T., & Hurrell, R. F. (2003). Dual fortification of salt with iodine and microencapsulated iron: a randomized, double-blind, controlled trial in Moroccan schoolchildren. *Am. J. Clin. Nutr.*, 77(2), 425-32.