

## BIBLIOGRAPHY

- Agar, I. T., Biasi, W. V., & Mitcham, E. J. (2000). Temperature and exposure time during ethylene conditioning affect ripening of Bartlett pears. *Journal of Agricultural and Food Chemistry*, 48(2), 165–170. <https://doi.org/10.1021/JF990458O>,
- Ahmad, A., Hashmi, M. S., Durrani, Y., Khan, N. A., Khan, M. R., Siddiqi, M. Z., Riaz, A., Alam, M., & Rahman, W. U. (2022). Synergy of 1-MCP and hypobaric treatments prevent fermented flavour and improve consumers' acceptability of 'Shughri' pear. *Journal of Food Science and Technology*, 60(1), 200. <https://doi.org/10.1007/S13197-022-05605-Y>
- Alexander, L., & Grierson, D. (2002). Ethylene biosynthesis and action in tomato: a model for climacteric fruit ripening. *Journal of Experimental Botany*, 53(377), 2039–2055. <https://doi.org/10.1093/JXB/ERF072>
- Antoniolli, L. R., & Czermainski, A. B. C. (2012). *Maturity Index and Cold Storage Effects on Postharvest Quality of "Packham's Triumph" and "Rocha" Pears*. [http://www.ibraf.org.br/estatisticas/est\\_frutas.asp](http://www.ibraf.org.br/estatisticas/est_frutas.asp).
- Blanckenberg, A., Fawole, O. A., & Opara, U. L. (2022). Postharvest Losses in Quantity and Quality of Pear (cv. Packham's Triumph) along the Supply Chain and Associated Economic, Environmental and Resource Impacts. *Sustainability* 2022, Vol. 14, Page 603, 14(2), 603. <https://doi.org/10.3390/SU14020603>
- Britannica. (2025). *Pear: Description, Uses, & Types*. <https://www.britannica.com/plant/pear>
- Brummell, D. A., & Harpster, M. H. (2001). Cell wall metabolism in fruit softening and quality and its manipulation in transgenic plants. *Plant Molecular Biology*, 47(1–2), 311–339. <https://doi.org/10.1023/A:1010656104304/METRICS>
- Charoenchongsuk, N., Matsumoto, D., Itai, A., & Murayama, H. (2018). Ripening characteristics and pigment changes in russeted pear fruit in response to ethylene and 1-MCP. *Horticulturae*, 4(3). <https://doi.org/10.3390/horticulturae4030022>
- Cheng, Y., Liu, L., Zhao, G., Shen, C., Yan, H., Guan, J., & Yang, K. (2015). The effects of modified atmosphere packaging on core browning and the expression patterns of PPO and PAL genes in 'Yali' pears during cold storage. *LWT - Food Science and Technology*, 60(2), 1243–1248. <https://doi.org/10.1016/J.LWT.2014.09.005>
- Dalival.com. (2022a). *Doyenne du Comice*. Dalival.Com. <https://www.dalival.com/poires/doyenne-du-comice-en/>
- Dalival.com. (2022b). *Regal Red® Comice*. Dalival.Com. <https://www.dalival.com/poires/regal-red-comice-en/>
- Elgar, H. J., Watkins, C. B., Murray, S. H., & Gunson, F. A. (1997). Quality of 'Buerre Bosc' and 'Doyenne du Comice' pears in relation to harvest date and storage period. *Postharvest Biology and Technology*, 10(1), 29–37. [https://doi.org/10.1016/S0925-5214\(96\)00058-0](https://doi.org/10.1016/S0925-5214(96)00058-0)
- El-Sharkawy, I., Jones, B., Li, Z. G., Lelièvre, J. M., Pech, J. C., & Latché, A. (2003). Isolation and characterization of four ethylene perception elements and

- their expression during ripening in pears (*Pyrus communis* L.) with/without cold requirement. *Journal of Experimental Botany*, 54(387), 1615–1625. <https://doi.org/10.1093/JXB/ERG158>,
- Food and Agriculture Organization (FAO). (2022). *FAO Statistics*. <https://www.fao.org/faostat/en/#data/QCL>
- Gallardo, R. K., Ma, X., Colonna, A., Montero, M. L., & Ross, C. (2023). Consumers' Preferences for Novel and Traditional Pear Cultivars: Evidence from Sensory Evaluation and Willingness-to-pay Elicitation. *HortScience*, 58(12), 1474–1483. <https://doi.org/10.21273/HORTSCI17317-23>
- Ghazouani, T., Talbi, W., Sassi, C. Ben, & Fattouch, S. (2020). Pears. *Nutritional Composition and Antioxidant Properties of Fruits and Vegetables*, 671–680. <https://doi.org/10.1016/B978-0-12-812780-3.00041-6>
- Ghose, M. (2020). *14 Different Types of Pears With Pictures - Only Foods*. <https://www.onlyfoods.net/types-of-pears.html>
- Handa, A. K., Tiznado-Hernández, M. E., & Mattoo, A. K. (2011). Fruit development and ripening: A molecular perspective. *Plant Biotechnology and Agriculture: Prospects for the 21st Century*, 405–424. <https://doi.org/10.1016/B978-0-12-381466-1.00026-2>
- Hewitt, S. L., Hendrickson, C. A., & Dhingra, A. (2020). Evidence for the Involvement of Vernalization-related Genes in the Regulation of Cold-induced Ripening in 'D'Anjou' and 'Bartlett' Pear Fruit. *Scientific Reports*, 10(1), 8478. <https://doi.org/10.1038/S41598-020-65275-8>
- Hiwasa, K., Kinugasa, Y., Amano, S., Hashimoto, A., Nakano, R., Inaba, A., & Kubo, Y. (2003). Ethylene is required for both the initiation and progression of softening in pear (*Pyrus communis* L.) fruit. *Journal of Experimental Botany*, 54(383), 771–779. <https://doi.org/10.1093/JXB/ERG073>
- Hudina, M., & Štampar, F. (2000). Sugars and organic acids contents of European (*Pyrus Communis* L.) and Asian (*Pyrus Serotina* REHD.) pear cultivars. *Acta Alimentaria*, 29(3), 217–230. <https://doi.org/10.1556/AALIM.29.2000.3.2>
- Jajo, A., Corso, M., Bonghi, C., dal Molin, A., Avanzato, C., Ferrarini, A., Delledonne, M., Rahim, MD. A., Trainotti, L., Serra, S., & Musacchi, S. (2015). EFFECT OF COOL STORAGE DURATION ON RIPENING INITIATION OF “ANGELYS®” PEAR FRUIT. *Acta Horticulturae*, 1079, 129–136. <https://doi.org/10.17660/ACTAHORTIC.2015.1079.12><BR>
- Jawandha, S. K., Singh, H., Kaur, K., & Arora, A. (2016). *Effect of pre-cooling on storage behaviour of peach fruit*. 22, S311–S315.
- Kazimi, A. H., Mitalo, O. W., Azimi, A., Masuda, K., Yano, C., Akagi, T., Ushijima, K., & Kubo, Y. (2023). 1-Methylcyclopropene Pretreatment in 'La France' Pears to Extend Postharvest Life and Maximize Fruit Quality. *The Horticulture Journal*, 92(2), 105–114. <https://doi.org/10.2503/HORTJ.QH-012>
- Kumar, S., Kirk, C., Deng, C. H., Wiedow, C., Qin, M., Espley, R., Wu, J., & Brewer, L. (2019). Fine-mapping and validation of the genomic region underpinning pear red skin colour. *Horticulture Research*, 6(1). <https://doi.org/10.1038/S41438-018-0112-4>

- Lespinasse, Y., & Guérif, P. (2011). INHERITANCE OF RED LEAF COLOUR FROM PEAR RED SPORTS OF “DOYENNÉ DU COMICE”, “BARTLETT” AND “BEURRÉ HARDY.” *Acta Horticulturae*, 909(909), 97–102. <https://doi.org/10.17660/ActaHortic.2011.909.9>
- Li, W., Lin, M., Jiang, W., Wu, X., Wang, M., Liang, Y., & Zhang, Z. (2025). Flavonoid-mediated metabolic underpinning quality variation in red bud-sport pear mutants. *Food Chemistry*, 489, 144992. <https://doi.org/10.1016/J.FOODCHEM.2025.144992>
- Li, X., Li, X., Wang, T., & Gao, W. (2016). Nutritional Composition of Pear Cultivars (*Pyrus* spp.). *Nutritional Composition of Fruit Cultivars*, 573–608. <https://doi.org/10.1016/B978-0-12-408117-8.00024-6>
- Ma, S. S., & Chen, P. M. (2003). Storage disorder and ripening behavior of ‘Doyenne du Comice’ pears in relation to storage conditions. *Postharvest Biology and Technology*, 28(2), 281–294. [https://doi.org/10.1016/S0925-5214\(02\)00179-5](https://doi.org/10.1016/S0925-5214(02)00179-5)
- Makkumrai, W., Sivertsen, H., Sugar, D., Ebeler, S. E., Negre-Zakharov, F., & Mitcham, E. J. (2014). Effect of ethylene and temperature conditioning on sensory attributes and chemical composition of “comice” pears. *Journal of Agricultural and Food Chemistry*, 62(22), 4988–5004. [https://doi.org/10.1021/JF405047V/ASSET/IMAGES/LARGE/JF-2013-05047V\\_0006.JPEG](https://doi.org/10.1021/JF405047V/ASSET/IMAGES/LARGE/JF-2013-05047V_0006.JPEG)
- Meyer, V. R. (2010). Practical High-Performance Liquid Chromatography: Fifth Edition. *Practical High-Performance Liquid Chromatography: Fifth Edition*, 1–402. <https://doi.org/10.1002/9780470688427>
- Miró, R., Graell, J., Larrigaudiere, C., & López, M. L. (2001). EFFECT OF COOLING PERIOD ON QUALITY AND RIPENING OF ‘DOYENNE DU COMICE’ PEARS. *Acta Horticulturae*, 553, 735–737. <https://doi.org/10.17660/ACTAHORTIC.2001.553.185<BR>>
- Mitalo, O. W., Tokiwa, S., Kondo, Y., Otsuki, T., Galis, I., Suezawa, K., Kataoka, I., Doan, A. T., Nakano, R., Ushijima, K., & Kubo, Y. (2019). Low temperature storage stimulates fruit softening and sugar accumulation without ethylene and aroma volatile production in kiwifruit. *Frontiers in Plant Science*, 10, 454512. <https://doi.org/10.3389/FPLS.2019.00888/BIBTEX>
- Murayama, H., Arikawa, M., Sasaki, Y., Dal Cin, V., Mitsuhashi, W., & Toyomasu, T. (2009). Effect of ethylene treatment on expression of polyuronide-modifying genes and solubilization of polyuronides during ripening in two peach cultivars having different softening characteristics. *Postharvest Biology and Technology*, 52(2), 196–201. <https://doi.org/10.1016/J.POSTHARVBIO.2008.11.003>
- Murayama, H., Sai, M., Oikawa, A., & Itai, A. (2015). Inhibitory Factors That Affect the Ripening of Pear Fruit on the Tree. *The Horticulture Journal*, 84(1), 14–20. <https://doi.org/10.2503/HORTJ.MI-015>
- Nguyen, T. A., Verboven, P., Schenk, A., & Nicolai, B. M. (2007). Prediction of water loss from pears (*Pyrus communis* cv. Conference) during controlled atmosphere storage as affected by relative humidity. *Journal of Food*

- Engineering*, 83(2), 149–155.  
<https://doi.org/10.1016/J.JFOODENG.2007.02.015>
- Nishio, S., Hayashi, T., Shirasawa, K., Saito, T., Terakami, S., Takada, N., Takeuchi, Y., Moriya, S., & Itai, A. (2021). Genome-wide association study of individual sugar content in fruit of Japanese pear (*Pyrus* spp.). *BMC Plant Biology*, 21(1), 1–19. <https://doi.org/10.1186/S12870-021-03130-2/TABLES/6>
- Parle, M., & Arzoo. (2016). WHY IS PEAR SO DEAR. *International Journal of Research in Ayurveda & Pharmacy*, 7(1), 108–113.  
<https://doi.org/10.7897/2277-4343.07139>
- Pasquariello, M. S., Rega, P., Migliozi, T., Capuano, L. R., Scortichini, M., & Petriccione, M. (2013). Effect of cold storage and shelf life on physiological and quality traits of early ripening pear cultivars. *Scientia Horticulturae*, 162, 341–350. <https://doi.org/10.1016/J.SCIENTA.2013.08.034>
- Paul, V., & Pandey, R. (2016). Internal Atmosphere of Fruits: Role and Significance in Ripening and Storability . In *Postharvest Ripening Physiology of Crops*. Francis Group.  
[https://www.researchgate.net/publication/299619392\\_Internal\\_Atmosphere\\_of\\_Fruits\\_Role\\_and\\_Significance\\_in\\_Ripening\\_and\\_Storability](https://www.researchgate.net/publication/299619392_Internal_Atmosphere_of_Fruits_Role_and_Significance_in_Ripening_and_Storability)
- Reiland, H., & Slavin, J. (2015). Systematic Review of Pears and Health. *Nutrition Today*, 50(6), 301. <https://doi.org/10.1097/NT.0000000000000112>
- Sanches, A. G., & Feitosa, E. M. F. (2024). USE OF FREEZE DRYING IN FRUIT AND VEGETABLES: REVIEW. In *Engenharia de Alimentos: tópicos físicos, químicos e biológicos - Volume 1* (pp. 205–225). Editora Científica Digital.  
<https://doi.org/10.37885/240416238>
- Sugar, D., & Basile, S. R. (2009). Low-temperature induction of ripening capacity in 'Comice' and 'Bosc' pears as influenced by fruit maturity. *Postharvest Biology and Technology*, 51(2), 278–280.  
<https://doi.org/10.1016/J.POSTHARVBIO.2008.07.003>
- Sugar, D., & Basile, S. R. (2013). Integrated ethylene and temperature conditioning for induction of ripening capacity in 'Anjou' and 'Comice' pears. *Postharvest Biology and Technology*, 83, 9–16.  
<https://doi.org/10.1016/J.POSTHARVBIO.2013.03.010>
- Sugar, D., & Einhorn, T. C. (2011). Conditioning temperature and harvest maturity influence induction of ripening capacity in 'd'Anjou' pear fruit. *Postharvest Biology and Technology*, 60(2), 121–124.  
<https://doi.org/10.1016/J.POSTHARVBIO.2010.12.005>
- Tatsuki, M. (2010). Ethylene Biosynthesis and Perception in Fruit. *Journal of the Japanese Society for Horticultural Science*, 79(4), 315–326.  
<https://doi.org/10.2503/JJSHS1.79.315>
- Tipu, M. M. H., & Sherif, S. M. (2024). Ethylene and its crosstalk with hormonal pathways in fruit ripening: mechanisms, modulation, and commercial exploitation. *Frontiers in Plant Science*, 15, 1475496.  
<https://doi.org/10.3389/FPLS.2024.1475496/XML/NLM>
- Tóth-Markus, M., Bánáti, D., Adányi, N., Boross, F., Konrád-Németh, C., Szabó, Z., Soltész, M., & Nyéki, J. (2011). Composition and storage of pear cultivars

- from Nagykanizsa. *International Journal of Horticultural Science*, 17(1–2).  
<https://doi.org/10.31421/IJHS/17/1-2./947>
- Villalobos Acuña, M. G., Biasi, W. V., Mitcham, E. J., & Holcroft, D. (2011). Fruit temperature and ethylene modulate 1-MCP response in 'Bartlett' pears. *Postharvest Biology and Technology*, 60(1), 17–23.  
<https://doi.org/10.1016/J.POSTHARVBIO.2010.11.005>
- Villalobos-Acuña, M., & Mitcham, E. J. (2008). Ripening of European pears: The chilling dilemma. *Postharvest Biology and Technology*, 49(2), 187–200.  
<https://doi.org/10.1016/J.POSTHARVBIO.2008.03.003>
- Wang, Y. (2020). Pome fruits: Pears. *Controlled and Modified Atmospheres for Fresh and Fresh-Cut Produce*, 299–309. <https://doi.org/10.1016/B978-0-12-804599-2.00016-8>
- Wang, Y., Zhu, Q., Liu, S., Jiao, L., & Dong, D. (2024). Rapid Determination of Different Ripening Stages of Occidental Pears (*Pyrus communis* L.) by Volatile Organic Compounds Using Proton-Transfer-Reaction Mass Spectrometry (PTR-MS). *Foods*, 13(4), 620.  
<https://doi.org/10.3390/FOODS13040620>
- Wijewardane, R. M. N. A., & Guleria, S. P. S. (2011). Effect of pre-cooling, fruit coating and packaging on postharvest quality of apple. *Journal of Food Science and Technology*, 50(2), 325. <https://doi.org/10.1007/S13197-011-0322-3>
- Xanthopoulos, G. T., Templalexis, C. G., Aleiferis, N. P., & Lentzou, D. I. (2017). The contribution of transpiration and respiration in water loss of perishable agricultural products: The case of pears. *Biosystems Engineering*, 158, 76–85.  
<https://doi.org/10.1016/j.biosystemseng.2017.03.011>
- Yin, C., Tian, L., Li, J., Cao, Y., Dong, X., Huo, H., Xu, J., & Liu, C. (2025). Evaluation of pear fruit quality in different ripening stages based on internal quality characteristics. *Journal of Food Composition and Analysis*, 140, 107282. <https://doi.org/10.1016/J.JFCA.2025.107282>
- Yin, H., Wu, J., Fan, J., Xu, L., Zhang, W., Li, Q., Jia, L., Wu, X., Wang, Z., Li, H., Qi, K., Qiao, X., & Zhang, S. (2024). Profiling of soluble sugar compositions in mature fruits of a diverse pear (*Pyrus* spp.) germplasm by UPLC. *Journal of Food Composition and Analysis*, 132, 106281.  
<https://doi.org/10.1016/J.JFCA.2024.106281>
- Zhang, Y., Cheng, Y., Ma, Y., Guan, J., & Zhang, H. (2024). Regulation of Pear Fruit Quality: A Review Based on Chinese Pear Varieties. *Agronomy* 2025, Vol. 15, Page 58, 15(1), 58. <https://doi.org/10.3390/AGRONOMY15010058>
- Zucoloto, M., Antonioli, L. R., Siqueira, D. L. De, & Czermainski, A. B. C. (2017). EXTENDED COLD STORAGE OF WINTER PEARS BY MODIFIED ATMOSPHERE PACKAGING. *Revista Brasileira de Fruticultura*, 39(1).  
<https://doi.org/10.1590/0100-29452017936>