

## Natural Fiber-Based Food Packaging Films

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### Summary

Food preservation and its transportation around the world have benefited wide sections of society, including farmers, food industries, and especially consumers, who seldom had the chance to experience food products from around the world in the past. In conjunction with this, it has also brought a lot of challenges to researchers, economists, social workers, cleaners, shopkeepers, and the environment due to the inverse proportionality relation between their required lifetime and required usage period. Many types of researches are being conducted to find a balance between the two. Some notable advancements in this effort are the effective usage of natural fibers and their composites in the production of food packaging materials. This review paper gives an overview of the effect of natural fiber in food packaging films.

### References

Taylor , P. and Russell , D.A.M. ( 2014 ). Sustainable (food) packaging – an overview . *Food Additives & Contaminants: Part A* 396 – 401 .  
<https://doi.org/10.1080/19440049.2013.856521> .

Gaikwad , K.K. , Singh , S. , and Lee , Y.S. ( 2018 ). Oxygen scavenging films in food packaging . *Environmental Chemistry Letters* **16** ( 2 ): 523 – 538 .  
<https://doi.org/10.1007/s10311-018-0705-z> .

| [CAS](#) | [Web of Science®](#) | [Google Scholar](#) |

Gil , M.I. , Selma , M.V. , Suslow , T. et al. ( 2015 ). Pre- and postharvest preventive measures and intervention strategies to control microbial food safety hazards of fresh leafy vegetables . *Critical Reviews in Food Science and Nutrition* **55** ( 4 ): 453 – 468 . <https://doi.org/10.1080/10408398.2012.657808> .

| [PubMed](#) | [Web of Science®](#) | [Google Scholar](#) |

Siracusa , V. , Rocculi , P. , Romani , S. , and Rosa , M.D. ( 2008 ). Biodegradable polymers for food packaging: a review . *Trends in Food Science and Technology* **19** ( 12 ): 634 – 643 . <https://doi.org/10.1016/j.tifs.2008.07.003> .

| [CAS](#) | [Web of Science®](#) | [Google Scholar](#) |

Popović , S.Z. , Lazić , V.L. , Hromiš , N.M. et al. ( 2018 ). Chapter 8 – Biopolymer packaging materials for food shelf-life prolongation . In: *Biopolymers for Food Design* (ed. A.M. Grumezescu and A.M. Holban ), 223 – 277 . Academic Press  
<https://doi.org/10.1016/B978-0-12-811449-0.00008-6> .

| [Google Scholar](#) |

Taj , S. , Munawar , M.A. , and Khan , S. ( 2007 ). Natural fiber-reinforced polymer composites . *Pakistan Academy of Sciences* **2007** : 129 – 144 .

| [Google Scholar](#) |

Mitra , B.C. ( 2014 ). Environment friendly composite materials: biocomposites and green composites . *Defence Science Journal* **64** ( 3 ): 244 – 261 .  
<https://doi.org/10.14429/dsj.64.7323> .