Biodegradable and Sustainable Fibres, R.S. Blackburn (Ed.). Woodhead Publishing Ltd, Cambridge (2005). xxii + 456 pp., £135-00, ISBN: 1-85573-916-X

Biodegradable and sustainable fibres are very important nowadays in our life. The exponential increase in population increases the demand on resources [e.g. food, water, energy, and chemicals], and increases environmental pollution and a depletion of finite resources [e.g. fossil fuel].

The introductory chapter to *Biodegradable And Sustainable Fibres* notes the growing importance of biodegradable and sustainable fibres, defines biodegradable and sustainable fibres and recent developments in biodegradable polymers. With the growing accumulation of non-degradable material in the environment, there is a need to produce and use fibres that breakdown after their disposal thus improving environmental quality. Microorganisms are being investigated to understand and determine their role in degradation of natural and synthetic fibres (Chapter 1). The characteristics of major fibre types, including bast fibres, alginates, cellulose and speciality biodegradable fibres such as lyocell, poly (lactic acid), poly (hydroxyalkanoates) and poly (caprolactone) are considered, respectively (Chapters 2–7). Industrialists have long dreamt of artificially producing silk fibres with the properties of spider dragline silk by using a biotechnological approach. (Chapter 8). Biodegradable natural fibre composites would be ideal as there would be more eco-friendly whereas synthetic composite material can last for several decades without decomposing (Chapter 9). Nonwovens are the fastest growing sector of textile materials, and they continue to grow all over the world. A significantly large share of these products are used in a single use, therefore leading to disposability issues. Biodegradable nonwovens are the answer to the sustainability and environmental issues especially in the long run (Chapter 10). Geotextiles are textiles that are made from natural fibres and used in association with soils during ground engineering (Chapter 11). The biomaterials available in the largest quantities on Earth are cellulose and chitin. These materials are closely related polysaccharides and are found in nature as structural materials. The conversion of cellulose, chitin and chitosan to filaments, thereby creating a warm, soft comfortable and economically viable man-made fibre equivalent to wool, a natural protein fibre, has long been a goal for scientists and manufacturers. This may now be effected by the use of simple salt solutions (Chapter 12). The development of Soya bean material into wool like fibre is a story of technological innovation (Chapter 13).

This book shows that biodegradable and sustainable fibres are an effective way to reduce the environmental pollution caused by synthetic textiles. Biodegradable and sustainable fibres is a comprehensive monograph providing essential reference for anyone interested in the area and environmental issues relating to textiles including fibre and textile scientists and students, textile technologists, manufacturers and forensic specialists in industry and academia.

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Available online 4 December 2006

doi:10.1016/j.carbpol.2006.09.001