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Application of Bacterial Pigments as Colorant

The Malaysian Perspective

Springer

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Preface

Strong consumer demand for natural products has prompted many researchers to look for alternatives to synthetic pigments which are widely used. Synthetic pigments are not only undesirable or harmful, but can cause adverse effects to the environment. There are many sources of natural pigments, namely from micro-organisms and plants. Among plants, the orange/yellow colour obtained from saffron is one of the most expensive natural pigments sold with a price range between USD 1,100 and 11,000 per kilogram. The ascomycetous fungi, *Monascus* on the other hand has been reported to produce a variety of red, yellow, orange, green and blue hues which are mainly used in food industries.

This brief serves as a quick guide on the isolation, characterization and applications of pigments extracted from red, yellow and violet bacteria namely *Serratia marcescens*, *Chryseobacterium* sp. and *Chromobacterium violaceum*, respectively. The unique feature of this brief is the use of cheap agricultural waste for the propagation of the bacteria. This will help reduce the cost of the pigments when taken to a larger production scale. Another point to note here is the short life cycle of the bacteria which makes it viable to be used on a large scale. This brief serves as an introductory series for many more briefs on this subject.

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