INFLUENCE OF LIGHT INTENSITY AND WAVELENGTH ON GROWTH AND MORPHOLOGY OF *Monascus ruber* CCT 3802

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The use of natural dyes in food has increased recently due to consumer concern about the harmful effects of synthetic pigments to health. Monascus is a filamentous fungus that can produce yellow, orange and red pigments. Light is an important factor for the development and regulation of physiological processes in most organisms. Petri plates were used to study the influence of light intensity and wavelength on the growth of Monascus and production of pigments. The plates were incubated with medium consisting of glycerine obtained from a biodiesel industry and covered with red, blue, green or yellow film. The light intensity was measured using a digital luximeter. A microscope with camera was used to monitor the morphology and behavior of colonies of *Monascus ruber* CCT 3802. It was observed growth and production of pigments in all plates, however, the growth was lower in the plate exposed to yellow light. In the plate with red film, the pigment production was higher than in the other plates, with formation of aerial mycelium giving a fluffy appearance to the colonies. The colonies exposed to yellow, green and blue light were smaller and there was not observed an abundant formation of mycelium. There was observed a greater formation of reproductive structures which have not developed, which inhibit the production of pigments. This indicates that light interferes in the growth and in the pigment production, a factor that must be observed in the study of *Monascus ruber*. 