

**Kaliyaperumal, M. & Kalaichelvan, P.T.** 2007. Cultural diagnosis of *Ganoderma lucidum* complex from southern India. – *Mycologia Balcanica* 4: 15-19.

**Abstract.** *Ganoderma lucidum* and allied species are widespread and cause white rot diseases on economically important crops, hardwoods and forest trees. An attempt has been made to distinguish *G. lucidum* complex by cultural characteristics. This study showed that the *G. lucidum* complex in a native collection is represented by *G. lucidum*, *G. resinaceum*, *G. tropicum*, *G. weberianum*, and *Ganoderma* sp. Most of the collections were confined to hardwood and rarely found on palm host. All the five species produced chlamydospores with varying shape and size. *Ganoderma resinaceum* and *G. lucidum* had an optimum growth rate at 30-35 °C; the former produced larger chlamydospores in culture than the later. *Ganoderma tropicum* produced cylindrical chlamydospores and had average growth rate at 20-25 °C. *Ganoderma weberianum* produced both chlamydospores and gastrospores in cultures with optimum growth rate at 30-35 °C. *Ganoderma* sp. produced both amyloid and inamyloid chlamydospores in culture and had optimum growth temperature of 20-25 °C. All the eight isolates showed positive reaction to acid aniline test.

**Key words:** aniline acid test, chlamydospores, extracellular oxidase, *Ganoderma lucidum* complex, southern India