



The 4th YAU-JICA TCP Special Lecture



The YAU-JICA TCP Office organizes a seminar in collaboration with the Department of Entomology as follows. Your kind attendance would be most welcome.

Date & Time: 14:00 pm, Monday, May 16, 2016

Venue: Research and Practical Room, Department of Entomology, 2nd Floor, ELB-1

Lac as a Non-timber forest product for stabilization of swidden farming

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Lac is a non-timber forest product with a long history, and for villagers wanting alternatives to stabilize swidden-farming livelihoods, it is a familiar option. Lac is a resin-like substance secreted by a scale insect known simply as the lac insect (*Laccifer lacca*). In local communities, lac is used as a traditional natural dye for colouring fabrics. It also serves as an industrial material in the production of red dyes, varnish, sealing wax, shoe polish and ebonite. After the discovery of aniline as a red chemical-dyeing agent, the industrial value of lac almost vanished. However, its importance has not been lost, thanks to the development of new uses, such as becoming a raw material for thermoplastic resins and polishing agents.

Lac is produced in a 'host-parasite relationship' between the lac insect and the host tree. This means there is a need for forestry techniques in managing the host trees in a way that corresponds to the life cycle of the lac insect. In order to introduce the infective agent to the tree – a process called inoculation – the best possible 'broodlac' is gathered and tied to a branch of the tree. The lac insect



larvae hatch from this broodlac. The larvae are red in colour, are boat-shaped and measure about 0.5mm by 0.25mm. Since the larvae have a habit of crawling upward after hatching, they move to different branches and spread towards the top of the tree. Once they settle on a branch, they do not move from that spot. They begin to secrete lac about a week later. Each larva is covered with a shell formed from the lac it secretes and the shell grows along with the larva. As the lac insect regenerates every six months, lac can be harvested twice a year.

The Forest Management and Community Support Project (FORCOM), a ODA project of JICA was implemented during 2004-2009 in northern Laos, aimed at the diffusion of lac in a village. Lessons learned from this JICA project in Laos will be presented.