

Use of *Beauveria bassiana* for Control of Sweet Potato Weevil,
Cylas formicarius

Chich-Yeong Su and Tien-Sheng Chiu¹

The sweet potato weevil, *Cylas formicarius*, is the most important insect pest on sweet potato in Taiwan. It took 696, 264, 120, 82, 58 and 58 hours to form the hyphal bodies of *Beauveria bassiana* when was grown on PDA medium at 5°, 10°, 15°, 20°, 25°, and 30°C, respectively. The mortality of the sweet potato weevil was 85% when treated with 1.06×10^4 spores/ml of *B. bassiana*, but it reached 100% at 1.59×10^4 spores/ml or higher concentrations. The result showed that broadcasting soybean (containing *B. bassiana* spores) into the burrow of row at planting time was more effective in controlling *C. formicarius* than the other treatments. The muscle, fat body and tracheal matrix cells of *C. formicarius* adult was infected by *B. bassiana*. The body cavity was filled with hypha, 96–120 hours after inoculation with *B. bassiana*.

1. Associate Entomologist and Technician, Kaohsiung District Agricultural Improvement Station, respectively.