

Studies on the blast-sprayer with protecting cab

Yung-Shun Lin and Te-ChouTseng¹

Abstract

For accelerating chemical spray mechanization of orchards and better protection of pesticide operator, the blast-sprayer with protecting cab was developed to provide highly efficient, economical and safe operation for spraying pesticides against crop diseases and pests.

The field experimental results with the blast-sprayer demonstrated that the temperature between inside and outside cab was only 1°C, therefore the pesticide operator had comfortable and safe feeling but not sultry mood. The experiment of adherent dosage on leaves was conducted at 12 years valencia orchard. When the blast-sprayer was operated at 1.0 km/hr speed the spraying dosage was 2400 l/ha. The assessment of the water-sensitive paper on the leaf's adherent dosage was between 7.1 to 8.2.

Spraying pesticides with the blast-sprayer at citrus orchard could save 40% chemical cost, promote working efficiency 8 times and save application wages 85% as compared to the farmers' traditional spraying.

Key words : Orchard, Blast-sprayer, Protecting cab

¹Assistant Researcher and Assistant of Taitung DAIS