

## Abstract

Integrated research on enhancing the efficiency of rose production in Royal Project Foundation was aimed to examine for suitable pest management and study optimum cut flower stage. All activities were summarized as follows. (1) The study of methods for pest management for the roses was operated in the area of Royal Agricultural Station Angkhang during August - November 2015. The experiment was compared between two methods. The First method was the using only chemicals to control diseases and insects. The Second method was Integrated Pest Management (IPM) on the following principles, explored the crop diseases and pests regularly, used the cultural control protection against pests, microorganisms for biological materials in protection, using optimum chemicals and safety. The survey found three disease types were Powderly mildew, Downey mildew and Botrytis. For pests found three species were common cutworm (*Spodoptera litura* (Fabricius)), Thrips (*Scirtothrips signipennis*) and Red spider mite (*Eutetranychus oirentalis* (Klein)). After the experiment found that the percentage of insects and diseases from the two methods do not statistically significant difference. The percentage of disease representing 0-10 percent. However, common cutworm (*Spodoptera litura*) do not statistically significant difference. On the other hand, Thrips (*Scirtothrips signipennis*) showed a statistically significant. By thrips (*Scirtothrips signipennis*) found in plots experiments used only chemicals were 3.26 Insects/plant which higher than the plots experiments used Integrated Pest Management 0.66 Insects/plant. While Red spider mite (*Eutetranychus oirentalis*) found outbreaks in the last week. And they were found that the severity of the red mites in the second plots experiments (IPM) were 21-40% higher than the plots used chemicals only 0-20% which statistically significant difference. (2) The study optimum cut flower stage. This research using factorial in completely randomized design for study effects of the rose varieties using Gold Strike, Green Planet, King Pride, Dara, Jitra, Cool Water and Coral Beauty combined with cut flower stage. The result from variance analysis separates each the factor showed that the Gold Strike variety had the most vasselife (6.93 days), Coral Beauty (6.23 days) and statistically significant difference from the other varieties. In terms of the optimum cut flower stage found that Stage II has the most vase life days (5.04 days) while the interaction had no significant difference. When considered optimum cut flower stage and variety that Gold Strike variety at stage III had 7.70 days vasselife, Green Planet variety at stage II had 2.80 days vasselife, King Pride variety at stage I had 3.50 days vasselifes, Dara variety at stage II had 5.50 days vasselifes, Magenta Pink variety at stage II had 6.00 days vasselifes, Cool Water variety at stage I had 4.90 days vasselifes and Coral Beauty variety at stage I had 7.00 days vasselifes.