

Abstract

The objectives of the research are to study and test new rose varieties imported from abroad for commercial production on highland. The research takes 4 color group from Netherlands rose varieties; red, white, pink and bi-color. Each color has 3 varieties, totally 12 varieties, were grown compared to commercial varieties in the Evaporative greenhouse at the Pang-Da Royal Agricultural Station using 2 methods of planting; growing into soil and substrates. The operation takes 2 months. The research found the roses growing in substrates have better than in the soil. The red group, “Red Crown” grows best both in substrates (1.80 branches/plants and plants height: 72.65 cm.) and soil (1.35 branches/plants and plants height: 67.52 cm.). The white group, “Dolomiti”, has the most branches (3.15 branches/plants) when grown in substrates while “Ice Bear” rose varieties have the highest plants height (66.20 cm.). But when planted in soil shown that the “Ice Bear” has the best growing both branching (2.95 branches/plants) and plants height (48.28 cm). The pink group, “Duchesse” has the best branching (2.50 branches/ plants) while, “Lovely Dolomiti”, is the tallest (59.50 cm.). This also found when grown into the soil (1.90 branches/plants and plants height: 40.75 cm.). And the bi-color group found that the Jamilia has the best growing both in substrates (3.10 branches/ plants and plants height: 60.00 cm.) and soil (3.20 branches/ plants and plants height: 65.80 cm.). For the study of harvesting period in raining season, *Jumilia* and *Lovely Dolomiti* were two rose varieties in the study. The second period of harvesting is the appropriate duration, because it has the longest vase life, 15 and 13 days respectively. The rose can bloom and still bloom at beautiful stage for 5 days. However, this study only takes first step; it needs to be more carefully studied in several aspects, including production and quality of the flowers, resistant to pest and disease, their vaselife and so on. Generally, it takes 2 years of studying to accurately and confidently select the suitable varieties for the farmers.