

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 2 series from Holland rose varieties. The 1st series have 4 colors group; red, white, pink and bi-color. Each group has 3 varieties, totally 12 varieties. The 2nd series have 5 colors group; red, white, light-pink, dark-pink and other colors. Each group has 6 varieties, totally 30 varieties. All 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 research collects the growth information about their stems, flowering, harvesting, and yield, grades of products and diseases and insects to choose the best varieties for the growers.

Experiment 1: The studies of growth and yield of 12 new roses in 4 color groups. The results found that the plants in substrates are better growing than in the soil. They can be the first selection in each color group as “Red Crown” in the red group, “Ice Bear” and “Dolomiti” in the white group, “Lovely Dolomiti” and “Sweet Dolomiti” in the pink group, and “Jumilia” and “Boulevard” in the bi-color group.

Experiment 2: The studies on effects of harvesting stage on vase life by different season were conducted by takes 4 color group from Holland rose varieties. Red group; “Red Crown” has the best result in hot and rainy seasons, “Royal Baccara” is the best result in cool and “Red Express” is the best result in rain season. White group; “Ice Bear” is the best results in hot and rain seasons; “Snow white” is the best in cool. Pink group; “Sweet Dolomiti” and “Duchesse” are the best varieties in hot and rainy season, whereas “Lovely Dolomiti” is the best in rain season and “Titanic” is the best in cool. First (flower with sepals vertically adhered and the external petals which are in the open process) and second harvesting stages have the similar results. Bi-color group; “Jumilia” is the best in cool and rainy season, and “Dolce vita” is the best result in hot and rainy season. First (flower with sepals vertically adhered and the external petals which are in the open process) and second harvesting stages (flower with sepals beginning to curve down and external petal a little opened 2 petals) have similar results that can use in all seasons; First cut-stage (flower with sepals vertically adhered and the external petals which are in the open process) is suitable for hot and rainy season, but not difference with second cut stage (flower with sepals beginning to curve down and external petal a little opened 2 petals).

Experiment 3: Acceptance evaluation on 12 new rose in 4 color groups. They can be considering for the first selection by in more details of growth and yield, disease and insect resistance to choose the suitable varieties for growers in each color group as follow: Red group: selected varieties is “Red Crown”. White group: selected varieties are “Ice Bear” and “Dolomiti”. Pink group: selected varieties are “Lovely Dolomiti” and “Sweet Dolomiti”.

Bi-color group: selected varieties are “Jumilia” and “Boulevard”. All selected roses would be evaluated the satisfaction by the marketing department in second selection and planted and compared to roses growing at the Ang-Khang Royal Agriculture Station (October 2016), and finally, evaluated the satisfaction with the marketing department.

Experiment 4: The studies of growth and yield of 30 new roses in 5 color groups in hot and rain seasons. The results found that the first selection in each color group as “Myrna⁺®” and “Fuego⁺®” in the red group, “Santorini” and “Ivory Talea⁺®” in the white group, “Sorbet Avalanche” and “Something Sweet” in the light-pink group, “All 4 Love⁺®” and “Candy Avalanche⁺®” in the dark-pink group, “Savita⁺®” and “Peach Avalanche⁺®”, in the other colors group. All selection would be test on the harvesting and qualities of products in each color group later. However, the study from the research is only taken in rain the first period of study (hot and rainy seasons). The research needs to study in more details as growth & yield, pest resistance to choose the suitable varieties for growers correctly and confidently.

Experiment 5: The studies on effects of harvesting stage on vase life by different season were conducted by takes of 30 new roses in 5 color group from Holland rose varieties. Red group; “Myrna⁺®” has the best result (10.5 days), White group; “Ivory Talea⁺®” is the best result (11.0 days). Light - pink group; “Talea⁺®” and “Something Sweet” are the best vase life. Dark-pink group; “Club⁺®Pink” and “Layla⁺®” are the best results (9.5 days) and Other color group; “Dolce vita⁺” is the best result (10.25 days). First harvesting stage (flower with sepals vertically adhered and the external petals which are in the open process) has the best results. The research needs to study in more details in rain and cool season.