The main objective of this study was to investigate the effect of hydration time on quality of Pretty Woman rose cut flower. The experiment was laid out as a 2×2 Factorial in Completely Randomized Design with 4 treatments (Southern Roses standard for 1h in greenhouse and 2h in holding room; Southern Roses standard for 1h in greenhouse and 4h in holding room; Borehole water for 1h in greenhouse and 2h in holding room; Borehole water for 1h in greenhouse and 4h in holding room). Each treatment was replicated four times and randomly assigned to plots. Results showed that there was interaction between hydration time and preservatives on rose openness and quality. Where Southern Roses standard was used in 2h, better quality flowers were obtained compared to those from a 4h period. The same trend was noticed with borehole water which performed better in 2h than 4h holding time hence hydration time and flower preservatives are effective in quality maintenance in rose cut flowers if well combined. The results showed that Southern Roses standard solution of 1h in green house and 2h in holding room at 20ppm concentration had positive effects on rose openness, stem straightness and control of Botrytis incidence whilst borehole water had positive effects on water uptake and quality of cut rose flowers. From the findings of the study, it can be concluded that keeping the flowers for 1h in the greenhouse and 2h in the holding room give the best quality of rose cut flowers.