Abstract: This study was carried out to determine the most suitable evapotranspiration estimate method of oil rose (Rosa damascena Mill.) at the Agricultural Research and Application Center at Süleyman Demirel University in 2010 and 2011. Irrigation was performed every 10 days, and irrigation water as much as 1.2 times of evaporation measured from the Class A Pan in the ten-day period was applied. Evapotranspiration was measured for ten-day periods through controlling the decrease in the soil moisture. The measured evapotranspirations were compared with Penman-Monteith, Original Penman, FAO-modified Penman, Priestly-Taylor, FAO-modified Radiation, FAO-modified Blaney-Criddle, SCS Blaney-Criddle, Hargreaves, FAO-modified Pan Evaporation, and Net Radiation methods out of the evapotranspiration estimation methods. The correlation coefficient (r), root mean square error (RMSE) and seasonal average crop coefficient (Kc) of the correlation between the measured evapotranspiration and estimated evapotranspiration values were taken into consideration in the comparison. As a result of the research, the closest evapotranspiration estimation for the experimental conditions was made with the Priestly-Taylor method.