The effects of stock type on morphological and physiological characteristics were compared in 1+0 Crimean juniper (Juniperus excelsa Bieb.) seedlings. In October 2010, morphological characteristics of both stock types were determined. Physiological condition of stock types evaluated by measuring water relation parameters, root growth potential (RGP), and root electrolyte leakage (REL) parameters in seedlings, with periodic intervals from October 2010 to April 2011. Container seedlings had greater root collar diameter, higher height, and greater shoot dry weight than bareroot seedlings, but these differences were not significant. However, shoot : root ratios of the container seedlings were significantly lower than bareroot seedlings, but root dry weight were higher. In stock types, the osmotic potential at turgor loss point, the osmotic potential at full turgor, relative water at turgor loss point, apoplastic water fraction, symplastic water at saturated point per dry weight, dry weight fraction, RGP and REL showed a seasonal variation. The differences between stock types in water relation parameters were not generally significant. RGP values of bareroot seedlings were relatively higher than container seedlings in January, February and March, but REL values were generally lower than container seedlings on most lifting dates. For each type of stock, seedlings lifted in January and February have greater stress resistance than seedlings lifted in the autumn or spring. If the weather conditions are suitable, the safe period for lifting and planting are mid - January to mid - March.