## **ABSTRACT**

Within the framework of this Thesis, a series of several 3,4,5-trisubstituted 2,5-dihydrofuran-2-ones derived from the structure of 3-(halophenyl)-5-acetyloxymethyl-2,5-dihydrofuran-2-one was prepared, and the compounds were evaluated for antifungal, antibacterial and cytostatic activity. The presence of phenyl at C4 led to a significant antibacterial effect, which was accompanied by cytostatic activity.