Rosemary (Rosmarinus Officinalis) is widely produced in our country which is located in the aromatic medicinal plants. In this study, leaf and stalk dimensions, projection area, picking force, leaf-to-stalk ratio, and essential oil content of Rosemary (Rosmarinus Officinalis) were determined at three different moisture contents: 8.2%, 10.8%, and 15.3% (d.b). Most parameters increased with increasing moisture content. The essential oil content of Rosemary (Rosmarinus Officinalis) decreased with increasing moisture content. Moisture content had a significant effect on the physical and mechanical properties of Rosemary (Rosmarinus Officinalis).