The object of this study is antioxidant potential of different cold pressed and refined edible oils by application of different antioxidant assays. Antioxidant potential varies according to the origin of vegetable plant from which the oil is obtained and the way in which the oil is extracted. For evaluation of the radical scavenging potential of the most commonly edible oils the DPPH assay, TAC assay, FRAP assay and DPPH assay were applied. Cold pressed sunflower oil obtained by cold pressing of high quality sunflower seeds contain significant level of tocopherol compounds, especially a-tocopherol. Since a-tocopherol is an edible vitamin-E active compound, DPPH assay was the most suitable for determination of antioxidant potential of this oil. DPPH assay is the best antioxidant assay for vegetable oil which contain significant amount of tocopherols and tocophenols.