Brazil is the second largest producer of pepper (Capsicum spp) in the world. Studies show that this spice has functional properties, among them the ability to fight free radicals. The objective of this study was to evaluate the in vitro antioxidant activity of four species of Capsicum peppers baccatum var. pendulum (Finger girl); chinense Capsicum (pepper smell); chiniense Capsicum (pepper smell "burnt") and Capsicum frutescens (Chilli) by the method of capture of ABTS radical equivalent of Trolox. The results showed that among the peppers studied, alcoholic and aqueous extracts of chili had the highest antioxidant capacity. The alcoholic extract showed a chili TEAC was 2.89 ± 0.02 mM Trolox / g at 30 minutes, followed by aqueous extract with a TEAC 1.55 ± 0.08 mM Trolox / g in the same time. Comparing the solvent extractors for all the peppers, it was realized that the alcoholic extracts showed higher TEAC values for all the peppers in relation to their aqueous extracts. The alcoholic extract of pepper finger girl had a TEAC of 0.67 ± 0.00, since its aqueous extract showed a TEAC of 0.45 ± 0.01. For hot peppers burned its alcoholic extract showed a TEAC of 0.59 ± 0.00 and its aqueous extract a TEAC of 0.17 ± 0.01, all the time 30 minutes. Therefore, it was concluded that the peppers used in this study have significant antioxidant activity in vitro, varying according to the pepper and the concentration studied, highlighting the chili as the richest in antioxidants.

Keywords: Pepper, antioxidant activity, ABTS radical.