Leptospirosis is a worldwide zoonoses, mainly endemic in tropical and subtropical countries. Affects both domestic and wild animals including sheeps, which can disseminate leptospires through corporal fluids (except saliva) –especially urine. Therefore they can infect other animals and humans who interact with them. In production animals causes severe economic losses due to abortions and mastitis outbreaks with a significant reduction of milk production. The disease is caused by Leptospira interrogans, which has 13 pathogenic species, distributed in more than 260 serovars. To learn more about the condition of leptospirosis in sheep cattle from the region of Bauru, we analized 81 serum samples sent from four cities of the region for leptospirosis diagnosis, between 2006 and 2012, to the Paulista Agency of Agribusiness Technology (APTA), Center-west pole, Bauru, SP. The samples were processed for the Microaglutination test (MAT) against the 18 most common serovars of Leptospira spp in production animals. From the 81 samples, 55.56% (45/81) were positive to at least one serovar tested. From the positive animals, the most reagent were 42.22% (19/45) to serovar Hardjobovis, 26.67% (12/45) to serovar Hardjo, 24.44% (11/45) to serovar Grippotyphosa, 15.56% (7/45) to serovar Bratislava and 13.33% (6/45) to serovar Hardjoprajitno and serovar Icterohaemorrhagiae. The minimum agglutination tittle was 100 and the maximum was 6400. The results indicate a strong evidence of exposure to different serovars of Leptospira spp., both from production animals specific serovars and from wild animals specific serovars (Icterohaemorrhagiae), indicating some management problem to avoid contact between sheep cattle and other leptospira wild serovars reservoirs, as the rat. This may represent a thread to other production animals and farm workers in contact with these cattle.

Key words: leptospirosis, zoonoses, sheep, MAT,