# **Titre d’article**: Bovine Hypodermosis in the Maghreb: Sero-epidemiological Study in Algeria by Indirect ELISA

**Abstract :**

During May-July 2014, a total of 837 cattle serum samples were collected from 4 departments in northern Algeria and tested for the presence of anti-Hypoderma antibodies by indirect ELISA. Warble counts and some intrinsic (age, breed, sex) and extrinsic factors (location, husbandry system) were also considered. The overall seroprevalence by indirect ELISA was 49.8%, whereas by clinical inspection only 25.7% of the animals were infested. Except for the sex, all the factors included in the study were significantly associated with seroprevalence. The husbandry system was identified as the factor with more influence in seroprevalence, so cattle kept under extensive (79%) or semi-extensive (50.6%) husbandry systems have 74.10 and 18.13 more risk than those under an intensive system (5.8%), respectively. Both the seroprevalence and the intensity of infection are inversely related with the age of the animals. So, the youngest animals (˂3 years) are less frequently infested but display the highest intensities of infection. The seroprevalence detected in northern Algeria reflects a high exposition of cattle to Hypoderma spp. To minimize the economic losses due to this myiasis it is essential to establish control programs based on serological surveillance prior to the administration of macrocyclic lactones