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## **Diagnosis of Nosemosis in a Portuguese reference bee pathology laboratory**

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In recent times, nosemosis was thought to be caused by the specific protozoan *Nosema apis*, a spore forming parasite that invades the intestinal tract of adult bees and is widespread in European countries including Portugal. Ever since, in most of cases, there are no clear symptoms, the diagnosis of this disease only can be confirmed in laboratory. The Bee Pathology Laboratory from the Agrarian Superior School of Bragança (ESAB), is located in Trás-os-Montes e Alto Douro province, formed in collaboration with the Apicultural Association of Montesinho Natural Park (AAPNM). It has certification by Portuguese Veterinary Authority in the 2006. This

Laboratory, process samples of honeybee by microscopically diagnosis, according to the routine methodologies used by the National Reference Laboratory (LNIV). From the diagnostic records of bee sample received between January 2007 and April 2008 we can suggest that the noseamosis is the major prevalence disease with clinical positive cases over all the months of the year. The results also suggest that the incidence of noseamosis remains at high level in various areas all over the country. A related *Nosema* species from Asia, *Nosema ceranae*, has recently been identified as causing noseama diseases in European honeybees. However, both disease species cannot be differentiated using the present routine microscopic examination. The question as to whether colóny losses in Portugal, probably can be attributed to *Nosema ceranae* is intended to be cleared up in future with the implementation of molecular genetics diagnosis.