

**ABSTRACT** - By *in vitro* experiment, vitellogenin synthesis was induced in the common frog *Rana esculenta* in the post reproductive summer liver by homologous pituitary homogenate (HPH) made monthly. In both sexes, vitellogenin synthesis was induced by all HPH, but to a different extent depending on the season. The pituitaries most active in inducing VTG synthesis were those from winter months in both sexes. The plasma prolactin (PRL) levels showed highest levels during the winter period. A correlation between *in vitro* vitellogenin synthesis and plasma PRL levels was found during the annual cycle.