**Résumé du PFE : sous titre :** **Effet des enzymes exogènes sur l’utilisation digestives du poulet de chair**

**Résumé** :

Le but de ce travail etait d'fetudier l'feffet d'un complexe enzymatique contenant les activites xylanase, ƒ¿ galactosidase, ƒÀ glucanase , protease, pectinase et amylase sur lfhistomorphometrie intestinale du poulet de chair nourri avec un regime a base de mais et tourteau de soja. Au total, 840 poussins df1 jour de souche ISA F15 ont ete divises en 2 groupes experimentaux de poids moyens homogenes (42,1 }0,2 g): un groupe temoin nourri avec un aliment standard complet adapte a lfage, et un groupe supplemente en complexe enzymatique a la dose de 0,1% durant 56 jours dfelevage. Chaque traitement comportait 7 parquets de 60 sujets. A la fin de lfessai(J56), 7 sujets representatifs de chaque lot ont ete sacrifies. Le poids et la longueur de leurs intestins ont ete mesures ainsi que les dimensions des villosites au niveau des portions proximales et distales duodenale, jejunale et ileale. Les resultats de lfetude ont montre que lfaddition du complexe enzymatique diminuait la longueur relative des intestins (-13% ; p<0,01) sans affecter significativement leurs poids relatif (-11% ; p=0,09). En revanche, au niveau histologique, ces enzymes exogenes ont significativement augmente les hauteurs des villosites au niveau de toutes les portions intestinales etudiees (+28% en moyenne ; p<0,01), a lfexception du duodenum distal (+11% ; p=0,12). De meme, ces enzymes ont induit un accroissement significatif des volumes des villosites intestinales au niveau des parties proximales duodenale et jejunale et de lfileon distal (+56% en moyenne ; p<0,01). De tels resultats revelent un impact positif certain du complexe enzymatique sur la surface dfabsorption intestinale du poulet de chair qui merite dfetre elucide.

**Abstract:**
The aim of this work was to investigate the effect of an enzyme complex containing xylanase á-galactosidase, â-glucanase, protease, amylase and pectinase on intestinal histomorphometry of broilers fed a corn/soy-based diet. A total of 840 one-day-old chicks (ISA strain F15) were divided into 2 experimental groups with homogeneous average body weight (42.1 ± 0.2 g): a control group fed a standard diet adapted to the age, and a supplemented group with enzyme complex at a dose of 0.1% for 56 days of breeding. Each treatment consisted of 7 replicate pens of 60 animals. At the end of the trial (day 56), 7 representing broilers of each group were sacrificed. The weight and length of their intestines were measured as well as the dimensions of the villi at the proximal and distal portions of duodenum, jejunum and ileum. Results from this study revealed that the addition of the enzyme complex decreased the relative length of the intestine (-13%, p <0.01) without significantly affecting their relative weight (-11%, p = .09). However, histologically, these exogenous enzymes have significantly increased villus heights at all intestinal studied sections(+28% on average, p <0.01), excepted for the distal duodenum (11%, p = 0.12). Similarly, these enzymes have led to a significant increase in volume of the intestinal villi in the proximal parts of duodenum and jejunum and in the distal ileum (56% on average, p <0.01). Such results reveal a positive impact of the enzyme complex on the intestinal absorption surface of broiler which needs to be further elucidated.