

Behavior patterns to the intensification vary differently within dairy producers

A.-C. Dalcq¹, Y. Beckers^{1,2}, B. Wyzen³, E. Reding³, P. Delhez^{1,2,4}, H. Soyeurt^{1,2}

¹ ULiège-GXABT, Dep. AGROBIOCHEM, Passage des Déportés, 2 5030 Gembloux, Belgium

² ULiège-GXABT, Terra Research and Teaching Centre, Passage des Déportés, 2 5030 Gembloux, Belgium

³ AWE, Rue des Champs Elysées, 4 5590 Ciney, Belgium

⁴ National Fund for Scientific Research, Egmont 5 1000 Bruxelles

Intensification (**Int**) of dairy production is a great issue and will maybe be a component of the future dairy management. This phenomenon has occurred in various parts of world and in most European countries. This research aimed to study the different kinds of evolution of the level of Int of dairy producers in the Walloon Region in Belgium. A total of 144 farmers' accounts provided Int variables as milk and milking cows per hectare of forage area, composition of the forage area, etc. An index of Int was created by using a principal component analysis carried out on 15 Int variables. The index was modelled by year and year² as fixed effects, which provided 144 intercepts, linear and quadratic regression coefficients. In function of the level of significance and the sign of these parameters equation, several patterns of evolution of Int over time were defined. The principal patterns represented in the population were constant (27%), linear (7.6%), quadratic (24.3%), quadratic before 2012 (7%) and quadratic after 2012 (7%) relationships between Int and time. The producers with a quadratic pattern showed an average peak of the relationship in 2012, which leads to assume that this milk price and input price crisis impacted the level of Int of a large number of dairy producers. Extensive and intensive producers, defined by using the intercept of their equation, were distributed equally in all the principal patterns. Only the quadratic after 2012 pattern counted more intensive producers (P-value < 0.05). It seems that this kind of individuals can be more disturbed by a dairy crisis. In conclusion, dairy producers have followed different evolutions of Int. The highest proportion of them presented a constant evolution and so an ability or a will of constant level of Int, notwithstanding the varying economic and climatic context.