BEHAVIOR PATTERNS TO THE INTENSIFICATION VARY DIFFERENTLY WITHIN DAIRY PRODUCERS

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Dairy farm of the future?

Intensification of intensification between 2004 & 2013 for 24 / 28 UE countries (UE, 2016)
DO THE BEHAVIOR PATTERNS TO THE INTENSIFICATION VARY DIFFERENTLY WITHIN DAIRY PRODUCERS?

Conclusion

Principal patterns:

27%  8%  24%
Objective

Intensification = ?

Over time

Different ways of evolution

Why?
Over time

Different ways of evolution

Why?
• 144 dairy producers accounts in the Walloon Region

• During 10 years 2007-2016

• Selection of 15 intensification variables
  – % of first/other hay/silage cut
  – N fertilizer/ha of forage area (FA)
  – Composition of FA (grass, corn silage, grass silage)
  – Grass/corn silage per LU
  – Purchased concentrated per cow
  – Milk/ cow, milk/ ha, cow/ha, LU/ha
• 144 dairy producers accounts in the Walloon Region

• During 10 years 2007-2016

• Selection of 15 intensification variables

Principal component analysis
Correlations intensification variables – index
Intensification = Over time
Different ways of evolution
Why?
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]
\[ Y = a + b \cdot \text{year} + c \cdot \text{year}^2 \]
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]
Intensification = Over time, Different ways of evolution. Why?
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]
$Y = a + b \cdot \text{year} + c \cdot \text{year}^2$

Quadratic regression

Mean peak of inflexion: 2012
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]

Constant regression ➔ Separation before and after 2012 (=mean peak of inflexion)
\[ Y = a + b \times \text{year} + c \times \text{year}^2 \]

14.1% Constant regression

Intensification Index

Year

2007 2012/2012 2016

Others

6.9% 6.9% 6.9%
Initial level of intensification in function of pattern

- Intercept
- Year

Categories:
- b
- a
- ab
- b
Intensification = Over time

Different ways of evolution

Why?
$Y = a + b \times \text{year} + c \times \text{year}^2$

Quadratic regression

Mean peak of inflexion: 2012
$Y = a + b \cdot \text{year} + c \cdot \text{year}^2$

- Constant regression
- 14.1%
- 27%
- 6.9%
- 6.9%
- Others

2007 2012/2012 2016
Initial level of intensification in function of pattern
2012 crisis = second crisis in 4 years ➔ awareness of volatility

Milk price 2006-2016 (cents)

Milk market observatory, European Union, 2018
2012 crisis

= second crisis in 4 years
➔ awareness of volatility

➔ Change of management practices, whose feeding

=> impact on intensification
2012 crisis = second crisis in 4 years ➔ awareness of volatility

= Output and input crisis
2012 crisis

= second crisis in 4 years

➔ awareness of volatility

= Output and **input** crisis

➔ Change of management practices, whose feeding

=> impact on intensification

➔ Less dependance on purchased feed, more self-sufficiency feed system

=> impact on intensification
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27%
8%
24%

Effect of 2012: a second crisis in a short time and an input crisis

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