Resilience of organic pig producers

Description

Organic pig farmers, whether large or small, are exposed to the risk of external shocks. External shocks can be economic, environmental, institutional or social changes that challenge the farms' production. The capacity to cope with such types of shocks is called "resilience". The POWER project assessed the resilience of selected best practices and innovative farms in order to understand how they cope with shocks. Here, we describe the resilience strategies of these farms.

Methods

- Eighteen innovative and best practice farms were interviewed about their strategies to cope with six shocks that could threaten their farm: increased input costs, decreased pork prices, disease outbreaks, climate change, legislation change or labour shortages.
- The narratives of the farmers were analysed using a so-called "farming system resilience framework". This framework suggests that farmers can cope with shock in three different ways called "resilience capacities", these are:
  1) Robust, which means being able to continue production without any change.
  2) Adaptable, which means being able to change some of the production practices.
  3) Transformable, which means being able to change the farm's production activities.
- When a farm has to stop all of its farming activities, it is considered **non-resilient**.

Applicability box

Theme
Resilience of pig producers
Production stage
Sows + piglets, weaners, growing-finishing pigs
Farm type
Combined system (indoor housing with outdoor run or access to pasture) and free-range system

Resilience strategies of pig producers

For all interviewed pig producers, the attitude, personal vision, beliefs and social capital played an important role in insuring resilience to shocks. Apart from these, producers had differing strategies to cope with shocks, depending on their resilience capacity (robustness, adaptability or transformabilty). Examples of these three resilience strategies are described in the following table for the six different shocks.

Table 1: Six external shocks and organic pig farmers' strategies to cope

Shock	Robustness	Adaptability	Transformability
Increased input costs	• Sufficient margin on price	• Increasing home-grown feed	• Switch to other livestock
Decreased pork prices	• Sufficient margin on price • Diverse sale channels	• Direct marketing allows adjusting prices	• Switch to other livestock
Disease outbreaks	• Insurance • Indoor production system • Good double fencing	• Flexible infrastructure allow-ing to move indoor • Home mixing of feed	• Convert to cash crop
Climate change	• Cooling infrastructure • Build up savings	• Create microclimate • Decrease pig production	• Switch to other livestock
Legislation change	• Reduce number of pigs if legislation requires more space per pig	• Build partnerships with other farmers if outdoor system is abolished	
Labour shortages	• Relying on family labour or volunteer network • Mechanisation	• Social media campaigns • Young professional program	

Producers differed not only with regards to their resilience strategies but also with regards to their inherent characteristics. The characteristics of a farm can limit its ability to respond to shocks, and therefore determine the producer's resilience strategy. Each farm type and resilience strategy furthermore proved to be non-resilient towards certain types of shock. The characteristics, strategies and points of non-resilience are summarised in the figure below.

Further Information

- **Meuwissen M.P.M. et al. (2019)**. A framework to assess the resilience of farming systems. Agricultural Systems 176, 102656. (Link)

Table 2: Robust, adaptable and transformable farms

Robust: safety oriented	Adaptable: limited by an outdoor system	Transformable: flexible through diversification
• Mostly specialised, large-scale pig breeders and fatteners. • Have invested into good permanent infrastructure and tend to rely on capital reserves to handle shocks. • Non-resilience is the result of a lock-in from the high initial investment, as producers cannot transform until they have paid-off the investment.	• Farms are mostly specialised on pig production. • Produce in outdoor systems and reply on external feed. • Non-resilience is due to legistation changes that could ban full outdoor systems and to disease outbreak, such as african swine fever.	• Very diverse farms with, among others, pigs that are mostly fed on home-grown feed. • Farms mostly use a combination of indoor and outdoor system. • Non-resilience is related to high dependence on skilled labour. The diversity requires broad skills and the ability to pay decent wages.

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