

Foraging pigs

Contribution of protein-rich fodder to improve pig meat quality

Carl Sheard is an organic pig farmer in the France. He is experimenting a system of outdoor fattening using various combinations of forage crops. The overall aim is to reduce the amount of concentrate feed and improve the nutritional quality of the meat.

The market for organic food is showing a steady growth in most parts of Europe. A key objective of organic farming is the closing of nutrient cycles, but it is difficult to achieve. Horizon 2020 thematic network Ok-Net Ecofeed is working on increasing the use of local feedstuff for organic pigs and poultry. As part of this project, trials are being set up on farms across Europe to evaluate innovative practices.



In autumn 2019, one of these trials began at Carl Sheard's farm in Pays de la Loire in the west of France where he rears 45 sows. It is looking into how to provide a diverse range of mixed forage crops throughout the year and to evaluate the interest of pig foraging in fattening/finishing. Advisors and producers' organisations are involved with Carl in the trial.

Phase one of the trial consisted of laying out appropriate fences, organising grazing paddocks, familiarising the pigs to the forage parcels and observing and analysing their behavior.

Carl was initially worried about the distance between the plot and the buildings (300-400m). So, using permanent and electric fences, he built specific enclosed walkways to facilitate the movement of pigs. He also reduced the level of concentrate by a third to encourage forage consumption and he observed that the batch of 45 pigs easily found the grazing area.

The forage crop which was already being used was a "three sisters' mix" of maize, haricot and courgettes. However, as Carl tells us "there were some issues this year. The variety of bean (Rongai) grew too late, so the pods did not develop: this choice will be changed in 2020. The courgette did not develop due to competition with the maize and haricot, so the mix in 2020 will be composed of corn and haricot only. Finally, the maize suffered from drought and stayed relatively short, but it was homogeneous."

The grazing area is made up of 2 plots of 0.5 ha, each one divided into 2 identical paddocks to optimise forage intake. Over a 6-week period, Carl observed that "The pigs proved to be extremely independent in establishing their own grazing routine without much prompting, finding their way to and from the buildings to the forage field. A small sub-group of 3 to 5 pigs adopted a different behavior, following their own routine, leaving the building later" Says Carl. The pigs consumed the bean and maize leaves and seeds, but tended to leave the cob interior.



After six weeks of grazing, the soil had not been affected and the vegetation was well-consumed. "The batch of pigs was very heterogeneous and growth rate was much lower than usual," explains Florence Maupertuis, organic pig expert at the Chamber of agriculture of Pays de la Loire. "There are two main explanations for this: the restricted feeding was only partially compensated by forage, and a heat wave followed by a very wet autumn disrupted the growth of crops and pigs. However, the muscle content of carcass was higher than usual."

Antoine Roinsard, organic pig expert at ITAB concludes "We have found that phase one of the trial is very hopeful. It seems important to adapt the feeding restriction according to the forage quality (analyses can help to take decisions), the season, and the growth rate of pigs, in particular the smallest ones."

The second phase of the trial, in spring 2020, will be centered around growth rates with regular weighing, and analysis of forage and meat quality. A continued exploration of optimal plant associations will be continued.

Watch the pigs foraging in this video! <https://youtu.be/kfjizFqthJ8>

Contact: <https://ok-net-ecofeed.eu/contact-us/>

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