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Swill Feeding – Can We Make It Safer?

ASF for South East Asia – swill treatment



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Introduction

- Definition of swill
 - Kitchen refuse and scraps of waste food mixed with water for feeding to pigs
- Swill is historically the most traditional food for pigs
- Ability to thrive on leftover food was the most likely incentive for domestication of pigs
- It has been said that ‘If a regular source of swill is available, pig keeping can be profitable’



Not all food waste items pose a risk to pigs

- Well-defined food waste (factories, vegetable markets) should pose no risk
- Poorly defined food waste (kitchens, retailers) can pose a high risk

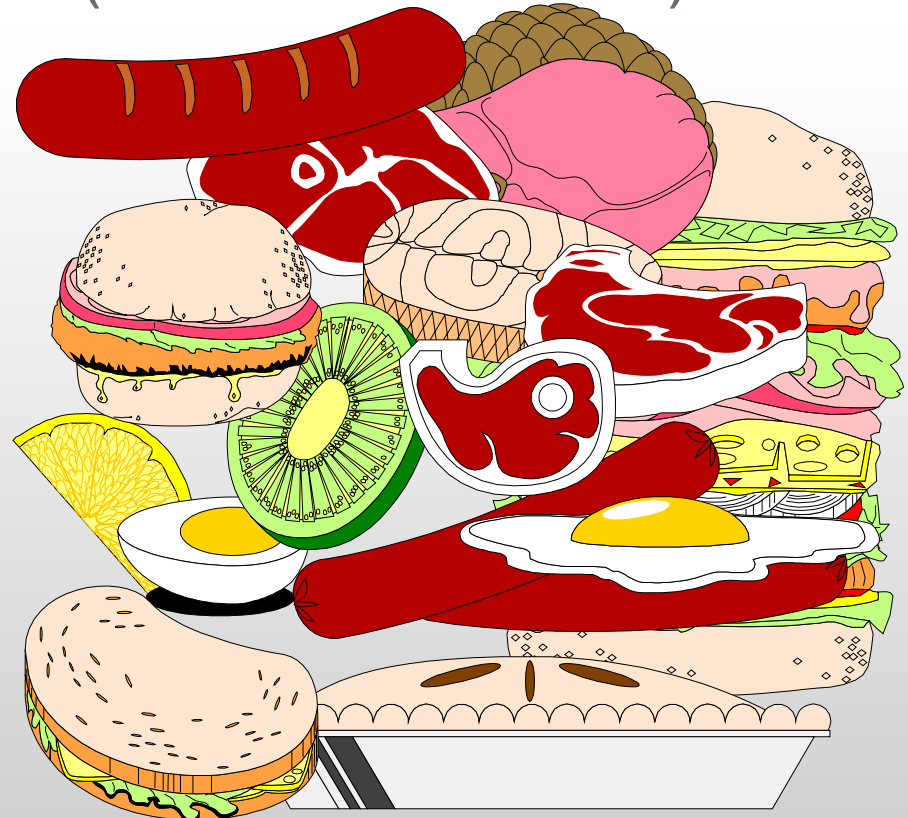


Not all food waste items pose a risk to pigs

- Safe food waste (identifiable content)



- Risky food waste (variable content)



Swill – the pros and cons

Advantages

- It usually costs nothing
- It is readily available
- Most of the time it can be fed safely to pigs with no harmful consequences

Disadvantages

- Comparatively low nutritional value due to high water content
- Can contain levels of salt sufficient to cause salt poisoning
- May contain non-food items such as plastic, broken glass and other sharp objects
- Can pose a high risk for diseases like African swine fever through meat scraps

Should swill feeding be regulated by law?

- Legislation exists at international, regional and national levels, mostly prohibiting swill feeding
- Many countries have legislation that either prohibits swill feeding or lays down conditions for making it safe
- The problem is implementation – nobody has enough resources to monitor what is being fed on each and every pig farm
- Pigs are often kept by poor people as a coping strategy – obeying the law is less important than economic survival
- We need to find a way to manage swill feeding safely

Law enforcement at household level?



A constructive approach to swill feeding

- The amount of food wasted has in the last decades become a matter of global concern
- The problem is both ethical and practical:
 - How can such waste be allowed when so many people are going hungry?
 - How can one continue to safely dispose of all these tons of wasted food?
- By processing food waste into safe feedstuffs for animals, notably pigs, food production and food security would be enhanced and the disposal challenge would be minimised

The facts about food waste

- Industrialised countries produce enormous amounts of food waste
- Urbanisation results in availability of food waste even in poorer countries
- The following estimates were published in 2011:
 - Potentially usable waste exceeds 8.3 million tons in UK per year
 - Processed into pig feed it could produce 80,000 tons of pig meat per year
 - The USA is estimated to produce potentially usable waste in excess of 40 million tons per year – much more pig meat
- Processing food waste into pig feed could be a sizeable industry but can be done at household level or as a cottage industry

Ensuring that swill is safe at farm level

- Cooking
 - ASFV is inactivated by heating at 60°C for 30 minutes
 - In practical terms, boiling for 30 minutes with stirring to ensure the temperature is reached throughout is recommended (longer periods are unnecessary, a waste of resources and a disincentive for implementation)
 - This has allowed informed farmers to continue to feed swill during an ASF epidemic without it being a source of infection even with a high risk of infected pork in circulation
 - The practice has to be part of the farm routine and implemented regardless of whether there is an ASF outbreak or not
 - Achieving household level acceptance requires excellent advocacy/extension assisted by farmer experience

An on-farm success story



A scenario for small-scale processing of swill

- Can either be done by a local entrepreneur or a cooperative of pig farmers
- Outlets such as hotels, restaurants, hostels, hospitals and/or retailers are identified
- Food waste is collected on a regular basis
- The food waste is sorted to remove any non-food/unwanted items and boiled with stirring for 30 minutes
- It is then dehydrated by oven drying or sun drying
- The final product can be milled and bagged as a low cost, locally available feed for pigs

Industrial level processing of food waste

- Limit processing to household and catering/retail outlet food waste
- Exclude food waste from ports and airports
- Employ production processes guaranteed to destroy infectious agents of concern (with the exception of prions, which are excluded by safety assurance further up the food chain)
- License the processing plants to produce quality-assured dehydrated meal or pelleted feed
- Such processed feed can be branded, e.g. in Japan there is a type that is branded as 'Ecofeed'
- Further research is needed to determine nutritional qualities of such feeds and to explore ways to produce an array of products

Conclusions

- Swill consisting of kitchen waste is widely fed to pigs and has advantages for the farmer
- Prohibiting swill feeding does not prevent it
- Processing food waste renders it safe and can increase the amount of pig feed available
- It can be done at farm, community or industrial level
- Innovative approaches and awareness creation are needed to gain acceptance

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