

## Key Targets

**1** Reduce feed waste by 4%



**2** Improve feed efficiency by 0.1



**3** Increase growth rate by 50g/day



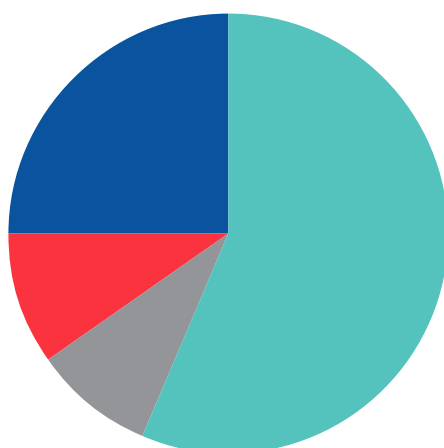
**4** Have regular team reviews of the guidelines



# Efficient feed usage

Feed costs have risen to represent nearly **76%** of the variable costs of producing a pig and around **56%** of total costs. Consequently, any fluctuation in feed prices has a greater impact on production costs and profitability than any other single factor. While it may be possible to decrease the cost of production (COP) by reducing input prices, e.g. switching to a cheaper ration or purchasing in larger quantities, it can also be achieved through simple, practical actions to minimise feed wastage and to improve the efficiency of utilisation.

The cost of producing a pig in September 2010 (150.4p/kg)



Feed ■ Other ■ Labour ■ Building finance & misc ■

## MANAGEMENT GUIDELINES

Around 10% of feed may be wasted on a typical farrow to finish unit. Improve or start recording feed conversion ratio (FCR) in all stages of production to allow better decision making.

Consider each of the following areas to reduce wastage and improve efficiency on a regular basis, e.g. quarterly as a team.

The AHDB Pork Feeder Wastage Review can help you make more informed decisions about which feeder type is most suitable for your situation

## FEEDING SPACE

- Enough space must be provided for every pig within the group to feed (Table 1)
- Feeder space requirement per pig depends on pig size and feeding regime, e.g. ad lib or restrict fed; liquid, pellet or meal; and feeder design, including header barrier provision (Table 1)

Table 1

WEIGHT OF PIG (KG)	TROUGH/HOPPER LENGTH/PIG SPACE (MM)	
	RESTRICT FED	AD LIB FED
5	100	75
10	130	33
15	150	38
35	200	50
60	240	60
90	280	70
120	300	75

Source: Code of Recommendations for the Welfare of Livestock: Pigs (Defra)

- More space is required per pig when restrict feeding compared with ad lib as all pigs need to be able to feed at the same time
- More space is also required per pig where hoppers have no, or only partial, head barriers between spaces



- Eating time is slower for meal than pellets hence where pigs are meal fed, more space is required; pellets require more space than ad lib liquid feeding
- With circular feeders the number of pigs per pig space can generally be increased because of the greater space allowance at the shoulder
- Watch the pigs feeding and look out for signs of crowding around the feeders, if this occurs more space may be required
- Provide extra, portable hoppers when the numbers of pigs in the pen is higher than usual
- Evidence of ear biting or fresh shoulder scars may be the result of fighting for space around the feeder (or drinking point) indicating insufficient feeding space and/or that hopper placement/access is inadequate
- Ensure the hopper type is appropriate for the size of pig, e.g. do not use grower hoppers for finishers

#### FEEDER PLACEMENT

- Placement is as critical as feeder space in ensuring that all pigs within a group have access to feed
- Hoppers placed too close to a pen corner can be blocked by a dominant pig
- Feeders should be located far enough from drinkers to ensure that dominant pigs must move away to drink, providing opportunities for less dominant pigs to access feeders, but not so far as to cause major disturbance, e.g. place within 1-2 meters
- To reduce the risk of fouling in the feeders they should not be sited in the dunging area
- Feeders should be situated so that feed is protected from rain, birds and vermin
- Ensure feeders can be inspected easily

#### FEEDER FLOW RATES

- Feeders should be checked daily to ensure they are working correctly and that feed is available
- Dry feed flow rates should be set to maintain intake but reduce wastage, providing about 25% coverage of the feeder trough, depending on the hopper
- Flow rates may need to be adjusted frequently as the pigs grow
- Ensure even distribution along the length of the feeder trough

#### FEED QUALITY

- The presence of dust, "fines" or lumps of clogged feed will affect flow rates and reduce feed intake
- Regular checks should be made to see if the hopper or auger mechanism is damaging/crushing the feed or affecting the pellet size, increasing wastage



Circular feeder



Drinker sited too close to feeder and in the corner of the pen



25% coverage of the feeder trough



Adjusting feeder flow rate





## STORAGE

- Clean and inspect feed bins regularly for signs of damage and leakage
- Check that all bins are correctly and easily identifiable to ensure correct deliveries
- Bagged feed should be stored in suitable conditions, in a dry area and at a suitable temperature, e.g. do not store creep feed in a nursery or farrowing house as the warm temperatures will turn the feed rancid
- Check feed for signs of mould and mites; if found, discard the affected feed, identify the source, e.g. clogged feed in the hopper or poor storage, and take remedial actions immediately

## SPILLAGE

- Wastage from feed falling between the slats or being spilt onto the floor is expensive, consider placing feeders on boards to prevent feed falling through slats and thus reducing wastage
- A broken feeder can waste up to **12T** of feed a year
- Quickly identify the cause of any spillage and rectify the problem, e.g. the hopper design may be incorrect for the size of pig; overstocking may be causing uneven feeding; feeder flow rates may require adjustment; or the feed bins, hoppers or feed system may require repair.

## DIET SPECIFICATION

- Regularly review feed strategies with your nutritionist or feed supplier, ensuring that the diets, timing of diet changes and quantities of each diet actually being fed correctly match pig flow, age of pig and growth rates
- Cheapest is not always the best; the value of performance must be taken into consideration along with the feed programme

## FEED INTAKE

- If possible, devise a way to measure the feed intake of either a whole building or individual pens
- Regularly checking feed intake will help to optimise diet formulations and also detect fluctuations, helping to identify likely causes of reductions or increases in intake
- Where restrict feeding, routinely check that actual drop quantities are as expected
- Check dry matter content for wet feed systems

## FEED ORDERS

- Review your storage capacity
- When placing feed orders, discuss optimal load sizes with your feed supplier
- It is critical to avoid running out of feed at any stage as this will adversely affect pig health and consequent performance



Bagged feed should be stored in suitable dry conditions



Feed wastage is expensive

## WATER

- Maintaining water intake is critical since this drives feed intake and therefore affects growth rate and FCR
- There must be sufficient functioning drinkers, at the correct height for the stage of pig, correctly positioned and with adequate flow rates
- See *Action for Productivity 16: Water Supply* for more information on this topic



## VERMIN AND BIRDS

- Contamination of feed by rats, mice and birds not only poses a health risk to the pigs, but can result in significant feed losses
- 100** adult rats can eat up to **four** tonnes of feed per year
- Maintain an active vermin control programme (subject to current legislative guidelines), bird proof buildings where possible, keep lids on hoppers and feed barrows and clean up spillages promptly

## TEMPERATURES

- Monitor the daily min/max temperatures within buildings, as well as observing the pigs' behaviour
- For recommended temperatures see the Defra *Code of Recommendations for the Welfare of Livestock – Pigs*
- High temperatures can reduce appetite and therefore growth rates, while cold temperatures cause pigs to use energy to maintain body temperature rather than for growth

## HYGIENE

- Check that feeders are clean and that there is no caked feed
- Any fouling must be cleaned out daily to reduce wastage and encourage intake
- See *Action for Productivity 10: Cleaning and Disinfection* for more information

## MOVEMENT AND MIXING

- Reducing the number of moves, minimising mixing, keeping variation to a minimum and enforcing actual all-in all-out policies, will all help to improve health, minimise stress and increase intake, growth rates and efficiency
- Review your current pig flow and the timing of all feed changes with this in mind
- Ensure that all relevant information, such as weaning date, is transferred with the pigs as they are moved through the system to enable days to sale to be monitored
- Review all records regularly with your staff, vet and nutritionist, continually striving to improve performance



Maintain an active vermin control programme



Clean hoppers can be inspected easily



Ensure that cleaning is effective

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