

Batch farrowing place Finishing output expectations

The batch farrowing place provides a tool which easily allows for comparison between the real world and the target world and allows for what if calculations.

If we set up the farm's batch parameters we can calculate output expectations

Finishing slaughterweight

The yellow boxes can be customised

Batch time	1	week
Batch farrowing places	20	
Weaned per farrowing place	10	
Finishing rate	95	%
Liveweight	100	kg
Killing out %	74	%
Dead weight	74	kg
Pigs sold per year	9880	pigs
Dead weight sold per year	731120	kg

From this simple calculation we can examine cost of production

Cost	1.32	£	kg
Income	1.42	£	kg
Total farm costs	965078	£	
Total farm income	1038190	£	
Farm profit	73112	£	

What if we changed the parameters and assume that the only real cost of the change would be the feed costs?

If we assume that feed is 65% of the total cost of production
Non feed costs will be 0.462 £ kg dead weight

We can develop some what if proposals:

Weaned per farrowing place

Rate of change 0.5

	9	9.5	10	10.5	11	
Deadweight	658008	696488	731120	769600	804232	kg
Cost of production	902348	935364	965078	998094	1027808	£
Cost per	1.37	1.34	1.32	1.30	1.28	£ / kg
Farm profit	32023	53649	73112	94738	114201	£
Change in profit	-41089	-19463	0	21626	41089	£

Finishing rate

Rate of change 2.5 %

	90	92.5	95	97.5	100	%
Deadweight	692640	711880	731120	750360	769600	kg
Cost of production	932063	948570	965078	981586	998094	£
Cost per	1.35	1.33	1.32	1.31	1.30	£ / kg
Farm profit	51486	62299	73112	83925	94738	£
Change in profit	-21626	-10813	0	10813	21626	£

Live weight

Rate of change 5 kg

	90	95	100	105	110	kg
Deadweight	658008	694564	731120	767676	804232	kg
Cost of production	902348	933713	965078	996443	1027808	£
Cost per	1.37	1.34	1.32	1.30	1.28	£ / kg
Farm profit	32023	52568	73112	93656	114201	£
Change in profit	-41089	-20544	0	20544	41089	£

Killing out %

Rate of change 2 %

	70	72	74	76	78	%
Deadweight	691600	711360	731120	750880	770640	kg
Cost of production	931170	948124	965078	982032	998987	£
Cost per	1.35	1.33	1.32	1.31	1.30	£ / kg
Farm profit	50902	62007	73112	84217	95322	£
Change in profit	-22210	-11105	0	11105	22210	£

We can combine these areas as well

Proposed target values:	
Weaned per farrowing place	10.5 pigs
Finishing rate	97.5 %
Live weight	105 kg
Killing out %	76 %

	Current	Proposed	
Deadweight	731120	850668	kg
Cost of production	965078	1067651	£ / kg
Cost per	1.32	1.26	£
Farm profit	73112	140298	£
Change in profit	0	67186	£

This clearly indicates the importance of numbers weaned per farrowing place

On the default set up:

To achieve a £20,000 improvement in profits (in our default farm) the options are:

0.5 pig weaned per farrowing place improvement - realistic with better gilt management - a farm issue

5% improvement in survival to slaughter - unrealistic especially when the requirement goes below a finishing rate of 97% (3% post-weaning mortality)

Live-weight improvement of 5kg - which may be possible - but this is likely to need an extra week of finishing space

A 2% improvement in killing out % - which is realistic but needs better selection at finishing and possibly a review of genetics.

The spreadsheet also indicates the tremendous advantage of small changes by combining these parameters in the same batch. Doing all of these changes results in a £67,000 improvement in profit on our default farm.