

# Alternative Growth Paths for Finishing Cattle

*Is there a link between age at slaughter, profitability and eating quality?*

## The Challenge

Beef cattle are finished using many different production systems at a wide variety of ages, generally from 12 to 36 months old.

Costs and animal performance levels can be very different across these systems and little is currently known about the effect that this wide diversity of slaughter age can have on meat eating quality.



**Intensive short-duration finishing**



**Medium duration finishing period**



**Long duration finishing using poorer pasture**

## The Research

Three batches of spring born Limousin crossbred cattle (each with 12 steers and 12 heifers) were allocated to three alternative growth paths at around 10 months old.

Alternative growth paths were:-

**Short duration** – finished at 12-16 months old on an intensive, indoor barley beef system.

**Medium duration** – finished at 18-26 months old following a second summer on good grassland.

**Long duration** – finished at 28-36 months old following two summers on poor grassland.

Both summer grazing and winter housing growth periods for all cattle are being managed at SRUC's beef research unit. Beef eating quality is being assessed by a human taste panel at Bristol University.

## The Results

After applying the different treatments to animals at 10 months of age, slaughter weights were heavier at older ages.



The above chart illustrates slaughter weight over time. Short duration finishing has been identified in yellow, medium in green and long duration finishing in blue. Diamond shapes represent steers and circles heifers.

Full income, cost and margin figures for each alternative growth path group await calculation, although a general finding was that costs increased as cattle aged. Beef eating quality results are still being examined.

## The Impact

There is currently no link between eating quality and sales value in the UK slaughter cattle market. Results from this project illustrating the links between age at slaughter and eating quality may stimulate stronger market focus on eating quality across the UK beef supply chain.

Any subsequent link between meat eating experience and profitability from alternative production systems, could influence significant change in beef production across the UK.

## Project Detail

**Project start date:** [02/2013], **finish date:** 01/2016.

**SAC Research team:** Dr Jimmy Hyslop, Dr Carol-Anne Duthie, SRUC, West Mains Road, Edinburgh, EH9 3JG, Scotland; Dr Ian Richardson, Bristol University.

**Email:** jimmy.hyslop@sac.co.uk

**Acknowledgement:** funded by AHDB Beef & Lamb.

**For further info visit:** [www.ahdb.org.uk](http://www.ahdb.org.uk)

**Summary printed** 10/2015.

## Further Information

For more information on farm business management, beef systems and nutrition contact your local consultant or SAC Consulting beef and sheep specialist at [beefandsheep@sac.co.uk](mailto:beefandsheep@sac.co.uk)