

Breed Origins

Composite breeding strategies have been researched and developed at the US Department of Agriculture (USDA) Meat Animal Research Centre (MARC) in Nebraska.

MARC research has shown that populations of composite cows provide an efficient alternative to more complex systems of cross breeding while retaining high levels of hybrid vigour. Their results have shown that composite breeding offers a procedure that is more effective than rotational cross-breeding systems for utilising genetic differences between breeds to achieve and maintain optimum performance levels for economic traits.

The Leachman Stabiliser is based on the MARCII which is a 4 breed composite made up of half British native breeds and half Continental breeds. Recently, Leachman has changed the breed mix to 5/8 British and 3/8 Continental. This was done to improve profit potential.

The new breed mix also takes advantage of the genetic improvement in the individual pure breeds and is transmitted into the composite programme by using high performance hybrid bulls in the multiplication system.

Three of the original MARC11 breeds namely Angus (red & black), Simmental and Gelbvieh make up today's breeding programme and feed efficiency data is now playing an important role in breeding decisions. This is collected by measuring the individual feed intake of young bulls on test and the results show a marked difference between individuals.

Feed efficiency is being viewed as an extremely important profit driver in North America and its effect will, over time, influence the UK Stabiliser population as future embryo importations will include top feed efficient genetics.

BIG has established a central testing unit to measure Net Feed Efficiency (NFE) in batches of 80 bulls or steers. This work will enable BIG to select the top feed efficient bloodlines in the UK population with the aims of reducing feed costs and greenhouse Gas emissions.

Composite breeding technology is now well established commercially in all the large-scale, major beef producing countries of the world, irrespective of variations in climate, environmental conditions and genotypes. As a result breeding herds are becoming more efficient, producing consistent, high quality beef.

UK producers need to recognise the challenge this presents and to develop breeding strategies that will compete with the eating quality and consistency of overseas product.

Strengths of Composite Breeding

- Retains high levels of hybrid vigour to optimise fertility and calf vigour and cow longevity
- Creates uniform animal populations with predictable performance
- Utilises the strengths of the contributing breeds
- Reproduces as a pure breed