

## UNIT : THE GROWING AND FINISHING ANIMAL

### INTRODUCTION

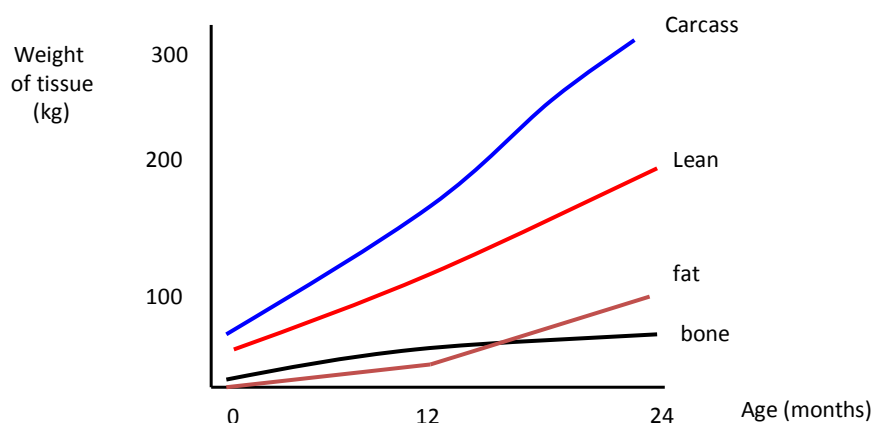
As an animal grows its tissues – bone, muscle and fat – develop at different rates. An understanding of the animal's growth and development allows its feeding and overall management to be adjusted to meet the desired market and maximise profit.

### KEY PHASES IN GROWTH AND MUSCLE DEVELOPMENT

It is important that all tissues develop simultaneously i.e. bone, muscle and fat will be accumulating continuously in a healthy growing animal but the relative rates at which they develop will vary with age and will tend to follow a general pattern.

- BONE – bone makes up the animal's skeleton or 'frame' and grows most rapidly when the animal is young.
- MUSCLE / LEAN – muscle represents the animal's lean meat and tends to accumulate consistently throughout the growing and finishing period.
- FAT – fat accumulates on and within the muscle in the carcass and is necessary to give the animal the necessary 'finish'. Fat accumulates most rapidly during the later stages of growth.

## Carcass and tissue growth in cattle



The precise rate of growth and development is affected by :

- Breed

- Sex
- Feeding

Breed – influences the rate of growth, the differences in proportions of muscle to bone and the age and extent of fat deposition.

Sex – bulls grow faster and are leaner than steers with heifers being slowest growing and earliest to mature and deposit fat.

Feeding – the level of feeding has a huge impact, intensive feeding of high quality feeds, especially energy rich cereals and concentrates, results in more rapid growth and earlier fat deposition – sex, breed and target carcass weight and specification must be borne in mind when devising a feeding plan or strategy.

#### INFORMATION SOURCES

HCC (2008) Beef Producers' Handbook 'From Gate to Plate'