

# What else changes if I just selected for growth?

These are what we call correlations, generally if growth goes up:

THE FREE LUNCHES	THINGS TO WATCH
Marketable at earlier ages	Fibre diameter goes up
Higher reproductive output	Mature weight goes up (increasing ewe maintenance costs)
Higher fleece weight	Lamb birthweight goes up (potential dystochia problems)
Higher lean meat yield	

BUT remember, you can manage these correlations by selecting animals based on indexes or a balance of traits that you are interested in.



# SHEEP GENETICS



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### Disclaimer:

This brochure is intended as a guide only. Every effort has been made to ensure the information contained within is factual but this cannot be guaranteed.

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## SHEEP GENETICS GROWTH



# Weight for age (WT)

## What to look for?

Genetic differences in liveweight reflect the growth potential of an animal at key times when animals are typically marketed. Weight is generally quoted at one of five time periods (not including birth weight BWT):

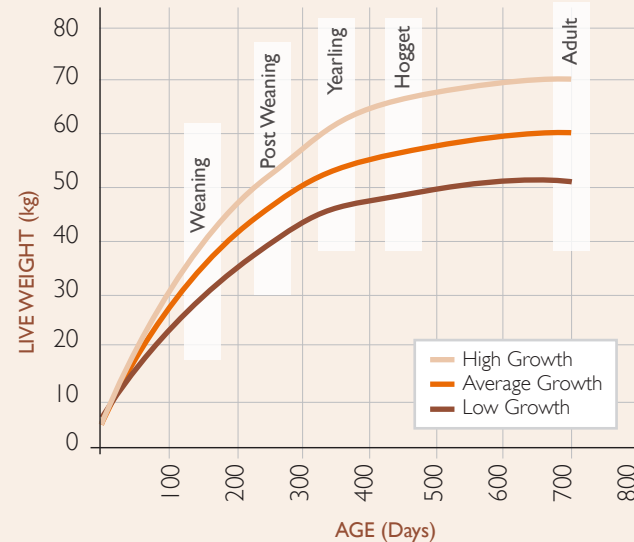
1. Weaning (WWT)
2. Post-weaning (PWT)
3. Yearling (YWT)
4. Hogget (HWT)
5. Adult (AWT)

## How is this measured?

Animals are weighed by breeders at one or more of the time periods. Because of the relatively close correlation between weights at different ages, ASBVs for other weights can be calculated from one or two weights. For improved accuracy of the estimation of an animal's weight across the ages, animals should be weighed at as many of the key times as possible.

## What do the numbers mean?

Weights are measured in kilograms and ASBVs are quoted in kilograms. ASBVs are deviations from the average of animals in the database in the 1990 drop. So an animal with a PWT ASBV of +6kg will be genetically 6kg heavier at post-weaning age than the average in 1990. A ram with a PWT ASBV of +6kg will pass half of this benefit onto his lambs, that is +3kg.

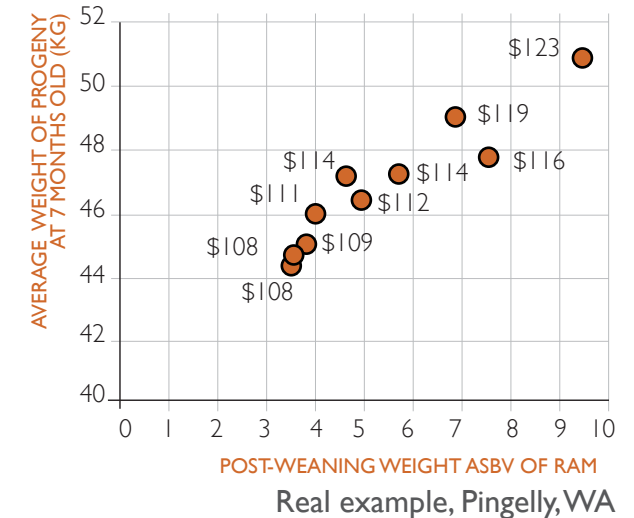


## Can I see it?

The bigger sheep will tend to be the high growth sheep. But remember, birth type, age of dam and nutrition have big impacts on growth and it is easy to overlook a twin born lamb, particularly one from a maiden dam.

## What's in it for me?

The main reason to select for higher growth potential is so that lambs reach heavier weights at younger ages. This allows lambs to be either marketed sooner (at the same weight) or be marketed at heavier weights (at the same age) compared with low growth lambs.



A group of rams were single sire mated to similar ewes. The higher PWT rams had higher liveweight progeny at 7 months and higher estimated carcass value (44% dressing, \$5.50/kg). Their dollar values are shown on the graph.

Alternatively, if lambs are to be marketed at the same liveweight, growth gets them out the gate quicker. Each 1kg increase in PWT ASBV results in around 8 less days to reach 45kg.

Ewes with higher weight breeding values also have more lambs. A kg increase in YWT ASBV will result in around 2 more lambs per 100 ewes mated.