

cooperative extension service

college of agriculture

The University of Arizona
Cooperative Extension Service
Maricopa County
101 E. Basia St., Suite A
Kingman, AZ 86401

Estimate Animal Weight from Body Measurement

Livestock owners often are interested in checking "weight gain" of their animals. Commercial feedlot operators fatten large numbers of animals for slaughter; 4-H project owners maintain and improve their animals for the showmanship ring, or fatten for sale; horse owners who manage stock properly want to know the weight of their horse in order to determine a proper ration.

Commercial operations have mechanical

scales in their stock yards to determine yard in-weights, sale weights and rate-of-gain for animals on feed. Others, with only a few animals and no scales available, often resort to "guessing." There is little room for guessing when calculating rations, for the practice of "working in the dark" can produce *other* problems.

Here are some methods available to calculate the weight of large animals by the use of body measurements. Use a tape and measure *in inches*.

BEEF CATTLE*

1. Measure the *length* of body, from point-of-shoulder (A) to point-of-rump or pin bone (B).
2. Measure the circumference or heart girth (C). Measure from point slightly behind shoulder blade, down over fore-ribs and under body behind elbow. When these measurements, in inches, are made — use the following formula:
3. Heart girth X heart girth X body length ÷ 300 = weight in pounds.

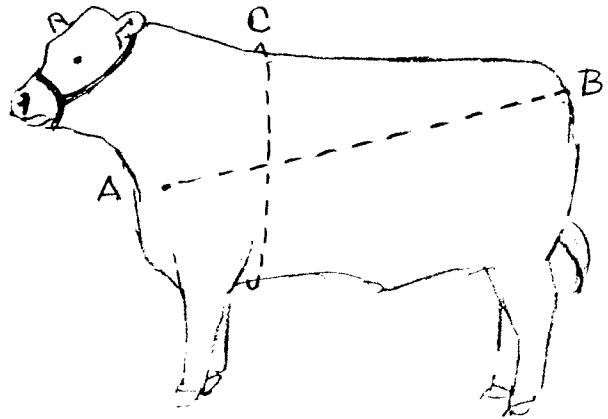
Example

Heart girth (76") X heart girth (76") X body length (66") divided by 300 = 1,270 pounds.

$$76 \times 76 = 5,776$$

$$5,776 \times 66 = 381,216$$

$$300 \overline{) 381,216} = 1,270 \text{ pounds}$$



*Sheep and Goats:

For sheep and goats, use the same method described for beef cattle. When working with *unshorn* sheep, be

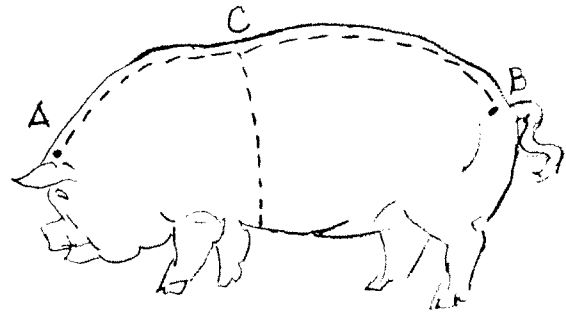
sure to part or compress the wool, to insure an accurate heart girth measurement.

HOGS

1. Measure the circumference (heart girth) of body (C).
2. Measure the length of body (A — B). Do this by restraining the animal, depressing the head and measuring the length of body from between the ears (poll) over the backbone to the base of the tail.

When the measurements, in inches, are made — use the following formula:

3. Heart girth X heart girth X length \div 400 = weight in pounds.



Note: — for hogs weighing *less than 150 pounds*, add 7 pounds to the weight figure you gain from this formula; for hogs weighing *151 to 400 pounds*, no further adjustment is needed.

HORSES

It is easy to estimate the weight of your horse, using body measurements. Tests have shown that the results obtained are accurate within 3% of actual scale weight.

1. Measure the circumference (heart girth) of body (C) in inches.
2. Measure length of body from point-of-shoulder (A) to point-of-rump (B).

When these measurements, in inches, are made — use the following formula:

3. Heart girth X heart girth X length \div 300 + 50 = weight in pounds.

Example

Heart girth (70") X heart girth (70") X length (65") divided by 300 + 50 = 1,111 pounds.

$$70 \times 70 = 4,900$$

$$4,900 \times 65 = 318,500$$

$$\begin{array}{r} 300 \overline{) 318,500} = 1,061 + 50 \\ = 1,111 \text{ pounds} \end{array}$$

