

# Accounting for Meat Productivity (Yield)

## Aim of the work

To learn how to calculate meat yield from livestock, to understand the factors affecting meat productivity, to analyze slaughter results and efficiency.

## Theoretical background (brief)

Meat productivity (yield) is determined by the proportion of usable meat obtained from livestock relative to the live weight. The main indicators include:

- **Live weight:** weight of the animal before slaughter.
- **Dressing percentage:** proportion of carcass weight to live weight.
- **Meat yield:** proportion of boneless meat to carcass weight.
- **By-products:** offal, bones, fat, and other usable parts.

### Formulas:

1. **Dressing percentage (%)**  $DP = \frac{\text{Carcass Weight}}{\text{live weight}} \times 100$
2. **Meat yield (%)**  $MY = \frac{\text{Boneless Meat Weight}}{\text{Carcass Weight}} \times 100$
3. **Total meat obtained (kg)**  $M = \text{Live Weight} \times DP \times MY / 10000$   
(Note: dividing by 10000 if both percentages are in %)

## Practical example

### Given data:

- Animal type: **Cattle**
- Live weight: **500 kg**
- Carcass weight: **300 kg**
- Boneless meat: **240 kg**

### Step 1: Dressing percentage

$$DP = \frac{300}{500} \times 100 = 60\%$$

### Step 2: Meat yield

$$MY = \frac{240}{300} \times 100 = 80\%$$

### Step 3: Total meat obtained

$$M = 500 \times 60 \times \frac{80}{10000} = 240 \text{ kg}$$

### Result:

From a **500 kg live weight cattle**, **300 kg carcass** is obtained, containing **240 kg of boneless meat**. Dressing percentage is **60 %**, and meat yield is **80 %**.

## Independent practical tasks

1. **Pig:** 200 kg live weight, carcass 140 kg, boneless meat 110 kg. Calculate dressing %, meat yield %, and total meat obtained.
2. **Sheep:** 70 kg live weight, carcass 45 kg, boneless meat 36 kg. Calculate dressing %, meat yield %, and total meat obtained.
3. **Goat:** 50 kg live weight, carcass 30 kg, boneless meat 24 kg. Calculate dressing %, meat yield %, and total meat obtained.

## Conclusion

Accounting for meat productivity allows assessing livestock efficiency, planning production, and calculating expected meat output for the industry.