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SPECIFIC GRAVITY AS AN INDEX OF LEANNESS OF THE
BACON PIG CARCASSES. PART I. SPECIFIC GRAVITY AND
THE RATIO OF LEAN TO FAT.

by

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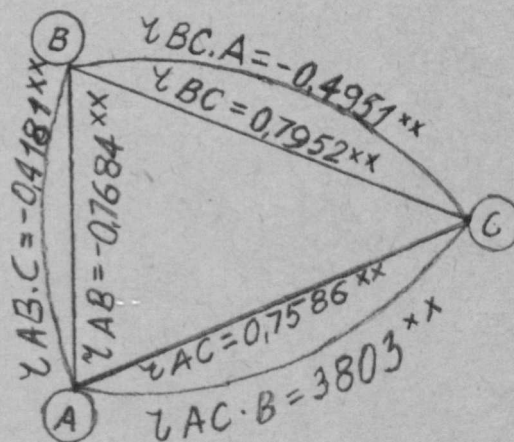
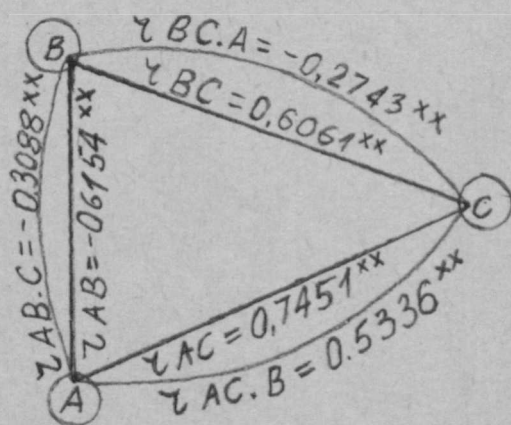
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Specific gravity as an index of leanness of the bacon
pig carcass.

Part I. Specific gravity and the ratio of lean to fat.

The index of fatness and leanness which would accurately determine the degree of fatness of the swine carcass can not be applied in the bacon trade since it requires cutting of the carcass. Determining the fatness of carcass from the mean back-fat thickness does not give quite reliable results because it has been observed that two carcasses with the same back-fat thickness can have different content of the intermuscular fat.

The investigations were carried out in order to establish whether the study of specific gravity of the trimmed bacon can form a reliable basis for the estimation of the content of fat in the carcass without dissection.



302 carcasses of swine examined included 152 gilts and 148 barrows all 7-7,5 months old. All animals belonged to the local bacon type and were from the winter season of feeding.

The obtained correlations are shown in the diagrams on page 1.

A-specific gravity, B-back-fat thickness, C-fat to lean ratio. The complete correlations are indicated r_{AC} and r_{BC} while the partial correlations are indicated:

$$r_{AC.B} \text{ and } r_{BC.A}$$

The coefficients of the complete correlation are written on the sides of the triangles and the coefficients of the partial correlation are written on the arches joining the correspondence tops of the triangles.

The results of the investigations allow for the following conclusions:

1. In the bacon of barrows the ratio of lean to fat is more closely correlated with specific gravity than with mean back-fat thickness
2. In the bacon of gilts the correlation of the lean to fat ratio with specific gravity is similar to the correlation of the lean to fat ratio with mean back-fat thickness
3. Since the bacon trade uses about 50% of barrows and with them the determination of specific gravity is more useful for our purpose it is advisable to make estimation of fatness for all bacon pigs on the basis of the measurement of specific gravity
4. The study of specific gravity of the bacon pigs should be very useful for bacon trade as well as for the producers.