

Nutritional values of 11 pork secondary meat-cuts and liver

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Introduction

Nutritional analysis for nutritional labelling has been carried out on 11 meat-cuts and liver from pigs commonly produced in France. Meat-cuts have been prepared in slaughterhouses for their use in processed meat preparations or products.

Materials and methods

Nutrients

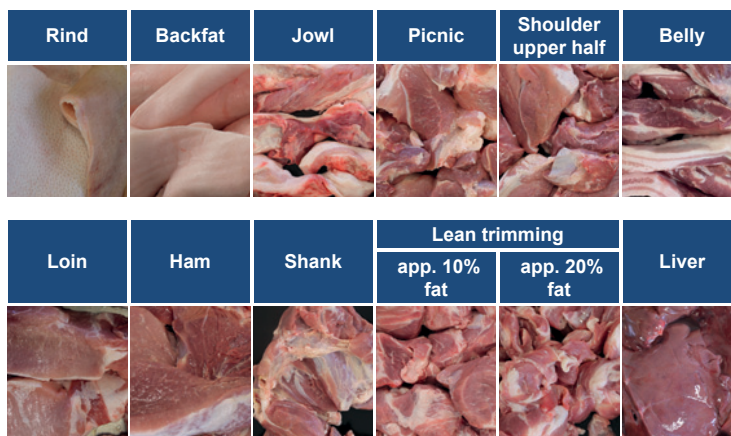
- Nutrients listed in the nutritional declaration of regulation (UE) n° 1169/2011 have been measured.

Samples

- Each sample was a blending of meat-cut from a female and a castrated male of a same batch. Livers, bellies and lean trimmings came from 2 animals of another batch.
- Samples were taken in 3 slaughterhouses, in autumn and spring to obtain as large variation in nutrient contents as possible for pigs commonly produced in France.

Carcass

- Weights between 90.0 and 96.0 kg.
- Lean Meat Percentage between 59 and 63 %.



Meat cuts and liver

Results / discussion

Table 1: Physico-chemical composition of meat-cuts and liver in g/100 g

Meat cut	Nutrient	Fat			Saturated fatty acids			Carbohydrates, sugars			Proteins			Salt (2.5 x sodium)		
		n	mean	std dev	n	mean	std dev	n	mean	std dev	n	mean	std dev	n	mean	std dev
Rind		30	16.4	6.2	30	5.1	1.8	5	0.2	0.0	6	35.0	2.5	5	0.36	0.05
Backfat		30	80.6	4.1	30	28.7	2.2	5	0.1	0.0	6	4.5	1.2	5	0.10	0.02
Jowl		30	47.5	4.0	30	16.0	1.4	5	0.1	0.1	6	11.6	0.7	5	0.17	0.04
Picnic		20	12.3	2.7	20	4.1	1.0	4	0.2	0.1	5	18.9	1.1	4	0.20	0.02
Shoulder upper half		20	10.4	2.1	20	3.6	0.7	4	0.3	0.1	5	19.2	0.6	4	0.20	0.02
Belly		21	28.7	2.9	21	10.2	1.2	5	0.2	0.1	6	15.9	1.2	5	0.18	0.03
Loin		15	6.2	2.7	15	2.2	1.0	3	0.4	0.1	5	22.3	1.3	3	0.16	0.02
Ham		30	6.4	1.1	30	2.1	0.4	5	0.3	0.0	6	20.9	0.6	5	0.18	0.02
Shank		29	7.3	1.2	29	2.4	0.5	5	0.3	0.0	6	20.2	1.0	5	0.22	0.00
Lean trimming	app. 10% fat	27	12.9	4.0	27	4.6	1.6	5	0.2	0.2	6	18.8	2.1	5	0.17	0.02
	app. 20% fat	33	25.2	4.2	33	9.4	1.8	5	0.3	0.1	6	17.3	1.4	5	0.17	0.00
Liver	*carbohydrates, **sugars	29	4.2	0.7	29	1.7	0.2	20	1.8*	1.2*	6	20.6	0.5	5	0.34	0.03
		5	1.1**	1.2**												

Proteins (g/100 g)

- Protein values increase with the content of muscles. High in cuts like loin, ham and shank, or liver. Backfat have the lowest protein values, of which almost half is collagen (2.1). Rind has the highest content in protein which most of it is collagen (28.9).

Fat and saturated fatty acids (g/100 g)

- High variability is due to the presence or not of subcutaneous fat for the rind and the cut for the loin.

Sugars and carbohydrates (g/100 g)

- Except for liver all sugars are carbohydrates. The values are less than 0.5.

Salt (2.5 x sodium)(g/100 g)

- The higher salt contents were found in liver and rind, 0.34 and 0.36 g respectively. The lower content was found in backfat with 0.10. Other data give lower salt contents for liver: between 0.19 and 0.20.

Conclusion

This study presents the typical nutrient composition of 11 meat-cuts and liver from pigs commonly produced in France and usually sold by slaughterhouses to be used by meat processors. These averages can be used as actual average values of the ingredients used in processed meat, for calculation of nutritional values as proposed in EU regulation, n° 1169/2011.

