



ABILITY OF FRESH THIGH EVALUATION TO PREDICT CURED HAM QUALITY



G.L. Restelli^{1*}, A. Stella², G. Pagnacco¹

¹Dept. of Veterinary Sciences and Technologies for Food Safety, University of Milan, Italy; ²FPTP--CERSA, Palazzo L.I.T.A., Via F.lli Cervi 93, 20090 Segrate (MI), Italy

INTRODUCTION

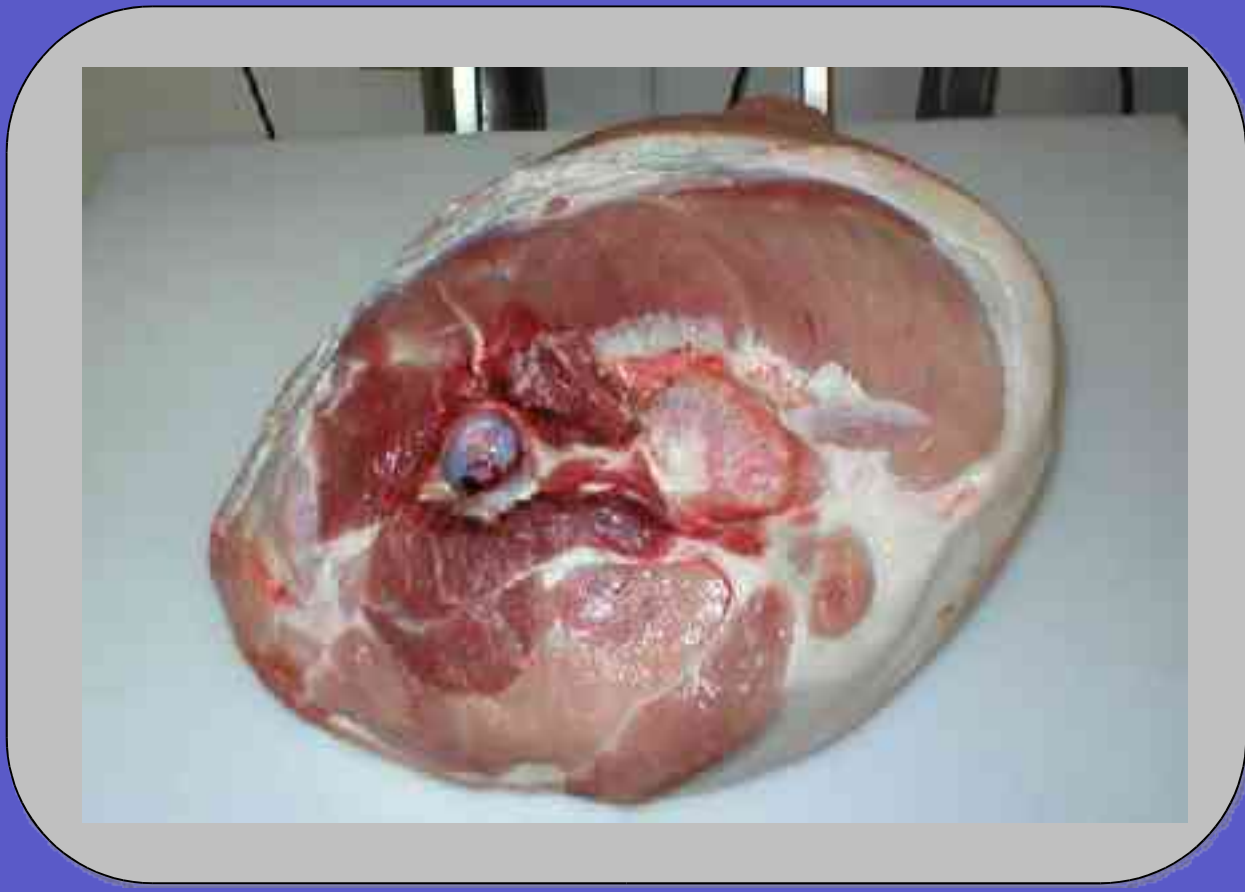
Dry-cured ham is the most important Pdo’s product for pig industry in Italy. A good quality of the fresh thigh is the main factor in order to obtain a defect free finished product. The quality control activities are made at two different steps. The first, before the production process, was carried out at slaughterhouse on fresh thighs. The second was made at the end of the production process to control the conformity and the quality requirements of the cured hams. Some parameters of the fresh meat are considered to have a predictive value for quality features of cured ham.

The aim of this work was to investigate the ability of fresh thigh evaluation to predict cured ham quality.

HAEMATOMA



COLOUR DEFECT



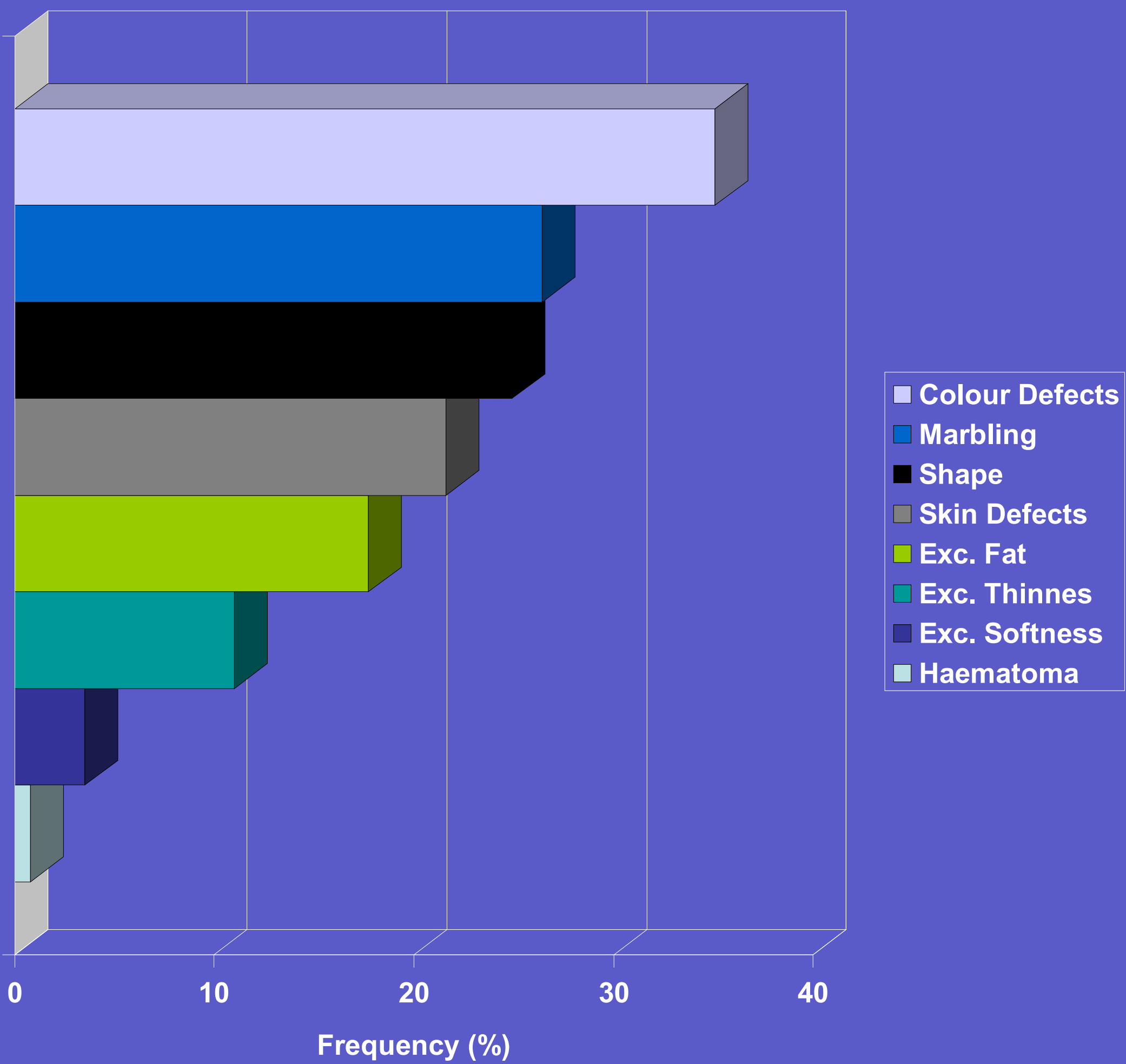
MARBLING



EXCESSIVE FAT



FIG.1 Frequency of Defects in Fresh Thighs



MATERIALS AND METHODS

Five hundred and ninety eight fresh thighs were evaluated after trimming to discover the presence of defects like extensive marbling, excessive fat, uncovered crowns, extreme thinness, colour defects, shape defects, and haematomae. At the end of the curing period the hams were evaluated for the same defects. The presence of a given defect was been coded with 1, the absence with 0. Logistic regression was carried out by using the Logistic Procedure of SAS-STAT package to compare the evaluation of fresh thighs with the evaluation of dry cured hams.

RESULTS AND CONCLUSION

Descriptive statistics reported in Fig.1 showed that the main defects observed in fresh thighs regarded the muscle colour (35%), the presence of marbling (26,4%), the shape of the thigh (24,9%), skin defects (21,6%) and the presence of excessive fat (17,7%). Instead, the main problems affecting cured products (Fig. 2) were an softness (44,3%), the presence of blood spots (23,1%), marbling (21,7%) and muscle colour defects (12,5%).

The analyses revealed that excessive fat in the thighs was a significant factor for marbling and excessive fat in hams (odds ratio, 15.95 and 2.85; p = 0.0001), the same results were seen for thighs with marbling and marbling in hams (odds ratio, 5.77; p = 0.0001). In addition, colour defects in thighs seemed have an association with abnormal colour in the cured hams (odds ratio, 1.63; p = 0.049).

FIG. 2 Frequency of Defects in Cured Ham

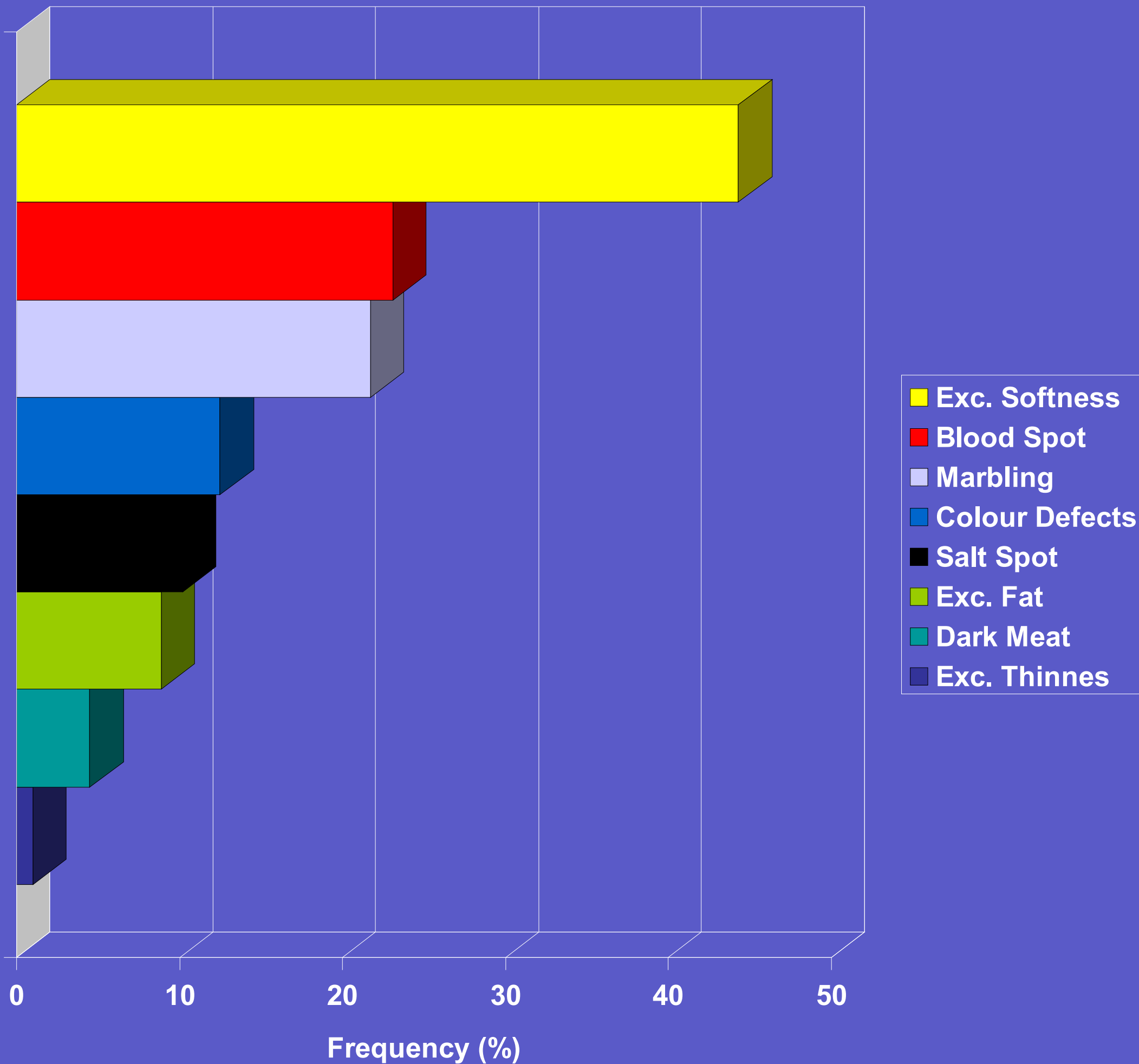


FIG. 3 ODDS RATIO ESTIMATES

PROBABLILITY MODELLED: EXCESSIVE THINNES HAM =1		
Thigh Parameter	Odds ratio estimates	Pr >ChiSq
Excessive thinnes 1 vs 0	8.40	< 0.010
PROBABLILITY MODELLED: HAM WITH COLOUR DEFECTS =1		
Thigh Parameter	Odds ratio estimates	Pr >ChiSq
Colour defects 1 vs 0	1.63	< 0.049
PROBABLILITY MODELLED: HAM WITH ESCCESSIVE FAT =1		
Thigh Parameter	Odds ratio estimates	Pr >ChiSq
Excessive fat 1 vs 0	15.95	< 0.0001
PROBABLILITY MODELLED: MARBLING HAM =1		
Thigh Parameter	Odds ratio estimates	Pr >ChiSq
Marbling 1 vs 0	5.77	< 0.0001
PROBABLILITY MODELLED: MARBLING HAM =1		
Thigh Parameter	Odds ratio estimates	Pr >ChiSq
Excessive fat 1 vs 0	2.85	< 0.0001

The helpful cooperation of
is gratefully acknowledged

