

AMERICAN MEAT SCIENCE ASSOCIATION (AMSA) MEAT SCIENCE LEXICON

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Abstract – A lexicon of meat science terms was developed by an ad hoc Lexicon Committee of the American Meat Science Association (AMSA) to provide an authoritative source for the definition of several selected meat science terms including ‘red’, ‘white’ meat and ‘processed’ meat. The document illustrates how many of these terms were derived and provides a system of classification. The document also provides a glossary of meat science terms useful to meat science researchers and those in the meat industry.

Key Words – red and white meat, processed meat, terms and definitions

I. INTRODUCTION

The American Meat Science Association (AMSA) was approached by several members and allied industry associations to create an authoritative scientifically accurate document to provide researchers inside and outside of the meat/animal sciences and meat industry a lexicon of important meat science terms to alleviate any misunderstandings of the terms used in meat science research. The members and allied associations observed a need for such a document when observing the IARC deliberations in 2015 where the participants were discussing the meaning of ‘red’ meat, ‘white’ meat and ‘processed’ meat and how they impacted human cancer risk. These terms are also used extensively in human nutrition on food use questionnaires and in nutrition research to describe what kinds of meat people eat. The issue, however, is that the terms 1) may not be precise for their use and 2) may convey ideas and conclusions that may not be desired by the researcher. The AMSA convened an ad hoc Lexicon Committee in spring 2016 to develop a document that satisfy the need.

II. MATERIALS AND METHODS

In early 2016, AMSA formed a committee of ten academic researchers to convene and discuss the development of the lexicon. The committee chose a taxonomic system as basic outline of the document in which the first part of the document was prepared to specifically discuss and define the problem terms (red, white, and processed meat) while the second part became a glossary of terms used in the definitions and used commonly in the meat industry. Through the summer and fall of 2016, the committee met face to face two times and had numerous conference calls and developed a document that was reviewed first by selected meat scientists and later by members of an advisory group made up of allied meat science industry groups including NCBA, NPB, USMEF, and NAMI. The advisory group was a great asset to the effort and provided much needed feedback. The final document has been submitted to the Meat & Muscle Biology Journal.

III. RESULTS AND DISCUSSION

Some notable definitions are shown here. For example, the definition for meat is widened to include the muscle of not only livestock species (porcine, bovine, ovine, equine) and poultry (chicken and turkey), but it was expanded to include muscle from aquatic species and game. Additionally, the committee deliberated on the definitions of how the terms red and white meat were being used and observed that these terms were originally created to describe and differentiate meat from livestock species from avian species. In fact, the USDA differentiates livestock (red meat species) from poultry (white meat species) in the current regulations primarily because the meat inspection regulations were first promulgated for livestock (1906) and later for poultry (1957). Consequently, these terms were not developed with a scientific usage to describe the nutritional status of meat products in mind.

The committee also deliberated on definitions for terms that express the ‘processing’ of meat. Again, the popular use of terms describing ‘processing’ have been used by those critical of the meat industry for the production of processed meats and processed meats have been the subject of many deliberations of IARC and certain conclusions have been made about processed meats to human health. The committee observed, that most operations processing meat are usually composed of particle size reduction and application of non-meat ingredients. But production of meat products has become quite complex over time so expressing all of these operations using only one term “processed” meat, is too simplistic. The committee deliberated extensively on the subject of defining processing and finally concluded that it was best to create two main classifications for meat processed: Minimal processing and Further processing. The document contains six tables that help illustrate the use of the processed meat classification system.

The glossary contains 87 terms that either support the definitions for meat and processed meat or that are commonly used by meat researchers and those involved in the meat industry.

IV. CONCLUSION

The AMSA Meat Science Lexicon was created to be an authoritative document that will illustrate the origin of words commonly used by meat science researchers and the meat industry and how these terms should be understood and used by policy makers and researchers outside the meat industry. The lexicon should provide a context and a background for the use of the terms meat, red meat, white meat, and processed meat by those involved in human nutrition research and in allied fields. The lexicon provides an idea of the complex nature of the meat industry and the difficulty of using just a single term to describe them.



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REFERENCES

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