

## Program Introduction

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In asking me to introduce this program, I think Professor Rust was looking for someone in industry working with the types of problems we're going to hear about today. But the other thing I believe he was looking for was someone who represented both of the major species we're addressing in this session, namely pork and turkey.

Forty years after the first scientific description of what we now call pale, soft, exudative pork, it still causes problems. Twenty percent of the raw materials that we receive today from some suppliers are still PSE. This is just about the number that John Forrest identified 30 years ago when he did the first U.S. survey on PSE. So nothing has really changed.

The domestic large white turkey, which has been genetically transformed at a rate faster than the lean bacon-type hog, also has a PSE-like condition. Rigor onset in the large white turkey is often measured in seconds rather than in minutes or hours as it is in some of the red meat species. Free juice in processed meat products must be contained with extra binding materials such as gums and starches. Dozens of Ph.D theses, including my own, have been written on how to eliminate this condition. Many hours of discussion in meetings such as this have also transpired on ways to eliminate the condition, but it's still with us.

More than ever, PSE is a serious economic and quality problem. In order to provide the consumer with leaner, juicier and more tender whole-muscle products, the muscles must be able to bind ever-increasing quantities of water. The low

water-holding capacity and poor texture of PSE pork and PSE turkey prevent these goals from being met. And so quality and economic problems still remain.

To eliminate PSE, each of the contributing factors must be identified and eliminated. Many of the factors have to be really delved into and searched out. Some countries have taken this very seriously and have virtually eliminated the problem. In this country's highly segmented pork industry, it is much more difficult to accomplish, but some progress toward eliminating PSE in the red meat supply is being made.

The Yorkshire Breed Association, for example, has now decreed that any boars that are registered with that group must be certified PSE free. Other breed associations are planning to follow this lead to eliminate the PSE strain. Our company, using another approach, is sorting raw materials and grading raw materials as we receive them. We're using objective color measurements to monitor the degree of reflectance, or the amount of PSE that various suppliers have in their meat that they supply to us. This gives us direction on from whom to purchase.

Today we'll hear of new research on the fundamental aspects of PSE in both pork and turkey from two gifted researchers. They will convey optimism, I think, and present possible solutions that might be in the offing so that we can put this issue to rest and, hopefully, we will not have to continue to deal with it for the next 40 years.

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