

of national and international political and military events, the world is establishing a whole new relationship with food, and particularly with food proteins. A few decades from now, history will show the decisions you have made and things you have done during this particular time as having far-reaching consequence on the political, social, military, and economic structures of the nations of the world, as well as on the food technologies, food habits,

health and well-being of her people. I sincerely hope that your deliberations at this Conference will be as thoughtful, as profound, and as constructive as this distinguished group of delegates can make them, for the results of your efforts will be heard around the world for years to come.

Again, our welcome, and Godspeed with your work during these next three days.

Welcome Address

J. BALTES, President,

Deutsche Gesellschaft für Fettwissenschaft e.V., Munster, West Germany

As President of the Deutsche Gesellschaft für Fettwissenschaft, I am honored to welcome you to the World Soy Protein Conference.

The great response to this Conference of the American Soybean Association is evidenced by the number of participants, over 1,100 from 46 countries, and also by the many committees and corporations, which are listed in the Conference program. This unusual response, I attribute to the importance of the topic of the Conference and also to the distinguished experts who are participating in this meeting.

I think that the individual participants, as well as we sponsors, are full of expectations, expectations for the future use of soybeans, not only on an economic basis, but on scientific and social bases. To illustrate these expectations further, please allow me to review the history of the agricultural economy.

The American Soybean Association is 53 years old; its previous annual meetings and conferences mainly were addressed to American farmers and producers of soybeans. Now here is a Conference with an economic, scientific, and technically important program being held in Germany! I think that one of the reasons for this is the long tradition of processing soybeans in this country. Ca. 40 years ago here in this country, more than 1 million tons of soybeans were processed, far more than in the U.S. At that time, Germany was known as the country with the largest oil milling industry in the world. Of course, all of this makes this Conference especially welcome to us. However, I do not want to talk about old times; I want to outline the present great importance of the soybean.

All of you know the role of the soybean in the industrialized countries of North America and Europe as the dominant protein source for animal feed and as the most important source of vegetable oil. In eastern Asia, it is one of the most important foodstuffs. Ca. 90% of the annual world production takes place in the U.S. and China. The world demand increases ca. 7% each year which means a doubling within 11 years. We can view U.S. soybean exports as a barometer for this increase. They have grown phenomenally since the early 1960's from a few \$100 million to more than \$2 billion in 1972. No other product

has exceeded this, not even the high technology products, like computers and jet aircrafts; and the demand continues to grow, as we can see from the prices.

How can we meet this rising demand? In comparison to other cultivated plants, like wheat, corn, etc., which since 1950 have shown an annual 4% increase in yield per/acre/year, the soybean has shown an average of 1% increased yield. To harvest more soybeans means to plant more soybeans; this is what happened in the U.S. this year. The production increase since 1950 has grown 400% and was obtained basically through expansion of the acreage, which means that this year 1/6 of the total U.S. acreage was planted with soybeans. In July, we heard that a reduction of the acres planted for 1974 was not intended. However, not long ago, Lester B. Brown at the Overseas Development Council (*Science*, 182:227) reported that the U.S. Department of Agriculture had indications that there would be a reduction of the planted acreage in 1974, supposedly as a result of this year's record crop. If this should be the case, there will undoubtedly be further price increases, with or without the U.S.S.R. as customers.

How and where can we solve the problems inherent in this situation? Obviously an attempt can be made to try to use high grade protein from soybeans more efficiently than is possible in animal feed. This is the main subject of this Conference which we, especially we European skeptics, should demonstrate, if possible: how to make the soy protein available for human consumption. Basically, this is not new to us, because in eastern Asia this has been done for centuries. For the western world, there is the added responsibility of adapting soy protein to the nutritional requirements of the modern society, in other words, making it a desirable food product and making it equally acceptable as meat. The solution to this problem is important, and we have heard much about it and about what remains to be done. Now we would like to hear about it all first hand.

This, I think, is what the sponsors and, of course, the participants expect of this Conference. Hopefully this Conference will have productive results. We wish great success to all in achieving this objective.

Remarks by Senator Carl T. Curtis

CARL T. CURTIS, U.S. Senator from Nebraska and member of the Committee on Agriculture

Representing a soybean-producing state as I do in the U.S. Senate, my concern naturally is for the well-being of the producers of this most vital commodity.

In our efforts to provide the people of the world with the products of this small bean, which contains the protein

so vital to human health and well-being, we must not forget the producer.

We must work from the premise that these individuals who take the economic risks associated with any type of agricultural production deserve a decent wage for their