

teen-agers. Fathers have never always agreed with sons on how to farm; nor mothers with daughters on how to dress. But there are encouraging signs in our present period of change—for instance, the twentieth century is the first time man in numbers has had a concern for people all over the world.

Considering change and the club girl of tomorrow, Mrs. Trivers felt that the program might have to change in the specific things to be taught but not in its basic purpose, which is not only to teach a girl how to keep a home well, but how to have right attitudes, a right sense of values; how to have a sound mind in a sound body; how to do and say the right thing; how to get along with other people; how to see things through to a successful finish; how to make right decisions. "We feel," the speaker concluded "that you are getting the right guidance through your club program.

### Feeding the World in the Future

In their club work the girls have a rather comprehensive program on food and nutrition and they were keenly interested in a lecture "Feeding the World in the Future" by Mr. J. H. Hulse, Director of Research for Maple Leaf Mills, Toronto.

Mr. Hulse reminded us that our ancestors were good farmers and thrifty and they left us a great heritage, laying such a foundation for prosperity that Canada is now the richest country in the Commonwealth. Our present food problem is not hunger but over-eating; and our wide variety of foods comes from such advanced methods of production that only 15% of our people are engaged in agriculture, leaving the other 85% to develop other resources.

Information on food and food processing included an explanation of different kinds of flour on the Canadian market. General purpose flour or "bread flour" is made from hard prairie wheat with a strong gluten, elastic enough to take the stretch required in a dough leavened by yeast. Pastry flour is made from

the soft winter wheat produced in Ontario and Eastern Canada. Ontario grown Durham wheat is used in the manufacture of macaroni. There is a new instantized flour for thickening sauces without lumping. And a flour rich in protein is produced by a current of air blowing the finer protein particles away from the starchy part of the flour.

On the use of automation in the food industry, Mr. Hulse described processes in which bread and cakes are made by a computer system, the ingredients being measured, mixed and baked with no help from a human operator other than setting the machinery in motion. Smoked meats can now be "cured" in a few minutes by the use of "liquid smoke." If all the canned foods used in North America were processed in the home it would take all the housewives on the continent 57,000 years to produce the quantity manufactured by the canning industry in one year.

We were given a preview of the time when we will be cooking by microwaves. Since this is a frictional heat produced by the oscillating molecules of the food, the food heats at a uniform rate throughout. Consequently the centre of a loaf of bread or a roast of meat will heat as fast as the outside and the bread or the roast will be cooked in a few minutes. Because the cooking time is so short there will be very little shrinkage in a roast.

The most recent advance in refrigeration uses liquid nitrogen. This is entirely harmless to health, so foods can be immersed in it and frozen almost instantly and even fresh strawberries, raspberries and tomatoes retain the natural qualities of fresh fruit.

With the rapid development of plastic films the speaker predicted that frozen "boil-in-the-bag" foods will be among the convenience foods of the future. There is also the prospect of chefs making special dishes which can be frozen, sold in supermarkets and reheated for serving. In the field of synthetics, Mr. Hulse said that soybeans can be prepared to be indistinguishable from chicken or ham—an important consideration from the cost stand-



Mr. J. H. Hulse, Director of Research, Maple Leaf Mills Ltd., talks with interested club members following his address.