The Minister of Agriculture Mr Anders Dahlgren

THE ROLE OF OIL CROP CULTIVATION IN SWEDISH AGRICULTURE

Your Royal Highness, Mr Chairman, Ladies and Gentlemen

It is my task, as I understand it, in the presence of this important gathering of representatives from the world's rape seed growing countries to deliver a report on the Swedish oil crop cultivation, how it started and developed, its significance in today's agriculture and national economy and its prospects for the future.

Rape seed cultivation may in our country be divided in three periods; the first period took place during the 18th and 19th centuries. Rape seed cultivation was then concentrated mainly to the south of Sweden. The acreage was insignificant, and the oil was used for lighting and greasing purposes. This period ended around the year 1900.

The second period was contemporaneous with the first world war. The aim at that time was to produce raw material to margarine in order to remedy the shortage on cooking fat during the war blockade. The cultivation was completely unregulated, the prices on the harvested oil seed varied considerably, the possibilities to take care of and process the seed were technically undeveloped. The cultivation ceased completely in 1921, when the import of raw material for the margarine production started anew.

The third cultivation period started in 1939. This cultivation was generally assumed to be a short emergency phenomenon due to the war. It has, however, fortunately become permanent.

At the start in 1939 we tested many different oil crops as to their suitability for the climatic and growing conditions in our country. The most suitable ones turned out to be the cruciferes oil crops, winter and summer rape, winter and summer turnip rape and white mustard, which are jointly called the rape seed crops and which constitute the main topic of this conference. Some other oil crops were cultivated during the 1940s, i.a. oil flax, poppy and sunflower. There is again a current interest for a growing of the two last mentioned crops. The rape oil crops are, however, and will probably continue to be the most cultivated ones in our country even in the future.

The oil crop acreages increased gradually. During the war years this acreage amounted to not more than around $40.000\,\mathrm{ha}$. The cultivation continued after the war and increased and has on different occasions amounted to $150.000\,\mathrm{ha}$ or even more.

The cultivation during the first few years was mainly concentrated to southern Sweden. It has, however, gradually moved northwards and the oil crops are now successfully cultivated in the whole of Götaland and Svealand. The highest yielding oil crop, winter rape, dominates in Skåne whereas the earliest ripening oil crop, the summer turnip rape, dominates the northernmost cultivation area, Värmland and Dalarna. Summer rape and winter turnip rape are important oil crops, particularly in northern Götaland and southern Svealand.

One of the reasons for the renewed cultivation of oil crops in 1939 was the surplus in cereal production that characterized the thirties and the desire to reduce this surplus through the cultivation of other crops. The outbreak of the second world war resulted in a need for a domestic production of the raw products for margarine and became, thereby, a further important justification for a Swedish oil crop cultivation.

The reason for the oil crop cultivation to remain and even increase after the ending of the world war was primarily a gradual change in the structure of the Swedish agriculture. A large number of farmers had shifted from a dominating cattle feeding with extensive fodder crop production to a primary vegetable production. In this new type of farming there was and still is a need for oil crops as a break in the cereal rotation.

After the war the agriculture has become more and more mechanized and the rape oil crops fit perfectly to this highly mechanized agriculture with a combiner as the most important unit. The harvested rape seed requires artificial drying for transportation and storing. This can be done partly at the farms, partly at the delivery stations that the trade has organized.

The organization that was created for the realization of the cultivation is a third factor of importance for the maintenance of the Swedish rape cultivation. Most Swedish oil crop growers are joined in a growers' organization, The Swedish Oil Plant Growers' Association, abbreviated SOC, with local associations in the different counties. This organization takes care of the growers' economic interest and the annual price discussions, supports research and breeding of rape oil crops and makes agreements with the farmers as to the acreage of oil crops. Almost all oil crop growing in our country is on contract.

Another organization in the oil crop field is The Swedish Oilseed Trading Association, abbreviated SOI, which is made up of representatives for the growers, the industry and the consumers. This body establishes the prices to be paid to the farmers for the different oil crops within the limits set by the rules and directions laid down by the government and the parliament. Besides this, SOI is also taking care of the purchase of seed from the growers, the drying and cleaning of the seed and the selling of it to the Swedish oil industry or for export.

The Swedish margarine industry is partly privately owned, partly owned by the consumers cooperative. The two interested parties have a common organization, The Swedish Oil Extraction Company, abbreviated EXAB, that, according to a special agreement, takes care of and processes the oil seed for the Swedish market and is also responsible for the oil export.

This organization might seem a bit complicated. It has, however, operated in an excellent way, which, no doubt, is one of the reasons that the Swedish oil crop cultivation has been so successful.

In this connection I would also like to point out that in our country we have had and still have the privilege of having an excellent cooperation between all those who participate in the oil seed production, from the researchers and breeders to the growers and the industry, a cooperation, that, maybe, is unique in the world.

From the very beginning of the oil crop cultivation in 1939 an intense and extensive research program with oil crops has been performed in our country. The expenses of this have been paid partly by governmental grants, partly by means granted by the growers' organization and by the indusdry.

The Swedish Oil Plant Growers' Association (SOC) perform field trials, partly aiming at a testing of the suitability of different varieties for different parts of our country, partly to ascertain the best growing technique.

Both SOC and SOI provide grants to the activities at our breeding stations, The Swedish Seed Association in Svalöv, which is the official plant breeding institute and W. Weibull Company in Landskrona, which is a privately owned plant breeding enterprise with a comprehensive activity.

The aim of this breeding activity is partly to produce high yielding varieties well adapted to our different growing conditions, partly to improve the quality of the rape seed, the oil and the meal, in order to make these products still more useful for the consumers in our country as well as in those countries to which we export.

The two following lectures given by director general Arne Engström and Doctor Gösta Olsson will illustrate to what extent the Swedish research and breeding activities have been successful and which further problems are still to be solved.

I am happy to be able to certify on this occasion that the oil crop cultivation has had and still has a significant importance for our country. For the farmers it means access to valuable alternating crops and thereby a better rotation system than could else have been achieved. Thereby the oil crops have facilitated the shift to the more intense vegetable production of today and implied higher yields and better cultivation economy even for the cereal crops through the high pre-crop value of the oil crops.

The oil crop cultivation produces a valuable raw material for our food industry and is of profound importance from the point of view of emergency.

What do we then expect of the oil crop cultivation in the future?

First of all, naturally, that this cultivation shall continue and become permanent and competitive from a qualitative as well as a quantitative point of view. The parliament has recently passed a resolution concerning a new orientation of the agricultural policy. This implies that we shall maintain our present arable land area, which in turn will result in a surplus of vegetable products. It has been pointed out that this surplus production in the first hand shall consist of cereals. But it has also been stated that if the oil crop production turns out to be economically profitable, then the direction of the production should be adjusted accordingly. The size of the Swedish oil crop acreage has thus to be judged with regard to the export possibilities and the need for other types of production. I know that there are spokesmen for an increase in the acreage to both 250.000 ha and 300.000 ha.

A prerequisite of such an increase in the total acreage would be an increase in the oil crop cultivation in central Sweden. To achieve this we need earlier ripening and more hardy varieties than the present ones. I know that our eminent plant breeders are aiming at the creation of such varieties of the different oil crops.

I am also fully aware of the fact that an improved quality of the products may imply new fields of application for oil and meal and that our plant breeders and technicians are intensively engaged in such a development of the oil crop cultivation.

I understand that such problems will be discussed during this conference and I will therefore end my address by conveying my best wishes for a successful congress.