

High Yield and Good Quality of the Swedish Oil Crops in 1989

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For many years the production of rapeseed in Sweden has been approximately 320 000 tons, but in both 1987 and 1988 the production was reduced to about 250 000 tons. The decreased production depends in 1987 on a lower yield per hectare and in 1988 on a reduced acreage.

In 1989 the total cultivated acreage of oil crops in Sweden was about 164 000 ha which agrees very well with the cultivated area in the decade up to 1987. The proportion of the different crops has however changed with an increased cultivation of autumn sown crops and a decreased acreage of spring sown crops. This has been possible due to a greater acreage lying in fallow in 1988 but also to good weather conditions for sowing in the autumn. During the very mild winter of 1988/89 the over-wintering was also exceptionally good. During the spring and summer the weather was favourable for the development of the winter rape and this crop gave a mean yield of 3 650 kg/ha which is a record for Swedish conditions. In the best district the mean yield was about 4 000 kg/ha. For spring rape and spring turnip rape the yield has been more normal (Table 1). The total production of rapeseed in Sweden in 1989 was approximately 370 000 tons (with 9 % water content).

The seeds had a low water content at harvest. The oil content of the different crops has been relatively high (Table 1) and the chlorophyll content in the harvested rapeseed has been very low, not more than 10 ppm in winter rape and 20 ppm in spring rape.

The Swedish farmers have for many years been paid for the rape seed according to water content, purity, oil content and chlorophyll content. This year they are also paid according to protein content in dry matter of the defatted meal. The mean values for the protein content of the different crops are given in Table 1. There are great differences between the crops, with the highest value, 45.4 %, in summer rape and the lowest value, 37.8 %, in winter rape. In reality, the differences depend however not on the crops but on the cultivars grown. The spring

(*) Both following texts from Sweden and W.-Germany were received at the end of the year, but not presented in Dijon.

rape cultivation is strongly concentrated on the cultivar Puma, bred by Lena Bengtsson at Svalöf. She has carried out an important breeding programme in increasing protein content and the results look very promising. It is also of interest to note, that Puma has both the highest oil content and the highest protein content in the defatted meal.

All cultivars of summer rape have a low glucosinolate content. In 1989 also about 90 % of the spring turnip rape was sown with low glucosinolate cultivars and with Svalöf Kova as the dominating cultivar. Of winter rape and winter turnip rape only single low cultivars were used. The most cultivated winter rape cultivars were Weibulls Rustan and Svalöfs Juno and Janus.

The weather conditions have resulted in very low attacks of Sclerotinia. Also attacks of other diseases have been lower than other years.

This autumn the sown acreage of winter rape and winter turnip rape has increased to 83 500 ha and 9 500 ha respectively.

Table 1. Oil crop cultivation in Sweden in 1988 and 1989.

Cultivated crops	Harvested acreage in hectares		Seed yield kg/ha at a water content of 18 %		Oil content in % of dry matter		Protein content in % of dry matter in defatted meal
	1988	1989	1988	1989	1988	1989	1989
Winter rape	36 110	69 220	2 910	3 650	44.4	46.0	37.6
Winter turnip rape	4 160	8 080	2 040	2 220	43.1	44.7	39.4
Summer rape	57 200	50 030	1 850	1 810	45.3	46.8	45.4
Summer turnip rape	49.330	36.600	1 350	1 620	42.1	43.8	40.6
Total	146 800	163 930					