

Oilseed Crops in Finland in 1990

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In Finland, oilseed crops are grown on about three percent of the arable land (2,3 million hectares). Spring turnip rape, grown on 63,600 hectares in 1990, is main oil crop. Spring rape covers an area of about 1,700 hectares. The total yield of oilseed crops was 117,000 tons. The turnip rape and rape yields averaged in 1990 1,780 kg/ha and 2,090 kg/ha, respectively, which were records for the Finnish conditions. The sowing time was exceptionally early, beginning of May. The growing season was favourable, and high yields were recorded for all field crops.

The growing of oilseed crops is based on contracts between farmers and oil factories, the farmers being paid for the rapeseed according to water and chlorophyll content and purity.

The turnip rape and rape varieties grown in Finland are of Finnish and Swedish origin. For turnip rape there is a tendency towards a change to double low varieties. In 1990, about 90 percent of the turnip rape area was sown with double low varieties. As from 1992, all seed will be tested by HPLC or by XRF method for glucosinolate content. The acceptable upper limit is 20 $\mu\text{mol/g}$. All varieties of spring rape have a low glucosinolate content.

The breeding objectives for oilseed rape have been high yielding capacity and seed quality, with improved yield guarantee. Quality breeding aims at increasing the oil and protein contents and at modifying the fatty acid composition. The present study focuses on altering the levels of palmitic and linolenic acids. Several breeding programmes to develop varieties with high levels of either oleic or linoleic acid are in progress.

Rape oil is chiefly used for edible purposes by the food processing industry or as food oil. Now there are plans to increase the non-food utilization of rape oil as lubricants and domestic fuel in vehicles.

Table 1. Oilseed varieties in Finland in 1982-89. Official trials of the Agricultural Research Centre.

	Yield kg/ha			Growing days	Oil content, %	Protein content, %
	I	II	III			
Kova (Sv)	1980=	2120=	1860=			
	100	100	100	106	44.4	21.7
Valtti (Hja)	101	90	88	105	45.9	21.4
Emma (WW)	101	99	97	104	44.0	21.9
Nopsa (Jo)	96	95	90	103	44.4	21.8
Ante (Sv)	90	92	84	102	42.9	22.4

I = southern and south-western Finland (coastal areas)
 II = " " (inland)
 III = central Finland

