

3 - Swedish Report

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The original purpose of this paper was to report on the situation in Scandinavia. However, Denmark is a member of the EC, the cultivation of rapeseed in Norway is negligible and Finland is not considered part of Scandinavia why the paper deals with the Swedish situation.

Sweden is now facing, as many other countries, a trend towards a considerable reduction of the subsidies in the agriculture. The semi-governmental system for the trade of rapeseed between the farmers and the body purchasing the seeds has changed. Therefore it is a difficult task to describe the Swedish situation. However, the value-added payment system will continue at least one more year and most probably for a longer period.

Sweden has a very long tradition regarding quality analysis as a part of a value-added payment system. The first quality parameters included in this system was oil and moisture content as well as the content of impurities. Then the content of chlorophyll was added to the parameters. When the single low varieties appeared on the market erucic acid became an important parameter in the system followed by the content of glucosinolate when the double-low varieties were introduced. The last parameter introduced was the protein content.

Today, that is 1991, the quality analysis of farmers seed lots includes moisture, oil, chlorophyll and protein content as well as the content of impurities. In addition to this the content of glucosinolates is determined on all samples of the winter form (over wintering) of Brassica napus.

The methods used are as follows:

Moisture: Drying cabinet method

Oil and chlorophyll: The Swedish tube method

Impurities: Sifting

Protein: Nitrogen by elementary analyser

Glucosinolates: Sulphur, carbon and nitrogen by elementary analyser and calibrated with glucose liberated after myrosinase hydrolysis.

For each parameter there is a scale for the payment system in that way that e.g. a high oil content will increase the value of the seed lot while a high chlorophyll content will decrease it. For glucosinolates there is a reduction of the value above 40 μ moles per gram defatted dry matter, but no increase below the limit.

One other analytical issue is the certification of double-low varieties. In Sweden the so called TMS-method (gas chromatography) is still used for this purpose. EC has now an official method based on HPLC of desulphoglucosinolates. As a small country still outside the EC Sweden has to follow the rest of Europe. That means that Sweden most probably very soon has to change its rules and to use HPLC for certification of double-varieties of rapeseed.