

## Breeding of Rapeseed in Finland

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Finland really is a very northern country compared with other countries growing rapeseed. Therefore we need early summer-type varieties that are especially adapted to our conditions.

The area under rapeseed in Finland was about 10,000 ha in 1970. Today it is 65,000 ha. Cultivation is concentrated in the southernmost part of our country. Summer turnip rape, *B. campestris*, covers 95 per cent of the acreage. The average yield of turnip rape is 1,600 kg/ha, and that of summer rape, 1,800 kg/ha.



The current varieties are the Swedish single-low cultivars Emma and Tyko. The double-low varieties Ante, Sigga and Vankka are grown in smaller areas. The dominating summer rape variety is the Swedish variety Topas.

There are two institutes which have rapeseed breeding in their programme. They are the Department of Plant Breeding, Agricultural Research Centre of Finland in Jokioinen and the Hankkija Plant Breeding Institute. The latter is owned by a farmers' co-operative organization.

The main breeding targets for summer turnip rape at the Hankkija Plant Breeding Institute are :

1. Higher yield by the following means :
  - a) a broader genetic base to guarantee good adaptation
  - b) a higher harvest index, using dwarf mutants
  - c) bigger seed size, tsw. up to 3.5 g
  - d) better stem stiffness because autumns are usually rainy.
2. The quality has to reach the "Canola" level. The material is now of double-low level, yellow seeded.
3. Special material for developing extremely early varieties for the conditions in Central Finland with short summer, but long days.
4. Special material for a higher linoleic acid content without lowering the yield level.

The main breeding target for summer rape is to develop extremely early varieties with an acceptable yield level. They must be double-low in quality.