

SUGAR BEET VARIETY APPROVAL IN THE E.C.
WITH PARTICULAR REFERENCE TO UK AND FRANCE

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Variety approval in the E.C. is governed by the Seeds Directives which are laid down and controlled by Brussels through the Council of Ministers. Each member state, on joining the E.C., agrees to adopt the Directives and to build its own internal seeds legislation on their foundations.

Essentially, the E.C. Seeds Directives say that seed can only be sold in a member state if: 1) the variety is on the National List of the country or member state concerned (or on the E.C. Common Catalog) and 2) that the seed has been certified according to the Directives.

It is the first of these two requirements that I propose to discuss. Seed certification is a subject in itself, involving field inspections for certification in the field, and subsequently, the sampling and analysis of the finished seed lot in the bag.

For a variety to be added to the National List of a member state, it must satisfy the authority of that member state that it is distinct, uniform and stable (DUS), and has a value for cultivation and use (VCU). Potential new varieties must pass both these tests before being National Listed, although it is possible to have a variety listed "for export only" in those countries such as France and Italy where most of the sugar beet seed in Western Europe is produced. In such cases it is thus possible to have a variety grown and certified without any intention of marketing it in the country of production - but it must be on the National List of the country to whom it will be exported (or on the E.C. Common Catalog).

Both DUS and VCU tests in each member state are conducted by the appropriate authority using the Brussels guidelines. Tests must be carried out for a minimum of two consecutive years.

In the UK, the National Institute of Agricultural Botany, undertakes DUS tests over two years and VCU over three years. In France, the organization known as CTPS conducts both tests in two years.

Both of these organizations have had the work sub-contracted to them by the Ministry of Agriculture of each country.

Tests for DUS in sugar beet are difficult given the lack of morphological characters which provide the essential data in other crops. A basic classification is made on monogermity and ploidy, but it is necessary to resort to the performance and quality data derived from the performance trials to establish distinctness. The characters used are sugar content, total impurities, sodium, potassium, amino-nitrogen, root yields, top size, average root weight and incidence of bolting. Although a gross lack of uniformity would be unacceptable, some variability is inevitable as entries are generally synthetic varieties.

Stability is difficult to assess in a bi-annual crop in such a short time, other than to note the occurrence of major changes. In any case, some changes are likely to occur in the maintenance of a sugar beet variety, for which allowance must be made.

For VCU testing, each member state has its own trial procedure based on the Brussels Directive. In the UK, new varieties are tested in preliminary trials at 7 centres in the first year, and in main trials at 17 centres in the second and third years.

In France, varieties are tested in four locations in each of two years.

After a variety has been National Listed, it can then be legally sold in that member state. Two years later it will be placed on the E.C. Common Catalog when it can legally be sold throughout the E.C. It is possible for any member state to object, but that member state must produce internal trial data showing evidence that the variety in question would be harmful to that specific country.

The criteria for acceptance of varieties for VCU differ from one member state to another, but all are based on the Brussels Directive.

The official tests are expensive and costs are born by the breeders. Again, they vary from state to state.

Although a variety can legally be sold once it has been National Listed, in practice this is only the beginning. In both the UK and France, for example, a recommended list exists. These recommended lists are controlled in the UK by the NIAB, and in France by ITB. The NIAB chooses candidates for its recommended list from the same data as that used for National Listing, but in France, the ITB carries out two years of further tests at numerous centers before choosing candidates for its recommended list.

The criteria for adding a variety to the recommended list of UK or France are more severe than those for National Listing. As an example of this, it is not unusual for up to 20 varieties to be added to the French National List in one year, but it is usual that only 3 or 4 varieties are added to the ITB recommended list.

The hard commercial facts are that, in France, 95% of all sugar beet seed sold is of varieties on the ITB recommended list and in the UK 100% of all seed sold is of varieties on the NIAB recommended list.

References: Kimber, D. S. (1980) Journal of the National Institute of Agricultural Botany. 15,269-275.

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