



# All you need to know to market seeds: a guide for Ireland

## Step 2: Certifying a variety

### What is Seed Certification?

Seed certification is a quality assurance system whereby seed intended for marketing is subject to official control and inspection. At its simplest, the system certifies that a sack, packet or box of seed contains what it says on the label and that the seed was produced, inspected and graded, in accordance with the requirements of a Certification Scheme.

The immediate objective of seed certification is to supply high quality seed to farmers and other growers, which is true to identity, high in purity and germination capacity and free from certain pests and diseases. Seed quality is most important in crop production, as high quality seed is essential for good crop yields and good returns, and minimises the likelihood of crop failure.

The Seed Certification system is an official system supported by EU and National legislation and International protocols to ensure that seed is produced, multiplied and marketed according to predetermined standards and systems while maintaining the genetic integrity of the product. It is part of a wider system including plant breeding and plant breeder's rights, plant genetic resources, biodiversity and international trade.

### Legal Basis

As a member of the EU, Ireland is obliged to implement the EU Seeds Directives and Regulations. These provide for common standards for seed certification across the EU Member States, and, in general, the free movement of certified seed. Each EU directive must be transposed into national law. Under EU and Irish law, it is illegal to market non-certified seed. In addition, EU standards for seed production are aligned to similar OECD standards, which facilitate worldwide trade in seed.

### Seed Certification Scheme

The Department of Agriculture, Fisheries and Food (DAFF) is the certifying authority for Seed Certification in Ireland. The scheme covers seed production and marketing for the main agricultural crops. Crop species include fodder plants, cereals, beet, potatoes, vegetables and oil and fibre plants. Seed production rules and guidelines are set down in detailed operational manuals. The scheme is partly funded through the collection of fees charged for services provided by the DAFF to seed assemblers and growers.

In Ireland, a number of seed agents are responsible for the multiplication of seed of the various varieties. These agents select the varieties to be multiplied in Ireland. Certified seed is imported for those crop species for which Irish climatic conditions are unsuited to seed production.

### **Entry of Seed for Certification**

All seed intended for marketing must be of a variety registered on the [National Catalogue](#) or the [EU Common Catalogue of Agricultural Plant Varieties](#). This means that the variety has passed certain identity and purity tests relating to Distinctness, Uniformity & Stability (DUS). Varieties must have an approved name, and be of acceptable agronomic merit as established through evaluation for 'Value for Cultivation and Use' (VCU) criteria.

In the case of combinable crops, seed crops must be grown under a written contract which is drawn up between the seed processor and the grower. A copy of the contract, signed by both parties, is then forwarded to the DAFF who act as the certifying agency. A small quantity of Breeder's Seed enters the scheme, and this stock is 'bulked up' by a number of multiplications over a few years until commercial quantities of the seed are produced. Seed multiplication categories proceed from 'Pre-basic' (White Label with purple stripe) to 'Basic' (White Label), to Category I ('C-1' - Blue Label) and in some cases Category II ('C-2' - Red Label).

**Categories of seeds:** pre-basic (PB) | basic (B) | certified seed (CS) | certified seed of the first generation (C<sub>1</sub>) | certified seed of the second generation (C<sub>2</sub>) | certified seed of the third generation (C<sub>3</sub>) | commercial seed | standard seed (you can only market vegetable seeds in this category).

- **What stage is your seed at?**
  - **Basic seed:** means seed
    - which has been produced under the responsibility of the breeder according to accepted practices for the maintenance of the variety;
    - which is intended for the production of seed of the category certified seed;
    - which has been found by official examination to satisfy the above mentioned conditions;
  - **Certified seed:** means seed
    - which is produced directly from basic seed or, if the breeder so requests, from seed of a generation prior to basic seed which can satisfy and has been found by official examination to satisfy the conditions required;
    - which is intended mainly for the production of vegetables;
    - which has been found by official examination to satisfy the aforementioned conditions;
    - which is subject to official post-control by check inspection to verify its varietal identity and varietal purity;
  - **Standard seed:** means seed
    - which has sufficient varietal identity and varietal purity;
    - which is intended mainly for the production of vegetables;

- which is subject to official post-control by check inspection to verify its varietal identity and varietal purity;

### **Crop Inspection**

Each seed crop is inspected by DAFF inspectors to confirm the identity of the variety, to ensure that it meets the minimum level of varietal purity and that it meets certain plant health and pest infection standards. There are mandatory requirements with regard to the minimum isolation distance of seed crops from other related crops, and the crop rotation history of the land on which seed is grown.

### **Segregation, Sealing and Labeling**

Each variety must be kept separate from other varieties at all stages in seed processing, and the identity and traceability of the seed preserved. Seeds and seed potatoes are again examined during preparation for final marketing. In the case of combinable crops, each seed lot is sampled and assessed for purity. Seed potatoes are examined for the presence of visible diseases and defects and random lots are sampled. Seed lots, once designated, must be preserved to facilitate subsequent traceability to allow post-planting monitoring.

Each container of seed is officially sealed to ensure that any tampering with the seed is evident. Containers are also officially labeled to confirm the standard and identity of the seed and provide traceability. Growers purchasing certified seed are advised to retain the labels after planting in case of queries regarding the seed. In the case of seed potatoes, the official labels double as EU Plant Passports.

### **Visual and Laboratory Analysis**

All certified seed is subject to official visual examination by DAFF inspectors to ensure compliance with the legal standards with regard to varietal purity, and plant health standards. In addition, seed of combinable crops (e.g. cereals, beans etc.) is subject to laboratory analysis at the DAFF Seed Testing Laboratory in Backweston. The tests carried out include percentage germination capacity, percentage purity and certain pathology (disease) tests.

All land to be used for seed potatoes must be soil sampled and tested for Potato Cyst Nematodes. Leaf samples are taken during inspection of growing crops to test for virus diseases. Tuber samples are tested for quarantine diseases - ring rot, brown rot and certain nematodes.

### **Post Control Tests**

It is a legal requirement that samples of certified seedlots are grown out in small plots to verify that the seedlot meets the necessary standards. These plots are monitored a number of times during the growing season, and may be viewed by seed assemblers and growers should a problem arise with a seedlot.

Value for Cultivation and Use (VCU) [tests](#) for the main agricultural species cultivated in Ireland are carried out by the DAFF Crop Variety Evaluation Division and are to determine the Value for Cultivation and Use (VCU) of new varieties of farm crops, in accordance with EU and National Legislation, and to recommend to growers those varieties most suitable for growing under Irish farming conditions.

For more information about conditions for certification; crop inspection; harvesting procedures; processing and marketing of seeds and seed standards from EU directives please read the [Guide to Seed Certification, Combinable Crops](#).

For general enquiries [Contact](#) DAFM.