
Seeds Control, Ltd

By Jens Krag

Seeds Control, Ltd is an independent company that conducts analyses of field seeds (grass, clover, oil seeds, etc) for the seeds trade.

Background information about Danish field seeds production

Denmark is one of the leading countries in the world with regard to field seeds production. This is due to favorable climatic conditions for seed growing, and to the fact that Danish seeds are known internationally for their high quality (small content of weeds, high capability of germination, authenticity of type, etc.). Another reason is that the certificates of analysis that are almost always issued in connection with the export of seeds, which document in detail the qualities of a given lot, enjoy international recognition for being very reliable, indeed. Seeds Control, Ltd issues these certificates, on the basis of its analyses. Since the beginning of the 20th century the company has been leading in developing systems of quality control to the Danish seeds trade. Because of this control activity, Seeds Control, Ltd has contributed to making Danish field seeds an internationally leading brand, by taking part in developing and maintaining the quality image of the Danish seeds trade.

The emergence of Seeds Control, Ltd

As mentioned above, Seeds Control, Ltd was established early in the century. The original founder was an internationally recognized expert in seeds and a professor at the Agricultural University. He realized the potential of Danish seeds growing, provided that the then multitude of seeds producers could agree on securing a high level of quality. He saw that as the justification of the existence of Seeds Control, Ltd. By establishing Seeds Control, Ltd as an independent authority on analysis and control, he could contribute to making Danish seeds a branded product in a trade of many seeds producers. The strategy met with success, both for Danish seeds as a trade and for Seeds Control, Ltd.

The development of business structure and the number of seeds producers

Apart from Seeds Control, Ltd, the seeds trade consists of the following stakeholders.

- The seeds growers, i.e. the farmers that sow their fields with field seeds in order to harvest seeds that they deliver to the seed-trading companies.
- The seed-trading companies that contract with farmers on the production of field seeds, prepare the harvested seeds (by drying and cleaning), and resell it (mainly to foreign markets).

During the 1970s and 1990s a notable concentration has taken place among the Danish seed-trading companies. Out of a former number of more than 20 firms now only 5 are left. One of them is in charge of about 75 % of the Danish production of field seeds.

The staff of Seeds Control, Ltd

In terms of full-time employees, there are about 75 employees in Seeds Control, Ltd. The number of employees varies somewhat during the year (from about 60 to 90), the activities being seasonal.

Roughly speaking, the staff can be divided into the following groups:

- The employees that actually perform analyses. They have no formal education requirement, but Seeds Control, Ltd provides a comprehensive training and upgrading of the analysts (a fully trained analyst must be able to distinguish between 40 to 50 types of different field seeds, for instance, and at least an equal number of different seeds of weeds). It takes at least a year from the employment of a staff member without previous experience in analyzing seeds, before he is fully trained (this group comprises about 40 full-time employees).
- Experts, graduated from the Agricultural University, statisticians and computer personnel, i.e. employees with a high or relatively high education, who function as department leaders, experts in connection with the development of new test methods, etc. (about 15 full-time employees in this group).
- Samplers that take out samples of the different lots of seeds at the trading companies, seal the lots with the lead seal of Seeds Control, Ltd, and send in the samples to Seeds Control, Ltd. (This means that it is the employees from Seeds Control, Ltd, who take out the samples on the spot, i.e. at the seed-trading companies, and send them in for analysis. In this way it is secured that the analysis of a lot, the certificate that goes with it, and the seeds lot "fit together"). These employees are often skilled workers, e.g. dairymen who have received a supplementary training in the taking out of samples, by Seeds Control, Ltd, albeit less comprehensive than the training of analysts. The samplers are scattered all over the country and work from home. (About 10 full-time employees).

Administrative staff with a clerical education or in specialist functions (e.g. as financial manager) graduated in, for example, economy, and management (about 10 full-time employees).

The average time of employment is relatively high, i.e. 12 years.

The sequence of analysis

Consequently, with regard to the seeds trade, the work of Seeds Control, Ltd involves

- The taking out of samples when the harvested seeds have been cleaned at the seed-trading companies, the sealing of the lot from which the sample has been taken, the sending in of the sample for analysis at Seeds Control, Ltd together with the necessary data for identification of the lot, etc.
- Analyzing the samples as to purity (content of weeds and foreign species), content of water, capability to germinate, etc, and ensuring that present standards of seeds quality are met with (among them the EU regulations in force.)
- The making out of a certificate that documents the results of the analysis, which can afterwards be enclosed with the sealed lot of seeds as a documentation of its quality and actual characteristics.

The analysis work is mostly manual work. E.g., an analysis of purity typically implies that an analyst using a strong magnifying glass and pincers sorts out what amounts to from 2.500 to 5.000 separate seeds. As mentioned above it takes a lot of training and expert knowledge to do that correctly, because you need to know how to recognize many different species of seeds.

Besides, the work is organized in the following way: First a purity analysis is carried out. When that is done, a small number of the relevant seeds (4-500) are made to germinate in a special germination box. It takes 10 to 14 days. Twice, the seeds that have not germinated are counted.

While the germination analysis takes place, the rest of the tests are conducted, as is the analysis for water content, etc. The analyses are done in sequence, one after another.

When all analyses are carried out, the results are communicated to the certification department that decides, whether the seeds live up to present standards and afterwards issues the analysis certificate that is sent to the trading company.

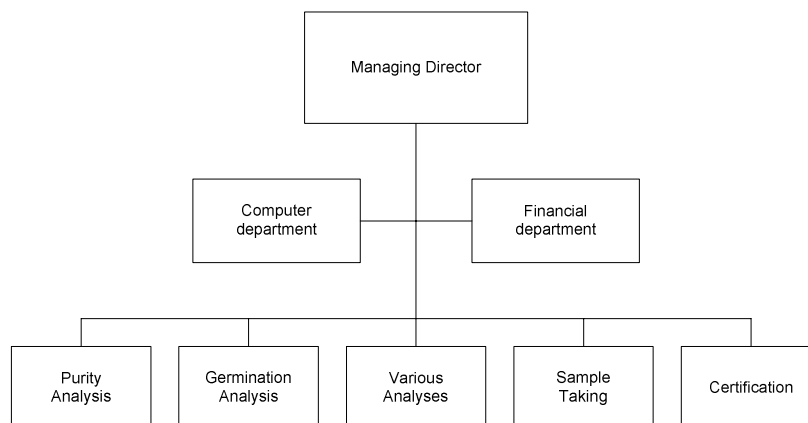
A very high level of safety and precision in registration and analysis is considered important.

Objectives, etc.

In accordance with its historic traditions, Seeds Control, Ltd maintains a very high professional standard. In fact, the company functions as an international standard of reference in the sense that foreign companies that perform the same kind of analyses, consider Seeds Control, Ltd to be the standard of reliability of analysis to be met with. In accordance with this, Seeds Control, Ltd, also performs some research and development in connection with field seeds. The resulting costs are added to the prices.

The management has seen the company as an indispensable element of the seeds business and has continued to develop precisely this field without trying to diversify to other activities. Till now the company has been considered to be without any real competitor and thus having a kind of monopoly.

Figure 1. Organizational chart



For longer periods, Danish seed production has experienced a steady growth. Due to the dependence upon global conditions of supply and demand some fluctuation around the long-term growth trend has been noticed. This, of course, influences the demand for the services of Seeds Control, Ltd, but still in such a way that these fluctuations can be foreseen in good time.

The priorities have been reliability and correctness in the analyses rather than making them in the cheapest possible way.

Rules and regulations

Standard operation procedures and job descriptions are carefully made. They are regularly updated, and there is a rigorous supervision of these procedures being observed and carried out. The company is ISO 9000 certified and accordingly has a detailed description of procedures for the securing of quality.

Technological development

As mentioned above, the carrying out of analyses till now has been a manual expert job. Computer technology comprising the recognition of pictures, among other things, now opens the possibility of automating many analyses in the future (for example tests are being carried out at the moment to make purity analyses by transporting the seeds through a computerized scanner that can recognize the genuine seeds and distinguish them from weeds and foreign species and sort out the latter).

Developments in the environment

The remaining five seeds trading firms have recently criticized Seeds Control, Ltd, in strong terms, with being much too expensive, too slow, and inflexible.

One firm, the largest, has begun to make its own analyses and maintains that their costs are less than half of what it costs to have similar analyses made by Seeds Control, Ltd. Furthermore the firm can do it faster, and it is easier to let the sequence of analyses be guided by their relative importance. (For reasons of sale there may be a need to carry out the analysis of a lot quickly to find out if it meets the specific requirements that a certain customer might make).

The seeds trading firms furthermore have called the attention of Seeds Control, Ltd, to the fact that they no longer have the same need for an independent control authority as before. The five remaining firms are, even according to international standards, important agents in the market. Their customers would be willing enough to accept the firms' own analyses as documentation. In the words of the firms themselves: We are, of course, not interested in destroying our customer relations by supplying poor quality goods. In the past, when there were many seeds trading companies, we might have hidden in the multitude if our goods were poor quality. This will not do now, and our customers are aware of the fact.

Questions for Consideration

1. How will you describe the organizational structure?
2. Which changes do you see in the future?
3. How will these changes affect the organizational structure?