

Help Desk for DUS testing

Naktuinbouw offers on-line help for problems during DUS procedures.

Many colleagues and institutions working in the field of DUS tests follow extensive training before they start the actual work. UPOV offers the an on-line distant learning course on the basic principles of Plant breeders' Rights, in the Netherlands, Japan and Korea possibilities exist to follow more practical DUS courses and often training can be followed at an existing DUS station.

However, there comes the day that the actual work starts with applications in one's own institute or country. It is at that moment that one often encounters practical problems that need immediate solutions. The Naktuinbouw Help Desk for DUS offers help with such problems. Behind the Help Desk the Naktuinbouw team of experienced DUS test staff is ready to answer to your questions on administrative and practical matters. This help is offered free of charge and can be seen as a Naktuinbouw contribution to the world wide UPOV community.

So do not hesitate; help is only a mouse click away.

Breeding new plant varieties

The development of new plant varieties through plant breeding is a long term investment of 10 – 15 years. Intellectual property rights on the resulting plant variety through Plant Breeders' Rights provide the breeder of a new plant variety the exclusive rights to exploit it and to prevent others from doing so illegally.

All member states of the World Trade Organisation adhere to the agreement of Trade Related Aspects of Intellectual Property Rights (TRIPs), which contains the minimum standards for intellectual property rights (IPR), including those for plant varieties.

Many countries are therefore developing and implementing a legal framework for the protection of plant varieties in an intellectual property rights system. But, next to developing legislation, the implementation of a Plant Breeders' Rights system has far reaching consequences of an institutional, technical, financial and commercial nature for which experience has to be built up.

DUS testing

A variety, to be granted Plant Breeders' Rights, should meet three technical conditions:

- the new variety should be distinct from all existing varieties of common knowledge (D)
- the variety should be uniform (U)
- the variety should be stable during reproduction (S)

and two non – technical conditions:

- the variety should be novel
- the variety should have a suitable variety denomination.

The technical DUS conditions are determined in field and greenhouse trials according to technical DUS protocols and guidelines, while the non – technical conditions are administrative procedures.

Carrying out DUS testing

To carry out effective and efficient DUS-tests, good, reliable facilities have to be available in terms of well managed and uniform trial fields, greenhouses and laboratory facilities. The most essential aspect however is, the presence of trained staff.

The most important aspect for the trial design of the DUS tests is the distinctiveness requirement. Based on the information provided by the applicant, the differences with the most similar, existing varieties have to be established. For this reason, the applicant variety has to be planted next to these similar ones. In order to choose the right varieties for comparison, a thorough knowledge of the existing varieties is essential that can be obtained via

- Experienced staff possessing broad familiarity with the varieties available in their own country as well as other countries with similar agro-ecological conditions
- Variety collections in the form of seed or vegetative plant material *in situ*
- Databases with the descriptions of all existing varieties (protected and non-protected ones)
- Collections of photographs, ideally digitalized with a search application (mainly developed for ornamentals)
- Databases of genetic fingerprints

Role of Naktuinbouw

Naktuinbouw is responsible for DUS – testing of all varieties of agricultural, ornamental and vegetable crops (2500 new varieties annually) for Plant Breeder's Rights in the Netherlands, on behalf of the Dutch Board for Plant varieties and the European Community Plant Variety Office and for entry of agricultural and vegetable varieties on the Dutch National List. The Netherlands with its long experience in breeding agricultural and horticultural crops and expertise on Plant Breeders' Rights and variety registration, was one of the founding members of the International Union for the Protection of New Varieties of Plants (UPOV). Naktuinbouw therefore is an attractive partner to assist with the introduction and practical implementation of Plant Breeders' Rights.

Naktuinbouw is involved in projects to assist countries with an emerging PVP system in developing the DUS testing system and matters related to the granting of Plant Breeders' Rights.

Help desk

It is evident that thorough knowledge and expertise should be available to carry out reliable DUS testing. It is understandable that countries with an emerging PVP system are lacking this expertise and have to build this up. Naktuinbouw, involved in DUS testing for over 40 years, is willing to share its expertise and offers its knowledge through a Help desk function.

DUS testers can develop DUS expertise by following course and trainings but "The real proof of the pudding is in its eating". When actually designing, carrying out and reporting a DUS test the tester will be faced with problems and queries.

How to look for reference varieties, how to build up a database, how to measure a specific characters, how to summarize particular data etc etc. All these questions can be asked at the Naktuinbouw Help Desk.

Demonstrations can be given and shown through internet image connection.

It is also possible that the questioner comes to Naktuinbouw to study the problem in detail or that Naktuinbouw experts come to the country of the questioner. In these latter cases financial arrangements have to be made and agreed upon, whereby a financial contribution from the asking country is asked.

In this way Naktuinbouw hopes to increase the general knowledge on DUS testing in the interest of the PVP granting organisation and the breeder.

For any questions related to DUS testing, please contact

DUShelpdesk@naktuinbouw.nl

Roelofarendsveen, 15 April 2009