Origin of identity material related to problems in DUS-testing

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Cuttings

Plant material dies or does not develop after submission

- Not sufficiently rooted before sending
- Bad handling during transport
- Low temperatures (e.g. in luggage compartments of airplanes)

Consequences:

- Plant material not uniform
- Not enough plant material to carry out the examination
- Problems of development of the plants (extra year)

The authorities will be informed accodingly

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Cuttings

Submission of unrooted plants when rooted cuttings are requested

Consequences:

- Unequal growing
- Not all plants will survive
- Extra care necessary (extra cost)

The authorities will be informed after discovering the problem

- New plant material required
- Rejection
- If possible: try

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In Vitro propagation

Use of too much or wrong hormone

Consequences

- Misshapen flowers
- Chimaera like structures
- Uniformity problems

If the uniformity is not OK the authorities will be informed

- rejection

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Growth retardants

Plants treated with growth regulators or retardants before submission

Consequences

- Thicker flower stalk
- Dwarf growth
- Distance between flowers smaller
- More inflorescences than normal
- Miscoloration

No good comparison and description possible

If the problem is not recognized the variety can be granted

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Flower induction

Some species needs a treatment to induce (uniform) flowering

Example: Bromelia must be treated with Acetylene or Ethylene gas for flower induction

Submision requirements: 24 young plants, able to show all their characteristics during the first year of examination. age: approximately **1 month before flower induction treatment**

Due to careless transportation some plants can have an earlier induction

Due to irregular flowering difficult to observe uniformity

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Flower induction

If the plants are developing further in a normal way and there are not too much early flowering the examiner can decide if he will continue the test.

But if he examiner is not sure than he can inform the authorities and will propose a second year.

Bulbs

After submission the bulbs are checked on visible disease and imperfection (visual damage, bulb size).

- For Lily there is also a check on viruses.

If the imperfection of the bulb is not visible?

As soon as the examiner find this problem he will inform the authorities accordingly.

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Size of the Bulbs

If the size of the bulbs is not correct

Tulip (parrot type)

- If the bulbs are too small they show less “Parrot” like structure

Other bulbous crops:

- If the bulbs are too small the flowers or plants are smaller

A second year of testing will be proposed
Sometimes it is not clear what the size of the bulb should be.

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Origin

Plant material from different sources

Not always a problem

In Tulip, two different applicatons from different applicants and examined in the same trial

Observation: on some characteristics clearly distinguishable

After three years: morfologically the same

Final conclusion: Both applications were the same variety

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Origin

After comments from one of the applicants and an extra check for distinctness the authoritie were informed accordingly.

Problem solved because of the withdrawn of the latest application with the consent of both breeders.

Rootstock in Glasshouse Rose

Some varieties show problems when they are not growing on a rootstock where the use of rootstock is not allowed

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Disease and Pest

- If visible at submission ⇒ refuse sample
- If visible during test ⇒ stop examination
- If **not** visible during test ⇒ possible wrong decision

Example: LSV Virus in Lily

- No symptoms but the plants remain smaller

Quality in Horticulture