

Plant material submitted for technical examinations

Study of 2 cases

- 1) Information provided in the application documents:
- TQ 4:
 - Method of propagation: in vitro propagation and division
- TQ 9:
 - The material to be supplied for the technical examination will come from tissue culture.
 - The applicant pointed out that plants coming from tissue culture may develop more side shoots and he pointed to the inverse correlation of number of shoots and width of the leaves.

- 2) Observation during the technical examination:
- 25 plants grown in the trail
- 20 plants had side branches.
- 5 plants has only a single stem.



- 3) Comments of the applicant on the problem observed (extract):
- appearance of side shoots (and their number) is due to the way cuttings are taken during micropropagation: there is a small variation in the amount of basal callus that is sections off with each plantlet when they are transferred on to a rooting medium. The callus base generates more shoots at an earlier stage.
- Single shoots are due to side having died during the establishment period

- 4) Decision on the application and its motivation
- Assumption: uniformity problems observed are essentially due to the method of propagation
- Material supplied not suitable for the growing trial;
 DUS could thus not been assessed
- Applicant's responsibility to supply plant material suitable for the technical examination
- Application has been refused on grounds of noncompliance with a request made by the Office.
- Decision of the Office has been appealed; a decision on the appeal is pending.



5. Discussion:

Differences in branching: (Photos taken by the applicant)

Photo 1: plants as submitted for the DUS test

Photo 2 + 3: natural branching

Photos removed

5) Discussion:

- Tissue culture plants: if no uniformity problems were observed during the growing trial the variety would have been described as branching
- Conventionally propagated plants: if plants in trial had been coming from naturally occurring side shoots the variety would have been described as non-branching

- 1) Information provided in the application documents:
- TQ 4:
 - Method of propagation: cuttings
- TQ 9:
 - The material to be supplied for the technical examination: was not part of the TQ at that time



- 2) Objection to the grant of Community plant variety rights:
- Claim: variety 'Natasja King' is not clearly distinct from 'Marole'. The objector
- Reason: differences between 'Natasja King' and 'Marole' as seen during the technical examination were due to the fact that 'Natasja King' were tissue culture plants or cuttings taken from tissue culture plants



- 3) The technical examination (I):
- 'Natasja King' and 'Marole' grown side by side right from the beginning of the growing trial
- 'Natasja King' was supplied by the applicant; plants of 'Marole' were taken from a some 11 years old plant kept in the living reference collection of the examination office.
- After the end of the first growing cycle 'Natasja King' and 'Marole' were about to be declared distinct; however, aforementioned objection was lodged

- 3) The technical examination (II):
- Following the objection, the technical examination has been repeated with fresh material:
 - cuttings were taken by the examination office from those plants that were used in the first growing cycle
- Differences in 5 characteristics amongst which were growth habit, length of internodes could be found



- 4) Decision on the application/objection and its motivation
- Based upon the clear differences found even after the second growing cycle Community plant variety rights were granted
- The decision of the office was appealed (essentially on the same grounds as the objection): the decision of the Office was upheld

5) Discussion

- During the appeal procedure it became evident that tissue culture was applied at some stage to (mother plants)
- Objector's claim that tissue culture may have an impact on the phenotype of the variety was not disputed
- The repetition of the technical examination with fresh material in form of <u>cuttings taken by the examiner from</u> material submitted by the applicant allowed clear conclusions on possible late effects of tissue culture



Thank you for your attention

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