BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [X] To Chairmen
(D) [ ] No distribution

D E C I S I O N
of 5 December 2000

Case Number: T 0215/96 - 3.3.4

Application Number: 89116173.9

Publication Number: 0361124

IPC: A10G 7/00

Language of the proceedings: EN

Title of invention:
Plant breeding

Patentee:
S&G Seeds B.V.

Opponent:
Goldsmith Seeds Europe B.V.

Headword:
Plant breeding/S&G SEEDS B.V.

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - yes"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0215/96 - 3.3.4

D E C I S I O N
of the Technical Board of Appeal 3.3.4
of 5 December 2000

Appellant: (Opponent)
Goldsmith Seeds Europe B.V.
Cornelis Kuinweg 28a
NL-1691 PE Andijk (NL)

Representative:
Fuchs, J.
Fuchs Mehler Weiss
Patentanwälte
Postfach 46 60
DE-65036 Wiesbaden (DE)

Respondent: (Proprietor of the patent)
S&G Seeds B.V.
Westeinde 62
NL-1601 BK Enkhuizen (NL)

Representative:
Smolders, Walter
Novartis AG
Geistiges Eigentum Konzern
Patent- und Markenabteilung CH
Postfach
CH-4002 Basel (CH)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 21 December 1995 rejecting the opposition filed against European patent No. 0 361 124 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: U. M. Kinkeldey
Members: F. L. Davison-Brunel
R. T. Menapace

Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division issued on 21 December 1995 whereby the European patent No. 0 361 124 with the title "Plant breeding", with 17 claims for all Designated Contracting States was maintained as granted pursuant to Article 102(2) EPC.

Granted claims 1 and 5 read as follows:

"1. A method for generating diploid Pelargonium peltatum plants containing at least one of the anthocyanidins pelargonidin and paeonidin in the petals and/or a factor for male sterility, which plants are propagatable by seed, comprising:
a) performing an initial cross wherein the genetic material of one parent is provided by Pelargonium peltatum and that of the other is provided by a plant selected from the group consisting of:
i) P. x hortorum
ii) P. scandens
iii) a cascade type pelargonium
b) selecting the progeny of (a) and subjecting it to further crosses with genetic material provided by a member of the group consisting of:
i) P. x hortorum
ii) P. scandens
iii) a cascade type pelargonium
iv) a plant produced according to (a)
v) a plant produced in a breeding programme wherein the initial genetic material was provided by Pelargonium peltatum and one of P. x hortorum, P. scandens or a cascade type pelargonium,
vi) P. peltatum

wherein at any stage in the breeding programme a plant displaying the desired characteristics may be selected for self-pollination such that a uniform line is produced;
said method involving circumvention of spontaneous early abortion by removal of any fruit showing symptoms of such, and the in vitro cultivation of the embryo excised therefrom into differentiated plantlets."

"5. Diploid Pelargonium peltatum plants containing a factor resulting in male sterility and/or, in their petals, at least one of the anthocyanidins pelargonidin and paeonidin and which are propagatable by seed, and seeds, propagating material and genetic material thereof."

Claims 2 to 4 were directed to further features of the method of claim 1. Claims 6 to 14 related to further features of the diploid Pelargonium peltatum plants of claim 5. Claims 15 to 17 related to propagating material, seeds and genetic material of a plant according to claim 5, respectively.

II. The Board sent a communication pursuant to Article 11(2) of the rules of procedure of the boards of appeal, summoning the oral proceedings and indicating the Board's provisional, non binding opinion.

III. On 4 December 2000, the Appellants informed the Board of appeal that they would not attend oral proceedings.

IV. The oral proceedings took place on 5 December 2000. The Respondents (Patentees) filed a new request as sole request. Claim 1 of this request differed from granted

claim 1 in that the expression "and the in vitro cultivation of the embryo excised therefrom into differentiated plantlets." at the end of the claim was replaced by the expression:

"excising embryos ten to fourteen days after cross pollination, allowing said embryos to differentiate roots and shoots to give differentiated plantlets."

V. The documents mentioned in the present decision are :

(4): Kato, M. and Tokumasu, S., Acta Horticulturae, Vol. 131, pages 247 to 252, 1983,

(9): Yu, Sun Nam, Untersuchungen zur interspezifischen Kompatibilität und Biosystematik bei der Gattung Pelargonium, Inst. Landwirt. und Gärt. Pflanzenbau, Weihenstephan, pages 173 to 175, 1985,

(12): Collins, G.B. and Grosser, J.W.: in Cell Culture and Somatic Cell Genetics of Plants, Academic Press Eds. Vol.1, Chapter 30, pages 241 to 257, 1984.

VI. The arguments in writing and during oral proceedings by the Respondents were essentially as follows:

The problem to be solved was to produce plants of a horticultural class of pelargonium having the defined characteristics and which may be propagated by seeds.

To solve that problem, the inventors had developed a protocol which involved **embryo rescue** ten to fourteen days after cross pollination and organ differentiation

from the embryos and resulted in a 32% yield of hybrids recovery from the cultured embryos.

The method described in document (4) to achieve the transfer of desired traits from one pelargonium species to another which involved **ovule culture** to obtain the F1 hybrids was completely different from that claimed and yielded recovery frequencies which were variable but generally low and unpredictable (5% of the cultured ovules recovered as plantlets).

The other documents which could be cited in relation to the present invention were documents (9) and (12). Although document (9) mentioned that embryo rescue could be used to by-pass the problem of incomplete seed formation in interspecific crosses within the Pelargonium, its teaching was too scanty to bring any useful information. As for document (12), it dealt with embryo rescue in Trifolium. The specific teachings with regard to this plant were not directly applicable to the Pelargonium. Indeed the excision of the embryos had to be done 14 to 19 days after pollination in case of Trifolium whereas it must be carried out some 10 to 14 days after pollination in case of Pelargonium. In document (12), it was very much emphasized that success with the embryo culture technique depended on the time of excision and on the medium on which the excised embryos were grown.

Thus, the patent in suit taught a completely different and more efficient approach to the above mentioned problem than the prior art. This successful advance in the art clearly involved inventive step.

VII. As the Appellants (Opponents) decided not to take part

in the oral proceedings, they did not comment on the addition to the granted claim of the information that the embryo rescue was to take place ten to fourteen days after cross-pollination. Their argument in writing against the inventive step of granted claim 1 was essentially that it would be obvious to the skilled person to generate diploid Pelargonium peltatum plants with the defined characteristics because it only required to use known partners and known plant cultivation measures.

VIII. The Appellants requested that the decision under appeal be set aside and that the European patent No. 0 361 124 be revoked.

The Respondents requested that the patent be maintained on the basis of the amended set of claims as submitted at the oral proceedings.

Reasons for the Decision

Continuing the proceedings with a new main request in the absence of the Appellants

1. On 4 December 2000, the Appellants informed the Board that they would not attend oral proceedings on 5 December 2000. At oral proceedings, the Respondents filed a new claim request as main request, on which the Appellants, of course, did not comment.

2. The Appellants had to expect that the Respondents would amend the claims during oral proceedings in order to overcome possible or already raised objections and that, in the absence of new facts and/or arguments, the

Respondents' request as amended could be found allowable. In accordance with Article 113(1) EPC, they were given an opportunity to present their comments as they were duly summoned to the oral proceedings. The fact that they decided not to make use of this opportunity cannot lead to an extension or prolongation of their procedural rights. Therefore, a decision on the basis of the new main request may be taken without giving the Appellants a further opportunity to comment.

Article 123(2)(3) EPC

3. The request under consideration differs from the granted claim request in that claim 1 was amended, the amendment resulting in the replacement of the expression "and the in vitro cultivation of the embryo excised therefrom into differentiated plantlets" at the end of the claim by the wording:

"... excising embryos ten to fourteen days after cross pollination, allowing said embryos to differentiate roots and shoots to give differentiated plantlets."

4. Support for this added feature can be found in the application as filed on page 11 lines 1 to 24.

5. The scope of the claim was restricted by adding the specific time peroid in which to excise the embryos.

6. The requirements of Article 123(2)(3) EPC are fulfiled.

Article 56 EPC

7. The Appellants' appeal was based on Article 56 EPC. Thus, inventive step is the only issue to be decided.

8. The closest prior art to the subject-matter of claim 1 is document (4) which relates to a method for the transfer of desired traits from the scented-leaved geraniums, P. crispum or P. quercifolium to the show pelargonium, P. domesticum. It is taught that the relevant hybrids can be rescued from a cross between these species by the **ovule culture method**, an average frequency of 5% of the ovules being regenerated into plantlets (page 251, Table 2).

9. Starting from the closest prior art, the problem to be solved can be defined as transferring to Pelargonium peltatum desired traits from other species of pelargoniums so as to obtain P. peltatum with the desired traits and propagatable by seeds.

10. The solution provided is a method involving the initial crossing of P. peltatum with a plant of said other species, selecting the progeny and subjecting it to further crossing with the same, whereby, in some of the steps, the hybrids resulting from such crosses are obtained by **embryo rescue**: excising the embryos ten to fourteen days after cross-pollination and allowing them to give differentiated plantlets. 32% of all rescued embryos develop into such plantlets.

11. In view of the examples provided in the patent specification, the Board is satisfied that the claimed method is a solution to the above mentioned problem.

12. The differences between the closest prior art and the subject-matter of claim 1 lay, thus, in that different species of pelargonium are used as recipient and donor and, also, in the rescue technique employed, which is more efficient than that previously used.

13. Document (9) which discusses the problems associated with interspecies crossing in the genus Pelargonium suggests embryo rescue as well as ovule culture as means to overcome these problems. Yet, it does not go any further than mentioning said methods. The only prior art document on file disclosing embryo rescue is document (12). The authors describe a method of embryo rescue applied to the genus Trifolium. They teach that the timing for removing the embryos is critical for maximum success, it being 14 to 19 days after pollination in the case of Trifolium. In contrast, the time for excision of the embryos is given in the claimed method as being 10 to 14 days after pollination.

14. In the Board's judgment, even if the skilled person had thought of combining the teachings of documents (4) and (12) on the basis of the mentioning of embryo rescue in document (9), he/she would not have expected that the embryo rescue method would be more efficient than the ovule rescue method. In addition, there is no teaching in document (9) that the period of time when to carry out embryo rescue could be critical, let alone that it has to be 10 to 14 days after pollination. This makes the subject-matter of claim 1 non obvious.

15. Inventive step is acknowledged to the subject-matter of claim 1.

16. The part of the decision of the opposition division which deals with the inventive step of claim 5 (see section I, above) was not challenged on appeal and the Board sees no reason to question the corresponding findings in the decision under appeal.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent with the claims 1 to 17 as submitted at the oral proceedings, description as granted.

The Registrar: The Chairwoman:

U. Bultmann U. Kinkeldey