

Commissioner=s Decision # 1313
Décision du Commissaire # 1313

TOPIC: F00, O00, K10
SUJET: F00, O00, K10

Application No .: 2,121,906
Demande n° . : 2,121,906

COMMISSIONER'S DECISION SUMMARY

The subject application related to soybean products having low amounts of an undesirable carbohydrate known as Astachyose.⁶

In the Final Action, the Examiner found that each of the 23 claims then pending in the application was defective for one or more reasons. Those reasons included: lack of novelty under subsection 28.2(1)(b) of the *Patent Act*; obviousness under section 28.3 of the Act; lack of patentable subject matter under section 2 of the Act; and lack of enablement under subsection 27(3).

After receiving the Summary of Reasons and a Supplementary Summary of Reasons, the Applicant voluntarily proposed amendments based on the claims indicated in the Supplementary Summary of Reasons to be allowable. Recognizing that the proposed amendments would address the outstanding issues, the Board recommended that the Applicant be invited to make the proposed amendments in accordance with ss. 31(c) of the *Patent Rules*.

The Commissioner agreed with the Board's recommendations and the Applicant was invited to make the proposed amendments, failing which further review of the application would take place in due course.

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,121,906, having been rejected under Subsection 30(3) of the *Patent Rules*, has been referred to the Patent Appeal Board for review. The findings of the Board and the ruling of the Commissioner are as follows:

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INTRODUCTION

- [1] This decision deals with a review of the rejection of patent application number 2,121,906.
- [2] The Applicant is E.I. Du Pont de Nemours and Co. and the inventor is Phillip S. Kerr. The invention is entitled A SOYBEAN PRODUCTS WITH IMPROVED CARBOHYDRATE COMPOSITION AND SOYBEAN PLANTS. @
- [3] The subject application relates to soybean products having low amounts of an undesirable carbohydrate known as Astachyose. @

PROSECUTION HISTORY

- [4] The subject application was filed on October 26, 1992 and was rejected in a Final Action dated October 15, 2007. Each of the 23 claims then pending in the application was considered to be defective for one or more reasons. Those reasons include: lack of novelty under subsection 28.2(1)(b) of the *Patent Act*; obviousness under section 28.3 of the Act; lack of patentable subject matter under section 2 of the Act; and lack of enablement under subsection 27(3).
- [5] On April 15, 2008, the Applicant replied to the Final Action and submitted an amended claim set consisting of 42 claims. The Applicant argued that the grounds for rejection set out in the Final Action were improper and that the amended claims put the application in condition for allowance. The Examiner reviewed the response to the Final Action and indicated in a Summary of Reasons that only a limited number of the claims were in allowable form. The rejected application was therefore referred to the Patent Appeal Board for review and the Applicant was so informed. A Supplementary Summary of Reasons subsequently prepared by the Examiner elaborated on the grounds for rejection and clarified certain points regarding the obviousness defect. The Applicant was provided with a copy of the Supplementary Summary of Reasons and informed that a hearing was scheduled for October 22, 2010.
- [6] On October 6, 2010, the Applicant voluntarily proposed amendments based on the claims indicated in the Supplementary Summary of Reasons to be allowable. The Applicant was advised that, according to section 31 of the *Patent Rules*, an application that has been rejected cannot be voluntarily amended after the expiry of the time to respond to a Final Action. Therefore, the proposed amendments could not be formally entered into the application. Nonetheless, it is possible that proposed amendments can form the basis of a formal directive from the Commissioner. The hearing was therefore cancelled in order to allow for a review of the application and to allow the Board to study the Applicant=s proposal.

ANALYSIS

[7] Claim 1 is representative of the subject matter considered to be defective under subsection 28.2(1)(b) for lack of novelty and under subsection 27(3) for lack of enablement:

1. Soybeans with a genotype that confers a heritable phenotype of seed stachyose content of less than 30 $\mu\text{mol/g}$, based on undried seed, said soybeans being non-viable as a result of mechanical processing, wherein said soybeans are obtained from progeny lines prepared by a method comprising the steps of:

(a) crossing a soybean plant comprising a *stclx* allele, wherein said plant is of a line that has a genotype at the *Stcl* locus that confers a phenotype of a seed stachyose content of less than 30 $\mu\text{mol/g}$, based on undried seed, with an agronomically elite soybean parent which does not comprise said allele, to yield a F1 hybrid;

(b) selfing the F1 hybrid for at least one generation; and

(c) identifying the progeny of step (b) homozygous for the *stclx* gene and capable of producing seed having a stachyose content of less than 30 $\mu\text{mol/g}$, based on undried seed.

[8] According to the Final Action, this claim is anticipated since it reads on a known soybean variety that has the property of low stachyose content and since the method steps recited in the claim do not distinguish the resultant products from the prior art.

[9] With respect to the question of lack of enablement under subsection 27(3) of the Act, the Final Action indicates that the specification provides only one soybean plant variety of the type referred to in step (a) of claim 1; i.e., a plant variety A comprising a *stclx* allele, wherein said plant is of a line that has a genotype at the *Stcl* locus that confers a phenotype of a seed stachyose content of less than 30 $\mu\text{mol/g}$.@ That variety is termed ALR484@ (deposited as ATCC accession number 75325) and was discovered by the inventor by screening 130,000 chemically mutagenized seeds B a process stated by the Examiner to have Aa significant involvement of chance.@

[10] The claims considered to be obvious relate to methods and products that logically follow from the subject matter of claim 1; for example, methods of making soy protein and soy milk products.

[11] The claims considered to be non-compliant with section 2 of the Act involve traditional plant breeding methods B subject matter that has historically been considered outside the definition of invention: see *Pioneer Hi-Bred Ltd. v. Canada (Commissioner of Patents)*, [1989] 1 S.C.R. 1623, 25 C.P.R. (3d) 257.

[12] Claim 4 is representative of the subject matter considered to be allowable:

4. Soybeans with a genotype that confers a heritable phenotype of seed stachyose content of less than 30 µmol/g, based on undried seed, said soybeans being non-viable as a result of mechanical processing, wherein said soybeans are obtained from a line comprising the homozygous *stc1b* mutant gene of LR484 having accession no. ATCC 75325.

[13] This claim refers to the particular soybean variety discussed above which has been deposited as ATCC accession number 75325 and termed ALR484.® This is a novel and inventive feature that is sufficient to distinguish the claimed subject matter over the prior art. This feature also limits the claim to subject matter enabled by the specification.

[14] We turn now to the Applicant=s proposed claim amendments that were submitted on October 6, 2010. The proposed claim set consists of 28 claims and is based on the claim set currently on file, with the claims identified as defective in the Supplemental Summary of Reasons being deleted, and the claim dependencies of the allowable claims being modified accordingly. After reviewing the rejected application and the proposed claim set, we have come to the conclusion that the defects identified in either the Final Action, the Summary of Reasons, or the Supplementary Summary of Reasons would be remedied through the Applicant=s proposed amendments.

[15] The LR484 variety, and its definition by deposit number, is a feature that forms the basis of the Applicant=s proposed amendments. Any claim indicated to be defective has been either deleted or has been amended to directly or indirectly (through claim dependency) incorporate this feature.

DISPOSITION OF THE PRESENT CASE

[16] It is understood that all of the issues raised by the Examiner, either in the Final Action or afterwards, would have been overcome if the proposed amendments had been submitted within the time limit to respond to the Final Action.

[17] Therefore, given the present circumstances, an option for the Commissioner is to inform the Applicant that the proposed amendments are required under subsection 31(c) of the *Patent*

Rules (see *Re Application of SigmaPharm, Inc.* (2008), Commissioner=s Decision no. 1288; *Re Application of Arexis AB* (2010), Commissioner=s Decision no. 1300).

RECOMMENDATIONS

[18] We recommend that the Commissioner:

(1) invite the Applicant, in accordance with paragraph 31(c) of the *Patent Rules*, to delete the claims submitted in response to the Final Action and to agree to the formal entry of the amendments proposed on October 6, 2010 within three months from the date of this decision; and

(2) advise the Applicant that: (i) if the above amendments, and only the above amendments, are made within the specified time, the outstanding issues will be considered to have been overcome; and, (ii) if the above amendments, and only the above amendments, are not made within the specified time, further review of the rejected application will take place in due course.

Ed MacLaurin
Member

Marcel Brisebois
Member

Serge Meunier
Member

COMMISSIONER=S DECISION

[19] I concur with the recommendations of the Patent Appeal Board. Under subsection 31 (c) of the *Patent Rules*, I invite the Applicant to delete the claims submitted in response to the Final Action and to agree to the formal entry of the amendments proposed on October 6, 2010 within three months from the date of this decision.

[20] I advise the Applicant that: (i) if the above amendments and only the above amendments are made within the specified time, the outstanding issues will be considered to have been overcome; and, (ii) if the above amendments, and only the above amendments, are not made within the specified time, further review of the rejected application will take place in due course.

Mary Carman
Commissioner of Patents

Dated at Gatineau, Quebec,
this 11th day of April, 2011