

Appeal Decision

Appeal No.2014-10863

Osaka, Japan

Appellant SUMIKA AGROTECH CO. LTD.

Osaka, Japan

Patent Attorney SHINJYU GLOBAL IP

The case of Appeal for Japanese Patent Application No.2009-163308, entitled "Method for Breeding Daucus Plant, and the Resultant Daucus Plant" (the application published on January 27, 2011, Japanese Unexamined Patent Application Publication No.2011-15648, the number of claims: 11), has resulted in the following appeal decision:

Conclusion

The examiner's decision is revoked.

The invention of the present application shall be granted a patent.

Reason

No.1 History of the procedures and the Invention

The present application was filed on July 10, 2009, for which the examiner's decision of refusal was requested on March 5, 2014, and an appeal against the examiner's decision of refusal was made on June 10, 2014, and a notice of reasons for refusal was issued on September 3, 2015, then in response, a written opinion and a written amendment were submitted on November 30, 2015, and again a notice of reasons for refusal was issued on February 16, 2016, then in response, and a written amendment and a written opinion were submitted on March 31, 2016, and again a notice of reasons for refusal was issued on April 28, 2016, and in response, a written amendment was submitted on May 11, 2016.

It is found that the inventions according to Claims 1 to 11 of the present application should be specified by the matters recited in Claims 1 to 11 of the Claims that have been amended by the written amendment on May 11, 2016.

"[Claim 1]

A method for breeding a Daucus plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, comprising:

STEP 1-1: a step of crossing a Daucus plant specified by Accession No. FERM P-21824

with a different kind of a Daucus plant of Kurodagosun to effect next-generation plants;

STEP 1-2: a step of cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground; and

STEP 1-3: a step of screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation,

and further repeating cultivation and screening of the next-generation obtained by producing a seed from the individual selected through the screening of STEP 1-3 to fix the character.

[Claim 2]

A method for breeding a Daucus plant with the exposed parts resistant to

discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, comprising:

STEP 3-1: a step of crossing a *Daucus* plant obtained by the method of Claim 1 with a different kind of a *Daucus* plant to effect next-generation plants;

STEP 3-2: a step of cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground; and

STEP 3-3: a step of screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation, and further repeating cultivation and screening of the next-generation obtained by producing a seed from an individual selected through the screening of STEP 3-3 to fix the character.

[Claim 3]

A *Daucus* plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, which is obtained by the steps of: crossing a *Daucus* plant specified by Accession No. FERM P-21824 with a different kind of a *Daucus* plant of Kurodagosun to effect next-generation plants; cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground; screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation; and further repeating cultivation and screening of the next-generation obtained by producing a seed from an individual selected through the screening process.

[Claim 4]

A *Daucus* plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, obtained by crossing a *Daucus* plant specified by Accession No. FERM P-21824 with a different kind of a *Daucus* plant of Kurodagosun.

[Claim 5]

A *Daucus* plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, which is obtained by the steps of:

crossing a *Daucus* plant specified by Accession No. FERM P-21824 with a different kind of a *Daucus* plant of Kurodagosun to effect next-generation plants;

cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground;

screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation; and

further repeating cultivation and screening of the next-generation obtained by producing a seed from an individual selected through screening process to obtain a *Daucus* plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation;

subjecting the *Daucus* plant to crossing with a different *Daucus* plant to obtain next-generation plants;

cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground;

screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation; and

further repeating cultivation and screening of the next-generation obtained by producing

a seed from an individual selected through the screening process.

[Claim 6]

A Daucus plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, which is obtained by crossing a Daucus plant specified by Accession No. FERM P-21824 with a different kind of a Daucus plant of Kurodagosun to effect next-generation plants; and subjecting the Daucus plant to crossing with a different kind of Daucus plant.

[Claim 7]

A Daucus plant specified by Accession No. FERM P-21824.

[Claim 8]

A part of the Daucus plant of any one of Claims 3 to 7.

[Claim 9]

A method for producing a seed of Daucus plant, comprising a step of crossing the Daucus plant obtained by the method of Claim 2 with a male sterile Daucus plant to obtain a first filial generation seed.

[Claim 10]

A seed of Daucus plant of a first filial generation, which is obtained by the steps of:

crossing a Daucus plant specified by Accession No. FERM P-21824 with a different kind of a Daucus plant of Kurodagosun to effect next-generation plants; cultivating the next-generation plants so as to expose the shoulder parts of roots thereof onto the ground; screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation; and further repeating cultivation and screening of the next-generation obtained by producing a seed from an individual selected through screening process to obtain a Daucus plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation;

subjecting the Daucus plant to crossing with a different Daucus plant to obtain next-generation plants;

cultivating the next-generation plants so as to expose the shoulder part of roots thereof onto the ground;

screening an individual with the exposed parts having less discoloration from the next-generation plants after cultivation; and

further repeating cultivation and screening of the next-generation obtained by producing a seed from an individual selected through screening process to obtain a Daucus plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation; and

crossing the Daucus plant with a male sterile Daucus plant.

[Claim 11]

A Daucus plant or a part thereof obtained through cultivation of the seed of the Daucus plant of Claim 10."

(Hereinafter sometimes collectively referred to as "the Invention".)

No. 2 Outline of reasons for refusal stated in the body

The outline of reasons for refusal notified by the body on September 3, 2015 is set forth below. In addition, both the reasons for refusal on February 16, 2016 and the reasons for refusal on April 28, 2016 note the minor descriptive deficiency, which had

been overcome by the written amendment on March 31, 2016 and the written amendment on May 11, 2016.

1 Reason 1 (non-compliance with Article 36(4)(i) and Article 36(6)(i) of the Patent Law)

In connection with the fact that the hybridization of a *Daucus* plant specified by Accession No. P-21824 with Kurodagosun results in a *Daucus* plant with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation, the Detailed Description of the Invention merely discloses that one individual was obtained with its exposed parts free of discoloration by subjecting both parental lines to mass mating and repetitively screening, and after self-reproduction mass seed production was repeated over four generations, and subjected to screening to obtain a phylaxis in which a character of the exposed parts being resistant to discoloration was fixed (Example 1). Both parental lines have a property of the exposed shoulder parts being discolored. In view of the fact that there was only one colorless individual obtained in Example 1, and the common technical knowledge that plant character may sometimes stem from mutation occurring during hybridization, cultivation, and screening as well as the combination of genetic property of both parents, the colorless individual obtained in Example 1 might possibly be generated incidentally through mutation. Mutation occurs randomly. Reproducibility is extremely low. There is in fact no replicability. Therefore, those skilled in the art may not carry out the Invention without excess effort.

Accordingly, it cannot be said that the Detailed Description of the Invention discloses to the extent that a person ordinarily skilled in the art can implement the Invention. In other words, it cannot be recognized that each claim in the claims reflects means for solving the problem of breeding a *Daucus* plant with the exposed parts resistant to discoloration.

2 Reason 2 (non-compliance with Article 36(6)(ii) of the Patent Law)

Claim 3 in the written amendment submitted on June 10, 2014 includes: the product invention of "Daucus plant" specified by a manufacturing method of "obtained by a method for breeding of Claim 1 or 2".

Here, in the case where a claim directed to product invention makes a reference to a method for manufacturing the product, the recitation of the claim fulfills the requirement of "the definiteness of the invention" as provided in Article 36(6)(ii) of the Patent Law only if there is a situation where it is impossible or not at all practical ("infeasible or non-practical situation") to directly identify the product with its structure or properties as of the filing. (The Supreme Court Ruling on June 5, 2015, Heisei 24-nen (receipt) Nos.1204, 2658). The specification is, however, silent about the existence of such infeasible or non-practical situation. Further, the Appellant fails to present any argument or evidence about such situation. Thus the grounds for finding the existence of such situation cannot be found.

Accordingly, Claim 3 is indefinite. The same can apply to Claims 4, 8 and 9.

No. 3 Judgment by the body

1 The Invention

The invention according to Claims 1 to 11 of the claims of the present

application is as set forth in the above No. 1, which is based on the finding that the problem of the decoloration of *Daucus* plant, so-called carrot, into green or purple reducing the commodity value thereof when a shoulder part of the root part is exposed onto the ground during cultivation may be solved by the means to hybridize *Daucus* plant specified by Accession No. P-21824 with Kurodagosun and the subject to screening, both of which are phylaxis in which their shoulder part may be discolored. (paragraphs in the specification: [0008] to [0009]).

2 Regarding Reason 1 for refusal (non-compliance with Article 36(4)(i) and Article 36(6)(i) of the Patent Law)

In a certificate of experimental result submitted by the Appellant in response to Reason 1 for refusal on November 30, 2015 together with the written argument, 50 individuals for both *Daucus* plants specified by Accession No. P-21824 and Kurodagosun were subjected to mass mating to obtain 3 individuals with shoulder parts free of discoloration as a later generation. This supports the fact that there is replicability in obtaining an individual with its shoulder part resistant to discoloration by crossing *Daucus* plants specified by Accession No. P-21824 with Kurodagosun. In addition, regarding the replicability of cross-breeding of plants, the ruling noted that "It is reasonable to understand that the high possibility is not required and it is enough to reproduce the plant scientifically." (The Supreme Court Ruling on February 29, 2000, Heisei 10-nen (gyo-tsu) No.19 "The case of method for breeding yellow peach").

In view of the above certificate of experimental result, it is recognized that the Detailed Description of the Invention discloses that it is possible to obtain a *Daucus* plant "with the exposed parts resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation" in a certain proportion by the hybridization of a *Daucus* plant specified by Accession No. P-21824 with Kurodagosun. Therefore, the descriptions in the Detailed Description of the Invention are definite and sufficient to the extent that a person ordinarily skilled in the art could implement the inventions, and the recitation of the Claims is described in the Detailed Description of the Invention.

Thus it is recognized that the Detailed Description of the Invention complies with the requirement of Article 36(4)(i), and the claims comply with the requirement of Article 36(6)(i) of the Patent Law.

3 As for Reason 2 for refusal (non-compliance with Article 36(6)(ii) of the Patent Law)

First, Claim 4 is considered for this case in the following.

In connection with Reason 2 for refusal, the Appellant argues that it requires enormous time and efforts to analyze a gene of a plant hybrid and, even if the gene were analyzed, it is assumed that a plurality of genes might be involved in the property of "the exposed parts being resistant to discoloration even if the shoulder part of its root is exposed onto the ground during its cultivation", and it was thus extremely difficult to identify the genes as of the filing. Therefore, there was an "infeasible or non-practical situation" to directly specify the "*Daucus* plant" of Claim 4 with its structure or properties.

Considering the above argument, it is a conventional means in the technical field of cross breeding of plants to subject parental lines to crossing to obtain a later generation, and select an individual with a certain property from the later generation and

further subject the individual to crossing to genetically fix the property. It is thus recognized that it takes enormous time and efforts to analyze genes of a number of respective hybrids in order to identify genes underlying the property. Further, it is usual that a plurality of genes are involved in the properties of a plant. Especially in the case where none of parental lines has a certain property as in the Invention, it is assumed that the interaction between a plurality of genes would become complex. Thus the analysis thereof would be of great difficulty. Accordingly, the above situation of the appellant's allegation corresponds to the case where it is technically impossible to identify the structure of a product as of the filing. Thus it is recognized that there is an "infeasible or non-practical situation" as ruled by the Supreme Court Ruling on June 5, 2015, Heisei 24-nen (receipt) Nos. 1204, 2658. It can be said that the invention according to Claim 4 complies with the requirement of "the invention being definite" as provisioned in Article 36(6)(ii) of the Patent Law.

Further, for a similar reason, the inventions according to Claims 3, 5, 6, 8, 10 and 11 comply with the requirement of "the invention being definite".

Therefore, it is recognized that the claims of the present application comply with the requirement of Article 36(6)(ii) of the Patent Law.

4 Summary

For the above reason, the present application complies with the requirements provisioned in Articles 36(4)(i), 36(6)(i) and 36(6)(ii) of the Patent Law. The reason for refusal notified by the body may not be used to reject the present application.

No. 4 Closing

The present application may not be rejected by the reasons for refusal of the examiner's decision and the reasons for refusal of the body. No other reasons for refusal were found.

Therefore, the appeal decision shall be made as described in the Conclusion.

June 20, 2016

Chief administrative judge: TAMURA, Akiteru
Administrative judge: NAGAI, Keiko
Administrative judge: YAMAZAKI, Toshinao