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Please always quote:
File no. 40802-18/4127/smi

Düsseldorf, 29 March 2019

ACTION FOR NULLITY

of the German part DE 60 2004 004 273.0
of the European Patent EP 1 646 287
Title: Processing of Teff Flour
Nullity Defendant: Port V.O.F.

In the name and on behalf of

Dr. Anton Horn, An St. Swidbert 22, 40489 Düsseldorf

- Nullity Claimant -

Counsel: Heuking Kühn Lüer Wojtek PartGmbB, Georg-Glock-Straße 4, 40474 Düsseldorf
Contact person: Dr. Anton Horn, Lawyer

action is filed

against **Port V.O.F**., Hoofdstraat 25, 9414 Hooghalen, The Netherlands

- Nullity Defendant -

for declaration of nullity of the German part DE 60 2004 004 273.0 of the European Patent EP 1 646 287 (s 81 PatG [German Patent Act]).

The authorised recipients of the Defendant registered in the patent register are:

dompatent von Kreisler Selting Werner – Partnerschaft von Patentanwälten und Rechtsanwälten mbB
Bahnhofsvorplatz 1
50667 Köln

It is applied for

the European Patent EP 1 646 287 to be declare null and void in its entirety within the territory of the Federal Republic of Germany.

The amount in dispute is provisionally estimated at EUR 500,000.00.

REASONS

The nullity action is based on Article II s 6 ss 1 (1) and (2) IntPatÜG [Law on International Patent Treaties], as the subject-matter of the European Patent EP 1 646 287 is not patentable for lack of novelty pursuant to Article 138 (1) (a) EPC in conjunction with Article 54 (2), (3) EPC, is not patentable for lack of inventive step pursuant to Article 138 (1) (a) EPC in conjunction with Article 56 EPC, and cannot be carried out pursuant to Article 100 (b) in conjunction with Article 83 EPC.

The action is brought against any and all claims from the Patent in Dispute. The following submissions predominantly deal with the principal claim 1 of the Patent in Dispute. The other claims are trivial and (with the exception of claim 27) can directly or indirectly be referred back to claim 1. The Patent in Dispute must be revoked in its entirety.

I. Amount in Dispute

The remaining term of the Patent in Dispute is considerably less than six years. No infringement proceedings are known in Germany. The Patent in Dispute is relevant for a special type of millet flour, i.e. a niche product. In view of this, an amount in dispute of EUR 500,000.00 seems reasonable.

II. Preliminary remarks

The Nullity Defendant is the registered sole proprietor of the German part DE 60 2004 004 273.0 of the European Patent EP 1 646 287 (hereinafter referred to as “Patent in Dispute”).

A copy of the Patent in Dispute published as EP 1 646 287 B 1 is enclosed as **Annex NK 1**. A current excerpt from the register of the German Patent and Trade Mark Office is enclosed as **Annex NK 2**.

The Patent in Dispute has gone through opposition proceedings (see IV). The opponent based its opposition solely on the impossibility of the Patent in Dispute to be carried out (Article 100 (b) EPC in conjunction with Article 83 EPC). The Opposition Division of the European Patent Office also dealt exclusively with this opposition. The novelty and inventive step were not assessed during the opposition proceedings.

In the United States (application number US 2006/0286240 A1) and in Japan (application number JP 2006-527996A) the underlying international patent application entered the national phase. In both countries the applications were finally rejected by the respective patent offices (see V.).

The Dutch priority-establishing patent application was considered invalid by judgement of the Rechtbank Den Haag, The Netherlands, of 21 November 2018 (see VI.).

Prior to the litigation, the Claimant asked the Defendant to waive the Patent in Dispute. We enclose a copy of the Claimant’s letter to the Defendant of 26 April 2018 as

Annex NK 3

The Defendant did not respond.

III. Matter in dispute

The Patent in Dispute protects a flour which is made from the grain *"Eragrostis tef"* (short: Teff) which has been cultivated in particular in Ethiopia and Eritrea for more than 5,000 years. Teff flour is gluten-free and therefore very popular among people with a gluten intolerance. For example, bread, noodles, cookies and beer can be produced from Teff and Teff flour.

Teff flour is most commonly used in the Ethiopian and Eritrean national dish Injera. Injera is a soft sourdough-risen flatbread. It can best be described as thick sourdough pancake. It is used as a base for other food which is then scooped up with chunks of Injera. Injera has been produced from Teff flour and eaten at the Horn of Africa for thousands of years.

The Patent in Dispute intends to distinguish itself from the state of the art by a so-called falling number. The characteristic of the falling number is easily met if Teff is stored for some time after the harvest and before grinding. According to the Patent in Dispute such falling number is already reached after a short storage period. The Patent in Dispute also correctly states that such storage and after-ripening has already been known. Teff has been processed into flour after storage and after-ripening for thousands of years.

IV. Grant and opposition proceedings

The Patent in Dispute was derived from the international patent application PCT/NL2004/000524 with priority date 22 July 2003.

We enclose the international patent application as well as the international search report of 19 November 2004 as **Annex NK 4**.

Six documents are listed in the international search report as having been classified as category "X" for all claims of the Patent in Dispute with the exception of the former claim 27. This means that almost all claims of the original application were classified as non-new and/or non-inventive in view of the six prior art documents.

Nevertheless, the Patent in Dispute was subsequently granted “as applied for”, i.e. without any restriction. The grant by the European Patent Office was obviously erroneous.

The Chamber of Agriculture of Lower Saxony filed an opposition against the patent. We enclose the opposition of 8 October 2007 as **Annex NK 5**. The opposition was exclusively based on the infeasibility of the invention.

The Opposition Division of the European Patent Office held that the expert understands that the method to determine the falling number of the flour has to be carried out even if the patent claim actually states otherwise. The patentability of the invention was not discussed in the opposition proceedings. We enclose the decision of the European Patent Office of 17 November 2010 as **Annex NK 6** and the reasons for the decision of 1 December 2010 as **Annex NK 7**.

V. Unsuccessful grant procedures in Japan and the USA

We enclose a copy of the United States patent application US 2006/0286240 A1 as **Annex NK 8**. We enclose the final negative office action of the United States Patent and Trademark Office, USPTO, of 10 October 2012 as **Annex NK 9**.

We also enclose a copy of the Japanese patent application JP 2006-527996A as **Annex NK 10**. We enclose the notification of the Japanese Patent Office of 17 May 2010 regarding the reasons for the intended rejection as **Annex NK 11**. We enclose the subsequent formal decision of the Japanese Patent Office of 8 November 2010 to reject the patent application **as Annex NK 12**. We enclose the German translations of both notices as **Annex NK 11-Ü** and **Annex NK 12-Ü.**

VI. Dutch court proceedings

In Dutch court proceedings, the District Court of The Hague ruled on 21 November 2018 (reference number/role number C/09/472888 / HA ZA 14-1019) that two Dutch patents are

invalid. These were the Dutch patents NL 1023977 („NL‘977“) and NL 1023978 („NL‘978“). The Patent in Dispute claims the priority of NL‘977. Claim 1 of the patent ‘977 does not define the falling number by an absolute number but only by a factor in relation to the falling number at the moment of the grain harvest. An absolute number is only required in claim 4.

Upon assessment of the prior art, in particular of the so-called Teff-Report (D1), the District Court of The Hague concludes that the subject-matter of the patents NL‘977 and NL‘978 is not patentable.

VII. Structure of the characteristics of claim 1

The structure of **claim 1** of the Patent in Dispute is as follows. Optional characteristics are shown in italics and parentheses.

1. Flour

2. of a grain belonging to the genus Eragrostis

(2.1 preferably Eragrostis tef)

characterised in that

3. the falling number of the grain at the moment of grinding is at least 250

(3.1. preferably at least 300,

3.1.1. more preferably at least 340,

3.1.1.1. most preferably at least 380)

We enclose the structure of the characteristics as **Annex NK 13**.

VIII. Interpretation of claim 1

Characteristic 1: Flour

Claim 1 protects a flour.

“Flour” is a powder obtained by grinding grain. The Patent in Disputed is not restricted to a special type of flour.

Characteristic 2: *Eragrostis*

Characteristic 2 requires that the grain used belongs to the genus *Eragrostis*.

Eragrostis (also: lovegrass) is a genus in the family of sweet-grass (Poaceae). It comprises about 350 species worldwide.

Some representatives of the genus belong to the grain group “millet”. These include, for example, the preferred *Eragostis tef* (also: Teff, Tef or dwarf millet).

Characteristic 3: Falling number of 250

Characteristic 3 requires that the falling number of the *Eragostis* grain is at least 250 at the moment of grinding.

Paragraph [0013] of the Patent in Dispute gives the definition of “falling number”. This understanding applied by the Patent in Dispute is consistent with the general professional understanding of this term which today is the same as at the priority date of the Patent in Dispute. The determination of the falling number is an important, reliable, widespread and quick method to analyse the starch consistency.

Claim 1 of the Patent in Dispute does **not** prescribe how the falling number of at least 250

shall be reached. The description of the Patent in Dispute knows two methods for achieving that the grain to be ground has a falling number of at least 250 at the moment of grinding.

1. A product corresponding to the invention can be obtained by storing and/or after-ripening the grain until the falling number has reached a value of at least 250 (para [0015], sentence 2).

2. Alternatively, a Teff variety (or a mixture of Teff varieties) can be selected whose grain already has a falling number of at least 250 at the moment of harvesting (para [0015], last sentence).

The second alternative almost sounds as if the Patent in Dispute is intended to indirectly (at least also) protect a special *Eragrostis* variety (i.e. with a falling number of at least 250 at the moment of harvesting). However, such interpretation would be contrary to the prohibition of patentability pursuant to Art. 53 (b) p 1, 1st version EPC according to which European patents may not be granted to plant varieties.

It is therefore more convincing to understand the Patent in Dispute in such way that it does not matter how the so-called “falling number” is obtained. Eragrostis grains with this falling number are (rightly) presumed to be known by the Patent in Dispute, see para [0015].

The grinding of Eragrostis grains was also known. The Patent in Dispute neither teaches a special method to reach the falling number nor a special type of grinding.

Thus, the invention - according to the Patent in Dispute - shall only consist in the selection of a known grain for grinding. This alleged teaching is neither new nor inventive but has always been practised.

IX. Infeasibility

With regard to the infeasibility we refer to our submissions in the opposition of 8 November 2007 (**Annex NK 5**). In particular, it is not revealed how the express requirement of the patent claim to determine the falling number of the grain “at the moment of grinding” shall be met.

X. Lack of novelty

The teaching of the Patent in Dispute (in particular claim 1) is not new. As stated above, this is already shown by the description of the Patent in Dispute.

1. Overview of the prior art

This perception is confirmed if assessing the following prior art:

- D1: “Teff Report” of May 2003
  (German translation: D1-Ü)
- D2: Donadio: „Teff Cookies“ of 3 June 2002
- D3: JP62-155054A of 10 June 1987
  (German translation: D3-Ü)
- D4: US 5,176,927 (Haarasilta) of 5 January 1993
- D5: Perten: Application of the Falling Number Method, May 1964
- D6: JP2001-518194A of 9 October 2001
  (German translation: D6-Ü)
- D7: Stallknecht: „Teff: Food Crop of Humans and Animals“, 1993

2. D1: “Teff Report” of May 2003

The Teff Report (D1) was published in May 2003. This is explained in detail in the abovementioned Dutch court decision.

D1 reveals all characteristics of the Patent in Dispute. This can easily be understood from the German translation D1-Ü. The subject of the falling number is in particular addressed on the first page in the lower boxes “Teff international” and “What is a falling number?”

The Dutch court decision of 21 November 2018 (**Annex NK 14**, German translation **Annex NK 14-Ü**) comes to the same conclusion.

3. D2: “Teff Cookies” of 3 June 2002

The publication “Teff Cookies” was published in June 2002.

It reveals flour of a grain belonging to the genus Eragrostis. It also teaches to use this flour for baking. D2 does not explicitly reveal a particular falling number but, as the Patent in Dispute itself states, it is an inherent characteristic of Teff grains. D7 also reflects the general professional knowledge that Teff grains can be stored for up to three years which automatically leads to after-ripening and an increase in the falling number.

In its decision of 10 October 2012 (**Annex NK 9**, German translation as **Annex NK 9-Ü**) the US Patent Office based its rejection of the patent application primarily on D2. The publications "Haarasilta" and "Perten", to which the USPTO also refers, are enclosed as documents D4 and D5.

4. D3: JP62-155054A of 10 June 1987

D3 reveals food from cereal flours such as Teff flour. We enclose a German translation

of this publication as publication D3-Ü.

In its communication of 17 May 2010 (**Annex NK 11**, German translation as **Annex NK 11-Ü**) the Japanese Patent Office based the lack of patentability primarily on D3. In this context, it also referred to D6 to demonstrate that the characteristic of the falling number was also common knowledge.

XI. Not inventive

Furthermore, the Patent in Dispute is not based on inventive step considering the above-mentioned prior art and the general professional knowledge.

The method for determining the falling number for grain flour has long been known. The application of this method to Teff flour does not result in any surprising findings.

It is not surprising that a higher falling number increases the baking capability of Teff flour. The opposite result would at best have been a surprise to the expert.

It is also sufficiently well-known that the falling number increases with storage and after-ripening.

XII. Claims 2 - 29

Claims 2 to 26 are obviously trivial variants of claim 1 and can by no means constitute an inventive step. Should the Defendant take a different view, we reserve the right to further submissions.

Claim 27 protects a food prepared from unground grain. Apart from that, the same requirements are placed on the grain as in claim 1, i. e. a falling number of at least 250. No other requirements are placed on the food. As a result, the unground grain as such corresponds to the claim. The only difference to claim 1 is that a grinding process is not

necessary. Thus, claim 27 is more extensive than claim 1. Our submissions regarding the nullity of claim 1 therefore apply, a fortiori, to claim 27.

Claim 28 protects a method for binding a composition of at least two components, comprising the mixing of said components with starch of a flour according to any one of claims 1 to 15. As soon as the flour is mixed with another substance, e.g. water, the method of claim 28 is used. It has been known in prior art for many centuries or millennia to mix Teff flour and water into dough. As a result, claim 28 was also anticipated. The same applies to claim 29 which, in comparison to the other claims, has no independent technical content.

[Signature]

Dr. Anton Horn
Rechtsanwalt