Paper No. 10 Entered: November 6, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAYER CROPSCIENCE LP, Petitioner,

v.

SYNGENTA LIMITED, Patent Owner.

Case IPR2017-01332 Patent 8,404,618 B2

Before ZHENYU YANG, CHRISTOPHER G. PAULRAJ, and ROBERT A. POLLOCK, *Administrative Patent Judges*.

PAULRAJ, Administrative Patent Judge.

DECISION
Denying Institution of *Inter Partes* Review 37 C.F.R. § 42.108



I. INTRODUCTION

Bayer CropScience LP ("Petitioner") filed a Petition (Paper 2, "Pet."), requesting institution of an *inter partes* review of claims 1–5 and 7–12 of U.S. Patent No. 8,404,618 B2 (Ex. 1001, "the '618 patent"). Syngenta Limited ("Patent Owner") timely filed a Preliminary Response (Paper 6, "Prelim. Resp."). Pursuant to our authorization, Petitioner also filed a Reply to address Patent Owner's arguments that certain prior art references are disqualified under pre-AIA 35 U.S.C. § 103(c)(1).

We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." Upon consideration of the Petition, Patent Owner's Preliminary Response, and Petitioner's Reply, and for the reasons explained below, we determine that Petitioner has not shown that there is a reasonable likelihood that it would prevail with respect to at least one of the challenged claims. We, thus, deny institution of an *inter partes* review as to the '618 patent.

A. Related Proceedings

Petitioner and Patent Owner do not identify any related proceedings.

B. The '618 Patent (Ex. 1001)

The '618 patent issued on March 26, 2013, with Andrew Plant, Willy Thaddaeus Ruegg, Jean Wenger, Ulrich Johannes Haas, and Anjaas Greiner listed as co-inventors. Ex. 1001, (45), (75). The '618 patent claims priority to a PCT application filed April 29, 2005, as well as to a foreign application filed April 30, 2004. *Id.* at (22), (30). The '618 patent relates generally to "new herbicidal compositions for combating weed grasses and weeds in



crops of useful plants, which comprise a herbicide and a safener which preserves the useful plant but not the weed grasses and weeds against the phytotoxic action of the herbicide." *Id.* at 1:7–11. The '618 patent indicates that "[t]he interaction of herbicides and safeners is complex, and it is difficult to predict which safeners, if any, will be useful with a given herbicide." *Id.* at 1:23–26. As the herbicide to be used in the composition, the '618 patent identifies compounds of "formula I," which are set forth generally in independent claim 1 and more specifically in dependent claims 2–9.

C. Illustrative Claim

Petitioner challenges claims 1–5 and 7–12 of the '618 patent. Independent claim 1 and dependent claim 9 are illustrative, and are reproduced below:

1. A herbicidal composition comprises a mixture of a) a herbicidally active amount of a compound of the formula I

$$R_2$$
 R_1
 R_3
 R_4
 R_4
 R_5
 R_6
 R_6
 R_6
 R_7
 R_6

wherein

 R_1 and R_2 are each independently of the other hydrogen or C_{1-} C_{10} alkyl

R₃ and R₄ are each independently of the other hydrogen, C₁-C₁₀alkyl or C₁-C₁₀haloalkyl;

m is an integer selected from 1 or 2;

R₅ and R₆ are each independently of the other hydrogen or methyl;

n is an integer selected from 1 or 2;



Y is phenyl or phenyl substituted by halogen, C₁-C₆alkyl or C₁-C₆haloalkyl, or

Y is diazole in which the diazole can be substituted by hydroxyl, halogen, C₁-C₁₀alkyl or C₁-C₁₀alkyl substituted by hydroxyl, C₁-C₁₀alkoxy, C₁-C₄haloalkyl, C₁-C₄haloalkoxy; and

- b) a herbicide-antagonistically active amount of a safener selected from the group consisting of cloquintocet-mexyl or a lithium, sodium, potassium, calcium, magnesium, aluminium, iron, ammonium, quaternary ammonium, sulfonium or phosphonium salt thereof, fenchlorazole-ethyl, mefenpyrdiethyl, isoxadifen-ethyl, furilazole or the R isomer thereof, benoxacor, dichlormid, MON4660, oxabetrinil, cyometrinil, the Z isomer thereof, fenclorim, N-cyclopropyl-4-(2-methoxy-benzoylsulfamoyl)-benzamide, N-isopropyl-4-(2-methoxy-benzoylsulfamoyl)-benzamide, naphthalic acid anhydride or flurazole, or a combination thereof.
- 9. The composition according to claim 1, wherein the compound of the formula I is 3-(5-difluoromethoxy-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethylsulf-onyl)-5,5-dimethyl-4,5-dihydroisoxazole.

The compound of claim 9 is also referred to as "pyroxasulfone."

Ex. 1002 ¶ 38; Ex. 2001 ¶ 39.

D. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of the claims of the '618 patent based on the following grounds:



IPR2017-01332 Patent 8,404,618 B2

References	Basis	Claims challenged
Polge Patent ¹	§ 102(e)(2)	1–5 and 7–12
Polge Publication ²	§ 102(e)(1)	1–5 and 7–12
Polge Patent and Owen ³	§ 103(a)	1–5 and 7–12
Polge Publication and Owen	§ 103(a)	1–5 and 7–12
Takahashi, ⁴ Owen, and Ziemer1 ⁵	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Ziemer2 ⁶	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Ziemer3 ⁷	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Hubele ⁸	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Chollet ⁹	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Fedtke ¹⁰	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Sprague ¹¹	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Davies ¹²	§ 103(a)	1–5 and 7–12
Takahashi, Owen, and Leuschen ¹³	§ 103(a)	1–5 and 7–12

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³ Michael D.K. Owen et al., *Evaluation of preemergence applications of KIH-485*, *s-metolachlor & CGA-154281*, and *s-metolachlor & atrazine & CGA-154281 for crop phytotoxicity and weed control in corn*, Nashua, IA, 2003 NCWSS Research Report, Vol. 60, 51–52 (2003) ("Owen") (Ex. 1012) ⁴ English translation of PCT Publication WO 2004/014138 A1 published on February 19, 2004, to Satoru Takahashi ("Takahashi translation") (Ex. 1013/Ex. 1014).



¹ US Patent 8,551,918 B2 issued to Nicholas Polge on October 8, 2013 ("Polge Patent") (Ex. 1008).

² PCT Publication WO 2005/055716 A2 published on June 23, 2005, to Nicholas Polge ("Polge Publication") (Ex. 1009).

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