

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SYNGENTA CROP PROTECTION AG,
Petitioner,

v.

UPL LTD,
Patent Owner.

PGR2023-00017
U.S. Patent No. 11,445,727

**PETITIONER'S MOTION TO EXCLUDE CERTAIN OPINIONS OF
JACOBSEN'S DECLARATION**

I. INTRODUCTION

Petitioner, Syngenta Crop Protection AG, respectfully moves this Board to exclude certain opinions of Dr. Jacobsen, the Patent Owner's designated expert. In particular, Dr. Jacobsen's opinions related to 1) public accessibility and availability of Godoy¹ (EX1004/1005), and 2) determination and assessment of whether there is synergy in disease efficacy², yield³, or defoliation,⁴ should be excluded pursuant to FRE 402, 403, and 702. Dr. Jacobsen's testimony on the above subjects should be excluded as they are conclusory and speculative and/or because they are directly contradicted by his own testimony and by statements by Patent Owner.

¹ As embodied in EX2020, ¶¶88-90, and relied upon in, *e.g.*, pages 10, 11, 13, and 14 of the Patent Owner's Response.

² As embodied in EX2020, ¶¶246-249, 251, 259-267, 271, 272, Tables F-J; Appendix B, p. 47-95, and relied upon in, *e.g.*, pages 72, 73, and 76-79 of the Patent Owner's Response.

³ As embodied in EX2020, ¶¶253-255, Tables B and C; Appendix B, p. 1-22, , and relied upon in, *e.g.*, pages 72-75 of the Patent Owner's Response.

⁴ As embodied in EX2020, ¶¶256, 257, Tables D and E; Appendix B, p. 23-46, and relied upon in, *e.g.*, pages 72, 73, 75, and 76 of the Patent Owner's Response.

Petitioner timely objected to the admissibility of Dr. Jacobsen's opinions and declaration (EX2020) on November 17, 2023, based on, *inter alia*, FRE 401, 402, 403, and 702. Paper 35.

These issues were not cured by the Patent Owner. In addition, the deposition testimony of Dr. Jacobsen unquestionably confirmed that his testimony, as represented in the exhibit 2020, was not reliable, and therefore, prejudicial under FRE 403.

II. LEGAL STANDARD

According to FRE 402, "[i]rrelevant evidence is not admissible," and FRE 403 precludes the admissibility of evidence "if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues...." FRE Rules 402, 403. With regard to expert testimony, these principles are embodied in FRE 702, which requires that expert testimony be both relevant and reliable. *Daubert v. Merrill Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993); *Kunho Tire Co., Ltd. V. Carmichael*, 526 U.S. 137, 147-49 (1999).

Daubert requires that expert testimony be "relevant not only in the sense that all evidence must be relevant, but also in the incremental sense that the expert's proposed opinion, if admitted, likely would assist the trier of fact to understand or determine a fact in issue." *Daubert*, 509 U.S. at 591. "[I]ncorrect statements of law are no more admissible through 'experts' than are falsified scientific theories."

Hebert v. Lisle Corp., 99 F.3d 1109, 1117 (Fed. Cir. 1996); see also *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

As to reliability, the Daubert Court outlined some of the factors that a court should consider in determining whether an expert's reasoning and methodology are scientifically valid and can properly be applied to the facts at issue, including whether the theory or technique can be, and has been tested, whether it has been subject to peer review and publication, and the degree of acceptance of the technique or theory in the relevant scientific community. *Daubert*, 509 U.S. at 593-94. Opinion evidence that is supported only by the *ipse dixit* of the expert is unreliable and not admissible. See *Cedillo ex re. Cedillo v. Sec'y of Health & Human Servs.*, 617 F.3d 1328, 1339 (Fed. Cir. 2010).

As explained below, Dr. Jacobsen's proffered opinions as embodied in paragraphs 88-90, 246-249, 251, 253-257, 259, 261-267, 271, 272, Tables D, E, F, G, H, I, and J (and related paragraphs 239-244, 258, and 269; as well as pages 1-22 (yield), 23-46 (defoliation), and 47-95 (disease efficacy) of Appendix B) of his Declaration/Exhibit 2020, are neither relevant nor reliable, and should be excluded.

III. ARGUMENT

A. Dr. Jacobsen's Declaration Testimony That the Godoy Reference Was Not Publicly Accessible or Available is Conclusory, Unreliable, and Contrary to the Evidence, and Therefore, Prejudicial, Inadmissible and Should be Excluded Under FRE 403 and 702.

UPL, the Patent Owner, has had sufficient opportunity to engage an expert in library science but, rather than do so, UPL relies on its technical expert, Dr. Jacobsen, to opine as to public accessibility of Godoy.

In his deposition, however, Dr. Jacobsen frankly admitted to: 1) never having studied library science; 2) never taking a course in library science; 3) never having taught a course in library science; 4) never supervising a graduate student in library science; 5) not having listed any experience in his CV relating to library science; 6) never indexing or cataloging a publication for a library; 7) having no experience utilizing MARC standards, and in fact, not having any knowledge as to what MARC stands for; 8) not considering himself an expert in indexing and cataloging references for publication; 9) never holding himself out as an expert in library science; and 10) not considering himself competent to testify or render opinions in that area. EX1043, 50:5-51:18.

Dr. Jacobsen's own testimony shows he is not qualified as an expert by "knowledge, skill, experience, training, or education" to render opinions on the subject of the public availability of Godoy. Thus, Dr. Jacobsen's testimony on Godoy's availability is inadmissible. *See HVLPO2, LLC v. Oxygen Frog, LLC*, 949 F.3d 685, 688-689 (Fed. Cir. 2020) (holding testimony from a witness who is not qualified in the pertinent field cannot assist the trier of fact to understand the evidence and thus is not admissible under FRE 702); *Sundance, Inc. v. DeMonte*

Fabricating Ltd., 550 F.3d 1356, 1363 (Fed. Cir. 2008) (“[t]estimony proffered by a witness lacking the relevant technical expertise fails the standard of admissibility under [FRE] 702.”).

As such, Dr. Jacobsen’s opinions at paragraphs 88-90 of his declaration are conclusory, unreliable, unfairly prejudicial, and inadmissible, and therefore, should be excluded under FRE 403 and 702.

Notably, Dr. Jacobsen never disagrees that Godoy was publicly accessible and available prior to November 4, 2016. Rather, Dr. Jacobsen merely states that “there is no associated month or day” (EX2020, ¶89) and that, as a result, “it cannot be assumed that Godoy was indexed and searchable as of the date listed on its face.” EX2020, ¶90. Notwithstanding this distinction, it is unclear why Dr. Jacobsen reads the year in the date fields (“2016”) but ignores the month (“September”) or the specific days (Sep. “1” for current date and Sep. “22” for date of last update). A person skilled in library science would have understood these labelled metadata records and understood the specific dates of creation and completion for the cataloging of Godoy. EX1022, ¶¶21-25.

Moreover, Dr. Jacobsen was never shown Dr. Ellis’s supplemental declaration (EX1022). EX1043, 60:14-19. Nor did UPL apprise Dr. Jacobsen that outside of this proceeding UPL has repeatedly represented that Godoy was

“published August 2016. EX1038, p. 151; EX1043, 87:16-93:1. Accordingly, Dr. Jacobsen’s opinion is not based on a full picture of the record.

B. Dr. Jacobsen’s Declaration Testimony Regarding Disease Synergy Should be Excluded.

Dr. Jacobsen opines on synergy with respect to disease efficacy, defoliation, and yield. Each of these sets of opinions should be excluded pursuant to FRE 402, 403, and 702.

1. *Disease Efficacy* – Dr. Jacobsen’s Declaration Testimony Regarding Disease Efficacy and Synergy Should be Excluded Under FRE 403 and 702 as his Opinions are Unreliable and Contrary to his own Deposition Testimony and to the Evidence.

Rather than submit any data of its own to demonstrate synergy, UPL chose to use Dr. Jacobsen to reanalyze Petitioner’s disease severity/efficacy data in an effort to come up with unexpected results. However, Dr. Jacobsen’s analysis and conclusions are unreliable in at least the following respects: 1) Dr. Jacobsen arbitrarily lowered the Colby threshold indicator by up to 20%; (*see, e.g.*, EX2020, fn. 5.) and 2) Dr. Jacobsen provided not only a fundamentally flawed conclusion as to disease control, but one that contradicts his own lowering of the Colby threshold/indicator.

a. Lowering the Colby Indicator.

As explained in the original Colby paper (EX1012), whenever the experimental result of the formula is greater than the expected action as predicted

by the Colby formula, a combination exhibits synergy. EX1012. Conversely, when the result is lower than the expected action, the combination is antagonistic. *Id.* However, when the expected action and the result are equal, the combination is merely additive. *Id.* In numerical terms, when the ratio is <1 the combination is antagonistic, 1 is additive, and >1 is synergistic.

Contrary to the express teaching of Colby (EX1012), Dr. Jacobsen has reanalyzed Petitioner's disease efficacy data by lowering the Colby threshold from 1 to about 0.8. *See, e.g.*, EX2020, fn. 5 and 9. Yet, Dr. Jacobsen admits there is no scientific support or citations for doing so, and states that "[he] [doesn't] believe there are any specific references that say that." EX1043, 191:8-192:18.

Although Dr. Jacobsen conceded a Colby ratio greater than 1 is conventionally used to indicate synergy (EX2020, ¶251), he did not apply the accepted Colby ratio in his analysis, citing overlapping modes of action among the tested fungicides. Thus, notwithstanding the absence of any precedent for doing so, Dr. Jacobsen "assumed a 10% deviation such that a Colby ratio of 0.9 would correspond to synergy for combination with overlapping modes of action." *Id.* Dr. Jacobsen also considered a "ratio as low as 0.8 may still reflect synergy for combination having overlapping modes of action." EX2020, ¶244, fn. 5.

Dr. Jacobsen's use of unsupported/unaccepted methodology does not meet the reliability standards outlined in *Daubert*. There is no evidence that Jacobsen's

methodology was ever employed by any expert other than Jacobsen in this proceeding. Jacobsen's synergy methodology has never been published, much less subject to peer review publication. EX1043, 191:8-192:18. Finally, there is no evidence Dr. Jacobsen's methodology has been accepted in any respect by the relevant scientific community. In fact, UPL, in other proceedings involving testing fungicidal combinations with overlapping modes of action, did not employ Dr. Jacobsen's methodology but instead used the conventional Colby ratio to determine whether the tested fungicidal combination exhibited synergy. EX1034, 13; EX1043, 199:12-17; 208:11-211:11; 221:3-222:15. Accordingly, Dr. Jacobsen's testimony as it relates to lowering the Colby ratio should be excluded pursuant to FRE 403 and 702.

b. Errors in Disease Control Analysis—Tables H, I, and J

On paragraph 271 of his declaration, Dr. Jacobsen states “the average combination Colby ratios for combinations A4 and A9 demonstrate synergy, and combinations A8, A10, B7, B9, and B10 are nearly at the synergy threshold.” EX2020, ¶271. Dr. Jacobsen purports to illustrate this on Table J, showing A4 and A9 had Colby ratios of 0.9. *Id.* at p. 103. However, this is a mischaracterization of the data. Even using Dr. Jacobsen's own Colby expected values, which Petitioner does not agree are correct, the numbers are misleading. The actual Colby ratio of

A4 is 0.87⁵ and A9 is 0.88⁶, which Dr. Jacobsen rounded up to meet his 0.9 threshold. Accordingly, these numbers actually fall below Dr. Jacobsen's own standards, leaving Table J with no average Colby ratios that meet his own definition for synergy. Thus, Dr. Jacobsen's opinions as to synergy for disease control are unsupported by even his own methodology and analysis and should be excluded under *Daubert* as unreliable and contrary to the evidence.

2. Defoliation – Dr. Jacobsen's Testimony that there is Synergy in Defoliation Data is Speculative and Contrary to His Own Testimony.

In his declaration, Dr. Jacobsen states “[d]efoliation, or inversely foliage retention, is also a useful measurement to evaluate synergy of fungicides.”

EX2020, ¶256. However, again, Dr. Jacobsen cites nothing for this proposition. *Id.*

There is no evidence that “defoliation” is an effective measure of fungicidal synergy.

In fact, the entire proposition is confusing because when a person of ordinary skill in the art looks to “evaluate synergy of fungicides,” that person looks directly at disease control. *See* EX2018, 15:19-61:1 (explaining phytotoxicity, defoliation and yield assessments are not related to synergy); *see also* EX1001

⁵ 74.6/86.1 = 0.87

⁶ 75.4/86.1 = 0.88

(which only provides a synergy analysis for disease control). Stated differently, it is unclear why a person of ordinary skill in the art would look to defoliation when it is possible to look at the actual efficacy. UPL's defoliation analysis is designed to confuse and should be excluded.

Furthermore, defoliation data is collected at the end of a soybean plant's life cycle when the leaves *naturally* fall off prior to harvest. See EX2018, 44:14-45:9. This would be apparent to a person of ordinary skill in the art from the raw data which shows complete or almost complete defoliation in each test.⁷

Finally, and most notably, Dr. Jacobsen's entire analysis on defoliation is based on the unproven assumption that defoliation *should* have some sort of linear relationship to fungicide application, as discussed in Colby. See EX1012. However, Dr. Jacobsen has done nothing to validate that defoliation even has a linear relationship. As such, Dr. Jacobsen cannot empirically state the results are "synergistic." As such, his opinion in this regard is unreliable.

In addition to these fundamental flaws, which should disqualify Dr. Jacobsen's opinions under *Daubert*, Dr. Jacobsen's analysis of defoliation contained numerous errors. When Dr. Jacobsen was pressed about these errors in

⁷ In fact, a person of ordinary skill in the art understands soybean plants may need to be chemically defoliated prior to harvest.

deposition, he could not correct or explain them. In his deposition Dr. Jacobsen admitted errors in the data entered on pages 23 and 24 of Appendix B, which errors were compounded as being used in the calculations on pages 25 and 26 of Appendix B, all of which culminated in the erroneous Tables D and E on page 93 of his Declaration. EX2020, p. 93; EX1043, 245:22-278:14. Dr. Jacobsen admitted that the summary tables in his declaration were not accurate; the extent of which could not be determined without “redoing the math.” EX1043, 278:11-14.

In its Sur-reply UPL attempts to downplay the various errors as merely a “transcription error” but then UPL’s counsel attempts to redo Dr. Jacobsen’s analysis, unilaterally changing 12 of the 20 data entries in Dr. Jacobsen’s table with no apparent input from Dr. Jacobsen or confirmation that the new analysis was properly done. Paper 46/47, pp.24-26. However, the alleged typographical error on page 23 does nothing to correct all errors flowing thereafter. Because Dr. Jacobsen admitted his defoliation analysis was riddled with errors, which he was unable to correct, and because UPL has now substituted its own counsel’s analysis, who has not been qualified as an expert in this proceeding, Dr. Jacobsen’s opinions and analysis with respect to defoliation do not meet *Daubert* and should be excluded. EX1043, 245:22-278:14.

3. *Yield* – Dr. Jacobsen Cannot Explain the Errors in Appendix B and is Not Able to Explain Why the “Wrong” Colby Formula was Used to Calculate Synergy from Yield.

In his declaration, Dr. Jacobsen opines that: (1) there was a synergistic improvement in yield; and (2) “crop yield is most important.” EX2020, ¶253-255. Dr. Jacobsen provides no basis for either statement in the scientific literature.

With respect to point (1), Dr. Jacobsen’s opinions should be excluded for similar reasons as defoliation. Again, Dr. Jacobsen’s methodology fails the reliability standard set forth in *Daubert* having: (i) no evidence that his use of Colby to calculate synergy in yield has ever been employed by any expert; (ii) no evidence his methodology has ever been published, or even subject to peer review publication, thus has no scientific basis (EX1043, 278:17-279:2); and (iii) no evidence it has in any way been accepted by the relevant scientific community. Moreover, Dr. Jacobsen does nothing to validate whether there is a linear relationship between yield and fungicide application.

UPL attempts to rely on statements from Dr. Brannen’s deposition that a synergy calculation “could” be done on, *e.g.*, yield. However, UPL’s presentation of Dr. Brannen’s testimony is *egregiously* misleading. In context, Dr. Brannen is not stating that synergy “can” be calculated for yield, Dr. Brannen is stating the synergy “might” be calculated for yield. EX2021, 117:16-118-2. Moreover, Dr. Brannen literally confirms: (1) he has never seen it done, and (2) that his

statements are theoretical. *Id.* 118:18-19; *see also* 124:4-12 (“...Basically -- again, I don't know for sure what I would observe in the way of yield. Never looked at that personally. Don't recall having seen it in the literature relative to interactions. **However, I think theoretically, you could at least *test* it.** I don't know exactly what the response would be relative to yield, per se” (emphasis added)).⁸

Furthermore, Dr. Jacobsen agreed that, according to Colby, the calculation for “expected” value of active ingredients when combined should be higher than the observed values for the individual active ingredients. EX1043, 184:3-21, 290:2-11. Yet, he acknowledged that in his yield analysis the “expected” values were lower than, not higher than, the individual observed values. *Id.* at 290:13-291:18. As a result, Dr. Jacobsen agreed that his yield analysis was “not correct.”

⁸ Dr. Brannen explained there are multiple reasons why fungicides should/can be applied, including, *e.g.*, reduction of toxins which “doesn’t have anything to do with yield...If you reduce toxins, that’s significant, and its important.” EX2021, 135:15-136:11. Indeed, an unsaleable crop due to toxins is more of a liability than an asset. While yield may be important, yield matters when the commodity has the minimum quality required: “[y]ield, based on the price of the commodity that you have” EX2021,135:5-14 (emphasis added). By way of example, a 50% increase in yield is meaningless if no one is willing to buy the crop.

Id. at 290:12-291:20. Moreover, Dr. Jacobsen was unable to even identify the particular Colby formula he purportedly used in his yield analysis. *Id.* at 287:10-288:2.

Accordingly, Dr. Jacobsen's opinions and analysis as to yield do not meet *Daubert*.

IV. Conclusion

For the reasons stated herein, Petitioner requests exclusions of EX2020, in at least paragraphs 88-90, 246-249, 251, 253-257, 259-261-267, 271, 272, Tables D, E, F, G, H, I, and J (and related paragraphs 239-244, 258, and 269; as well as pages 1-22 (yield), 23-46 (defoliation), and 47-95 (disease efficacy) of Appendix B).

Date: March 19, 2024

Respectfully submitted,

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Certificate of Service

Pursuant to 37 C.F.R. § 42.6(e), I hereby certify that on March 19, 2024, a copy of the foregoing PETITIONER’S MOTION TO EXCLUDE CERTAIN OPINIONS OF JACOBSEN’S DECLARATION was provided via email to the following:

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