



Draft Assessment Report

Evaluation of Active Substances

Plant Protection Products

Prepared according to **assimilated Regulation No 1107/2009**
as it applies in Great Britain

**Aqueous extract from the germinated seeds
of sweet *Lupinus albus***

Volume 2

Great Britain

February 2025

Version History

When	What
June 2024	Initial DAR
February 2025	Updates made after ECP
February 2025	Updates made after additional information submitted post ECP
	Updates made after public consultation
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	[Updates made after any additional steps not covered by the above]

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A. LIST OF THE TESTS, STUDIES AND INFORMATION SUBMITTED

A.1. Identity

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 1.8/01	Anon.	1996	ACNFP Annual Report 1996 Ministry of Agriculture, Fisheries and Food and Department of Health Not GLP, Published	N	N	N/A		

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CA 1.8/02	Anon.	2021	Schedule 19 - Maximum levels of contaminants and natural toxicants Food Standards Australia New Zealand Not GLP, Published	N	N	N/A		
CA 1.9/01	Carreira, A.	2016	Antifungal activity of purified BLAD protein versus PROBLAD PLUS CEV SA Company Report Number: CEV-ABB- 0311 Not GLP, Unpublished	N	N	N/A	CEV	

CA 1.9/02	Carreira, A.	2019	Quantification of quinolizidine alkaloids (QAs) in PROBLAD PLUS and <i>Lupinus albus</i> seeds Report No. CEV-QCLR-19.11-01 Not GLP Unpublished	N	N	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 1.9/03	Moseley, R.	2019	Q 40 Sweet Lupin (seeds) <i>Lupinus albus</i> L. germ., ext. ERM, UK Company Report Number: 0387776-ID1 Not GLP, Unpublished	N	N	N/A	CEV	
CA 1.9/04	Moseley, R.	2019	Q 41 Sweet Lupin (seeds) <i>Lupinus albus</i> L. germ., ext. ERM, UK Company Report Number: 0387776-ID2 Not GLP, Unpublished	N	N	N/A	CEV	

CA 1.11/01a	Zehr, P.S.	2013	PROBLAD PLUS - Preliminary Analysis Company Report No. 32342 (amended) Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 1.11/01b	Gravelle, W.D.	2021	PROBLAD PLUS: Preliminary Analysis of PROBLAD PLUS Company Report No. 54468 CEV GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 1.11/02a	Carreira, A.	2018	Addendum to the study report Zehr, P.S. (2013) – PROBLAD PLUS: Preliminary analysis (PSL Study Number #32342) - containing the validation data of the HPLC method for the quantification of BLAD lead component in PROBLAD PLUS Fungicide Company Report No. CEV-QCLR-18.07-02 CEV, S.A, Portugal GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 1.11/02b	Carreira, A.	2020	Certificate of Analysis of Batch#1 Problad Plus ABC Testing, Inc, USA Report Number: 305322 Not GLP, Unpublished	N	N	N/A	CEV	None

CA 1.11/03a	Barata, A.	2018	PROBLAD PLUS – Data for registration in Europe (September 2018) CEV SA, Portugal Company Report Number: N/A Not GLP, Unpublished	N	N	N/A	CEV	None
CA 1.11/03b	Carreira, A.	2020	Certificate of Analysis of Batch#2 Problad Plus ABC Testing, Inc, USA Company Report Number: 305323 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 1.11/04	Carreira, A.	2020	Certificate of Analysis of Batch#3 Problad Plus ABC Testing, Inc, USA Report Number: 305324 Not GLP, Unpublished	N	N	N/A	CEV	None

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CA 1.11/05	Carreira, A.	2020	Certificate of Analysis of Batch#4 Problad Plus ABC Testing, Inc, USA Report Number: 305325 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 1.11/06	Carreira, A.	2020	Certificate of Analysis of Batch#5 Problad Plus ABC Testing, Inc, USA Report Number: 305326 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 1.11/07	LaRue, D.	2021	5-Batch Screening Study for the Quantitation of Phytic Acid in PROBLAD PLUS (Aqueous extract from the germinated seeds of sweet <i>Lupinus albus</i>) Report No. EFII- 201104 CEV GLP, Unpublished	N	N	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

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CA 1.9/02	Carreira, A.	2019	Quantification of quinolizidine alkaloids (QAs) in PROBLAD PLUS and Lupinus albus seeds Report No. CEV- QCLR-19.11-01 Not GLP Unpublished	N	N	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
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A.2. Physical and chemical properties

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 2.1/01	Wo, C.	2012a	PROBLAD PLUS: Physical and Chemical Characteristics: Boiling Point Company Report No. 34852 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 2.3/01	Wo, C.	2012b	PROBLAD PLUS Physical and Chemical Characteristics: Color, Physical State, Odor, Oxidation/Reduction, Flammability, pH,	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Viscosity, and Density/Relative Density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished					
CA 2.4/01	Wo, C.	2019	BLAD standard Physical and Chemical Characteristics: UV/Visible absorption Company Report No. 48288 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 2.10/01	Wo, C.	2012b	PROBLAD PLUS Physical and Chemical Characteristics: Color, Physical State, Odor, Oxidation/Reduction, Flammability, pH, Viscosity, and Density/Relative Density (amended)	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished					
CA 2.11/01	Cage, S.	2013	PROBLAD PLUS: Explosive properties and oxidising properties Company Report No. MIB0036 Huntingdon Life Sciences, Eye, UK GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 2.12/01	Lien, T.P.	2013	Surface tension of PROBLAD PLUS Company Report No. S13-00831	N	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None

			Eurofins, Germany GLP, Unpublished			Regulation No 1107/2009		
CA 2.13/01	Wo, C.	2012b	PROBLAD PLUS Physical and Chemical Characteristics: Color, Physical State, Odor, Oxidation/Reduction, Flammability, pH, Viscosity, and Density/Relative Density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA	Cage, S.	2013	PROBLAD PLUS: Explosive properties	N	Y	Data protection is claimed in	CEV	None

2.13/02			and oxidising properties Company Report No. MIB0036 Huntingdon Life Sciences, Eye, UK GLP, Unpublished			accordance with Article 59 of assimilated Regulation No 1107/2009		
CP 2.1/01	Gravelle, W.D.	2014a	PROBLAD PLUS: Accelerated storage stability and corrosion characteristics study (amended) Company Report No. 35988 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.1/02	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion characteristics study — 24 month interim report	N	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None

			Company Report No. 35987 Eurofins PSL, USA GLP, Unpublished			Regulation No 1107/2009		
CP 2.1/03	Wo, C.	2012b	PROBLAD PLUS: Physical and chemical characteristics: color, physical state, odor, oxidation/reduction, flammability, pH, viscosity, and density/relative density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.2/01	Cage, S.	2013	PROBLAD PLUS: Explosive properties and oxidising properties Company Report No. MIB0036 Huntingdon Life Sciences, Eye, UK	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			GLP, Unpublished					
CP 2.3/01	Wo, C.	2012b	PROBLAD PLUS: Physical and chemical characteristics: color, physical state, odor, oxidation/reduction, flammability, pH, viscosity, and density/relative density Company Report No. 32388 (amended) Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.4/01	Gravelle, W.D.	2014a	PROBLAD PLUS: Accelerated storage stability and corrosion characteristics study Company Report No. 35988 (amended) Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CP 2.4/02	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion characteristics study 24 month interim report Company Report No. 35987 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.4/03	Wo, C.	2012b	PROBLAD PLUS: Physical and chemical characteristics: color, physical state, odor, oxidation/reduction, flammability, pH, viscosity, and density/relative density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CP 2.5/01	Wo, C.	2012b	PROBLAD PLUS: Physical and chemical characteristics: color, physical state, odor, oxidation/reduction, flammability, pH, viscosity, and density/relative density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.5/02	Wo, C.	2018	PROBLAD PLUS: Surface tension Company Report No. 48183 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.6/01	Wo, C.	2012b	PROBLAD PLUS: Physical and chemical	N	Y	Data protection is claimed in accordance with	CEV	None

			characteristics: color, physical state, odor, oxidation/reduction, flammability, pH, viscosity, and density/relative density (amended) Company Report No. 32388 Eurofins PSL, USA GLP, Unpublished			Article 59 of assimilated Regulation No 1107/2009		
CP 2.7/01	Gravelle, W.D.	2014a	PROBLAD PLUS: Accelerated storage stability and corrosion characteristics study (amended) Company Report No. 35988 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.7/02	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion	N	Y	Data protection is claimed in accordance with	CEV	None

			characteristics study 24 month interim report Company Report No. 35987 Eurofins PSL, USA GLP, Unpublished			Article 59 of assimilated Regulation No 1107/2009		
CP 2.7/03	Gravelle, W.D.	2014b	Stability of a liquid formulation at 0°C (amended) Company Report No. 35989 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.8.2/01	Gravelle, W.D.	2014a	PROBLAD PLUS: Accelerated storage stability and corrosion characteristics study (amended) Company Report No. 35988 Eurofins PSL, USA	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			GLP, Unpublished					
CP 2.8.2/02	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion characteristics study — 24 month interim report Company Report No. 35987 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.8.2/03	Comb, T.	2020	PROBLAD PLUS: Persistent foaming Study number: ENV- 20-338 AgroChemex Environmental Ltd GLP Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.8.4/01	Gravelle, W.D.	2014a	PROBLAD PLUS: Accelerated storage stability and corrosion characteristics study	N	Y	Data protection is claimed in accordance with Article 59 of	CEV	None

			(amended) Company Report No. 35988 Eurofins PSL, USA GLP, Unpublished			assimilated Regulation No 1107/2009		
CP 2.8.4/02	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion characteristics study 24 month interim report Company Report No. 35987 Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 2.11/01	Centrella, B.	2015	Storage stability of PROBLAD PLUS biochemical fungicide: evaluation of biological activity of BLAD after two year storage stability Company Report No.	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			CEV032714 Eurofins microbiology laboratories, Inc., USA Not GLP, Unpublished					
CP 2.11/02	Bance, G.	2021	Spray Application Testing of PROBLAD PLUS Study number: JD/21/001/2 Battelle UK GLP Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

A.3. Data on application and efficacy

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CP 6.9.1/01	Rocha, J.P.	2007	Evaluation of PROBLAD fungicide efficacy on the control of powdery mildew (<i>Uncinula necator</i> (Schw.) Burr – UNCINE) in grape (<i>Vitis vinifera</i> – VITVI) AgroSearch – Experimentação Agrícola, Lda, Portugal Company Report No. 13/009/07 GEP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CP 6.9.1/02	Rocha, J.P.	2009	Evaluation of PROBLAD Fungicide efficacy on the control of Botrytis (<i>Botryotinia fuckeliana</i> – sexual form of Botrytis cinerea – BOTRCI) in strawberry (<i>Fragaria x ananassa</i> – FRAAN) AgroSearch – Experimentação Agrícola, Lda, Portugal Company Report No. 13/001/09 GEP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 6.9.1/03	Rocha, J.P.	2011	Evaluation of PROBLAD Fungicide efficacy on the control of Botrytis (<i>Botryotinia fuckeliana</i> – sexual form of Botrytis cinerea – BOTRCI) in strawberry (<i>Fragaria x ananassa</i> – FRAAN) AgroSearch –	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Experimentação Agrícola, Lda, Portugal Company Report No. 13/008/11 GEP, Unpublished					
CP 6.9.1/04	Rocha, J.P.	2012	Evaluation of PROBLAD Fungicide efficacy on the control of powdery mildew (<i>Leveillula taurica</i> – LEVETA) in tomato (<i>Lycopersicon esculentum</i> – LYPES) AgroSearch – Experimentação Agrícola, Lda, Portugal Company Report No. 13/016/12 GEP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 6.9.1/05	Rocha, J.P.	2013	Evaluation of PROBLAD Fungicide	N	Y	Data protection is claimed in	CEV	None

			efficacy on the control of Botrytis (Botryotinia fuckeliana – sexual form of Botrytis cinerea – BOTRCI) in tomato (Solanum lycopersicum – LYPES) AgroSearch – Experimentação Agrícola, Lda, Portugal Company Report No. 13/020/13 GEP, Unpublished			accordance with Article 59 of assimilated Regulation No 1107/2009		
CP 6.9.2/01	Dunbar, D.	2011a	Control of Botrytis Fruit Rot of Strawberries with PROBLAD BL 178 R3 Ag Consulting - Crop Science Services LLC, United States Company Report No. CSS124-11 Not GEP,	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Unpublished					
CP 6.9.2/02	Dunbar, D.	2011b	Control of Botrytis Fruit Rot of Tomatoes with PROBLAD BL 178 R3 Ag Consulting - Crop Science Services LLC, United States Company Report No. NA GEP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 6.9.2/03	Dunbar, D.	2011c	Control of Botrytis Bunch Rot on Grapes with PROBLAD BL 178 R3 Ag Consulting - Crop Science Services LLC, United States Company Report No. NA	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			GEP, Unpublished					
CP 6.9.2/04	Dunbar, D.	2011d	Control of Powdery Mildew on Grapes with PROBLAD BL 178 R3 Ag Consulting - Crop Science Services LLC, United States Company Report No. NA GEP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

A.4. Further information

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 3.8/01	Anonymous	2016	Safety Data Sheet PROBLAD PLUS, Company Report No. Not stated Not GLP, Unpublished	N	N	N/A	CEV	None
CP 4/01	Anonymous	2016	Safety Data Sheet PROBLAD PLUS Company Report No. Not stated Not GLP, Published	N	N	N/A	CEV	None
CP 4.2/01	Gravelle, W.D.	2014	Effectiveness of cleaning procedures, small scale (amended)	N	Y	Data protection is claimed in accordance with Article 59 of	CEV	None

			Company Report No. 35990 Eurofins PSL, USA GLP, Unpublished			assimilated Regulation No 1107/2009		
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A.5. Methods of analysis

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 4.1.1/01	Zehr, P.S.	2013	PROBLAD PLUS - Preliminary Analysis Company Report No. 32342 (amended) Eurofins PSL, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.1/02	Carreira, A.	2018a	Addendum to the study report Zehr, P.S. (2013) – PROBLAD PLUS: Preliminary analysis (PSL Study Number #32342) - containing the validation data of the HPLC method for	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			the quantification of BLAD lead component in PROBLAD PLUS Fungicide Company Report No. CEV-QCLR-18.07-02 CEV, S.A, Portugal GLP, Unpublished					
CA 4.1.1/03a	Anon.	2017	Crude protein by combustion Eurofins Nutrition analysis center, USA Report Number: O-TC-MET3362 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 4.1.1/03b	Carreira, A.	2020	Quantitative analysis of BLAD lead component in PROBLAD PLUS Fungicide using two different methods: HPLC and the modified Lowry method Report No. CEV-QCLR-20.12-01 Not GLP	N	N	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Unpublished					
CA 4.1.1/04a	Anon.	2014	Code of Federal Regulations Title 21 Food and Drugs Code of Federal Regulations, USA Report Number: N/A Not GLP, Published	N	N	N/A		
CA 4.1.1/04b	Heiman, P., Wu, V., Wang, W., Li, R.	2021	Validation Report for the Analytical Method for the Determination of Quinolizidine Alkaloids by GC-MS/MS Report No MVR 3.2.40_01 ABC Testing Inc. GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.1/05a	Merrill, A.L., Watt, B.K.	1973	Energy value of foods Agriculture handbook No. 74, USA Report Number: N/A Not GLP, Published	N	N	N/A		

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CA 4.1.1/05b	LaRue, D.	2021	5-Batch Screening Study for the Quantitation of Phytic Acid in PROBLAD PLUS (Aqueous extract from the germinated seeds of sweet <i>Lupinus albus</i>) Company Report No. EFII-201104 CEV GLP, Unpublished	N	N	N/A	CEV	None
CA 4.1.1/06	Anon.	2017	Crude fat by acid hydrolysis Eurofins Nutrition analysis center, USA Company Report Number: O-TC-MET3328 Not GLP, Unpublished	N	N	N/A	CEV	
CA 4.1.1/07	Anon.	2017	Acid detergent fiber in feeds – filter bag technique (for A2000 and A20001) ANKOM technology Company Report Number: ADF Method 12 Not GLP, Published	N	N	N/A		

CA 4.1.1/08	Anon.	2017	Neutral detergent fiber in feeds – filter bag technique (for A2000 and A20001) ANKOM technology Report Number: ADF Method 13 Not GLP, Published	N	N	N/A		
CA 4.1.1/09	Unknown	2017	Phytic acid ; Method Summary Report No. O-TC-WI17342 1 Eurofins Nutrition Analysis Center Not GLP Not published	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.1/10	Ellis, R, Morris, E.R., Philpot, C.	1976	Quantitative determination of phytate in the presence of high inorganic phosphate US Department of Agriculture, USA Report Number: N/A Not GLP, Published	N	N	N/A		
CA 4.1.1/11	Anon.	2016	Determining acid detergent lignin in beakers ANKOM technology Report Number: ADF	N	n	N/A		

			Method 8 Not GLP, Published					
CA 4.1.1/12	Brehmer, E.	2018	Phytic Acid Quantification in a Representative Commercially Scaled Batch of Sweet Lupin (seeds), <i>Lupinus albus</i> , L. germ. ext. [PROBLAD PLUS] Eurofins Food integrity & innovation Not GLP Not published	N	N	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.2/01	Gravelle, W.D.	2015	PROBLAD PLUS: Storage stability and corrosion characteristics study — 24 month interim report Company Report No. 35987 Product Safety Labs, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 4.1.2/02	Carreira, A.	2018b	Addendum to the study report Gravelle, W.D. (2016) – PROBLAD PLUS: Storage Stability and Corrosion Characteristics Study (PSL Study Number #35987) - containing the validation data of the modified Lowry method for the quantification of BLAD lead component in PROBLAD PLUS Fungicide Company Report No. CEV-QCLR-18.06-01 CEV, S.A, Portugal GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.2/03	Wo, C	2018	Physical and chemical characteristics: UV/Vis absorption spectra	N	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None






			Company Report No. 48182 CEV, S.A, Portugal GLP, Unpublished			Regulation No 1107/2009		
	Vespestad, D.	2014	APPENDIX B: ELISA Analytical Methods for Determination of BLAD Protein in Grape and Tomato Residue In Magnitude and Decline of BLAD Residues Following Application of ProBLAD Plus to Grapes, Strawberries, and Tomatoes Report No. S13-04129 CEV, S.A, Portugal GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No. 1107/2009	CEV	None

CA 4.1.2/04	Perry, A.	2019	Validation of an Enzyme Linked Immunoassay (ELISA) Method for the determination of PROBLAD PLUS in test medium used for honey bee larval toxicity and adult honey bee chronic feeding tests Eurofins Agroscience Services Ltd, UK Company Report Number: S19-21256 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 4.1.2/05	Perry, A.	2019	Validation of an Enzyme Linked Immunoassay (ELISA) Method for the determination of PROBLAD PLUS in test medium used for acute toxicity to green alga, acute toxicity to daphnia and chronic toxicity to daphnia Eurofins Agroscience Services Ltd, UK Company Report	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Number: S18-08251 GLP, Unpublished					
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A.6. Toxicology and metabolism data

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 5.1/01	Gledhill, A.	2019	ADME properties of quinolidizine alkaloids present in sweet lupin seeds (sparteine, lupanine, 13a-OH lupanine and lupinine) ERM, UK Company Report Number: 0387776-Tox2 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 5.2.1/01		2012a	PROBLAD PLUS: Acute oral toxicity up and down procedure in rats (amended report) Company Report No. 31002	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None

			 GLP, Unpublished			Regulation No 1107/2009		
CA 5.2.2/01		2012b	PROBLAD PLUS: Acute dermal toxicity study in rats – limit test (amended report) Company Report No. 31003  GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.2.3/01		2012c	PROBLAD PLUS: Acute inhalation toxicity study in rats – limit test (amended report) Company Report No. 30998 	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			GLP, Unpublished					
CA 5.2.4/01		2012d	PROBLAD PLUS: Primary skin irritation study in rabbits (amended report) Company Report No. 31000 [REDACTED], GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.2.5/01		2012e	PROBLAD PLUS: Primary eye irritation study in rabbits (amended report) Company Report No. 30999 [REDACTED], GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 5.2.6/01		2012f	PROBLAD PLUS: Dermal sensitisation study in guinea pigs (Buehler method) (amended report) Company Report No. 31004 GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.2.6/02	Boavida Ferreria, R.	2011	Potential allergenicity of lupine seeds (<i>Lupinus</i> sp.) with special emphasis on BLAD, an intermediate in the breakdown process of the major storage protein during germination of lupine seeds Company Report No. CEV110820 Instituto de Tecnología Química e Biológica,	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None


			Universidade Nova de Lisboa, Portugal Not GLP, Unpublished					
CA 5.2.6/03a	Todo-Bom, A.; Loureiro, C.	2013	Evaluation of the allergenic and cross-allergenic potential of the BLAD polypeptide Company report CHUC-021113 Immuno-Allergology Department, Coimbra University Hospital, Portugal Not GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.2.6/03b	Todo-Bom, A.	2014	Evaluate the Allergenic and Cross-allergenic Potential of the BLAD Polypeptide (Supplement to Study Report No.CHUC-	N	N	N/A	CEV	

			021113; MRID 49276602) Immuno-Allergology Department, Coimbra University Hospital, Portugal Company Report Number: CHUC-066- 13 Not GLP, Unpublished					
CA 5.3.2/01		2015	PROBLAD PLUS: 13 week oral (gavage) administration toxicity study in the rat Company Report No. 8325453 GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.3.3/01		2015	PROBLAD PLUS. 21 day dermal administration toxicity study in the rat (OECD 410)	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None

			Company Report No. 8297704 [REDACTED] GLP, Unpublished			Regulation No 1107/2009		
CA 5.4.1.1/01	Ballantyne, M.	2016	PROBLAD PLUS: Bacterial reverse mutation assay using a treat and plate modification Company Report No. 8325399 Covance Laboratories Ltd, Harrogate, UK GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.4.1.2/01	Keig-Shevin, Z.	2015a	PROBLAD PLUS: In vitro L5178Y gene mutation assay at the tk locus Company Report No. 8325403 Covance Laboratories Ltd, Harrogate, UK	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			GLP, Unpublished					
CA 5.4.1.3/01	Lloyd, M.	2015	PROBLAD PLUS: In vitro human lymphocyte micronucleus assay Company Report No. 8325400 Covance Laboratories Ltd, Harrogate, UK GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 5.4.2.1/01	[REDACTED],	2015b	PROBLAD PLUS: Rat alkaline comet assay Company Report No. 8325402 [REDACTED] GLP, Unpublished	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 5.8.1/02	Gledhill, A.	2019	In silico prognosis of the toxicity potential of quinolidizine alkaloids present in sweet lupin seeds and Problad Plus (sparteine, 13-OH lupanine and lupinine) ERM, UK Company Report Number: 0387776-Tox4 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 5.8.2/01a	Resta, D., et al	2008	Evaluation of total quinolizidine alkaloids content in lupin flours, lupin-based ingredients, and foods Mol. Nutr. Food Res. 52, pp 490 – 495 Report Number: N/A Not GLP, Published	N	N	N/A	N/A	
CA 5.8.3/01	Bowen, D.	2019	PROBLAD PLUS: Endocrine disruption assessment for humans ERM, UK Report Number: 0387776-Tox1	N	N	N/A	CEV	

			Not GLP, Unpublished					
CA 5.8.3/02	Bowen, D.	2019	Sweet Lupin (seeds), <i>Lupinus albus</i> L., germ., ext Appendix E ERM, UK Report Number: 0387776-Tox3 Not GLP, Unpublished	N	N	N/A	CEV	
CA 5.8.4/01	Suarez- Rodriguez, D. and Fowler, P.	2018	In silico prognosis of  lupanine & phytic acid FStox Consulting, UK Not GLP, Unpublished	N	N	N/A	CEV	None
CA 5.8.4/02	Anon.	1996	ACNTP Annual Report. Appendix IX ACNFP report on seeds from the narrow leave lupin (<i>Lupinus angustifolius</i>) Ministry of Agriculture, Fisheries	N	N	N/A		

			and Food and Department of Health, UK Report Number: NA Not GLP, Published					
CA 5.8.4/03	Fiocchi, A., Sarratud, P., Terracciano, L. Vacca, E., Bernardini, R., Fuggetta, D. Ballabio, C., Duranti, M., Magni, C. & Restani, P.	2009	Assessment of the tolerance to lupine- enriched pasta in peanut-allergic children Clinical & Experimental Allergy. 39 pp 1045-1051 Report Number: NA Not GLP, Published	N	N	N/A		

CA 5.8.4/04	Guillamón, E., Rodríguez, J., Burbano, C., Muzquiz, M., Pedrosa, M.M., Cabanillas, B., Crespo, J.F., Sancho, A.I., Millis, E.N.C. & Cuadrado, C.	2010	Characterisation of lupin allergens (<i>Lupinus albus</i> L.) Molecular Nutrition & Food Research. 54 pp 1668-1676 Report Number: N/A Not GLP, Published	N	N	N/A		
CA 5.8.4/05	Ballaio, C., Penas, E., Uberti, F., Fiocchi, A., Duranti, M., Magni, C. & Restani, P.	2013	Characterisation of the sensitisation profile to lupin in peanut-allergic children and assessment of cross-reactivity risk Pediatric Allergy and Immunology. 24 pp 270-275 Report Number: N/A Not GLP, Published	N	N	N/A		

CA 5.8.4/06	Peeters, K.A.B.M., Koppelman, Penninks, A.H., Lebens, A., Bruijnzeel-Koomen, C.A.F.M., Hefle, S.L., Taylor, S.L., van Hoffen, E. & Knulst, A.C.	2008	Clinical relevance of sensitisation to lupine in peanut-sensitised adults Allergy. 64 pp 549-555 Report Number: N/A Not GLP, Published	N	N	N/A		
CA 5.8.4/07	Sirtori, E., Resta, D., Arnoldi, A., Savelkoul, H.F.J. & Wichers, H.J.	2011	Cross-reactivity between peanut and lupin proteins Food Chemistry. 126 pp 902-910 Report Number: N/A Not GLP, Published	N	N	N/A		

CA 5.8.4/08	Sanz, M.L., de Las Marinas, M.D. Fernández, J. & Gamboa, P.M.	2010	Lupin allergy: a hidden killer in the home Clinical & Experimental Allergy. 40 pp 14691-1466 Report Number: N/A Not GLP, Published	N	N	N/A		
CA 5.8.4/09	Peeters, K.B.M., Nordlee, J.A., Penninks, A.H., Chen, L., Goodman, R.E., Bruijnzeel- Koomen, C.A.F.M., Hefle, S.L., Taylor, S.L. & Knulst, A.C.	2007	Lupine allergy: not simply cross-reactivity with peanut or soy Journal of Allergy and Clinical Immunology 120, pp 647–653 Report Number: N/A Not GLP, Published	N	N	N/A		

CA 5.8.4/10	de Jong, N.W., van Maaren, M.S., Vlieg-Boersta, B.J., Dubois, A.E.J., de Groot, H. & van Wijk, R.G.	2010	Sensitisation to lupine flour: is it clinically relevant? Clinical & Experimental; Allergy 40, pp 1571-1577 Report Number: N/A Not GLP, Published	N	N	N/A		
CA 5.8.4/11	Hefle, S.L., Lemanske Jr, R.F. & Bush, R.K.	1994	Adverse reaction to lupine-fortified pasta Journal of Allergy & Clinical Immunology 94, pp 167–172 Report Number: N/A Not GLP, Published	N	N	N/A		
CA 5.9.1/01	Barata, A.	2016	Information to address data requirements 5.9 and 5.9.1 of the Commission Regulation (EU) No 283/2013, in accordance with Regulation (EC) No 1107/2009	Y	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Company Report No. n/a CEV SA, Portugal					
CP 7.3/01	Gledhill, A.	2019	Expert opinion on the dermal penetration of BLAD ERM, UK Company Report Number: 0387776-Tox3 Not GLP, Unpublished	N	N	N/A	CEV	
CP 7.4/01	Anonymous	2014	SDS [REDACTED] [REDACTED] Company Report Number: N/A Not GLP, Unpublished CONFIDENTIAL INFORMATION	N	N	N/A	CEV	
CP 7.4/02	Anonymous	2015	SDS [REDACTED] [REDACTED] Company Report Number: N/A Not GLP, Unpublished	N	N	N/A	CEV	

			CONFIDENTIAL INFORMATION					
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A.7. Residue data

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 6.2.1/01	Monteiro, S.	2011	BLAD residue test Company Report No. CEV110310 Not GLP, Unpublished	N	N	N/A	CEV	None
CA 6.2.1/02	Ferreira, R.B.	2011	Potential allergenicity of Lupine seeds (<i>Lupinus</i> sp.) with special emphasis on BLAD, an intermediate in the breakdown process of the major storage protein during germination of lupine seeds	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			Company Report No. CEV110820 Instituto de Tecnologia Química e Biológica Universidade Nova de Lisboa, Portugal Not GLP, Unpublished					
CA 6.2.1/03	Monteiro, S., Freitas, R., Rajasekhar, B.T., Teixeira, A.R., Ferreira, R.B.	2010	The unique biosynthetic route from <i>Lupinus</i> β -Conglutin gene to BLAD Company Report No. N/A Not GLP, Published	N	N	N/A	PLoS one	None
CA 6.2.1/04	Vespestad, D.	2014	APPENDIX B: ELISA Analytical Methods for Determination of BLAD Protein in Grape and Tomato Residue	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

			In Magnitude and Decline of BLAD Residues Following Application of ProBLAD Plus to Grapes, Strawberries, and Tomatoes Company Report No. S13-04129 CEV, S.A, Portugal GLP, Unpublished					
CA 6.3.1/01a	Vespestad, D.	2014	Magnitude and Decline of BLAD Residues Following Application of ProBLAD Plus to Grapes, Strawberries, and Tomatoes Eurofins Agroscience Services, Inc., USA Company Report Number: S13-04129 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 6.3.1/01b	Anon.	2014	RESIDUE DATA FROM SUPERVISED TRIALS (SUMMARY) Source: CEV SA, USA Company Report Number: N/A	N	N	N/A	CEV	None

			Not GLP, Unpublished					
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A.8. Environmental fate and behaviour

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 7.1.1.1/01	BrunswikTitze, A.	2015	Biodegradability, CO ₂ -evolution test according to OECD 301 B (July 1992) Hydrotox .- Labor für, Ökotoxikologie und, Gewässerschutz GmbH Report No. 1035 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 7.1.1.1/02	Carreira, A.	2014	Assessment of the ready biodegradability of BLAD with the closed bottle test and SDS-PAGE CEV S.A Report No. CEV-ABB-0914 Not GLP, Unpublished	N	N	-	CEV	None
CA 7.1.1.1/03	Dengler, D.	2010	PROBLAD PLUS: Assessment of ready biodegradability with the	N	Y	Data protection is claimed in	CEV	None

			closed bottle test. Company report no. S10-026240 Eurofins Agroscience Services GmbH GLP, unpublished Data required to support registration ⇒ 7.2.2.1/03			accordance with Article 59 of assimilated Regulation No 1107/2009		
CA 7.1.1.2/01	ERM	2024	Position paper: Fate request for additional information following ECP advice Report No: 0728696 Non GLP. Unpublished	N	N	n/a	ERM	None
CA 7.1.1.2/02	Adamczyk, B.	2021	Root-derived proteases as a plant tool to access soil organic Nitrogen; current state of knowledge and controversies. Plants (Basel) 10(4): 731 Non GLP Published	N	N	-	n/a	None
CA 7.1.1.2/03	Greenfield, L.M., Hill, P.W., Paterson, E.,	2020	Do plants use root-derived proteases to promote the uptake of soil organic nitrogen?	N	N	-	n/a	None

	Briggs, E.M., Jones, D.L.		Plant Soil, 456(1): 355-367. Non GLP Published					
CA 7.1.1.2/04	Greenfield, L.M., Puissant, J., Jones, D.L.	2021	Synthesis of methods used to assess soil protease activity. Soil Biology and Biochemistry Volume 158 Non-GLP Unpublished	N	N	-	n/a	None
CA 7.1.1.2/05	Jan, M.T., Roberts, P., Tonheim, S.K., Jones, S.L.	2009	Protein breakdown represents a major bottleneck in nitrogen cycling in grassland soils. Soil Biology & Biochemistry 41: 2272- 2282. Non-GLP Unpublished	N	N	-	n/a	None
CA 7.1.2.1.1/01	BrunswikTitze, A.	2015	Biodegradability, CO2- evolution test according to OECD 301 B (July 1992) Hydrotox .- Labor für, Ökotoxikologie und, Gewässerschutz GmbH Report No. 1035 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 7.1.2.1.1/02	Carreira, A.	2014	Assessment of the ready biodegradability of BLAD with the closed bottle test and SDS-PAGE CEV S.A Report No. CEV-ABB-0914 Not GLP, Unpublished	N	N	-	CEV	
CA 7.1.2.1.1/03	Dengler, D.	2010	PROBLAD PLUS: Assessment of ready biodegradability with the closed bottle test. Company report no. S10-02624 Eurofins Agrosience Services GmbH GLP, unpublished Data required to support registration ⇒ 7.2.2.1/03	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	
CA 7.1.2.1.1/04	Monteiro, S., Carreira, A., Freitas, R., Margarida Pinheiro, A., Boavida Ferreira, R.	2015	A nontoxic polypeptide oligomer with a fungicide potency under agricultural conditions which is equal or greater than that of chemical counterparts. PLoS ONE 10(4): e0122095. Doi	N	N	-	Published	None

			1371/journal.pone.0122095 Not GLP, Published					
CA 7.2.2.1/01	BrunswikTitze, A.	2015	Biodegradability, CO ₂ -evolution test according to OECD 301 B (July 1992) Hydrotox .- Labor für, Ökotoxikologie und, Gewässerschutz GmbH Report No. 1035 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 7.2.2.1/02	Carreira, A.	2014	Assessment of the ready biodegradability of BLAD with the closed bottle test and SDS-PAGE CEV S.A Report No. CEV-ABB-0914 Not GLP, Unpublished	N	N	-	CEV	
CA 7.2.2.1/03	Dengler, D.	2010	PROBLAD PLUS: Assessment of ready biodegradability with the closed bottle test. Company report no. S10-02624 Eurofins Agroscience	N	Y	Data protection is claimed in accordance with Article 59 of assimilated	CEV	None


			Services GmbH GLP, unpublished			Regulation No 1107/2009		
CA 7.2.2.1/03	Keifer, R.	2010	PROBLAD PLUS: Assessment of ready biodegradability with the closed bottle test. Analytical phase Determination of COD. Company report no. S10- 02624-L2 Eurofins Agroscience Services GmbH GLP, unpublished.	N	Y	Data protection is claimed in accordance with article 59 of assimilated Regulation No 1107/2009	CEV	None

A.9. Ecotoxicology data

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) GLP or GEP status Published or not	Vertebrate Study Y/N	Data Protection Claimed Y/N	Justification if Data Protection is claimed	Owner	Previous evaluation
CA 8.1.1.1/01	Arslan, C & Seker, E	2002	The effects of processed white lupin seeds (<i>Lupinus albus</i> L.) on growth performance of Japanese quail. Revue Med. Vet. 153, 10, 643-646 Non-GLP, Published	Y	N	N/A	N/A (published paper)	None
CA 8.1.1.1/02	Rubio, L. et al.	2003	Effects of feeding growing broiler chickens with practical diets containing sweet lupin (<i>Lupinus angustifolius</i> .) seed meal British Poultry Science. Volume 44, Issue 3. Non-GLP, Published	Y	N	N/A	N/A (published paper)	None

CA 8.1.1.1/03	Viveros, A. et al.	2007	Cholesterol-lowering effects of dietary lupin (<i>Lupinus albus</i> var Multolupa) in chicken diets . Poultry Science 86:2631-2638 doi: 10.3382/ps.2007-00128	Y	N	N/A	N/A	None
CA 8.1.1.1/04	Kaczmarek, S.A. et al.	2016	Influence of graded inclusion of white lupin (<i>Lupinus albus</i>) meal on performance, nutrients digestibility and intestinal morphology of broiler chickens. British Poultry Science, DOI: 10.1080/00071668.2016.1171295	Y	N	N/A	N/A	None
CA 8.1.1.1/05	Ravindran, G. et al.	2006	Total and ileal digestible tryptophan contents of feedstuffs for broiler chickens. J Sci Food Agric 86:1132-1137 (2006)	Y	N	N/A	N/A	None
CA 8.1.1.1/06	Olkowski, B. I. et al.	2005	Feeding High Levels of Lupine Seeds to Broiler Chickens: Plasma Micronutrient Status in the Context of Digesta Viscosity and Morphometric and Ultrastructural Changes in the Gastrointestinal Tract. Poultry Science 84:1707–1715	Y	N	N/A	N/A	None

CA 8.1.2.2/01	Ephrem, N. et al.	2015	Nutrient intake, digestibility and growth performance of Washera lambs supplemented with graded levels of sweet blue lupin (<i>Lupinus angustifolus</i> L.) seed. Small Ruminant Research 130 (2015) 101-107.	Y	N	N/A	N/A	None
CA 8.1.2.2/02	Kim, J. C.	2012	Performance and intestinal responses to dehulling and inclusion level of Australian sweet lupins (<i>Lupinus angustifolius</i> L.) in diets for weaner pigs. Animal feed science and technology. 201-209 172.	Y	N	N/A	N/A	None
CA 8.1.2.2/03	Volek, Z. & Marounek, M.	2009	Whole white lupin (<i>Lupinus albus</i> cv. Amiga) seeds as a source of protein for growing-fattening rabbits. Animal Feed Science and Technology 152 (2009) 322–329	Y	N	N/A	N/A	None
CA 8.2.1/01	██████████	2011	Assessment of Toxic Effects of PROBLAD on Rainbow Trout (<i>Oncorhynchus mykiss</i>)	Y	Y	Data protection is claimed in	CEV	None

			(Teleostei, Salmonidae) Company Report No. S10-02621  GLP, Unpublished			accordance with Article 59 of assimilated Regulation No 1107/2009		
CA 8.2.2/01	Zhang, Y. et al.	2012 a	Optimal inclusion of lupin and pea protein concentrates in extruded diets for rainbow trout (<i>Oncorhynchus mykiss</i>). Aquaculture 344-349 (2012) 100–113	Y	N	N/A	N/A	None
CA 8.2.2/02	Hemre et al.	2009	Criteria for safe use of plant ingredients in diets for aquacultured fish (Opinion of the Panel on Animal Feed of the Norwegian Scientific Committee for Food Safety) Note that the present summary includes details on lupins. The paper also analyses the effect of the use of soybean, pea, canola, sunflower, cotton seed, wheat gluten, potato protein. 1365-2109 in Aquaculture Research, 2010, 1-12	N	N	N/A	N/A	None

CA 8.2.2/03	Yones, A. M.	2010	Effect of lupin kernel meal as plant protein source in diets of Red hybrid tilapia (<i>Oreochromis niloticus</i> x <i>O. mossambicus</i>) on growth performance and nutrients utilisation. African J. Biol. Sci., 6 (1) : 1-16 (2010) ISSN 1687-4870	Y	N	N/A	N/A	None
CA 8.2.2/04	Molina-Poveda, C. et al.	2013	Evaluation of the potential of Andean lupin meal (<i>Lupinus mutabilis</i> Sweet) as an alternative to fish meal in juvenile <i>Litopenaeus vannamei</i> diets. Aquaculture 410-411 (2013) 148-156	Y	N	N/A	N/A	None
CA 8.2.2/05	Borquez et al., 2010.	2010	Feeding high inclusion of whole grain white lupin (<i>Lupinus albus</i>) to rainbow trout (<i>Oncorhynchus mykiss</i>) : effects on growth, nutrient digestibility, liver and intestine histology and muscle fatty acid composition. 1365-2109 in Aquaculture Research, 2010, 1-12.	Y	N	N/A	N/A	None

CA 8.2.2/06	Zhang, Y. et al.	2012 b	Mixtures of lupin and pea protein concentrates can efficiently replace high-quality fishmeal in extruded diets for juvenile black sea bream (<i>Acanthopagrus schlegeli</i>) Aquaculture 354-355 (2012) 68-74	Y	N	N/A	N/A	None
CA 8.2.2/07	Farhangi, M. & Carter, C. G.	2001	Growth, physiological and immunological responses of rainbow trout (<i>Oncorhynchus mykiss</i>) to different dietary inclusion levels of dehulled lupin (<i>Lupinus angustifolius</i>) Aquaculture Research, 2001, 32 (Suppl. 1), 329-340	Y	N	N/A	N/A	None
CA 8.2.2/08	Glencross, B. D.	2001	Feeding lupins to fish : A review of the nutritional and biological value of lupins in aquaculture feeds. P. 126. Department of Fisheries–Research Division, Government of Western Australia	N	N	N/A	N/A	None

CA 8.2.3/01	Serrano, E., et al	2011	Histology and growth performance in rainbow trout (<i>Oncorhynchus mykiss</i>) in response to increasing dietary concentration of sparteine, a common alkaloid in lupins Source: Aquaculture Nutrition, doi: 10.1111/j.1365-2095.2011.00899.x Not GLP, Published	N	N	N/A	N/A	None
CA 8.2.3/02	Serrano, E., et al	2008	Responses in rainbow trout (<i>Oncorhynchus mykiss</i>) to increasing dietary dose of lupinine alkaloid. Source: J.A. Palta and J.B. Berger (eds). 2008. 'Lupins for Health and Wealth' Proceedings of the 12 th International Lupin Conference ISBN 0-86476-153-8 Not GLP, Published	N	N	N/A	N/A	None
CA 8.2.4.1/01	Weber, K.	2011	Assessment of Toxic Effects of PROBLAD on <i>Daphnia magna</i> using the 48 h Acute Immobilisation Test Company Report No. S10-02622 Eurofins Agrosience Services GmBH	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation	CEV	None

			GLP, Unpublished			No 1107/2009		
CA 8.2.4.1/02	Gerke, A.K. and Schneider, S.Z.	2019	PROBLAD PLUS: A 48-hour static-renewal acute toxicity test with the cladoceran (<i>Daphnia magna</i>) Company report no. 896A-101 Eurofins EAG Agrosience, LLC, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.2.5.1/01	Gerke, A.K. and Schneider, S.Z.	2019	PROBLAD PLUS: A semi-static life-cycle toxicity test with the cladoceran (<i>Daphnia magna</i>) Company report no. 896A-102 Eurofins EAG Agrosience, LLC, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.2.6.1/01	Falk, S.	2011	PROBLAD: Testing of Effects of the Single Cell Green Alga <i>Desmodesmus subspicatus</i> in a 72 h Static Test Company Report No. S10- 02623	N	Y	Data protection is claimed in accordance with Article 59 of	CEV	None

			Eurofins Agrosience Services GmbH GLP, Unpublished			assimilated Regulation No 1107/2009		
CA 8.2.6.1/02	Arnie, J.R.	2019	PROBLAD PLUS: A 72-HOUR TOXICITY TEST WITH THE FRESHWATER ALGA (<i>Raphidocelis subcapitata</i>) Company report no. 896P-101 Eurofins EAG Agrosience, LLC, USA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.1.1/01	Kling, A.	2010	Problad- Acute Oral and Contact Toxicity to the Honeybee, <i>Apis mellifera</i> L., in the Laboratory Company Report No. S10- 02558 Eurofins Agrosience Services GmbH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 8.3.1.1.1/0 2	Aguilar-Alberola, J.A.	2019	PROBLAD PLUS: Acute oral toxicity to the honey bee <i>Apis mellifera</i> L., under laboratory conditions Company report no. S19-21875 Trialcamp S.L.U., Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.1.1.2/0 2	Aguilar-Alberola J.A.	2020	PROBLAD PLUS: Acute oral and contact Toxicity to the Bumblebee <i>Bombus terrestris</i> L., under Laboratory Conditions Company report no. S20-00599 Trialcamp S.L.U., 46290 Alcàsser (Valencia), Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.1.2/01	Harkin, S.	2015 a	PROBLAD PLUS: Chronic toxicity test for adult honeybees (<i>Apis mellifera</i> L.) Company Report No. B2CF1000 FERA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation	CEV	None

						No 1107/2009		
CA 8.3.1.2/02	AguilarAlberola, J.A.	2019	PROBLAD PLUS: Chronic oral toxicity test (10-day feeding) to the honey bee, <i>Apis mellifera</i> L. under laboratory conditions Company report no. S19-21016 Trialcamp S.L.U., Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.1.3/01	Harkin, S.	2015 b	PROBLAD PLUS: In vitro chronic toxicity to larval stage honeybee (<i>Apis mellifera</i> L.) Company report No: B2CF2000 FERA GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 8.3.1.3/02	AguilarAlberola, J.A.	2019	PROBLAD PLUS: Honey bee (<i>Apis mellifera</i> L.) larval toxicity test following repeated exposure under laboratory conditions Company report no. S19-21015 Trialcamp S.L.U., Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV SA	None
CA 8.3.2.1/01	Klug, T.	2010 a	PROBLAD-Toxicity to the Aphid Parasitoid, <i>Aphidius rhopalosiphii</i> De Stefani-Perez (Hymenoptera, Braconidae,) in the Laboratory Company Report No. S10-02555 Eurofins Agrosience Services GmBH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.2.1/02	Stevens, J.	2014	PROBLAD PLUS – A rate-response extended laboratory bioassay of the effects of fresh residues on the parasitic wasp <i>Aphidius rhopalosiphii</i> (Hymenoptera, Braconidae)	N	Y	Data protection is claimed in accordance with Article 59 of	CEV	None

			Company Report No: CEV-14-1 Mambo-Tox Ltd. GLP, Unpublished			assimilated Regulation No 1107/2009		
CA 8.3.2.2/01	Klug, T.	2010 b	PROBLAD: Toxicity to the Predatory Mite, Typhlodromus pyri Scheuten (Acari, Phytoseiidae) in the Laboratory (Rate Response Test) Company Report No. S10- 02556 Eurofins Agrosience Services GmbH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.3.2.2/02	Fallowfield, L.	2014	PROBLAD PLUS – A rate- response extended laboratory bioassay of the effects of fresh residues on the predatory mite Typhlodromus pyri (Acari: Phytoseiidae) Company Report No. CEV-14-2 Mambo-Tox Ltd. GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CP 8.3.2.2/01	Vaughan, R.	2017	PROBLAD PLUS – A rate-response extended laboratory test to determine effects on the green lacewing <i>Chrysoperla carnea</i> (Neuroptera, Chrysopidae) Mambo-tox Ltd. Southampton, UK Company report no. CEV-17-1 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.4.1/01	Ganssmann, M.	2010 a	Problad-Acute Toxicity on Earthworms, <i>Eisenia fetida</i> using an Artificial Soil Test Company Report No. S10-02557 Eurofins Agroscience Services GmBH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.4.1/02	Friedrich, S	2017	Effect of PROBLAD PLUS on the earthworm <i>Eisenia andrei</i> in artificial soil. Company Report No 17 48 TEC 0013	N	Y	Data protection is claimed in accordance with Article	CEV	None

			GLP, Unpublished			59 of assimilated Regulation No 1107/2009		
CA 8.4.1/03	Anton, B.	2020	PROBLAD PLUS: Sublethal Toxicity to the Earthworm <i>Eisenia andrei</i> (Oligochaeta, Lumbricidae) in Artificial Soil with 10 % Peat. Company report no. S20-00600 Trialcamp S.L.U., 46290 Alcàsser (Valencia), Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CA 8.5/01	Ganssmann, M.	2010 b	PROBLAD- Assessment of the Side Effects on the Activity of the Soil Microflora Company Report No. S10-02559 Eurofins Agroscience Services GmbH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 8.5/02	Elgharably, A. and Marschner, P	2011	Microbial activity and biomass and N and P availability in a saline sandy loam amended with inorganic N and lupin residues. European Journal of Soil Biology 47 310 – 315.	N	N	N/A	N/A	None
CA 8.5/03	Lelei, J. J. and Onwonga, R. N.	2014	Soil Fungal and Bacterial Populations in White Lupin (<i>Lupinus albus</i>) – Maize (<i>Zea mays</i> L) Cropping System Amended With Minjingu Phosphate Rock. Journal of Agriculture and Ecology Research International 1(1): 1-17, 2014; Article no. JAERI.2014.001	N	N	N/A	N/A	None
CA 8.6.2/01	Peterek, S.	2011	PROBLAD: Vegetative Vigour Limit Test for Non Target Plants on Six Plant Species Company Report No. S10-02560 Eurofins Agrosience Services GmbH GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None

CA 8.6.2/01	Huerta, F.	2020	PROBLAD PLUS: Effects on the Vegetative Vigour and on the Seedling Emergence and Growth of Six Non-Target Terrestrial Plant Species under Greenhouse Conditions Company report no. S20-05408 Trialcamp S.L.U., 46290 Alcàsser (Valencia), Spain GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 10.3.2.2/02	Vaughan, R	2017	PROBLAD PLUS- A rate-response extended laboratory test to determine effects on the green lacewing, <i>Chrysoperla carnea</i> (Neuroptera, Chrysopidae) Mambo-tox Ltd. Southampton, UK Study plan number CEV-17-1 GLP, Unpublished	N	Y	Data protection is claimed in accordance with Article 59 of assimilated Regulation No 1107/2009	CEV	None
CP 10.4.2/02	van Vliet, P.C.J., Gupta, V.V.S.R., and Abbott, L.K.	2000	Soil biota and crop residue decomposition during summer and autumn in south-western Australia Applied Soil Ecology 14 (2000) 111-124	N	N	N/A	N/A	None

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CP 10.6.2/01	Cookson, W.R., Beare, M.H., and Wilson, P.E.	1998	SUMMARY Effects of prior crop residue management on microbial properties and crop residue decomposition Applied Soil Ecology 7 (1998) 179 – 188 Not GLP, Published	N	N	N/A	N/A	None
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