



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Aflatoxin Testing						
Aflatoxin B1	ug/kg	0.80	2.00	Not Detected	FO0102	Bangkok
Aflatoxin B2	ug/kg	0.24	0.60	Not Detected	FO0102	Bangkok
Aflatoxin G1	ug/kg	0.80	2.00	Not Detected	FO0102	Bangkok
Aflatoxin G2	ug/kg	0.24	0.60	Not Detected	FO0102	Bangkok
Total Aflatoxins	ug/kg	0.80	2.00	Not Detected	FO0102	Bangkok
Chemical Parameters						
Protein (Nx5.95)	g/100g	0.10	1.19	16.5	FO0196	Bangkok
GMO Qualitative						
CaMV 35s Promoter	%	0.10	0.10	Not Detected	MC3203	Bangkok
NOS terminator	%	0.10	0.10	Not Detected	MC3203	Bangkok
Plant specific gene	-	-	-	Detected	MC3203	Bangkok
Metals and Major Cations						
Arsenic	mg/kg	0.005	0.01	0.01	ME0011	Bangkok
Cadmium	mg/kg	0.005	0.01	0.05	ME0011	Bangkok
Copper	mg/kg	0.05	0.10	4.44	ME0011	Bangkok
Lead	mg/kg	0.005	0.01	Not Detected	ME0011	Bangkok
Mercury	mg/kg	0.001	0.005	<0.005	ME0013	Bangkok
Tin	mg/kg	0.06	0.20	Not Detected	ME0011	Bangkok
Zinc	mg/kg	0.06	0.20	31.6	ME0011	Bangkok
Microbiological Parameters						
Bacillus cereus	CFU/g	-	-	<10	MC3014	Bangkok
Clostridium perfringens	CFU/g	-	-	<10	MC3024	Bangkok
Salmonella spp.	in 25g	-	-	Not Detected	MC3139	Bangkok

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Microbiological Parameters						
<i>Staphylococcus aureus</i>	in 0.1g	-	-	Not Detected	MC3127	Bangkok
Mycotoxins Testing						
Deoxynivalenol (DON) *	mg/kg	0.08	0.20	Not Detected	FO0110	Bangkok
Ochratoxin A	ug/kg	0.12	0.30	Not Detected	FO0120	Bangkok
Pesticides						
Paraquat *	mg/kg	0.002	0.005	Not Detected	FO0286	Bangkok
Paraquat dichloride *	mg/kg	0.003	0.007	Not Detected	FO0286	Bangkok
Paraquat [bis (methyl sulfate)] (paraquat methosulfate) *	mg/kg	0.004	0.010	Not Detected	FO0286	Bangkok
Pesticides - Carbamate						
3-Hydroxy Carbofuran	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Aldicarb	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Aldicarb sulfone	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Aldicarb sulfoxide	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Carbaryl	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Carbofuran	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Methiocarb	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Methiocarb sulfone	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Methomyl	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Oxamyl	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Methiocarb sulfoxide	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Propoxur	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Carbosulfan *	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Thiodicarb	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Pesticides - Carbamate						
sum of Carbofuran and 3-Hydroxy Carbofuran	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Sum of Methiocarb, Methiocarb-sulfone & Methiocarb-sulfoxide (expressed as methiocarb)	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Aldicarb (sum of aldicarb, its sulfoxide and its sulfone)	mg/kg	0.005	0.010	Not Detected	FO0097	Bangkok
Pesticides - Organochlorine						
alpha-BHC	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
beta-BHC	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
gamma-BHC (Lindane)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
delta-BHC	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Heptachlor	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Aldrin	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Dicofol	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Heptachlor-Epoxide	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
trans-Chlordane	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Dieldrin	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
o,p'-DDE	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endosulfan I	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
p,p'-DDE	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
o,p'-DDD	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endrin	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endosulfan II	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
p,p'-DDD	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
o,p'-DDT	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Pesticides - Organochlorine						
Endrin aldehyde *	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endosulfan sulfate	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
p,p'-DDT	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Methoxychlor *	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Aldrin and Dieldrin	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Chlordane (cis- and trans-chlordane)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
DDT (p,p'-DDT, o,p'-DDT, p,p'-DDE and p,p'-DDD)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endrin (endrin and delta-keto-endrin)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Heptachlor (sum of heptachlor and heptachlor epoxide)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Hexachlorobenzene	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Mirex	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
BHC (alpha-BHC, beta-BHC, gamma-BHC and delta-BHC)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Endosulfan (sum of alpha- and beta-isomers and endosulfan-sulphate)	mg/kg	0.005	0.010	Not Detected	FO0104	Bangkok
Pesticides - Organophosphate						
Azinphos-ethyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Chlorpyrifos	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Chlorpyrifos methyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Diazinon *	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
EPN	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Ethion	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Fenitrothion	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Pesticides - Organophosphate						
Malathion	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Methidathion *	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Parathion Ethyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Parathion Methyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Phosalone	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Pirimiphos-ethyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Pirimiphos-methyl	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Profenofos	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Prothiofos	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Triazophos	mg/kg	0.005	0.010	Not Detected	FO0119	Bangkok
Acephate	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Dichlorvos (DDVP)	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Dicrotophos	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Dimethoate	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Methamidophos	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Monocrotophos	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Omethoate	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Mevinphos	mg/kg	0.005	0.010	Not Detected	FO0146	Bangkok
Pesticides - Pyrethroid						
Bifenthrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok
Cyfluthrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok
Cypermethrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok
Deltamethrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok
Fenvalerate	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Analytical Results

Analyte	Unit	LOD	LOQ	Result	Method	Testing Lab
Pesticides - Pyrethroid						
Permethrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok
Lambda-cyhalothrin	mg/kg	0.005	0.010	Not Detected	FO0193	Bangkok

Comment : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Sampling is not included in scope of accreditation ISO/IEC 17025

GMO qualitative: The plant-specific gene was tested by tRNA-Leu gene.

Key:

- o LOD : Limit of Detection
- o "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- o Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC17025

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000



Accreditation No.1031/47

Analysis Report

Work Order : **BK2305728**
Client : S. Sermrang Agricultural (2005) Ltd., Part.
112 Moo 7, Thamanaow Rd., Tambon Thamanaow, Amphoe Chai Badan,
Lopburi, Thailand, 15130
Project Location : S. Sermrang Agricultural (2005) Ltd., Part.

Date Received : Apr 27, 2023
Date Reported : May 15, 2023
Report Number : BK2305728-AA

Sample Number : BK2305728-001
Sampled Date : Apr 25, 2023
Sample Description : Raw Wheat
Date of Analysis : May 03, 2023
Condition of Sample : 1x plastic bag

Brief Method Summaries

The methods in the analysis report are short format, refer to full test methods in accordance with the ISO/IEC 17025 certificate no. specified in the analysis report.

Method	Testing Lab	Method Descriptions
FO0097	Bangkok	In-house method STM No.03-186 based on EN 15662:2018
FO0102	Bangkok	In-house method STM No.03-038 based on AOAC (2019) 991.31
FO0104	Bangkok	In-house method STM No.03-186 based on EN 15662:2018
FO0110	Bangkok	Based on Anal.chem.2007
FO0119	Bangkok	In-house method STM No.03-186 based on EN 15662:2018
FO0120	Bangkok	In house method STM No.03-040 based on AOAC (2019) 2000.03
FO0146	Bangkok	In-house method STM No.03-186 based on EN 15662:2018
FO0193	Bangkok	In-house method STM No.03-186 based on EN 15662:2018
FO0196	Bangkok	In-house method STM No.03-017 based on AOAC (2019) 981.10
FO0286	Bangkok	Based on EU Reference Laboratory for pesticides requiring Single Residue Methods (EURL-SRM) Version 9.2, Oct 2016
MC3014	Bangkok	FDA BAM online, 2020 (Chapter 14)
MC3024	Bangkok	FDA BAM online, 2001 (Chapter 16)
MC3127	Bangkok	FDA BAM online, 2016 (Chapter 12)
MC3139	Bangkok	ISO 6579-1:2017/Amd.1:2020
MC3203	Bangkok	Based on ISO 21570:2005, Amd. 1:2013
ME0011	Bangkok	In-house method STM No. 05-040 based on AOAC (2019) 2011.19
ME0013	Bangkok	In-house method STM No. 05-045 based on United States Environmental Protection Agency (EPA), 2007, Method 7473

----- END OF REPORT -----

Signatories

Chatchanai Komarakul Na Nakorn
Assistant General Manager

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report may be reproduced in any form without written consent from the laboratory.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Life Sciences

104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok Thailand 10250 T +662 760 3000