

The role of superintendents in certifying pesticides & other market requirements

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please visit our website.



The role of superintendents

- Are an accredited independent body that acts to ensure that contractual specifications are met.
- Acts between the buyer and seller, and the certificates are usually part of the documents that are presented to the banks to allow payment.

The role of superintendents

- Contractual specifications and test methods can be under:
 - GTA
 - AOF
 - Federation of Oils, Seeds, Fats Association (FOSFA)
 - Grain and Feed Trade Association (GAFTA)
 - or client specific specifications.

Market requirements



Associated with:

Food Safety

- Pesticide Residues.
- Mycotoxins.
- Heavy Metals.
- Radiation.

Phytosanitary

- Weed Seeds.
- Plant based fungal, bacterial or virus diseases.
- Soil or trash borne fungal, bacterial or virus diseases.

Sampling Regimes

- It is essential that packers and terminals draw a sample that is fully representative of the consignment.
- Often packers / traders will want to cross reference across multiple shipments.
- This can only be done samples are compiled from intake samples into a silo or bunker.
- Taking one sample from a silo after it is filled is not suitable.

Sampling Regimes

- DAFF, FOSFA and GAFTA have strict sampling protocols.

Table 1: GAFTA No. 124 Sampling Rules: Incremental sampling – size of lots, number and size of consignment.

Consignment Size	Tonnes	0-5,000	5,001 – 10,000	10,0001 – 25,000	➤ 25,000
Lot Size	Tonnes	500	1,000	2,500	5,000
No. of increment <u>Primary Samples</u> per lot	Number	Min 20	Min 30	Min 40	Min 50
Min. weight of bulk (aggregate) <u>Composite Sample</u> per lot	Kilos	20	30	40	50
Max. weight of increments <u>Primary Samples</u>	Kilos	1	1	1	1
Min. weight of <u>Sub/Contract Sample</u>	Kilos	2 x 1.5kg	2 x 1.5kg	2 x 1.5kg	2 x 1.5kg

Specific market Requirements by country



China - Barley

Parameter	Specification MRL
Arsenic Compounds	0.2 ppm max.
Mercuric compound	Not present (LOR <0.01 ppm)
Phosphides	0.05 ppm max.
Cyanides	5.0 ppm max.
Malathion	3.0 ppm max.

China - Wheat

Parameter	Specification MRL
Arsenic	0.2 ppm
Mercuric compound	Not present (LOR <0.01 ppm)
Phosphides	0.05 ppm
Cyanides	5.0 ppm
Malathion	3.0 ppm max.
Various Mycotoxins	

Specific market Requirements by country



China GTA Out turn tolerance

Parameter	Specification MRL	Specification
Chlorpyrifos methyl	5.0 ppm	
Fenitrothion	5.0 ppm	
Malathion	8.0 ppm	3.0 ppm
Pirimiphos methyl	5.0 ppm	
Deltamethrin	0.5 ppm	
Piperonyl butoxide	30 ppm	

Specific market Requirements by country



China – Crude Canola Oil – large list, many not used in Australia or registered but have to test

项目名称 PARAMETER	我国标准限 量 MAX LIMIT	标准限量来源 METHOD
苯并芘 BENZOPYRENE	10ug/kg	GB2716-2018
乐果 DIMETHOATE	0.05mg/kg	GB2763-2019
敌草快 DIQUAT	0.05mg/kg	GB2763-2019
倍硫磷 FENTHION	0.01mg/kg	GB2763-2019
氟吡甲禾灵和高效氟吡甲禾灵 HALOXYFOP-METHYL & HALOXYFOP-P-	1mg/kg	GB2763-2019
多效唑 PACLOBUTRAZOL	0.5mg/kg	GB2763-2019
百草枯 PARAQUAT	0.05mg/kg	GB2763-2019
腐霉利 PROCYMIDONE	0.5mg/kg	GB2763-2019
氯丹 CHLORDANE	0.05mg/kg	GB2763-2019
矮壮素 CHLORMEQUAT	0.1mg/kg	GB2763-2019
联苯菊酯 BIFENTHRIN	0.1mg/kg	GB2763-2019
吡嘧菌胺 penthiopyrad	1mg/kg	GB2763-2019
草铵膦 glufosinate-ammonium	0.05mg/kg	GB2763-2019
烯草酮 clethodim	0.5mg/kg	GB2763-2019
硫丹 Endosulfan	0.05mg/kg	GB2763-2021
胺苯磺隆 Ethametsulfuron	0.02mg/kg	GB2763-2021
巴毒磷 Crotoxyphos	0.02mg/kg	GB2763-2021
丙酯杀螨醇 Chloropropylate	0.02mg/kg	GB2763-2021
草枯醚 Chlornitrofen	0.01mg/kg	GB2763-2021

项目名称 PARAMETER	我国标准限 量 MAX LIMIT	标准限量来源 METHOD
草芽畏 2,3,6-TBA	0.01mg/kg	GB2763-2021
毒虫畏 Chlorfenvinphos	0.01mg/kg	GB2763-2021
毒菌酚 Hexachlorophene	0.01mg/kg	GB2763-2021
二溴磷 Naled	0.01mg/kg	GB2763-2021
氟除草醚 Fluoronitrofen	0.01mg/kg	GB2763-2021
格螨酯 2,4-dichlorophenylbenzenesulfonate	0.01mg/kg	GB2763-2021
庚烯磷 Heptenophos	0.01mg/kg	GB2763-2021
环螨酯 Cycloprate	0.01mg/kg	GB2763-2021
甲磺隆 Metsulfuron – methyl	0.02mg/kg	GB2763-2021
甲氧滴滴涕 Methoxychlor	0.01mg/kg	GB2763-2021
乐杀螨 Binapacryl	0.05mg/kg	GB2763-2021
氯苯甲醚 Chloroneb	0.02mg/kg	GB2763-2021
氯磺隆 Chlorsulfuron	0.02mg/kg	GB2763-2021
氯酞酸 Chlorthal	0.01mg/kg	GB2763-2021
氯酞酸甲酯 Chlorthal-dimethyl	0.01mg/kg	GB2763-2021
茅草枯 Dalapon	0.01mg/kg	GB2763-2021
灭草环 Tridiphane	0.05mg/kg	GB2763-2021
灭螨醌 Acequincyl	0.01mg/kg	GB2763-2021
三氟硝草醚 Fluorodifen	0.02mg/kg	GB2763-2021

项目名称 PARAMETER	我国标准限 量 MAX LIMIT	标准限量来源 METHOD
三氯杀螨醇 Dicofol	0.02mg/kg	GB2763-2021
杀虫畏 Tetrachlorvinphos	0.01mg/kg	GB2763-2021
杀扑磷 Methidathion	0.05mg/kg	GB2763-2021
速灭磷 Mevinphos	0.02mg/kg	GB2763-2021
特乐酚 Dinoterb	0.01mg/kg	GB2763-2021
戊硝酚 Dinosam	0.01mg/kg	GB2763-2021
烯虫炔酯 Kinoprene	0.01mg/kg	GB2763-2021
烯虫乙酯 Hydroprene	0.01mg/kg	GB2763-2021
消螨酚 Dinex	0.01mg/kg	GB2763-2021
溴甲烷 Methyl bromide	0.02mg/kg	GB2763-2021
乙酯杀螨醇 Chlorobenzilate	0.02mg/kg	GB2763-2021
抑草莲 Erbon	0.05mg/kg	GB2763-2021
茚草酮 Indanofan	0.01mg/kg	GB2763-2021
联苯吡菌胺 Bixafen	0.08mg/kg	GB2763-2021
异丙噻菌胺 Isofetamid	0.03mg/kg	GB2763-2021

Specific market Requirements by country

Thailand - Wheat

Parameter	Specification MRL
Paraquat	Not Detected
Chlorpyrifos	Not Detected
Chlorpyrifos methyl	Not Detected

Thailand Out turn Tolerance - Wheat

Parameter	Specification MRL
Chlorpyrifos methyl	0.01 ppm
Deltamethrin	2.0 ppm
Dichlorvos	0.2 ppm
Fenitrothion	6.0 ppm
Malathion	10.0 ppm
Methoprene	10.0 ppm
Pirimiphos methyl	7.0 ppm
Carbaryl	2.0 ppm
Piperonyl butoxide	30.0 ppm

Specific market Requirements by country

Taiwan - Wheat

Parameter	Specification MRL
Fenitrothion	< 0.01 ppm
Pirimiphos methyl	< 0.01 ppm
Carbaryl	< 0.01 ppm
Dichlorvos	< 0.01 ppm
Chlorpyrifos	< 0.01 ppm
Chlorpyrifos methyl	< 0.01 ppm
Malathion	< 0.01 ppm
Flupyradifurone	< 0.01 ppm
Quinalphos	< 0.01 ppm
Sulfoxaflor	< 0.01 ppm

Taiwan Out turn Tolerance - Wheat

Parameter	Specification MRL
Chlorpyrifos methyl	5.0 ppm
Deltamethrin	1.0 ppm
Dichlorvos	0.2 ppm
Fenitrothion	0.5 ppm
Malathion	1.5 ppm
Methoprene	2.0 ppm
Phosphine	0.1 ppm
Piperonyl butoxide	15.0 ppm
Pirimiphos methyl	5.0 ppm
Pyrethrins	0.3 ppm
Spinosad	1.0 ppm

Specific market Requirements by country



Indonesia - Wheat

Full List MRL < 0.01 ppm except fipronil < 0.002 ppm

RESIDUES:	RESIDUES:	RESIDUES:
2,4D	METHYL-CRESOXYM	FAMOXADONE
ALDICARB	METHYL-CHLORPYRIFOS	FENPROIMORPH
AMINOPYRALID	METHOMYL	FLUTRIAFOL
AZOXYSTROBIN	QUINTOZENE	FLUXAPYROXAD
BIFENTHRIN	QUINOXYFEN	MALATHION
BIORESMETHRIN	CYPERMETHRIN	MCPA
BITERTANOL	TEBUCONAZOLE	OXYDEMETON METHYL
CHLORDANE	THIACLOPRID	PROPICONAZOLE
DIQUAT	DIFENOCONAZOLE	PROTHIOCONAZOLE
DIMETHOATE	BENTAZONE	PYRACLOSTROBIN
DISULFOTON	BOSCALID	SEDAXANE
ETHEPON	CHLORPYRIFOS	SULFOXAFLO
FENBUCONAZOLE	CHLOTHIANIDIN	THIAMETHOXAM
FIPRONIL	CYHALOTHRIN (INCLUDES LAMBDA CYHALOTHRIN)	TRIFLOXYSTROBIN
IMAZALIL	CYPRODINIL	DIFLUBENZURON
CARBARYL	DICAMBA	DITHIOCARBAMATES
CARBENDAZIM	DICHLORVOS	ESFENVALERATE
CHLORMEQUAT	LINDANE	METHIOCARB
ISOPYRAZAM		

Short List

ANALYSIS
ALDICARB
BIFENTHRIN
CYPERMETHRIN
TOTAL CHLORDANE
CHLORPYRIFOS METHYL

Indonesia Out turn Tolerance - Wheat

Parameter	Specification MRL
Carbaryl	2.0 ppm
Chlorpyrifos methyl	10.0 ppm
Dichlorvos	7.0 ppm
Malathion	1.5 ppm

Certificate Example





1A, 532 Seventeen Mile Rocks Road Sinnamon Park QLD 4073
PO Box 1436, Oxley QLD 4075 Australia | ABN 22 003 939 704
info@cis-controlunion.com | <http://cis-controlunion.com>

CIS-CUA REFERENCE: 242169

FUMIGATION CERTIFICATE

SHIPMENT PARTICULARS DESCRIBED TO US AS:

REFERENCE: CS-3003912D

COMMODITY: AUSTRALIAN MALT 1 BARLEY OF 2023/2024 CROP, VARIETY PLANET

VESSEL: HYUNDAI VANCOUVER 0291N

PORT OF LOADING: MELBOURNE, AUSTRALIA

PORT OF DISCHARGE: NINGBO, CHINA

FINAL DESTINATION: NINGBO, CHINA

PACKING: BULK IN 20FT CONTAINERS

WEIGHT: 1,083.020 MT

CERTIFICATION

BASED ON DOCUMENTARY EVIDENCE AND/OR ANALYSIS OF A REPRESENTATIVE SAMPLE, WE HEREBY CERTIFY:

REMARKS:

IN ACCORDANCE WITH STANDARD AUSTRALIAN PRACTICES THE ENTIRE CARGO HAS BEEN INSPECTED AND/OR TREATED PRIOR TO LOADING ON BOARD THE CARRYING VESSEL TO CONFIRM NO LIVE STORED GRAIN INSECT INFESTATION AT THE TIME OF LOADING

FUMIGANTS USED: PHOSPHINE

FUMIGATION DATE: 15/04/2024 – 25/04/2024

DOSAGE: 1.00 PPM

FOR AND ON BEHALF OF:
ISSUED BY INDEPENDENT SURVEYOR/
FUMIGATION COMPANY
CIS CONTROL UNION AUSTRALIA PTY LTD
10 MAY 2024


AUTHORISED SIGNATORY



1A, 532 Seventeen Mile Rocks Road Sinnamon Park QLD 4073
PO Box 1436, Oxley QLD 4075 Australia | ABN 22 003 939 704
info@cis-controlunion.com | <http://cis-controlunion.com>

CIS-CUA REFERENCE: 242169

CHEMICAL RESIDUE CERTIFICATE

SHIPMENT PARTICULARS DESCRIBED TO US AS:

REFERENCE: CS-3003912D

COMMODITY: AUSTRALIAN MALT 1 BARLEY OF 2023/2024 CROP, VARIETY PLANET

VESSEL: HYUNDAI VANCOUVER 0291N

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FINAL DESTINATION: NINGBO, CHINA

PACKING: BULK IN 20FT CONTAINERS

WEIGHT: 1,083.020 MT

CERTIFICATION

BASED ON DOCUMENTARY EVIDENCE AND/OR ANALYSIS OF A REPRESENTATIVE SAMPLE, WE HEREBY CERTIFY:

QUALITY:

THE CHEMICAL RESIDUES OF THE BARLEY SUPPLIED BY THE SELLERS SHALL NOT EXCEED THE SPECIFIED LIMITS STIPULATED IN THE REGULATIONS ISSUED BY THE MINISTRY OF PUBLIC HEALTH OF THE PEOPLE'S REPUBLIC OF CHINA AT THE TIME OF LOADING

TEST

ARSENIC COMPOUND

MERCURIC COMPOUND

PHOSPHIDES

CYANIDES

MALATHION

SPECIFICATION

SHALL BE MAXIMUM OF 0.2PPM

SHALL NOT BE FOUND

SHALL BE A MAXIMUM OF 0.05PPM

SHALL BE A MAXIMUM OF 5PPM

SHALL BE A MAXIMUM OF 0.1PPM.

RESULT

0.03 PPM

NOT FOUND

<0.01 PPM

<0.01 PPM

<0.01 PPM

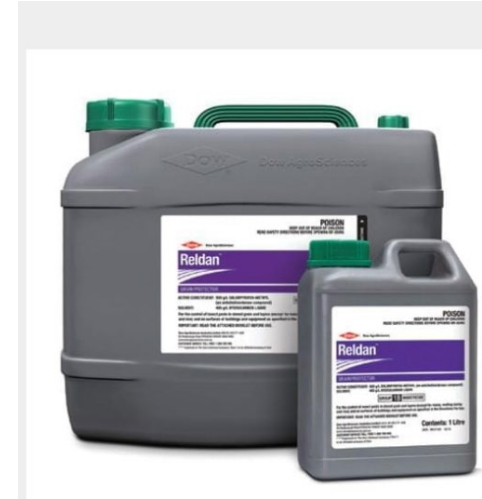
FOR AND ON BEHALF OF:



Certificate Example

Traders often believe that there should be no pesticides in it.

- As stated in the GTA Out-turn tolerance guide.
- Originally defined as Grain Protectant Free.
- Can contain pesticides from other sources herbicides, fungicides, insecticides and fumigants.



Dow Dow AgroSciences

ReldanTM pluS IGR Grain Protector

ACTIVE CONSTITUENTS: 500 g/L CHLORPYRIFOS-METHYL (an anticholinesterase compound)
30 g/L S-METHOPRENE
SOLVENT: 465 g/L HYDROCARBON LIQUID

GROUP 1B 7A INSECTICIDE

For the control of insect pests in stored cereal grains (except for malting barley and rice)
as specified in the Directions For Use.

Dow AgroSciences Australia Limited ABN 24 003 771 659
20 Rodborough Road FRENCHS FOREST NSW 2086
www.dowagrosciences.com.au

CUSTOMER SERVICE TOLL FREE 1-800 700 096

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Canola – ISCC – Use of chemicals

Chapter 2.4.1 Document 202



The use of chemicals in plant protection products listed in the WHO classes 1a and 1b lists is also not allowed under ISCC.”



In case chemicals listed in WHO 1a or 1b are still in use, a phase-out plan must be in place ensuring that none of these substances will be used anymore by January 2023.




In cases where there are no alternatives to a chemical substance named in WHO 1a and 1b, an external expert has to be consulted to confirm this. This expert must have the professional background and expertise to analyse the situation appropriately and take a decision.”

Canola – ISCC – Use of chemicals

Chapter 2.4.1 Document 202

- Chemicals listed in the **Stockholm Convention** on Persistent Organic Pollutants (POP's) Annex III, must not be applied on any (own and leased) land of the farm/plantation.
- Includes:* aldrin, chlordane, DDT, dieldrin, endrin, heptachlor hexachlorobenzene, mirex, toxaphene.
- Chlorpyrifos due to listed/expected phased out July 25



Candidate POPs

Chlorpyrifos

CAS No. 2921-88-2

Full Name: O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioate

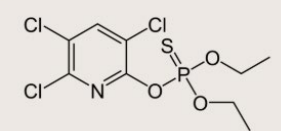
Trade Names: Dursban, OMS 0971, Lorsban, Brodan, Killmaster, Pyrinex, Suscon, Coroban, Terial, Danusban, Durmet, Eradex

Synonyms: chlorpyrifos; chlorpyrifos-ethyl; chlorpyrifos-ethyl; O,O-diethyl O-3,5,6-trichloro-2-pyridinyl phosphorothioate; phosphorothioic acid, O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) ester

Uses: Chlorpyrifos is a broad-spectrum chlorinated organophosphate insecticide widely used in agriculture and as a biocide for non-agricultural pests. It has been used on various crops (corn, soybeans, alfalfa, oranges, wheat, and walnuts) as well as on lawns and ornamental plants. There are also public health uses, including adulticidal fogger treatments for mosquitoes, and the control of fire ants and certain species of ticks that may transmit diseases.

Hazards and Risks to human health and the environment

Chlorpyrifos is characterized by properties such as persistence in some environments, bioaccumulation and capacity to be long-range transported. It is released to the air, water and soil. Major health issues such as neurodevelopmental toxicity and neurotoxicity have been linked to chlorpyrifos exposure in humans. Uncertainty remains regarding its genotoxic potential. Chlorpyrifos is highly toxic to aquatic communities, early life stages of fish and aquatic invertebrates, bees, birds and mammals. Moreover, it exhibits effects at very low and environmentally relevant concentrations.

CCOP(=S)(OC)c1cc(Cl)c(Cl)c(Cl)n1

General Observations

Chlorpyrifos methyl in a bigger harvest season was an issue for those non detected markets i.e. Thailand.

Traders caught out where they purchased PRF grain and other pesticides were found.

The use of dessicants (glyphosate) and other (haloxyfop) occasionally causes an issue.

New EU regulation 396/2005 (Aug 19) for halyoxfop – Pulses 0.01 ppm, Canola 0.05 ppm, Cereals, 0.01 ppm

Summary & Observations



IN NEARLY ALL MARKETS IT IS A REQUIREMENT FROM THE BUYERS THAT PESTICIDES ARE TESTED.



THESE FORM PART OF THE CONTRACTUAL OBLIGATIONS BETWEEN BUYERS AND SELLERS.



MRL'S AND LEVEL OF REPORTING SEEM TO BE TIGHTENING.



THE SUPPLY CHAIN FROM GROWERS TO TRADERS ALL HAVE AN OBLIGATION TO ENSURE THAT ACCESS TO MARKETS ARE NOT JEOPARDISE THROUGH VIOLATIONS.