



SCOTTISH
QUALITY CROPS

SQC HACCP Plan

Scottish Quality Crops Limited (SQC)

www.sqcrops.co.uk

(Issue October 2024)

SQC GENERIC HACCP PLAN

A Risk Assessment System for Farm Production of Crops based on a Codex Alimentarius a Practical Guide (5th Ed) Guideline No. 42, 2003, Hazard Analysis and Critical Control Point (HACCP) System under the Scottish Quality Crops Limited (SQC) Scheme Standards Oct 2024.

INTRODUCTION

Background and purpose

This document has been drawn up at the request of Scottish Quality Crops (SQC) Board of Directors using the expertise of the SQC Hazard Analysis and Critical Control Point (HACCP) Team. (Team members listed at end of document). This document is a mandatory requirement.

In recent years, end users and customers have been auditing supplier product safety schemes. The provision of an industry guide to the essential core elements of a HACCP for crop production will underline commitment to food and product safety. It is intended that the pooling of expert knowledge of what can form a potential hazard in crop production and dispatch, and how it can be avoided, or detected, will ensure that an industry standard of good practice will be maintained.

Regulatory Framework

Directive 93/43/EEC of 14 June 1993 stipulates in Article 3 “food business operators shall identify any step in their activities which is critical to ensure food safety and ensure that adequate safety procedures are identified, implemented, maintained and reviewed on the basis of the principles used to develop the system of HACCP” which is based on Codex Alimentarius.

This HACCP guide adheres to the Codex Alimentarius **Guideline No. 42, 2003** Food Hygiene requirements as published by the Joint FAO/WHO Food Standards Programme (CAC/RCP 1-1969, Rev 3 (1997), amended 1999).

HACCP and Food safety

SQC growers need to be able to identify and prevent problems that can impact on food safety. The HACCP approach helps to identify hazards and the point where they occur in the crop production process and implements procedures to prevent or minimise them. HACCP involves a systematic assessment of all steps involved in food production and identifies all microbiological, chemical and physical hazards. HACCP identifies critical control points where control must be achieved to maintain the safety and quality of the product.

CONTROL OF OPERATIONS

Process Steps - overview of the production processes for combinable crops

Crops are grown on the farms of participating growers.

Intended Use

The resultant produce is then marketed or fed to livestock on the farm. The markets for crops include millers, maltsters, distillers, oilseed crushers, animal feed manufacturers, seed trade, bio-energy producers, and other farmers.

Growing the crop

SQC growers must plan their cropping following the guidance in the SQC Scheme Standards and verify that the fields selected are suitable. Attention is paid to previous cropping, fertiliser previously applied, proximity of fields to public access (risk of contamination from rubbish), soil analysis, possible soil contamination with heavy metals or any limitations caused by previous pesticide use. Fields are cultivated appropriately and a variety suitable for the end use is selected. Regard is paid to its agronomic features. Avoid where possible growing cereal crops after maize. This will reduce the risk of Fusarium mycotoxins. If crops do follow maize, ground should be ploughed, and debris buried. For wheat, choose a suitable variety with the highest Fusarium tolerance. Seed of an acceptable quality in terms of purity, germination, freedom from seed borne diseases and weed seeds is dressed in a suitable seed treatment if necessary and sown at an appropriate seed rate. Appropriate fertiliser may be broadcast or combined drilled. Where biosolids are used the relevant codes of practice must be adhered to. The fertiliser application equipment must be regularly maintained and calibrated to check that it is operating efficiently.

Plant protection products must be selected according to the needs of the crop from the Chemicals Regulation Directorate (CRD), formerly Pesticide Safety Directorate (PSD) list of UK approved products - <https://secure.pesticides.gov.uk/pestreg/> They must be applied by a competent operator who holds a NPTC certificate of competence. The operator must either complete a BASIS Sprayer Operator course annually or be a member of NRoSO and maintain an annual record of 10 CPD points. The plant protection product must be applied according to its label recommendations through a sprayer that has been independently tested through the National Sprayer Testing Scheme (NSTS). The sprayer must also be regularly calibrated. Records must be kept of all inspections and maintenance carried out, including calibrations.

Combines used to harvest crops must be thoroughly cleaned internally before harvest and the settings checked to make sure the grain/oilseed/pulses are not damaged when being harvested. Transport from the combine must be in trailers that have been cleaned and are fit for purpose.

Equipment that is not dedicated to hauling and loading crops must be power washed and treated with a food grade disinfectant where organic material has been carried.

If conditioning of the produce is carried out at the primary place of production, then any handling equipment must be clean and well maintained and documented. Driers must be correctly set and monitored so the moisture of the produce is reduced to the desired level without any damage or taint. Moistures must be checked with a regularly calibrated moisture meter. This must be documented for each separate meter. Any pre-cleaners / dressers used must be clean and well maintained to prevent any contamination or damage to the crop.

Premises and Construction Materials

All construction materials used in buildings on the farm, and in contact with the crop product, must be fit for purpose.

Water

Water must be protected from all fertiliser protection zones. A water management plan must be in place for irrigated crops. Testing records must be kept.

Cleaning

A fully documented system of process plant / equipment cleaning must be in place. Cleaning and disinfection materials selected must be stored and used appropriately. Records must be kept of their use.

Air

Intakes for air used in processing should be sited so as to avoid sources of pollution such as drier or vehicle exhausts.

Storage

Both temporary and long-term stores must be thoroughly cleaned out before harvest and subsequently tested using bait bags / pitfall traps for insect pests. If intake / temporary storage has been previously used for livestock the floors and walls must be cleaned, washed with a pressure hose, and disinfected with a food grade disinfectant. Any use of an insecticide spray to the grain store must be applied by an appropriately qualified operator. Vermin must be controlled. Birds and domestic animals must be kept out of permanent stores. All stores must be watertight, and any glass windows or lighting must be protected. Grain in long term storage must be monitored regularly during the storage period and temperatures measured and recorded. If an insecticide is applied to the grain, it must be applied through calibrated application machinery and a record kept of its use.

Waste

Waste materials must be disposed of via a registered waste carrier. Records must be kept.

Transport off farm

Loaders must be cleaned and inspected before grain is loaded. Any vehicles used to transport bulk grain must comply with the Agricultural Industries Confederation (AIC) Code of Practice for Road Haulage. This specifies the need to clean trailers out thoroughly between loads, and details products that cannot be transported in vehicles that haul grain for food use. The bulk trailer to

which the produce is being transferred must be clean and records of the last three loads carried must be available. SQC Passports duly completed must accompany every load that leaves the primary producer.

Glass / Hard plastic control

Where possible, glass / hard plastic must not be used in the process or storage areas. Where this is unavoidable, protection must be in place in case of breakage. The risk of contamination must be reduced by the use of safety bulbs or tight covers wherever possible. All light fittings and glass - including light covers, vehicle glass and mirrors - must be checked regularly. In the event of broken glass / hard plastic or other contaminants being found, this must be swept and segregated from the rest of the bulk.

Pest Control on Farm Rodents

A pest control programme must be in place. A suitably trained person should be used to control rodents in all critical process and storage areas. The following must be addressed: materials used, infestation due to intake of materials, ingress of rodents, waste accumulation and disposal, frequency of treatment, inspection, and evaluation of rodent control performance. Records must be kept of all treatments, inspections, and bait point locations. Doors and hatches must be kept closed when not in use. Waste materials that might encourage pests must be regularly cleared away and disposed of.

Birds

All storage and process areas must be protected against bird ingress. Doors and hatches must be kept closed when not in use.

Spraying for insects

All personnel involved in applying insecticides must be qualified. Insecticides or fumigants applied to crops, to stores or to equipment must be approved by CRD. Some customers may have particular restrictions on some plant protection products. Records must be retained for a minimum of 3 years. Records must include: the chemical used, the dose, date of application and the operator's name. Application equipment must be regularly maintained and calibrated. Records for maintenance and calibration of application equipment must be kept.

Calibration

Application equipment must be regularly maintained and calibrated. Records for maintenance and calibration of application equipment must be kept.

Complaints

A register must be kept recording any complaints that may arise from the purchase of crops. The register must cover any complaint that has an effect on food safety. Actions taken to prevent re-occurrence must be recorded.

Traceability / Recall

Adequate records must be kept enabling the identification of crops at risk should a problem arise. Passports must accompany all loads.

Corrective Action

This HACCP Plan gives an indication of corrective action to be taken in the event of critical limits on a Critical Control Point being exceeded.

SYSTEM TO ASSESS RISK

The SQC HACCP Team has produced a flowchart for all the process stages in crop production.

Twelve stages have been identified:

1. Planning
2. Cultivation
3. Sowing
4. Fertilising
5. Crop protection
6. Harvesting
7. Haulage from field to farm
8. Intake / Temporary storage
9. Screening / Drying
10. Cooling
11. Long term storage
12. Out loading and haulage from farm if using farm transport

A classification of potential crop hazards has been defined.

Risk Assessment

A Risk Assessment Form has been completed for each process step which defines hazards and categorises their probability and severity using the following ratings:

Ratings for probability of occurrence:

Unlikely = 1

Possible = 2

Probable = 3

Ratings for severity of consequence:

Negligible = 1

Moderate = 2

Severe = 3

The risk from each hazard is arrived at by multiplying the probability by the severity. A score of 6 or over triggers a Critical Control Point (CCP). This is arrived at by the following combinations:

Probability	Severity
Possible (2)	Severe (3)
Probable (3)	Moderate (2)
Probable (3)	Severe (3)

For each CCP, monitoring and corrective action is detailed:

Control measures are set

Critical limits are defined

Procedures are listed

Monitoring frequency stated

Corrective action suggested

Action responsibility allocated - appropriate action must be taken by a responsible person to ensure critical limits are met.

SQC HACCP Review

The SQC HACCP Plan will be reviewed annually by the appointed SQC HACCP Team (see below). The review and any changes made will be ratified by the SQC Board of Directors

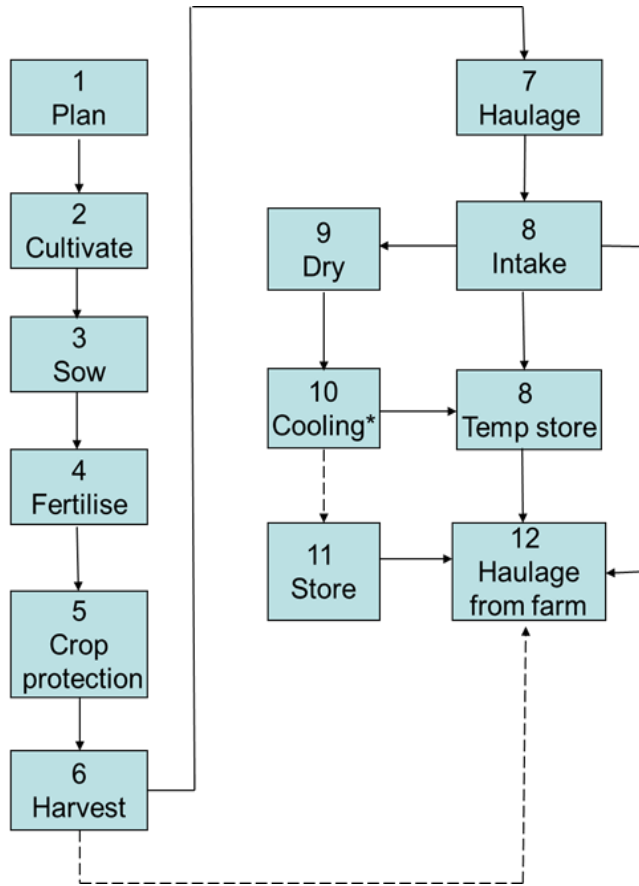
Compliance to the SQC HACCP Standard

This is checked at the SQC grower's annual audit. Records of each SQC grower audit are kept by the Certification Body.

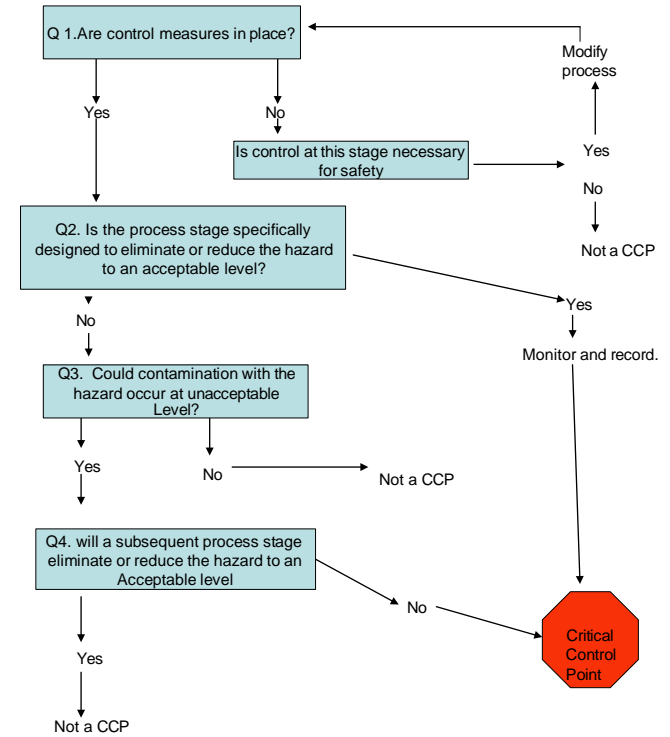
SQC HACCP Team:

Name	Position	Qualification
Fiona Burnett	Professor of Applied Plant Pathology - SRUC	
John Hutcheson	Chairman - SQC	
Teresa Dougall	Managing Director - SQC	
Stephen Sanderson	General Manager - FIA	
Adam Christie	Managing Director - Scottish Agromomy Ltd	BASIS / FACTS / ICM
An External Consulting Business, Food Tech Systems Ltd reviewed the HACCP for July 2024		

SQC HACCP Flow Chart – Process stages



Decision Tree for CCP's



SQC Classification of potential crop hazards

Hazard Type	HAZARD
Biological	Microbiological: Bacterial pathogens (e.g. E-Coli, salmonella), viruses, parasites
	Microbiological: Fungi, mould (e.g. Ergot, bunt etc.)
	Mycotoxins (e.g. DON, ZON, Ochratoxin A)

Hazard Type	HAZARD
Chemical	Pest Control residues (e.g. insecticides used in store, rodenticides)
	Crop protection residues. (e.g. herbicides, fungicides, insecticides, growth regulators)
	Heavy metals, PCBs*, PAH's**
	Hydraulic oil, lubricants, fuel oil
	Cleaning Chemicals
	Taint or odours from other than those listed above
	Bulk fertilisers, pesticides

Hazard Type	HAZARD
Physical	Contamination by non-metal objects (e.g. glass)
	Insect, bird, rodent contamination
	Organic debris, nails, screws, metal, glass, wood, plastic

*PCBs – polychlorinated biphenyls

**PAHs – polycyclic aromatic hydrocarbons

PCB's and PAHs are caused by poorly maintained / calibrated oil-fired burners used in the drying process. Fuel in oil fired driers must meet commercial ISDN / ISO fuel standards. It is a legal requirement that all refined oils have a Benzo alpha Pyrene (BaP) level of less than 2ppb. BaP is a measure for PAHs.

SQC Risk Assessment Forms

The following twelve process steps are the SQC Risk Assessment Forms for the defined process

	Hazard and cause	Prob	Sev	Risk score	Risk	Control Measure	Decision tree Questions				CCP	Legislation reference
							Q1	Q2	Q3	Q4		
1. Planning crops	Microbiological contamination from Fusarium mycotoxins Deoxynivalenol (DON), Zearalenone (ZON) wheat occurring naturally within the plant	2	3	6	Toxic to end user	Adoption of good agricultural practice. Identify fields at risk. Plough to bury debris and avoid wheat after maize. Choose tolerant variety. Plan to apply an effective T3 fungicide	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Guidelines to minimise risk of fusarium mycotoxins in cereals (Updated Summer 2016 G69) AHDB Cereals and Oilseeds Grain Storage Guide, 3 rd Edition 2011.
	Microbiological contamination from Mycotoxin Ochratoxin A (OA) from poor storage - All cereals	1	3	3	Toxic to end user	Review capacity for crop handling, drying and grain movement.	Y	N	N	Y		
	Microbiological contamination from growth and survival from ergot – due to poor agricultural practices and weather conditions - All cereals	2	3	6	Toxic to end user	Check which fields were contaminated last year and modify cropping. Carry out independent seed analysis.	Y	Y	Y		CCP2	AHDB Cereals and Oilseeds Wheat disease management guide (Updated February 2016 G63), AHDB Barley Disease Management guide February 2016 G64
	Chemical contamination from plant protection residues (e.g. herbicides,	1	3	3	May be a risk to end user		Y	N	N	Y	NO	

	fungicides, insecticides, growth regulators) due to poor application											
	Physical contamination from insect, bird, rodent	2	2	4	May be toxic to end user	Qualified pest contractor and weekly checks						
2. Cultivate	No chemical hazards identified	0	0	0	No risk							
	No microbiological hazards identified	0	0	0	No risk							
	No physical hazards identified	0	0	0	No risk							
3. Sowing	No chemical hazards identified	1	1	2	May be a risk	There are a limited number of pesticides that have crop restrictions	Y	N	N	Y	NO	
	No microbiological hazards identified	0	0	0	No risk							
	No physical hazards identified	0	0	0	No risk							
4. Fertilising	Chemical contamination from heavy metals in biosolids due to poor agricultural practices	1	3	3	Toxic to end user	Obtain analysis for soil and fertiliser. Use approved supplier holding a permit from SEPA/EA	Y	N	N	Y	NO	Regulated by SEPA/EA. The Safe Sludge Matrix.

	Chemical contamination from heavy metals in composts / digestates	1	3	3	Toxic to end user	Obtain analysis for soil and fertiliser. Use PAS certified product. Use approved supplier holding a permit from SEPA/EA.	Y	N	N	Y	NO	Regulated by WRAP. Regulated by SEPA/EA
	Chemical contamination due to poor storage of fertiliser chemicals	1	3	3	May be toxic to end user	Clear spillages away Liquid products must have a bunded system in place	Y	N	N	Y	NO	
	No microbiological hazards identified	0	0	0	No risk							
	No physical hazards identified	0	0	0	No risk							
5. Crop protection	Chemical contamination from plant protection products applied to the growing crop in wrong quantities or applied in unsuitable conditions	2	2	4	May be toxic to end user	Apply product according to label recommendation through well maintained and calibrated equipment using a qualified operator. Use agronomist on BASIS Professional Register and check product registration with	Y	N	N	Y	NO	CRD website. SQC self-assessment record for sprayers and current NSTS MOT. NPTC Certificate. BASIS Sprayer Operators Course or valid NRoSO membership. All pesticide application equipment must be tested under the National Sprayer Testing Scheme

						CRD. • At the beginning of each season (Autumn and Spring) • After changing nozzles • After replacing any part of the delivery system • Regularly during the season						(NSTS).
	No microbiological hazards identified	0	0	0	No risk							
	Physical contamination of chemicals from water birds and small animals	1	3	3	May be a risk to end user	Highlight on a map the areas of pollution risk	Y	N	N	Y	NO	
6. Harvesting	Microbiological contamination from growth and survival from ergot – due to poor agricultural practices and weather conditions All cereals	2	3	6	Toxic to end user	Check crop prior to harvest. Segregate infected areas. Separate or quarantine produce from infected areas or where contaminated, follow thresholds for disposal and options for separating out.	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Wheat disease management guide (Updated February 2016 G63) AHDB Barley Disease Management guide February 2016 G64
	No chemical identified	0	0	0	No risk							

	No physical hazards identified	0	0	0	No risk							
7. Haulage from field to farm	Microbiological risk from Pathogenic bacterial e.g. E-Coli from poor handling from personnel	2	2	4	Risk to end user	Trailer cleaning and disinfection.	Y	N	N	Y	NO	
	Physical contamination from machine parts, stones, wood etc.	1	3	3	May be a risk to end user	Visual inspection of trailer before loading, and prior to tipping if risk or concern.	Y	N	N	Y	NO	
	Chemical contamination from fuel or hydraulic oil from the vehicle	1	2	2	Low risk to end user		Y	N	N	Y	NO	
8. Intake / Temporary storage	Microbiological contamination from mould e.g. fungi mycotoxins and mites due to poor storage conditions	2	3	6	May be toxic to end user or cause a taint	Dry, aerate, cool grain. Pre-harvest hygiene. Visually inspect and segregate. To avoid spoilage, temperatures must be reduced to at least 12°C	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition (2011) AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition (2011) AHDB Insects and mites in stored grain and grain stores (2016)
	Microbiological contamination from Mycotoxin	2	3	6	Toxic to end user	Check moisture content. For grain > 18%,	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Grain Storage Guide, 3 rd edition 2011

	Ochratoxin A (OA) from poor storage					give priority to drying or harvest movement. If not practical, introduce ventilation.						AHDB Cereals and Oilseeds Safe Storage Time Calculator for Cereals
	Physical contamination Pest and bird faeces due to hygiene checks not carried out correctly	2	2	4	May be a risk of Weils disease and E-Coli. May introduce salmonella.	Qualified pest contractor and weekly checks Clear up split grain Reduce bird ingress Livestock housing must be clean and tidy and disinfected	Y	Y	Y		CCP3	CRRU UK Code of Best Practice AHDB Rodent Control on farms G70. Test results - minimal incidence
	Physical contamination from glass, hard plastic	1	3	3	May introduce a foreign body	Glass protection measures adopted and monitored. Continual monitoring for contaminants.	Y	N	N	Y	NO	
	Chemical - Insecticides used on stored produce	2	2	4	May be toxic to end user if overdosed.	Apply by a qualified operator using a CRD approved product with well maintained calibrated applicator.	Y	N	N	Y	Not a CCP	AHDB Cereals and Oilseeds Grain Storage Guide, 3 rd edition 2011

9. Screening / Drying	Chemical – taint from exhaust gases, dioxins, PAH's* due to failure of checks on nozzles	2	2	4	May be toxic to end user	Regular maintenance and calibration of nozzles. Use fuel that meets ISDN/ISO standards. Recalibrate if fuel type is changed. OSR must not be stored on tarmac floors or in contact with bitumen paint / fillers.	Y	N	N	Y	NO	Refer to drier instructions. AHDB Cereals and Oilseeds Grain Storage Guide, 3 rd edition 2011.
	Microbiological contamination from mould e.g. fungi mycotoxins and mites due to poor storage conditions	2	3	6	May be toxic to end user or cause a taint	Dry, aerate, cool grain. Pre-harvest hygiene. Visually inspect and segregate. To avoid spoilage, temperatures must be reduced to at least 12°C	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition (2011) AHDB Insects and mites in stored grain and grain stores (2016)
	No physical hazards identified	0	0	0	No risk							
10. Cooling	Chemical – taint introduction of drier and vehicle exhaust gases, nitrosamines, PCB's*, PAH's*, dioxins due to vehicle not being switched off	2	2	4	May be toxic to end user	Ensure vehicles are switched off where possible and drier exhaust fumes are ducted away from air intake.	Y	N	N	Y	NO	AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition 2011

	Microbiological contamination from mould e.g. fungi mycotoxins and mites due to poor storage conditions	2	3	6	May be toxic to end user or cause a taint	Dry, aerate, cool grain. Pre-harvest hygiene. Visually inspect and segregate. To avoid spoilage, temperatures must be reduced to at least 12°C	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition (2011) AHDB Insects and mites in stored grain and grain stores (2016)
	No physical hazards identified	0	0	0	No risk							
11. Long term storage	Microbiological contamination from mould e.g. fungi mycotoxins and mites due to poor storage conditions	2	3	6	May be toxic to end user or cause a taint	Dry, aerate, cool grain. Pre-harvest hygiene. Visually inspect and segregate	Y	Y	Y		CCP1	AHDB Cereals and Oilseeds Grain Storage Guide, 3rd edition (2011) AHDB Insects and mites in stored grain and grain stores (2016)
	Physical contamination pest and bird faeces due to checks not carried out correctly	2	2	4	Risk of Weils disease and E-Coli May introduce salmonella	External qualified pest contractor and weekly checks	Y	Y			CCP3	CRRU UK Code of Best Practice AHDB Rodent Control on farms G70. Analysis shows extremely low incidence of Salmonella
	Physical contamination from glass / hard plastic	1	3	3	May be a risk of foreign body	Continuous monitoring of all glass / hard plastic in store.	Y	N	N	Y	NO	CRD website.
	Chemical contamination	1	3	3	Toxic to end user.	OSR must not be stored on	Y	N	N	Y	NO	

	from PHA'S* from poor storage areas					tarmac floors or in contact with bitumen paint/fillers.						
	Chemical contamination from mineral lubricants	1	3	3	May be toxic to end user	Visual and sensory check. Use food grade lubricants.	Y	N	N	Y	NO	
	Chemical - Insecticides used on stored produce exceeding maximum limits	2	2	4	May be toxic to end user if overdosed	Apply by qualified operator using a CRD approved product with well maintained calibrated applicator.	Y	N	N	Y	NO	AHDB Cereals and Oilseeds Grain Storage Guide, 3 rd edition 2011
12. Out loading and haulage from farm if using farm transport	Microbiological risk from Pathogenic bacterial e.g. E-Coli from poor handling from personnel	1	3	3	May introduce E-Coli	Loading equipment must be clean before use and area inspected.	Y	N	N	Y	NO	
	Chemical contamination from fuel or hydraulic oil from the vehicle	1	2	2	May be a risk to end user	Visual and sensory check on loading equipment	Y	N	N	Y	NO	Analysis shows extremely low incidence of Salmonella.
	Physical contamination from pest and bird faeces due to checks not carried out	2	2	4	May be a risk of Weils disease. May	Qualified pest contractor and weekly checks	Y	Y	Y		CCP 3	CRRU UK Code of Best Practice AHDB Rodent Control on farms G70.

	correctly				introduce E-Coli and Salmonella							Test results - minimal incidence
	Physical contamination from glass/hard plastic	1	3	3	May introduce a foreign body	Continuous monitoring of all glass/hard plastic in store.	Y	N	N	Y	NO	

*PCBs = polychlorinated biphenyls

*PAHs = polycyclic aromatic hydrocarbon

SQC – Monitoring and Corrective Action at each CCP

CCP No.	Process Step	Hazard	Control Measure	Critical Limit	Procedure	Monitoring Frequency	Corrective Action	Responsibility Action Responsibility Allocated
1	Planning - wheat	Chemical – Fusarium mycotoxins	Avoid cereals after maize, mould board plough to bury debris. Choose tolerant variety.	Low rating for AHDB Cereals and Oilseeds Risk assessment for Fusarium mycotoxins.	Carry out preflowering part of AHDB Cereals and Oilseeds Risk Assessment.	Monitor for rainfall at flowering and harvest.	Plan to apply effective T3 fungicide.	Operator/grower
	Intake/Temporary Long-Term Storage - wheat	Chemical – Fusarium mycotoxins, ZON and DON	Refer to AHDB. Cereals and Oilseeds Risk Assessment. If risk assessment is >15, or standing crop has high incidence of fusarium, test grain.	Wheat - low to medium rating on AHDB Cereals and Oilseeds Risk Assessment.	Complete AHDB Cereals and Oilseeds Risk Assessment.	Enter risk score on SQC passports accompanying every load.	If test result above EU threshold, consult with customer	Operator/grower

2	Planning	Microbiological: ergot	Mould board plough if growing cereals	Zero	Check last year's records.	Check during planning phase.	Mould board plough or grow non-grass crop.	Operator/grower
	Harvesting	Microbiological: ergot	Check crops prior to harvest. Check field margins and harvest separately.	Zero tolerance in representative sample as per AHDB Cereals and Oilseeds, GSAP* Project	Visual check prior to harvest.	Daily until harvest completed.	Grower - segregate / quarantine infected produce, quantify and take appropriate action.	Operator/grower
3	Storage	Biological - Contamination by rodents	A suitably trained person should be used to control rodents	No visible signs.	Bait point map and use approved boxes appropriately sited with appropriate bait.	Grower / operator monitors weekly.	Increase bait points and call in external qualified contractor.	Operator/grower

*GSAP – Grain sampling and analysis project for ergot (refer to AHDB Cereals and Oilseeds website and enter “sampling” into search box).