



SCOTTISH QUALITY CROPS

SCOTTISH QUALITY CROPS FARM RECORD BOOK

Index

Page

2	SQC Checklist
3	Crop summary/General information
4	Farm emergency action plan
5-6	Pesticide store & stocklist
7-9	Rodent records & bait point location plan
10-11	Environmental Risk Assessment Form
12	Glass protection system
13	Grain store – Pre-harvest hygiene checks
14-15	Grain stores – weekly/monthly checks
16-17	Sprayer self assessment & basic calibration form
18-19	Sprayer self assessment & calibration for electronic rate controllers
20	Mycotoxins risk assessment for wheat
21	Annual checks - Machinery
22-39	Field records
40-41	Grain Movement Record
42	Complaints register

SCOTTISH QUALITY CROPS CHECKLIST

1	Do you have access to the relevant codes of practice either on paper or via the relevant website?	
2	Can you provide cropping figures on current and previous years?	
3	Field records to include - <ul style="list-style-type: none"> • Fertiliser application including FYM, slurry. • Spray records including LERAPS and slug pellet application. • Sowing dates including seed treatment and Harvest dates. • Spray records to be fully completed, signed & dated. 	
4	Compost, biosolids, digestate - <ul style="list-style-type: none"> • Origin, delivery note and application record, PAS 100/110 certificate • SEPA Exemption where necessary. 	
5	Fertiliser spreader date of last service/calibration.	
6	Chemical store locked, banded, sign, no out of date chemicals.	
7	Waste disposal, recycling waste transfer ticket.	
8	Spray operator's certificate of competence PA1 PA2A (PA4s for slugs) <ul style="list-style-type: none"> • NRoSO number end expiry date or certificate of attendance at SOC course. • Booking Reference & Date for SOC course if not the operator has not yet attended for the current scheme year. • Sprayer Contractors Certificate of Competence PA1/2/4S . 	
9	Sprayer MOT date and number or completed self-assessment form. A copy of a written calibration must be available.	
10	BASIS advisor on BASIS Professional Register or copy of BASIS Advisors current card.	
11	Record any fields with ergot (CCP).	
12	Completed mycotoxin risk assessment (CCP).	
13	Rodent records poison used, dates checked, plan of bait stations & CRRU Environmental Risk Assessment completed. <ul style="list-style-type: none"> • If contractor used, the Certificate of Competence for the individual technician should be available. 	
14	Grain store record dates of cleaning including method, disinfectant or insecticide used <ul style="list-style-type: none"> • Record dates for glass checked including spotlights, skylights and any machinery entering store. 	
15	Record dates for checks on crop handling including combine, forklift, drier.	
16	Moisture meter record date calibrated/checked.	
17	Long term store, record temperature of grain.	
18	Grain trailer record date of cleaning and disinfectant if used.	
19	Grain movements, record dates of grain leaving farm.	
20	Record any complaints.	
21	Farm Emergency Plan available and visible.	

GENERAL INFORMATION

SEERAD FARM CODE (CPH):

Crop Summary

Crop	Ha	Crop	Ha
Spring Barley		Vegetables	
Winter Barley		Pulses	
Winter Wheat		Fruit	
Spring Wheat		Temporary grass	
Spring OSR		Permanent grass	
Winter OSR		Other	
Spring Oats		Total Ha	
Winter Oats			

Contractors/Rodent Contractor/Chemical Suppliers

Name/Company	Telephone Number	Address

Consultants FACTS/BASIS Details

	Name and Company	Registration Number
Basis Adviser		
Facts Adviser		

Spray Operator Details

Name/Company	Certificate of Competence No	SOC Course	Date Attended	NRoSO No	Expiry Date

Waste Exemption Numbers

--

Local Beekeepers/Beekeeper Liaison Officer

Name	Telephone

FARM EMERGENCY ACTION PLAN

In case of emergency dial 999 from your mobile phone or the nearest landline which is situated:

Give the following information including the nature of incident including any remaining hazards:

Farm Name and Address:

OS Ref:

Farm contact:

Farm telephone No:

Location of Domestic Water Supply

Field Name, OS No. etc:

Move any staff, livestock and machinery away from the danger area if safe to do so.

LOCATION OF IMPORTANT FACILITIES

Location of fire extinguishers:	Location of gas and electricity isolation points:
Location of washing facilities:	Location of nearest water source (tap, bowser or other water source etc):
Location of surface water and foul water drains:	Location(s) of first aid box: Trained First Aider:

Other Useful Contacts	Telephone Numbers
Local Casualty Department	
Local SEPA /Environmental Agency Tel No	
Doctors Tel No and Name	
Local Police Station	
Local Fire Dept	
Electricity Company	
Gas Company	
Water Company	
Emergency Waste Disposal Company	

DON'T TAKE RISKS – Remember to display a copy for your staff!

PESTICIDE STORE AND STOCK LIST

DATE	PESTICIDE	AMOUNT IN (ltrs)	AMOUNT OUT (ltrs)	TOTAL IN STOCK (ltrs)	SIGNATURE	COMMENTS

Chemical store

(annual check to identify if store contains pesticides for which approval has been withdrawn or will be withdrawn within the next two years)

Date of check	Checked by	Action / Result

PESTICIDE STORE AND STOCK LIST

DATE	PESTICIDE	AMOUNT IN (ltrs)	AMOUNT OUT (ltrs)	TOTAL IN STOCK (ltrs)	SIGNATURE	COMMENTS

Chemical store

(annual check to identify if store contains pesticides for which approval has been withdrawn or will be withdrawn within the next two years)

Date of check	Checked by	Action / Result

RODENT CONTROL

Weekly/Monthly Checks

Date Checked	Name of Bait *	Station 1 location:	Station 2 location:	Station 3 location:	Station 4 location:	Station 5 location:	Station 6 location:	Observations	Initials

* Bait stations do not need to carry rodenticides

RODENT CONTROL

Weekly/Monthly Checks

Date Checked	Name of Bait *	Station 1 location:	Station 2 location:	Station 3 location:	Station 4 location:	Station 5 location:	Station 6 location:	Observations	Initials

* Bait stations do not need to carry rodenticides

Bait Point Location Plan

ENVIRONMENTAL RISK ASSESSMENT FORM

READ THE ADVISORY NOTES PROVIDED BEFORE YOU CARRY OUT AN ASSESSEMENT

Before the ERA	Name of Site and Address:		
	Name of Client and/or Client's site representative:		
	Contract no:		
	Name of Assessor:		
	Date of Assessment:		
The Infestation	Carry out a site survey and provide the document reference.	Document ref:	
	Were environmental risks noted during the survey? Complete an ERA and the remainder of this form is the answer is yes.	Yes / No	
	Is there a current rodent infestation?	Rat: Yes / No	Mouse: Yes / No
	Is the rodent infestation situated only indoors and will baits only be placed indoors?	Yes / No	
	Is there a significant risk to human health or animal health presented by a possible future infestation?	Yes / No	
	Do you intend to use long-term baiting?	Yes / No	
	If 'yes' give the reference to the document showing justification:	Document ref:	
Risk Hierarchy	Why is it necessary to use a rodenticide at this site? Why can't the situation be resolved by other methods, such as improving hygiene and preventing rodent ingress to sensitive areas or traps?		
	If you intend to use SGARs and not FGARs explain why.		

Sensitive areas	Record if the site is entirely, or contains a part of, one of the designated sensitive areas listed in the advisory leaflet. If so, list any protected species that may be present.	
Products	Give product name, active ingredient and HSE Authorisation Numbers† for all products to be used.	
The ERA*	Provide a list of all environmental risks you perceive to be present at the site:	
	Provide a list of all the measures you will use during rodenticide application at the site to reduce the risks you have identified:	
Disposal of rodent carcasses	How often will you search for rodent carcasses?	
	Will others on site also search for rodent carcasses?	Yes / No
	What measures will you use safely to dispose of rodent carcasses?	
Disposal of spent bait	How will you dispose of spent bait?	
Conclusion	With due consideration to the information recorded above, can this treatment safely proceed without unacceptable damage to wildlife and the environment?	Yes / No

* if there is insufficient room in the boxes provided use additional sheets and secure them to this sheet.

† shown on product labels

.....
Technician's Signature

.....
Client's Signature

**The Campaign for Responsible
Rodenticide Use (CRRU) UK**
The CRRU UK Rodenticide
Stewardship Regime

SQC Sprayer Maintenance and Self Assessment form (complete annually if sprayer not NSTS tested)

Owner:	Operator:	Make:
Model:	PA Cert no:	Reg No:
Date:	NRoSO no:	

Key:	Checked/Completed <input checked="" type="checkbox"/>	Needs Attention <input checked="" type="checkbox"/>
	Adjusted <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Regularly

Mechanical

Is the attachment to tractor secure?

Is the chassis and structure free of cracks and rust?

Are the wheels and tyres in good condition?

Are guards, inc. PTO shaft guard, secure and undamaged?

Hydraulic system, inc. tracking system if fitted.

Are they free from leaks under pressure?

Are the hoses and connections worn or cracked?

Electrical system

Is the wiring undamaged & are all connections properly insulated?

Do all the lights work properly?

Pneumatic system

Is the system free from leaks when under working under operating pressures?

Sprayer tank

Are the tank/chassis fasteners secure?

Free from leaks?

Does the lid fit securely and free from leaks?

Is the contents gauge clearly legible?

Boom

Is it properly latched when folded for transport?

When unfolded, is it straight and level?

Does the height adjustment and suspension work properly?

Does the boom return to level when displaced to left and right?

Are the break-backs functioning freely?

Are the mountings and linkages secure and not worn?

'Spray lines'

Are they free from leaks under pressure?

No hoses and connectors worn or cracked?

Are all valves and filters in good condition?

Nozzles

Are all fittings and turrets in good condition?

Are all nozzles correctly orientated?

Are all check valves working properly?

Is the spray/distribution pattern visually correct?

Regularly (cont)

Controls and valves

Are the master on/off switches working correctly?

Are all boom section switches functioning?

Can you read the pressure gauges easily?

Are all labels appropriate and legible?

Is the pressure adjustment/stable?

Pressure gauge reading zero?

Chemical induction system

Are the system and controls working properly?

Is it free from leaks under pressure?

Are all labels appropriate and readable?

Is the rinse system and container wash system working properly?

Tank rinse system

Is the system functioning properly?

External washdown

Is the system functioning properly?

Personal

Water supply tank filled?

Is the clothing locker clean and contents complete?

Periodical

Jug test all nozzle outputs

Date Completed

Formally complete and file check sheet

Independent test due (if applicable).....

Maintenance Required/Completed/Specific items requiring attention

Calibration Record**Calibration**

Must be carried out regularly at the beginning of each spray season, (spring and autumn), and regularly during the season and always after changing tractor, tractor wheels, nozzles or replacing any part of the spray delivery system.

When calibrating the sprayer, wear a minimum of a coverall, gloves and boots:

		Enter Values
Read the LABEL	Spray VOLUME Spray DOSE Spray QUALITY	
Measure TIME per 100m	Measure time in seconds over land similar to that to be sprayed	
Calculate SPEED	Speed = $360 \div \text{Time (seconds)}$	
Measure nozzle SPACING on boom	(normally 0.5m)	
Calculate nozzle OUTPUT	Output = $\frac{\text{Volume} \times \text{speed} \times \text{space}}{600}$ (Litres/min) (litres/ha) (km/h) (metre)	
Select NOZZLE	Refer to nozzle manufacturers chart and select size and type of nozzle that will produce the calculated OUTPUT and required spray QUALITY	

Now check the calibration of the sprayer:

Check Nozzle OUTPUT	Using water, check output of 4 or more nozzles using a calibration jug or flow meter.	
Calibrate SPRAYER	Volume = $\frac{\text{output} \times 600}{\text{space} \times \text{speed}}$ (Litres/ha) (litres/min) (metre) (km/h)	

Record Details**Date Completed:** _____

Nozzles fitted		Tractor used	
Spray volume		Tractor gear	
Spray pressure		Tractor wheels	
Spray quality		Tractor revs	
Forward speed			

Further forms can be downloaded from the SQC Website www.sqcrops.co.uk or obtained by telephoning the Acoura office: 0131 335 6604

SQC Sprayer Maintenance and Self Assessment form (complete annually if sprayer not NSTS tested)

Owner:	Operator:	Make:
Model:	PA Cert no:	Reg No:
Date:	NRoSO no:	

Key:	Checked/Completed <input checked="" type="checkbox"/>	Needs Attention <input checked="" type="checkbox"/>	
	Adjusted <input type="checkbox"/>	Not Applicable <input type="checkbox"/>	

Regularly

Mechanical

- Is the attachment to tractor secure?
- Is the chassis and structure free of cracks and rust?
- Are the wheels and tyres in good condition?
- Are guards, inc. PTO shaft guard, secure and undamaged?

Hydraulic system, inc. tracking system if fitted.

- Are they free from leaks under pressure?
- Are the hoses and connections worn or cracked?

Electrical system

- Is the wiring undamaged & are all connections properly insulated?
- Do all the lights work properly?

Pneumatic system

- Is the system free from leaks when under working under operating pressures?

Sprayer tank

- Are the tank/chassis fasteners secure?
- Free from leaks?
- Does the lid fit securely and free from leaks?
- Is the contents gauge clearly legible?

Boom

- Is it properly latched when folded for transport?
- When unfolded, is it straight and level?
- Does the height adjustment and suspension work properly?
- Does the boom return to level when displaced to left and right?
- Are the break-backs functioning freely?
- Are the mountings and linkages secure and not worn?

'Spray lines'

- Are they free from leaks under pressure?
- No hoses and connectors worn or cracked?
- Are all valves and filters in good condition?

Nozzles

- Are all fittings and turrets in good condition?
- Are all nozzles correctly orientated?
- Are all check valves working properly?
- Is the spray/distribution pattern visually correct?

Regularly (cont)

Controls and valves

- Are the master on/off switches working correctly?
- Are all boom section switches functioning?
- Can you read the pressure gauges easily?
- Are all labels appropriate and legible?
- Is the pressure adjustment/stable?
- Pressure gauge reading zero?

Chemical induction system

- Are the system and controls working properly?
- Is it free from leaks under pressure?
- Are all labels appropriate and readable?
- Is the rinse system and container wash system working properly?

Tank rinse system

- Is the system functioning properly?

External washdown

- Is the system functioning properly?

Personal

- Water supply tank filled?
- Is the clothing locker clean and contents complete?

Periodical

- Jug test all nozzle outputs

Date Completed

- Formally complete and file check sheet

Independent test due (if applicable).....

Maintenance Required/Completed/Specific items requiring attention

Calibration Record – sprayers fitted with electronic controllers – for pressure and flow based control systems

Must be carried out regularly at the beginning of each spray season, (spring and autumn), and regularly during the season and always after changing tractor, tractor wheels, nozzles or replacing any part of the spray delivery system.

When calibrating the sprayer, wear a minimum of a coverall, gloves and boots:

Make sure the sprayer is clean and flushed outside and inside to reduce the chance of contamination. Clean all filters.

Step	Action	Completion record/values
1	Half fill sprayer tank with water and take to a suitable field. Run sprayer to measure travelling speed from the sprayer based system. Check the results are accurate by using the formula: <i>Speed = 360 ÷ time in seconds to travel 100m.</i> Or cross reference from GPS system. (The tractor speed system cannot be relied on for accuracy)	
2	Check the rate controller system is functioning in the manual setting and that the pressure can be increased and decreased.	
3	Set the pressure to a suitable pressure for the nozzle used. (suggested pressure is 3.0bar except for low pressure nozzles) Visually check nozzles. If spray pattern looks wrong or the nozzle drips, clean the jet & if this does not help replace the jet or nozzle.	
4	Set sprayer box in automatic and put in a simulated speed setting so that the sprayer will spray while stationary. Set the controller to an appropriate rate for the size of the nozzles. (the ltrs/ha and speed you would actually use) Check the output of at least 4 nozzles using a calibration jug or flowmeter.	
5	With the recorded nozzle output apply the flow/application rate formulae to confirm Rate Controller is performing correctly: Output = Volume x Speed x Spacing ÷ 600 ltrs/min ltrs/ha km/hr meter	
	For pressure based systems:	
	Calibrate all nozzle sets in “manual mode” as in the third box from the top.	

Date completed: _____

Using flow based systems, if the nozzle is worn, liquid application will be correct but the drop size and pattern will vary. If using a pressure based system and the nozzle is worn, droplet size should be acceptable but application rate will be higher.

The usable capacity of the tank can be checked once the rate controller and nozzles have been calibrated. Fill the tank full with water and zero the “volume used” display. Spray out the contents until empty. Volume displayed will be the usable capacity of the tank. There will nearly always be some liquid left in the pipes, pump and a small amount will be left in the tank.

Further forms can be downloaded from the SQC Website www.sqcrops.co.uk or obtained by telephoning the Acoura office: 0131 335 6604.

Mycotoxin Risk Assessment for Wheat

The risk assessment is annually updated by HGCA in May.
The latest risk assessment is available on the SQC website – check for updates.

Factor	Details	Risk	Field Score	Field Score	Field Score	Field Score	Field Score
Region (see map – HGCA Topic Sheet 121/Spring 2013)	High	4					
	Moderate	2					
	Low	-2					
	Very Low	-4					
	Maize	6					
Previous crop	Other	0					
	Direct-drilled	4					
	Standard non-inversion tillage	3					
	Intensive non-inversion tillage	2					
	Plough (soil inversion)	0					
Wheat variety Recommended List fusarium ear blight resistance rating	RL rating 1-5	1					
	RL rating 6-9	0					
	PL rating unknown	1					
Your pre-flowering risk score							
T3 ear fungicide	Under 50% dose rate of approved fungicide	0					
	50-70% dose rate of approved fungicide	-2					
	75% or above dose rate of approved fungicide	-3					
	More than 80 mm	9					
Rainfall at flowering (GS59-69)	40-80 mm	6					
	10-40 mm	3					
	Less than 10 mm	0					
Rainfall pre-harvest (GS87 to harvest)	More than 120 mm	12					
	80-120 mm	9					
	40-80 mm	6					
	20-40 mm	3					
Your final score: Record final risk score on the grain passport	Less than 20 mm	0					
	Date						

Test your grain:

If final risk score exceeds 15

If standing crop has high fusarium incidence.

Explaining risk factors

Cultivation: Crop debris is an important source of fusarium. Complete burial by ploughing reduces risk to the greatest extent while risk is highest with direct drilling. Intensive non-inversion tillage (3 or more cultivations with discs, tines or chisel plough) is more effective at reducing risk than standard non-inversion tillage (1 or 2 cultivations).
Note, appropriate machinery can achieve several cultivations in a single pass.

Variety: based on HGCA Recommended List rating for fusarium ear blight. Score 1 if unknown.

T3 fungicide: The benefit of using an appropriate rate of a T3 fungicide recommended against fusarium and/or mycotoxin production results in a negative score. Current recommended fungicides include products containing dimoxystrobin, metconazole, prothioconazole or tebuconazole.

Rainfall at flowering: Wet weather promotes fusarium development. The score is based on total rainfall during flowering (GS59-69 – full ear emergence to end of flowering).

Rainfall pre-harvest: Based on total rainfall from crop starting to ripen (GS87 – hard dough) to harvest.

ANNUAL CHECKS (year)

FYM/Fertiliser spreader (spring check of calibration and spreading pattern)

Machine	Date of check	Checked by	Maintenance and Uniformity of distribution	Calibration check	Action / Result

Sprayer (carry out at the beginning of spring and autumn seasons, and regularly throughout the seasons or after changing nozzles or other parts of the delivery system).

Machine	Date of check Or NSTS test date	Checked by	Maintenance check or NSTS Test Number	Calibration check	Action / Result

Grain drier/Combine/Loading Equipment Maintenance Checks

Machine	Date Checked	Checked by	Maintenance Required	Action/Result

Moisture meter (calibrated against standards)

Date of check	Checked by	Action / Result

Trailer/Loader pre-harvest hygiene

Date	Cleaning Process (swept/power washed)	Disinfectant Used

SQC – Member’s Complaints Register

- If no complaints received, complete Section 2

Section 1

Name and address of Complainant	Date received	Nature of complaint	Proposed correction action	Date action finished
Eg. Grain Company, Dock 1 The Keys	09/09/12	Saw tooth grain beetle	Treat grain with Reldan 22	12/09/12

Section 2

Harvest Year:	No Complaints Received	Signature:	Date:
Harvest Year:	No Complaints Received	Signature:	Date:

Notes

NOTES