



# **SQC Manual**

**Scottish Quality Farm Assured  
Combinable Crops Limited (SQC)**

**[www.sqccrops.co.uk](http://www.sqccrops.co.uk)**

**Farm Assurance Scheme  
Standards  
(Including Crops for Liquid Biofuel)  
Revised January 2012**

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## **FARM ASSURANCE SCHEME STANDARDS** (Revised September 2011)

### **Part I – about the Scheme**

#### **INTRODUCTION TO THE SCHEME**

- 1.1 This Manual sets out the conditions of participation and the standards of Scottish Quality Farm Assured Combinable Crops Ltd. (SQC). It also provides information on the structure of the company and how it operates.
- 1.2 It is intended as a guide for prospective new applicants and as a source of reference for existing growers.
- 1.3 The Manual contains standards for all combinable crops.
- 1.4 The SQC standards are designed to increase consumer and trade confidence in both home and export markets by:
  - responding pro-actively to consumer concerns about combinable crop production.
  - improving food safety and meeting the requirements of the Food Safety Act 1990.
  - addressing the environmental responsibilities of combinable crop production.
- 1.5 SQC ensures that growers' farms operate production systems encompassing high standards of crop management, and particularly that fertiliser, plant protection products, growing, storage and overall farm standards have all been subject to an independent assessment procedure.
- 1.6 Participation is voluntary and is open to all combinable crop producers in northern Britain who demonstrate, by independent annual assessment that they operate to SQC standards.
- 1.7 If you have any questions on the content of the Manual, or about the Scheme in general, please contact: The Technical Manager, SQC, Royal Highland Centre, 10<sup>th</sup> Avenue, Ingliston, Edinburgh, EH28 8NF. Telephone No: 0131 335 6604 Fax: 0131 335 6601 E-mail: [sqc@sfqc.co.uk](mailto:sqc@sfqc.co.uk) Website: [www.sqcrops.co.uk](http://www.sqcrops.co.uk)
- 1.8 Scottish Food Quality Certification Ltd (SFQC) is the Independent Certification Body appointed by SQC to provide the inspection and certification services for the scheme. SFQC operate the SQC Technical Advisory Committee (TAC), which is responsible for advising SFQC on all technical matters relating to the Certification Scheme. All scheme participants must comply with all the requirements detailed in the SFQC Regulations. The current SFQC Regulations are available on the website, [www.sfqc.co.uk](http://www.sfqc.co.uk) or alternatively they can be obtained from the SFQC office.
- 1.9 Scottish Quality Farm Assured Combinable Crops Ltd. (SQC) is a company limited by guarantee and the members of the company are:

National Farmers Union of Scotland; Agricultural Industries Confederation (AIC); Scottish Flour Millers Association; Scottish Agricultural Organisation Society; Maltsters Association of Great Britain; The Scotch Whisky Association; The Malt Distillers Association of Scotland and The Scottish Agricultural College.
- 1.10 SQC is controlled by a Board of Directors responsible for the direction, overall management and administration of the company.
- 1.11 Two working groups are responsible for developing and monitoring technical and marketing aspects of the company's operation. A Technical Advisory Committee (TAC) supervises the farm assessment procedures, farmer recruitment and maintaining and updating farm standards. A Marketing Group is responsible for developing the market for SQC combinable crops and for the linkages between farm assurance and the trades own quality assurance schemes.
- 1.12 The Scottish Consumer Council has an open invitation for a representative to attend SQC meetings.

1.13 A list of current members of the Board and working groups is available on the SQC website, [www.sqcrops.co.uk](http://www.sqcrops.co.uk) or alternatively they can be obtained from the SQC office on request.

1.14 SQC is a dynamic Scheme, the standards of which will alter in response to consumer, trade and legislative concerns and requirements. The Manual standards are reviewed annually and growers will be kept fully informed of any changes in the standards and conditions that may affect them.

## **HOW TO JOIN THE SQC SCHEME**

### **New Growers**

- Application to participate in the scheme must be made on an SQC application form and be accompanied by the appropriate payment. Scheme fees, based on combinable crop area, are shown on current application forms and, if necessary, SQC will be pleased to provide advice.
- If applicants have more than one farm and, especially if the farms are some distance apart, there may be a need for an additional fee. However, every effort will be made to minimise the costs in such cases.
- On receipt of an application form with the scheme fee, a new grower pack will be issued and arrangements shall be made for an assessment of the applicant's farm. The purpose of the visit is to provide a report on the applicant's capability to produce combinable crops in a way that conforms to SQC standards. The decision to approve participation will be on the basis of the assessment report.

### **Existing Growers**

- Subscriptions for participation must be renewed annually. SQC will notify existing growers of their renewal fee prior to the renewal date.
- Subscriptions will be calculated using the combinable crop hectarage for the previous year.
- Growers' farms will be subject to annual re-assessment. Any re-assessment dates will be fixed by appointment, and may not necessarily be at the same time of year as the initial assessment.

### **General**

- The SQC Scheme year runs from 1<sup>st</sup> October to the 30<sup>th</sup> September.
- New and existing growers will be required to join SQC for all combinable crops grown.
- At the time of the farm assessment, a check will be made that farm records and circumstances support the declaration of combinable crop area and the calculation of the scheme fee.
- Supportive evidence of compliance of standards may be required by the assessor.

## **2.0 ARRANGEMENTS FOR FARM ASSESSMENT AND APPROVAL**

### **2.1 Certification body**

All assessments are carried out by an independent body, Scottish Quality Food Certification (SFQC) Ltd. SFQC is EN45011: 1998 (ISO/IEC guide 65: 1996) accredited for SQC Farm Assurance. The accreditation to EN 45011 is carried out by the United Kingdom Accreditation Service (UKAS) SFQC is the only certification body appointed by SQC to carry out assessments to SQC's Standards.

### 3.0 The Assessment

- 3.1 The initial assessment will be by appointment with the applicant and will be carried out during normal working operations with the applicant in attendance.
- 3.2 The assessment will include an examination of the farm systems and the physical features of the farm and equipment as they relate to the SQC standards. Further details are given in Appendix A.
- 3.3 The Assessor will note all points on which the farm meets the SQC standards and will also raise any non compliances where the grower fails to meet the SQC standards. A copy of the visit record will be left at the end of the assessment which the grower will be asked to sign. The grower will be asked to provide evidence to the Scheme Office that corrective action has been carried out. A time limit will be agreed with the grower for this corrective action.
- 3.4 In the course of the visit, the knowledge and skills of the individual(s) responsible for management of the combinable crops enterprise may also be assessed. Further details are given in Appendix B.
- 3.5 The applicant will be encouraged to complete a skills assessment form identifying areas where further training of the applicant or farm staff would be an advantage in maintaining SQC standards in the future.
- 3.6 A report of the assessment coded for anonymity will be submitted to the SQC TAC.
- 3.7 All farms are assessed on an annual basis. Assessments may be at different times of the season.

### 4.0 Certification Decision

SQC reserves the right to request a random or additional assessment visit to a grower's farm and may take appropriate action on the basis of the report. A random or additional assessment may be at short notice but, as far as possible, will avoid peak sowing and harvesting times. The selection is based on risk assessment. The additional assessment will include those growers partially compliant with the Renewable Energy Directive (see Part II, Standards 3.1, 3.2, 3.2.1).

- 4.1 All non-conformances against the Standards must be rectified. Standards are categorised as “minor” or “major” which is identified within the Standards as a margin note. New for 2012

The applicant will be notified of the assessment outcome. The possible decisions are as follows:

**Category 1:** *Unconditional approval with no non-compliances highlighted during the assessment. A reassessment visit may be carried out at any time. Compliance with the Renewable Energy Directive will be listed as compliant or part compliant for biofuels.*

**Category 2:** *Conditional approval with one or more minor non-compliances. The timescale for addressing non-compliance(s) will be agreed with the assessor, this is usually 1 month. Growers will be asked to supply evidence to the SFQC office that non-compliance(s) have been rectified. Alternatively a reassessment visit may be required.*

**Failure to submit corrective action within the given timescale will result in participants being deferred (Category 3).**

**Category 3:** *Participation deferred pending the completion of corrective action to address:- major non-compliance(s) or minor non-compliances not addressed within given timescale. Growers will be required to supply evidence to the SFQC office that non-compliance(s) have been rectified. Alternatively a reassessment visit may be required.*

Where a revisit is required a fee may be charged to the applicant/grower.

- 4.2 Whatever the decision on an application, SQC may recommend appropriate training courses, or appropriate advisory support services, to assist the applicant to achieve or maintain the SQC standards. If appropriate, training or advice could be a condition of acceptance.

- 4.3 An applicant or grower may appeal within 4 weeks of receipt of corrective action letter to the Technical Advisory Committee of SQC if they disagree with the assessment report.
- 4.4 SQC reserves the right to request a random or additional assessment visit to a grower's farm and may take appropriate action on the basis of the report. A random or additional assessment may be at short notice but, as far as possible, will avoid peak sowing and harvesting times.. The selection is based on risk assessment. The additional assessment will include those growers partially compliant with the Renewable Energy Directive (see Part II, Standards 3.1, 3.2, 3.2.1).
- 4.5 The TAC reserve the right to suspend any grower who is found to have made false claims:
- at the time of their annual assessment. New for 2012
  - or in respect of corrective action found at their next annual assessment.
- 4.6 Any grower entering into a fraudulent activity with the SQC Passports may be suspended from the Scheme and only re-admitted on the discretion of the Board.

## **5.0 SOURCING AND TRACEABILITY OF COMBINABLE CROPS**

- 5.1 Growers will be supplied with SQC Passports. The passport is unique to each grower, showing the name, address and membership number of the grower. Purchasers will use these SQC Passports as evidence that produce is of assured status.
- 5.2 It is a condition that the SQC Passport is signed by the SQC grower or another authorised signatory to protect the credibility and integrity of the Scheme. Growers are reminded that only the grower or other authorised person should sign the SQC Passport.

Both the grower and haulier (if applicable) must sign the "Inspection of Vehicle" statement on the SQC Passport. Where a haulier is used, the grower must be satisfied that the 3 previous loads carried are detailed with cleaning process recorded.

In the event of accidental spillage of a contaminant onto ground with sown/growing crop to be assured: If such a contamination does take place, either by the grower or a third party, all details should be recorded and the grower must inform the SQC office in writing. These details will be reviewed by the TAC and once the review decision has been made this will be forwarded to the grower in writing.

- 5.3 In order for the passports to reflect compliance with the EU Renewable Energy Directive land use criteria a declaration on the passport must also be signed. Growers must keep a record of the date, tonnage and purchaser of loads being delivered for biofuel.
- 5.4 Grain merchants and grain groups will assist with identifying SQC combinable crops in the markets.
- 5.5 Grain groups and co-operatives whose entire participation is accredited to SQC standards are permitted to use SQC stickers or the SQC logo. Such stores must be accredited by a recognised merchant scheme for combinable crops.

## Part II - the SQC Standards with explanatory notes

The purpose of the Scheme is to ensure that consumers and the trade have confidence that crops are grown on farms with a high standard of management, especially of farm operations which might affect the wholesomeness or safety of the food produced or the health of the environment and countryside.

The Scheme assists farmers to meet their obligations under the Food Safety Act 1990.

### Growers must be compliant with all standards to achieve assured status for combinable crops.

These standards are based on Hazard Analysis and Critical Control Point (HACCP) principles. HACCP identifies hazards that can occur at any stage in food productions to evaluate the level of risk, to put in place control measures to reduce or remove the risk, and then to monitor that these controls are properly implemented. Corrective action should also be determined if limits are exceeded. The SQC Generic HACCP Plan is available on the SQC website, [www.sqcrops.co.uk](http://www.sqcrops.co.uk), or alternatively can be supplied from the SFQC office. Revised for 2012

#### PLANNING

It is important that the risk assessment form, **HACCP Process No. 1** – Planning, is carefully considered. Effective planning can reduce or eliminate risk.

### 1.0 STANDARDS FOR THE USE OF FERTILISERS AND MANURES (HACCP Process 4)

Although consumers frequently express a preference for food grown with minimal inputs of inorganic fertiliser, there is no scientific reason to suppose that fertiliser use, up to the rates recommended as most profitable, are in any way inconsistent with high product quality and wholesomeness. The major exception is for malting barley, where high grain nitrogen can result from over-fertilisation, but this is a problem more for the maltster, distiller and brewer, than for the ultimate consumer.

- 1.1 Growers must hold and/or have access to the relevant sections of the PEPFAA Code of Good Practice DO's and DON'Ts GUIDE, SEERAD 2005 (Scotland), Code of Good Agricultural Practices for Protecting our Water, Soil and Air defra 2009 (England), and abide by NVZ fertiliser and manure regulations, where applicable. MINOR

More serious are the environmental consequences of using too much fertiliser or applying it with insufficient care. Aspects of the Control of Pollution Act 1974, the Water (Scotland) Act 1980 and Schedule 23 to the Water Act 1989, are relevant to the possible contamination of water (whether or not it is used for drinking) by fertiliser spillage or surface run-off. SQC recommend a written emergency procedure be drawn up and available to all farm personnel to deal with any environmentally or safety threatening incident.

The prevention of pollution by fertilisers is covered in the Code of Good Practice for the Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) DO'S and DON'TS GUIDE, SEERAD 2005 and the Codes of Good Agricultural Practices for Protecting our Water, Soil and Air, defra 2009. Both the PEPFAA Code and the COPA Regulations 1991 remind growers to adjust rates of fertiliser to allow for nutrients applied in slurry or manure. [www.scotland.gov.uk/agri](http://www.scotland.gov.uk/agri) [www.defra.gov.uk](http://www.defra.gov.uk)

- 1.2 Records must be kept and made available for inspection of the date and type of fertiliser applied and the amount used on each field. MINOR

Consult your local adviser if you need professional help in drawing up a Fertiliser and Manure Plan.

- 1.3 Single applications of nitrogen in spring must be limited to those that can be readily utilised by the crop within a reasonable time. MINOR

For cereals these should not normally exceed: 60 kg/ha (48 units/acre) in February (Further restrictions may apply - consult NVZ Guidelines where applicable)

125 kg/ha (100 units/acre) in March

135 kg/ha (107 units/acre) in April

Most FACTS registered advisers recommend split applications.

For oilseed rape, any single application should not normally exceed 100 kg/ha (80 units/acre).  
Pulses are unlikely to require nitrogen. Revised for 2012

Where two applications are made in one month for cereals or oilseed rape, the Assessor will need to be satisfied that the interval between applications and the rates comply with the spirit as well as the letter of the standard. If single application rates are exceeded, the Assessor will require justification for the action.

- 1.4 The rate of nitrogen, phosphate and potash should be matched to the crop requirement, taking into account soil status, previous cropping, any organic manures applied and natural losses.

MINOR

Details of the requirements of crops for nitrogen, phosphate and potash are published in Fertiliser Technical Notes (see bibliography). These include important adjustments for previous cropping and for applications of slurry and manure.

- 1.5 Autumn inorganic nitrogen in NVZ's: nitrogen fertiliser must not be applied to cereals/pulses between 1<sup>st</sup> September and the 15<sup>th</sup> February (20<sup>th</sup> February for Moray, Aberdeenshire, Banff and Buchan). For oilseed rape, applications cannot exceed 30kg/ha (25 units/acre). If applications are made, they should be limited to that which can be readily utilised and are appropriate for the crop. Compliance with NVZ Regulations is required.

MINOR

Autumn inorganic nitrogen outside NVZ's: nitrogen fertiliser should not be applied to cereals/pulses between 1<sup>st</sup> October and 15<sup>th</sup> February. If applications are made, they should be limited to that which can be readily utilised and are appropriate for the crop. They should not normally exceed 25kg/ha (20units/acre). Where applications are in excess of 25kg/ha, they may be permitted when the fertiliser is applied in conjunction with sowing or where there is a specific crop requirement. For oilseed rape, applications should not exceed 30kg/ha (25 units/acre). Where higher rates are used, the assessor will ask for justification which can be from a FACT's registered advisor.

MINOR

- 1.6 Growers must not apply fertiliser to combinable crops when the ground is frozen solid or snow-covered (PEPFAA Dos and DON'Ts Guide, Section 6. Codes of Good Agricultural Practice for Protecting our Water, Soil & Air, Section 2. NVZ regulations, where applicable). They must not apply fertiliser to land that is waterlogged.

MINOR

The Codes of Practice Regulations/NVZ regulations, where applicable, state fertilisers should not be applied when the soil is waterlogged, frozen solid or covered in snow. The aim of this standard is to avoid run-off.

- 1.7 For applications of bio-solids, growers are required to adhere to the relevant Codes of Practice, The Sludge (Use in Agriculture) Regulations 1989 and The Safe Sludge Matrix (see bibliography). The use of untreated bio-solids is not permitted on combinable crops.

MAJOR  
HACCP Process 4

It is advisable growers consult with their merchant before use as some end users are reluctant to accept crops treated with bio-solids.

Composts/Digestates - Growers using compost and/or digestates are recommended to keep detailed batch records of origin, delivery and application.

If using compost and/or digestates it is advisable growers consult with their merchant before use as some end users are reluctant to accept those treatments.

Members of other farm assurance schemes must be aware that these schemes may have additional standards regarding use of these products. Standards for compost and aerobic digestates will be developed by SQC; they will include a requirement to use only PAS100/PAS110 compliant product.

Revised for 2012

- 1.8 Fertiliser spreaders must be adequately maintained and calibrated. Annual calibration checks and maintenance must be recorded. MINOR

Assessors will check the condition of your fertiliser spreader(s), looking particularly for excessive wear of the working parts. Growers are advised to check that the spread pattern is uniform and be aware that spread pattern can vary with different products. They will also check the competence of the operator(s) to maintain, calibrate and operate the machine.

- 1.9 Granular or prilled fertiliser must be stored on a hard surface, where spillage can be swept up and not carried by run-off water into drains or burns. Revised for 2012 MINOR

Where liquid fertiliser is stored in permanent storage tanks it must be secure. A system for containment must be in place, either through a bund or a secure system for collecting the spillage preventing it from gaining access to drains or waterbodies. MINOR

It is recommended that ammonium nitrate based fertilisers should be stored in a secure area away from public access. A 10 point plan is available as guidance. (*see bibliography*)

- 1.10 Any source of water used for domestic supplies, whether public or private, requires a protection zone from which fertiliser use is excluded. MINOR

The Codes of Practice, recommend a minimum distance of 50 metres between the limit of fertiliser spread and any source of water used for domestic supplies. Where 50 metres appears excessive, evidence is needed to support a lesser protection distance.

- 1.11 Field Boundaries - Growers must take care to limit the amount of fertiliser, including slurry and FYM applied to field boundaries or other areas of semi-natural vegetation adjoining arable fields. Growers who have a spinning disc or oscillating spout machine, for which the manufacturer offers a headland kit, must use it. MINOR

Open Water - Growers must not apply fertiliser in such a way that it could directly contaminate any open water, whether stagnant or flowing. MINOR

The problem is likely to arise when a spinning disc or oscillating spout machine is used too close to a burn or open drain. Some machines can be adjusted by fitting a headland kit. Consider tilting the spreader, reducing the spinning speed or positioning the headland bout further from the watercourse. Revised for 2012

- 1.12 If an adviser, consultant or trade representative advises on fertiliser use on a grower's farm, it is the grower's responsibility to ensure that the adviser is FACTS qualified. MINOR

If the adviser, consultant or trade representative is unable to give assurance on their FACTS qualification, the Assessor should proceed with the assessment as if the grower was wholly responsible for fertiliser decisions. MINOR

## 2.0 STANDARDS FOR CROP PROTECTION PRACTICE

HACCP Process 5, 8 & 11

In all recent legislation and codes of practice and in this Manual, the word pest applies to any insect, pathogen, weed species or other organism which might reduce the yield or quality of a crop. Crop protection product refers to any chemical or organism which is used to control a

pest. This most obviously covers crop protection products formulated for spraying, but also includes seed dressings, granules, soil drenches, powders, dusts, granules or fumigants intended for use with stored products. It also includes plant growth regulators, but not trace elements or adjuvants (wettors and mixers), even when applied from sprayers.

The use of crop protection products on farms is a subject of major public concern and is covered by the Control of Pesticides 1997 (as amended) (COPR) and the Plant Protection Products Regulations 2003 (PPPR), under the Food and Environment Protection Act 1985 (FEPA), the Control of Substances Hazardous to Health Regulations (COSHH) under the Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999. SQC recommend a written emergency procedure be drawn up and available to all farm personnel to deal with any environmentally or safety threatening incident.

The requirements of this legislation are contained in the Code of Practice for using plant protection products, published by SEERAD for Scotland and defra for England.  
[www.scotland.gov.uk/agri](http://www.scotland.gov.uk/agri) [www.defra.gov.uk](http://www.defra.gov.uk)

Although it has no legal standing, the UK Crop protection product Guide, published annually by CAB International and the British Crop Protection Council and known as the Green Book, is a useful summary of crop protection products and the uses for which they are approved. It provides guidance on compliance with the law and the choice of the safest and most effective crop protection product for each problem on the farm. Some combinable crop processors may exclude certain products or their usage; it is therefore advisable for growers to check with their end user.

- 2.1 Growers must hold and/or have access to the relevant Code of Practice for using plant protection products. Revised for 2012 MINOR

The Assessor will wish to ensure that both you and your spray operator(s) have access to the Code of Practice. Further information on crop protection products is available from the Chemicals Regulation Directorate. [www.pesticides.gov.uk](http://www.pesticides.gov.uk)

- 2.2 Stored crop protection products must be clearly labelled, in sound condition and kept in a secure locked store displaying an appropriate warning sign. The store must be bunded to contain the crop protection products in the event of spillage, fire or other accidental occurrences. If the quantities stored at any one time are small, the store may consist of a lockable, bunded metal container or multiples thereof. An up-to-date crop protection products stock record must be available, a copy of which should be kept in the farm office. MINOR

- 2.3 Before entering the Scheme and annually thereafter, growers must check that their store does not contain old crop protection products for which the approval to store has been withdrawn. MAJOR

A list of approved crop protection products can be found in the UK Pesticide Guide or on the Chemicals Regulation Directorate website. [www.pesticides.gov.uk](http://www.pesticides.gov.uk). Crop protection product MAPP numbers can also be checked on this website. In practice, crop protection products purchased within the last two years are likely to be still approved. Revised for 2012

- 2.4 Each crop protection product used must be approved by defra for the situation to which it is to be applied. Growers must keep full records for at least three years of all crop protection applications to growing and stored crops. If a contractor is used, the contractor must supply the grower with full records. MAJOR

Records must include date of application, times of spraying, crop growth stage, wind strength and direction during spraying, nature of the pest to be controlled, label name of product used, dose, water application rate and spray quality. For application to stored crops, record the date, product, dose, method of application and the pest to be controlled. If LERAPS are required, records must be available. To ensure harvest interval as stated on the product label is observed crop harvest dates must be recorded. Growers must try to avoid applying crop protection sprays on to growing crops in windy conditions, or in such a way as to cause drift into conservation features such as hedgerows,

woodlands and wetlands, into private homes or gardens, or into public places such as parks or school playgrounds. Growers must observe 'buffer zone' requirements where stated on product labels. Revised for 2012 MINOR HACCP Process 5

The product label is usually the definitive source of information on the Conditions of Use in the defra Approval. However, Off-Label Approvals may exist or can be obtained, especially for minor crops. Before using an Off-Label Approval, you must obtain a copy of the relevant Notice of Approval.. "Situation" covers both crop and non-crop uses, such as set-aside and uncropped land.

Pest thresholds or risk assessment should be used whenever possible. Advice on pest thresholds is available from many sources (BASIS registered agronomists and organisations that provide crop protection reports). This advice should be sought so routine treatments are only used against pests that cannot be controlled as effectively after they are seen. For such pests, meteorological, crop monitoring and other prediction techniques should be used as much as possible.

- 2.5 Growers must never exceed the label maximum recommended dose at any one application. They must comply with label restrictions on repeated applications ensuring they do not exceed the maximum permitted dose for the crop. MAJOR HACCP Process 5, 8 & 11

Check the product label, or Notice of Approval, to avoid violating any restrictions on the repeated use of the same active ingredient where it may be available in several different products. Where a crop protection product is applied to a crop which does not comply with the label/legal restrictions, that crop (or part of) will not be assured under the SQC standards and as such will not receive an SQC Passport. The grower will be required to give an undertaking (in writing) that the crop (or part of) will not be traded as assured.

Where there is good evidence available (from agronomists or crop protection reports) the use of a dose below that recommended on the product label is encouraged. Generally speaking, low doses are most effective when applied in a timely fashion. They may not be effective against well established weeds or diseases. Growers should choose the product which will most effectively achieve control with minimum hazard to the consumer or operator and minimum environmental damage. Information on the relative effectiveness of crop protection products of similar types, but from competing manufacturers, is difficult to obtain, except from an experienced adviser or consultant. Product availability is an important factor in selection of an appropriate crop protection product.

- 2.6 Insecticide for oilseed rape and pulses should only be applied in the early morning, late evening, or on dull days. Avoiding bright weather and mid-day applications is designed to minimise the effect on bees. MINOR

Insecticide should be applied only if pollen beetle or seed weevil numbers on rape, or black bean aphids on pulses, exceed prescribed thresholds. For cereals, aphid control may be used only if before flowering, more than half the flag leaves are infested or after the start of flowering more than two thirds of the ears are infested over a four-day period. Selection and application of insecticide should be in keeping with bee safety. The local contact of the Scottish Beekeepers Association or British Beekeepers Association should be informed before application. Addresses of contacts for Beekeepers can be obtained from the Beekeepers Association. [www.scottishbeekeepers.org.uk](http://www.scottishbeekeepers.org.uk) [www.britishbee.org.uk](http://www.britishbee.org.uk)

- 2.7 In Scotland, the Code of Practice for using plant protection in Scotland must be followed when disposing of spray washings, crop protection product containers and unwanted crop protection products. Whenever possible, containers should be disposed of at a licensed waste-recovery site. If drum incinerators are used, an exemption certificate must have been applied for from the local SEPA Office. Incinerators must be fit for purpose and supervised when in use. Revised for 2012

In England, the Code of Practice for using plant protection in England and Wales must be followed when disposing of spray washings, crop protection product containers and unwanted crop protection products. Containers must be disposed of at a licensed waste-recovery site. MINOR

- 2.8 If an adviser, consultant or trade representative advises on crop protection products on a growers farm, it is the growers responsibility to ensure that the adviser is BASIS qualified. MINOR

If the adviser, consultant or trade representative is unable to give assurance on their BASIS qualification, the Assessor should proceed with the assessment as if the grower was wholly responsible for decisions on crop protection. For 2013, it will be a requirement for all BASIS advisers to be a member of the Register of Practitioners Providing Professional Pesticide and Plant Nutritional Advice. Revised for 2012

- 2.9 Growers should ensure that they either hold Grandfather Rights or that their Certificate of Competence is applicable to the sprayer. MAJOR HACCP Process 5

This applies equally to operators of granule applicators, seed dressing equipment or other applicators for crops in store. Growers must hold a copy of the relevant certificate of competence number. Those who need a certificate of competence but do not hold one cannot apply crop protection products unless they are supervised by a certificate holder.

All spray operators, including those applying trace elements, are required to undergo continual professional development (CPD) every Scheme Standard year, by either participating in the annual SQC Sprayer Operators Course or by being a member of the National Register of Spray Operators Scheme (NRoSO). Those who have taken and passed their NPTC Certificate of Competence (PA1, PA2A as a minimum) during the current Scheme Standard year will not have to undergo CPD until the following year. Growers must have proof of CPD at the time of assessment. MINOR Revised for 2012

The people who may operate the sprayer are therefore:

- those who have a Certificate of Competence under the Food and Environment Protection Act.
- those growers who were born before 31 December 1964 (Grandfather Rights) and have received adequate training in using crop protection products safely. In addition they must have demonstrated their competence to a Scheme Assessor in order to operate the sprayer for their own business.

- 2.10 Growers who use a contractor or partner in a machinery ring, or have a machinery sharing arrangement, are responsible for ensuring that spray operators hold the necessary Certificate of Competence and that they observe both the provisions of the Law and of this Scheme in respect of all aspects of the use of crop protection products. Growers must hold the relevant certificate of competence number for the contract sprayer operator. MAJOR Revised for 2012 HACCP Process 5

Contract spray operators are required to undergo continual professional development (CPD) by either participating in the annual SQC Sprayer Operators Course (every Scheme Standard year) or by being a member of the National Register of Spray Operators Scheme (NRoSO). Growers must have proof of CPD at the time of assessment. MINOR

- 2.11 Sprayer Maintenance: Where spraying is carried out, including application of trace elements, sprayers must either be tested annually under the National Sprayer Testing Scheme (NSTS) or the SQC sprayer self assessment form must be completed on an annual basis. Written records must be kept of the date of each check of the sprayer and of any maintenance or replacement of parts.

MINOR HACCP Process 5 Revised for 2012

Sprayer Calibration: Where spraying is carried out, including application of trace elements, a sprayer calibration record must be completed. Sprayers must be calibrated at the beginning of each season

(spring and autumn) and regularly during the season and after changing nozzles or replacing any part of the spray delivery system. MINOR Revised for 2012

The assessor will inspect the sprayer.

Contractors must either have an NSTS certificate or produce a signed declaration form stating they have completed a self assessment maintenance form. Regular (at least twice a year) calibration checks must be carried out and records kept. MINOR

Your Complete Guide to Field Scale Spraying, published by the British Crop Protection Council and LANTRA gives advice on sprayer maintenance, calibration and operation. Sprayer calibration must be checked at the beginning of each season and after changing nozzles or replacing any part of the spray delivery system (pumps, valves and hoses). The check should be carried out with clean water and should ensure that:

- There are no leakages or perished hoses.
- The delivery from each nozzle is within  $\pm 5\%$  of that specified by the manufacturer at the spray pressure indicated on the machine gauge.

The Assessor will wish to see sprayer maintenance records at the initial and subsequent assessment visits. Information on NSTS and locations of testing centres is available from [www.nsts.org.uk](http://www.nsts.org.uk). Regular checks should also be made of other crop protection application equipment such as knapsack sprayers, granule applicators, crop protection dust applicators, seed dressing equipment and applicators for storage crop protection products. For guidance on the calibration record required a template is available from [www.sqccrops.co.uk](http://www.sqccrops.co.uk) Revised for 2012

### 3.0 STANDARDS FOR THE PRODUCTION AND HARVESTING OF COMBINABLE CROPS

All combinable crops produced on the unit should conform to the Scheme's standards. The intention is that all combinable crops produced on a grower's farm should qualify for the Scheme, but occasions may arise e.g. possible contamination when this is not possible. In that event, arrangements for the segregation of such produce (excepting for Standards 3.1, 3.2. and 3.2.1) must be agreed with the Assessor and the SQC Administrators must be informed. The grower must make satisfactory arrangements for segregation and separate marketing; on no account may the grower use SQC Passports for such unassured bulks.

- 3.1 For the production of biofuel crops compliant with the Renewable Energy Directive, growers must comply with the Articles 17 (3) to 17 (6), the land based sustainability criteria, of Directive 2009/28/EC of the European parliament and of the Council<sup>1</sup>, the Renewable Energy Directive, (Renewable Energy Directive 2009/28/EC) by providing information on the area in their current business which was in an arable rotation (including temporary grass) at the 1<sup>st</sup> January 2008. If growers are unable to provide information for parts of the land currently cropped, these crops will not be compliant to the Renewable Energy Directive and the grower will be only partially compliant. MAJOR

Crops (raw materials) must not be obtained from land with a high biodiversity value land and / or high carbon stock land on or after 1<sup>st</sup> January 2008. This land is defined as:

**High biodiversity value land:** High biodiversity land is defined as:

- Primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed.
- Areas designated for protection. These are areas designated:
  - (i) by law or by the relevant competent authority for nature protection purposes
  - (ii) for the protection of rare, threatened or endangered eco-systems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with

the second subparagraph of article 18(4). (Unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes).

**Highly biodiverse grassland** that is:

- Permanent grass which has been established for more than five years

**High carbon stock land:** namely land that had one of the following statuses in January 2008 and no longer has that status:

- Wetlands: namely land that is covered with or saturated by water permanently for a significant part of the year.
- Continuously forested areas: namely land spanning more than one hectare with trees higher than 5m and a canopy cover of more than 30% or trees able to reach those thresholds in situ. Continuously forested areas do not include land that is predominantly under agricultural or urban land use.
- Other woodlands: Land spanning more than one hectare with trees higher than 5m and canopy cover of between 10% and 30%, or trees able to reach those thresholds in situ.
- Peatland: Biofuels and bioliquids must not be made from raw material obtained from land that was peatland in January 2008. This includes peatland that was partly drained before January 2008 and that has been subsequently deeper drained. (Unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil).

Crops from non compliant land can still be sold as assured grain for non biofuel use provided all other SQC Standards are met.

<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF>

- 3.2.1 Growers must provide information on the area which is in an arable rotation (including temporary grass) for the current year. It must be established that this area is not from **high biodiversity land, high carbon stock land or peat land drained since January 2008**. Evidence must be provided to the assessor showing the land status at Jan 2008; if this is not available, the land will be assumed as non-compliant to the RED.

MAJOR

Any area from high biodiversity land, high carbon stock land or peat land drained since January 2008 will not be compliant with the land based sustainability criteria Articles 17(3) to 17(5) of the Renewable Energy Directive 2009/28/EC.

- 3.2.2 Mass Balance. There is a requirement for those **growers who are only partially compliant** to keep a record for each type of crop, where there is a mix of compliant and non-compliant crop in a single bulk. The period covered must not be more than three months, any remaining balance in the bulk being carried over to the next three month period. The quantity of compliant material withdrawn must at no time exceed that which was loaded in. The following records must be available to the assessor at the assessment:

- A record of the actual or estimated weights of compliant and non-compliant crop going into store
- Records of loads taken out of store must be kept, with reference to weighbridge tickets
- The amount of each type of crop for biofuel taken out of store must not at any time exceed the total amount of compliant crop of that type which was loaded into the store and the balance must be shown at the end of each three month period
- If a grower has grain stores in more than one location, each site must have an individual record
- Records shall be kept for at least five years

MAJOR

In this context Mass Balance means that if for example a 200 tonne bulk contains a mixture of 150 tonnes of produce from land which complies with the sustainability criteria of the Renewable Energy Directive 2009/28/EC and 50 tonnes from land which does not meet these criteria, only 150 tonnes of the bulk can be sold for biofuel production and the other 50 tonnes must be sold for some other use. A store mass balance sheet record is available from [www.sqcrops.co.uk](http://www.sqcrops.co.uk).

New for 2012

- 3.3 Growers are required to identify and manage fields at risk from ergot. They must record those fields where ergot was present in the previous season. Management systems must be modified to limit ergot by a combination of deep ploughing and the removal of grass weeds. MAJOR  
HACCP Process 1 & 6 Critical Control Point (CCP2)

Field margins at risk should be checked for the presence of ergot. If ergot is detected in the harvested grain a gravity separator can be used on the infected grain.

- 3.4 Risk must be assessed for mycotoxins in wheat. Complete the current HGCA risk assessment for managing mycotoxin risk in wheat. MAJOR HACCP Process 1 Critical Control Point (CCP1)

For wheat the completed risk assessment must be kept as the result has to be transferred to section 5 of the SQC Passport. For other cereals, risk need only be assessed in those crops following maize. If crops follow maize and rainfall is high at flowering advise harvest purchaser.

- 3.5 Combinable crop fields, including those grown organically must have individual records showing variety, dates of sowing, crop treatments and record of harvest dates. MINOR

Where several fields are managed together as a single unit, then one field record is sufficient.

- 3.6 No crop protection product, other than a desiccant, with a maximum residue level must be applied after the start of grain development (Growth Stage 77, late milk). MAJOR

For oilseed rape and pulses crop protection product should not be applied after the latest date/growth stage define on the product label.

Several crop protection products including glyphosate and diquat have been allocated maximum residue levels.

Desiccation or swathing of rape should be correctly timed so as to avoid 'red' seeds in the sample. Pod colour is not a good indicator of readiness to swathe or desiccate. Swathing should take place when most seeds from mainstems in the middle of the canopy are red-brown, with a range from yellow-brown to dark brown. The timing for chemical desiccation depends on the desiccant used and can be obtained from the manufacturer's literature. Desiccation of pulse crops must also be correctly timed by carefully following the recommendations on the label of the desiccant.

#### 4.0 STANDARDS FOR THE STORAGE AND HAULAGE OF COMBINABLE CROPS

All combinable crops must be stored in accordance with SQC standards. The assessor will ask about routine disinfection and hygiene procedures. The assessor will look for evidence of rodents and for likely nesting places and will check on the arrangements for the cleanliness of the store and its surrounds. The requirements for food safety sometimes conflict with the health and safety of workers and the Assessor will need to be convinced that a grower adopts the most appropriate mix of working practices for their particular storage facilities.

- 4.1.1 INTAKE/TEMPORARY STORE - Buildings used for intake/temporary storage of combinable crops (awaiting uplift or further processing) must have a sound rainproof roof and a clean floor of solid construction. The time limit for combinable crops in a temporary store is up to 4 weeks. All temporary stores must be empty of combinable crops by the end of October. MINOR HACCP Process 8

As temporary stores must have a rain fast roof, external storage is not permitted; this does not apply to intake grain about to be dried on farm.

4.1.2 LONG-TERM STORAGE - Buildings used for longer term storage of grain must be waterproof, walls and floors must be of a solid construction and doors must fit properly. MINOR HACCP Process 11

4.1.3 Oilseed rape must not be stored on a bituminous (tarmac) floor. MAJOR HACCP Process 11

Bituminous materials should be avoided in oilseed storage areas as they can impart toxic aromatic chemicals (PAHs) tainting the seed. It would be good practice to avoid bituminous material on any new floors. New for 2012

4.2 AVOIDING CONTAMINATION BY GLASS - All buildings used for temporary or long-term storage must have all glass fitments protected to prevent broken glass contaminating combinable crops. Polycarbonate or plastic covers replacing glass are acceptable. In certain cases, glass covers may be permitted where they are protected with appropriate non-glass material. MAJOR HACCP Process 8, 11 & 12

Routine checks of grain stores must include light fittings and glass, including vehicle glass and mirrors. A system for protecting and the inspection of glass must be in place and records available for inspection. MINOR

The glass management system will vary from store to store depending on the number and structure of glass fitments and vehicles in the store. Glass fitments include windows, skylights, lightbulbs/tubes/lamps, vehicle glass including mirrors. The management system must detail all glass fitments and records of regular inspections including reviews prior to harvest as well as during the grain storage period. It is recommended that plastic covers and other uses of plastic that could, if damaged, contaminate the grain are included in the routine checks that form part of the management system. Where broken glass or plastic is found it must be swept up and any contaminated grain segregated.

### 4.3 PEST CONTROL PROCEDURES

4.3.1 Rodent control measures must be in place and effective. MAJOR HACCP Process 8 & 11 Critical Control Point (CCP3)

Rodent control records must be kept. This must include a location plan and number of bait stations and activity observed, date of inspection, bait type used and signature of person in charge of the operation. In all stores each bulk must be checked at weekly intervals for the signs of rodent activity. MINOR

To satisfy this standard, there must be evidence that rodent control measures are in place and operating effectively. Where evidence of rodent activity is found it may be necessary for a revisit to be carried out. Bait stations do not need to carry rodenticides. In long term storage facilities, cavities within the stores that might harbour rodents must be filled. Long term store entrances and their approaches must be kept clear of spilt grain to deny rodents covered access routes to the stores. Personnel responsible for control of rodents can include farm staff if they have been trained in the use of baits and poisons. All remedial actions will depend on what is realistic within any given storage facilities. If in doubt, take advice or contact the SQC office.

4.3.2 All buildings used for long-term storage must be protected from bird ingress. Each bulk must be checked at weekly intervals for the presence of birds and records kept. MINOR HACCP Process 11

To satisfy this standard, there must be evidence that bird ingress is prevented or discouraged. Closing doors when not in use, netting other possible access points or reducing the level of lighting are examples of measures designed to discourage bird ingress.

Domestic animals must be excluded from long term stores and where possible they should be excluded from temporary stores. MINOR

To satisfy this standard, there must be evidence that domestic animals are prevented or discouraged by closing doors when not in use.

#### 4.4 Pre-Harvest Hygiene

Where practical, five weeks before harvest, all combinable crop stores (including temporary stores), reception pits, driers, cleaners and conveyors must be freed from insect pests. If intake/temporary storage has previously been used for livestock, the floor and walls must be cleaned, washed with a pressure hose and disinfected with a food grade disinfectant (for list of approved disinfectant manufacturers see Appendix C) before combinable crops are stored there. If an insecticide is used the date of application, reason for treatment and the application rate and dilution must be recorded. Pre-harvest hygiene measures must be recorded and available for inspection.

Stores must be treated as follows:

- Clean out the store, paying particular attention to crevices, elevator pits, conveyor tunnels and ventilation ducts.
- Remove all sweepings and cleanings.
- Livestock houses to be disinfected using a food grade disinfectant, see Appendix C.
- Use insect bait bags/traps to check for infestation and remove before storage.
- If there is evidence of insect infestation, apply a spray or fumigant to control pests.
- Repeat the spray or fumigant if the store is still contaminated.

MINOR HACCP Process 8 Revised for 2012

Most pest problems can be avoided if the store is clear of pests at the start of harvest. Sprays and fumigants for store hygiene need time to be fully effective as some pests will be controlled only when they come out of their hiding places in search of more food. Where growers are reluctant to use a spray or fumigant, it is essential that they prove with bait bags/traps that the store is clear of insects.

If insects are found, minor infestations can be treated through low volume aeration but major infestations will need chemical control. Insect bait bags/traps are to be removed from store before grain is stored. The Assessor will check records for evidence of the use of bait bags/traps. Disinfectants have no significant effect on grain storage pests.

Multi purpose stores may require further cleaning to remove any machinery hydraulic fluid/oil contamination. After cleaning the store, a final check should be made for any rodent activity and appropriate action taken and recorded.

#### 4.5 Grain Driers and In Store Crop Handling Equipment

Regular (at least annual) maintenance must be carried out on grain driers and records made available for inspection on the assessment date. During drying avoid contaminating grain with fuel or the products of combustion.

MINOR HACCP Process 8, 9 & 10

Combinable crops handling equipment must be checked before harvest for fuel and oil leaks and records kept.

MINOR HACCP Process 1, 7, 8 & 11 Revised for 2012

Any contaminated grain must be segregated and a record kept. MAJOR

Drier Manufacturer instructions should be available. To prevent development of mycotoxins, it is recommended that the grain is dried and cooled to under 18% moisture content within days of harvest and to under 15% for long-term storage, in line with the HGCA Guidelines to Minimise risk of Fusarium Mycotoxins in cereals. For oil fired driers periodic replacement of burner nozzles should be undertaken. Poorly set or worn nozzles can cause taint to grain and/or damage germination.

#### 4.6 Moisture Meter

If grain is dried on farm, moisture meters must be checked against standard samples and recorded.

MINOR HACCP Process 8

#### 4.7 Temperatures

After drying, aim to reduce combinable crop temperatures to 12°C by the end of December, or when practicable. When cooling ensure cool air intake is not contaminated with exhaust gases of combustion eg. vehicles not left running near air intake. Each bulk must be checked at weekly intervals until a stable temperature is reached (12°C) or less. After that, temperatures should be

recorded on a regular basis (at least once a month). Any rise in excess of 1°C between inspections must be investigated. If hot spots are developing, appropriate action must be taken: use low volume aeration, turn the grain or re-dry depending on severity MINOR HACCP Process 8, 9 & 10

For seed and malting barley, it is important to discuss your intentions for drying with your buyer in advance. The buyer may prefer to take delivery of undried crop or suggest a drying temperature even lower than that recommended by the drier manufacturer. When drying crops with a moisture content above 20%, special care is needed, as lower temperatures are necessary if damage is to be avoided. Care is particularly necessary with portable forced-air driers where there is a greater risk of scorching the crop. For most growers, attainment of the target storage temperature will depend on ambient temperatures being low. Where crop is destined for removal within 28 days of harvesting, it is recommended that appropriate action is taken to alleviate any heating/fungal development. Where growers keep grain in long-term storage for home-feeding, the recording of temperatures is recommended. Only if temperature records are in place can any surplus be sold as assured. The HGCA Grain Plan provides useful information (available from HGCA as a CD ROM). Also useful is HGCA Topic Sheet 78 'Drying and cooling grain: an update'.

#### **4.8 Grain Bunks**

In long term stores each bulk or bin must be labelled with the variety and field(s) of origin. Separate records shall be kept of the variety, the field(s) of origin, the dates and results of regular inspections and details of any crop protection products applied or other remedial treatments. MINOR

The Assessor will wish to see these records which should be kept for at least 5 years.

#### **4.9 Transport Standards**

- 4.9.1 On-farm – It is the grower's responsibility to ensure grain trailers and other loading equipment, including those belonging to contractors, are clean and dry before use. Equipment that is not dedicated to hauling combinable crops must be power-washed and disinfected, with a food grade disinfectant before use. Records must be kept. (see Appendix C) MINOR HACCP Process 7  
Revised for 2012

Trailers that carry commodities other than combinable crops are defined as non-dedicated.

- 4.9.2 Off-farm - Lorries and trailers must be clean and dry. Before loading, the grower must be satisfied that the vehicle is in a fit condition to carry combinable crops entering into the food chain. Grain trailers not dedicated to hauling combinable crops must be power-washed and disinfected, with a food grade disinfectant before use. All lorries/trailers carrying grain must be covered during transit. Growers hauling their own grain should consult with their merchants' requirements. Records must be kept. MINOR HACCP Process 12

Growers and farm staff must pay due care and attention to the safety of personnel when handling and transporting combinable crops.

- 4.9.3 Growers must keep records of all loads despatched. Records must show if crop has been confirmed for biofuel at time of dispatch, and this must be recorded. These records should be kept for at least 5 years. MAJOR New for 2012

A crop movement record is available from [www.sqcrops.co.uk](http://www.sqcrops.co.uk). The Assessor will ask to see records of all loads despatched from the farm. If despatched for biofuels this must be recorded.

### **5 Complaints**

Growers are required to keep a Complaints Register for the marketing of their combinable crops. Any official complaints from purchasers must be recorded together with the necessary corrective action taken to avoid the complaint being repeated. Record actions taken for rejected loads. The complaints register must be reviewed annually. MINOR

Storage and loading out records should be kept to provide full traceability. An official complaint excludes small discrepancies in moisture content, specific weight and screenings. The monitoring

of complaints will be reviewed annually, if no complaints have been recorded, this must be identified and recorded in the Complaints Register.

## APPENDIX A

### WHAT THE ASSESSOR WILL CHECK ON YOUR FARM

*The assessment will cover the entire production and, if appropriate, storage system, including all relevant aspects of the scheme standards for crop production and storage. Staff involved in spreading fertiliser, applying crop protection products and operating the combine harvester will be assessed at their initial assessment and may be in subsequent years if there is a change of personnel. During the visit, the Assessor will make notes about the farm and will complete a check list. The Assessor will maintain in strict confidence any information gathered during the course of the assessment.*

*The starting stage of the assessment will depend on the work under way when the Assessor arrives, and the sequence from then on depends on what is most practical and convenient. The following notes explain how the Assessor will collect information under each of the main headings of the production standards.*

(Numbers in brackets refer to Part II – The Scheme Standards.)

**A1 (1.0) Use of Fertilisers and Manures** The Assessor will check storage records, timing, rates and application details.

**A2 (2.0) Use of Crop protection products** The Assessor will check the crop protection product store, records, crop protection product selection, rates and application details.

**A3 (3.0) Production and Harvesting** The Assessor will check that every field has a suitable record of the crop management, including variety, sowing date and the amounts of fertiliser, trace elements, growth regulators and crop protection products applied.

The assessor will check land eligibility for compliance with the RED, and will require information on the area in their current business which was in an arable rotation (including temporary grass\*) at the 1<sup>st</sup> January 2008 (this will be verified by reference to acceptable documentation as proof of land use e.g. Field Data Sheets as part of Single Farm Payment applications made in 2008, and/or maps or datasets setting out areas of high biodiversity value, farm records etc).

If this total area has increased since 1<sup>st</sup> January 2008 then it must be established that this area is not from high biodiversity, high carbon stock land.

\* Temporary grass: grass in a crop rotation of not more than five years

**A4 (4.0) Storage and Haulage** The Assessor will check that:

- Farm handling equipment is suitable and that appropriate hygiene measures are used.
- Crop storage facilities are suitable and that appropriate hygiene measures are used.
- Maximum temperatures appropriate to the crop moisture and intended use are observed during grain drying.
- Bults are labelled.
- Routine monitoring is carried out, recorded and appropriate follow-up action taken.
- Rodent control is evident.

### **A5 Staff Assessment**

Staff involved in spreading fertiliser, applying crop protection products and operating the combine harvester, will be assessed. Details of the assessment are in Appendix B. The assessment may be carried out at appropriate stages of the farm inspection or at a distinct stage at the end.

The farmer or crop manager will be asked to complete the skills assessment detailed in Appendix B and discuss with the Assessor where further training or advice would be an advantage in maintaining SQC standards.

### **A6 At the end of the Assessment**

The Assessor will record any minor or major non compliances found and will detail the type of evidence required to achieve the SQC standard. The farmer will then be asked to sign an undertaking of intention to carry out the action required, provide evidence that the necessary action has been taken or be subject to a re-assessment to confirm that the improvements have been completed satisfactorily. The prompt provision of a signed declaration or evidence will help to speed the processing of the growers application.

Revised for 2012

## **APPENDIX B**

### **STAFF ASSESSMENT**

*During the visit described in Appendix A, the knowledge and skills of the individual(s) responsible for day-to-day management of crops may be assessed. The assessment is the opportunity to demonstrate competence in crop husbandry. The farmer, farm staff, or both, may be candidates for assessment.*

*For the visit, the farmer may need to make available, the sprayer, fertiliser distributor and combine harvester for use in the staff assessment part of the report.*

#### **Assessment of Machinery Skills**

**B1 Fertiliser Spreader.** The Assessor must be satisfied that staff is competent to apply the selected fertiliser rate evenly and with minimal environmental impact outside the crop. They may interview any member of staff who spreads fertiliser and ask them to demonstrate how to set up, calibrate and clean the fertiliser spreader. They may ask about headland kits and about the working practices adopted to avoid fertiliser being spread into watercourses or areas of conservation value.

**B2 Farm Sprayer.** The Assessor will check sprayer operator(s) Certificate of Competence, attendance certificate for SQC Sprayer Operator Course and/or NRoSO membership. Other sprayer-operators must satisfy the Assessor that they are competent operators and have Grandfather Rights or are working under the supervision of a Certificate holder. They should be able to demonstrate the following: How to calculate and measure out the amount of crop protection product to be placed in the tank for a stated application dose. How to set the sprayer for a stated rate of water per hectare and check that the nozzles deliver a spray of the required quality and uniform quantity.

**B3 Combine Harvester.** The Assessor will check that combine drivers can identify the symptoms of a badly adjusted combine and describe or demonstrate how to alter the settings to deal with them.

#### **Assessment of Management Skills**

**B4** The Assessor will choose items from the following list, taking into account who is normally responsible for the decision or action:

**B4.1** Demonstrate how to adjust nitrogen rates for previous cropping and other conditions, using fertiliser recommended advisory notes.

**B4.2** Describe the conditions that have to be satisfied before straw is burnt, Scotland only (information available from [www.scotland.gov.uk/agri](http://www.scotland.gov.uk/agri)).

**B4.3** For those not using an agronomist, be able to recognise from photographs or samples:

- Combinable crop growth stages
- common broad leaved and grass weeds of combinable crops
- manganese and lime deficiency
- common pests of combinable crops
- mildew, rusts, *Septoria*, *Rhynchosporium* and net blotch
- the presence of foot-rot fungi

**B4.4** Those storing produce in long term stores must be able to identify ergot and storage pests given a photograph or sample.

**B4.5** Those growing oilseed rape and pulses, or their agronomist, should be able to recognise from photographs or samples: oilseed rape and pulse growth stages, common diseases of oilseed rape and pulses, common pests of oilseed rape and pulses and sulphur deficiency in oilseeds.

**B4.6** Those growing oilseed rape and pulses, or their agronomist, should be able to describe the correct stage for desiccation or swathing.

## APPENDIX C

Manufacturers of disinfectants suitable for use on food contact surfaces

Dupont Animal Health Solutions Windham Road Chilton Industrial Estate Sudbury Suffolk CO10 2XD Tel: 01787 377305 Fax: 01787 310846 www.ahs.dupont.com	Ecolab Ltd David Murray John Building Swindon Wiltshire SN1 1NH Tel: 01793 511221 Fax: 01793 618552 www.ecolab.com	Thurbart Chemicals Ltd, Conplan House Nork Way Banstead Surrey SM7 1PB Tel: 01737 362303 Fax: 01737 362303
Johnson Diversey UK Ltd Weston Favell Centre Northampton NN3 8PD Tel: 01604 405311 Fax: 01604 406809 www.johnsondiversey.co.uk	Holchem Laboratories Ltd Premier house 175 Grane Road Haslingden Rossendale Lancashire BB4 5ER Tel: 01706 222288 Fax: 01706 221550 www.holchem.co.uk	

Whilst SQC have used their best endeavours in the compilation of this list, they do not accept any responsibility for its accuracy. The list does not represent a recommendation. Other manufacturers and suppliers may be able to provide suitable products.



## BIBLIOGRAPHY

*Growers must hold copies of the following:*

- The SQC Scheme Manual
- DO's & DON'T's SEERAD 2005
- SEERAD Code of Practice for using plant protection products in Scotland (2006, Scotland only)
- defra Code of Practice for using plant protection products (2006, England only)
- Code of Good Agricultural Practice for Protecting our Water, Soil and Air 2009 (England only)

*Growers may find the following useful:*

- SAC Cereal Recommended List
- SAC Varieties of Oilseed Rape for Scotland
- SAC Combining Pulses
- SAC Technical Note TN625: Nitrogen recommendations for cereals, oilseed rape and potatoes
- Fertiliser recommendations for agricultural & horticultural crops (RB209, defra)
- Fertiliser storage – 10 Point Plan
- Guidelines for Farmers in Nitrate Vulnerable Zones (Revised 2008)
- UK Pesticide Guide (published annually by CAB International and the British Crop Protection Council) [www.bcpc.org](http://www.bcpc.org)
- The Safe Sludge Matrix
- SEPA Diffuse Pollution Priority Catchments: Improving Scotland's Waters
- SEPA Diffuse Pollution General binding Rule (DP GBR) 23: Reducing the risk of water pollution

HGCA Publications available online from [www.hgca.com/publications](http://www.hgca.com/publications)

- HGCA Recommended Lists for cereals and oilseeds (updated annually)
- HGCA Grain Storage Guide 3<sup>rd</sup> Edition
- Rodent control in agriculture - a guide (G09, 2002)
- Guidelines to minimise risk of fusarium mycotoxins in cereals (G34, 2010)
- HGCA nozzle selection chart (P05, 2010)
- Managing ergot in cereal crops (Topic Sheet 56, 2002)
- HGCA risk assessment for fusarium mycotoxins in wheat (Topic Sheet 108, 2011)
- HGCA Wheat Disease Management Guide (G38)
- HGCA Barley Disease Management Guide (G44)

*BCPC Publications available online from [www.BCPC.org/bookshop](http://www.BCPC.org/bookshop) -*

- Your complete guide to Field Scale Spraying

SQC Web Address: **[www.sqcrops.co.uk](http://www.sqcrops.co.uk)**

*Other Useful Web Addresses:*

**British Beekeepers Association – [www.britishbee.org.uk](http://www.britishbee.org.uk)**

*Find the representative in your area*

**British Pest Control Association – [www.bpca.org.uk](http://www.bpca.org.uk)**

*Guidance on pest control*

**Chemicals Regulation Directorate – [www.pesticides.gov.uk](http://www.pesticides.gov.uk)**

*Check your product is approved; guidance on LERAPS*

**Crop Protection Management Plan (CPMP) – [www.voluntaryinitiative.org.uk](http://www.voluntaryinitiative.org.uk)**

*Complete your plan online or download an extra copy*

**DEFRA – [www.defra.gov.uk](http://www.defra.gov.uk)**

*Access defra online*

**Fertiliser Storage – [www.secureyourfertiliser.gov.uk](http://www.secureyourfertiliser.gov.uk)**

*Download your 10 point plan and other guidance*

**Ringlink Services Ltd – [www.ringlinkservices.co.uk](http://www.ringlinkservices.co.uk)**

*Details Spray Operator Courses being run for SQC CPD compliance*

**NPTC – [www.nptc.org.uk](http://www.nptc.org.uk)**

*Detailing certificates of competence*

**NRoSO – <http://nroso.nptc.org.uk>**

*Check your points status on this address*

**NSTS - [www.nsts.org.uk](http://www.nsts.org.uk)**

*Find your nearest testing centre*

**Scottish Beekeeping Association – [www.scottishbeekeepers.org.uk](http://www.scottishbeekeepers.org.uk)**

*Find the representative in your area*

**SEPA – [www.sepa.org.uk](http://www.sepa.org.uk)**

*Find your local office*

**The Scottish Government – [www.scotland.gov.uk](http://www.scotland.gov.uk)**

*Access the Scottish government online*

**SFQC – [www.sfqc.co.uk](http://www.sfqc.co.uk)**

*Certifying body for SQC*