

Preface

The objective of the Assured Produce Scheme is to address the concerns and needs of consumers, retailers, processors and growers for safe food of good quality at affordable prices, whilst maintaining a profitable and competitive UK horticultural industry. This is to be achieved by the application of scientifically-based integrated crop management (ICM) i.e. good horticultural practices with emphasis on reducing whenever possible the use of pesticides, optimum use of fertilisers and improved protection of the environment.

The Generic Standards detail the actual standards that our members are assessed against and the accompanying comprehensive Guidance Notes include detailed background information to these standards and references to additional sources of information. Many of the standards relate to environmental or microbiological issues and these have been denoted by (E) or (M) respectively alongside the appropriate text.

The Assured Produce Scheme crop protocols are unique to the scheme and describe best existing production practice, highlighting integrated pest, disease and crop management systems for each specific crop - they are not intended to be a 'growers guide' but they do outline current commercially acceptable best practice. These documents are revised each year and where relevant all contain information on action that can be taken to minimise pesticide residues. The crop protocols are available on the AP website www.assuredproduce.co.uk and are being linked via the University of Hertfordshire ADLib project to up to date research publications, technical data and the HDC and BPC Libraries.

It is hoped everyone concerned in the production, pre-packing, marketing and retailing of fresh produce will read the relevant crop protocol. The protocols avoid complex technical detail and can sometimes sound to some as stating the obvious. By taking a basic approach everyone involved should be able to understand the problems of safe and economic production, and the protocols can be used as a technology transfer vehicle for the industry.

Growers should note that it is the policy of AFS Assured Produce that all fresh produce farms must comply with all current relevant legislation.

To attain full member status, growers must comply with all control points, containing the instruction "must" including those contained within the appropriate crop protocol. Compliance with the "should" questions, which are verified in the Assured Produce assessment but do not attract a score (and so are not part of the certification/approval decision), should be aimed for as they are considered Good Agricultural Practice.

The Assured Produce generic standards have been successfully benchmarked against current GLOBALGAP IFA standards for fresh produce therefore any producer meeting the Assured Produce standards also meets GLOBALGAP requirements. GLOBALGAP does not have any equivalent crop protocol standards.

To summarise:

- i) This Scheme is not intended to replace or override existing legislation or regulatory bodies. In this regard, in the UK, the safety of the consumer, operator and environment is well catered for.
- ii) It is understood that food production is complex and that requirements may vary from field to field and season to season, therefore, the crop specific protocols are not prescriptive.
- iii) The protocols are guidelines to producers on the principles of basic primary food hygiene, crop production, organisation, training and any other aspect relevant to achieving the stated objectives. It represents a commitment by the whole industry to achieve these objectives in a logical way whilst allowing the UK food industry to give our consumers a product second to none.
- iv) Those participating in the Assured Produce Scheme accept that growers must receive a level of financial return that will enable them to thrive and accept that the introduction of ICM principles must be done in a way that continues to recognise this point.

- v) The Scheme covers production to the farm gate and includes produce handling and packing facilities if these are on the farm.
- vi) All statements in this protocol containing the word '**must**' are requirements of the scheme and, if not complied with, will result in the member not achieving Full membership at the annual APS assessment (i.e. 100% compliance required).
- vii) All statements in this protocol containing "**should**" (in bold type) will be assessed during the Assured Produce assessment but their compliance **will not** form part of the certification/approval decision (i.e. they carry no score).
- viii) All statements in **bold** and suffixed with **(CFP)** are "critical failure points" which relate to food safety and non compliance with any of these points will result in immediate suspension from the scheme which may remain in place for up to 6 months. These control points are **7.3.3, 8.2.4, 8.9.4, 9.2.1 and 9.2.4.**

1. General Introduction

Following a systematic approach will help members to identify and manage the risks involved in crop production. The generic protocol is based on a typical crop production process. Using a flowchart approach, food safety, Health & Safety, environmental and quality hazards are identified. Appropriate controls may then be established to minimise risk. Food safety and Health & Safety issues always take precedence over quality and environmental controls.

The structure of the flow chart is shown in the Guidance Notes accompanying this protocol. Note that the sectional layout of both the generic protocol and the crop specific protocols follow the same structure.

2. Planning and Records

2.1 Traceability

2.1.1 Traceability and Recall Procedure

(Revised) Members **must** ensure traceability is possible through their production process, and there is a system in place to pass this 'traceability' link to the next point in the supply chain when the produce leaves the member's control. All Assured Produce Registered Product must be traceable to the registered farm where it has been grown.

Members **must** have access to documented procedures which detail events where a product may be withdrawn. The procedures may be part of the members documented system or, the persons responsible for taking decisions on the possible withdrawal of product and the mechanism for notifying customers and their Certification Body of the product withdrawal. The procedures must be tested annually to ensure they are effective

A documented action plan **must** be in place, to deal with the event of a maximum residue level (MRL) being exceeded.

2.2 Record Keeping

2.2.1 Record Keeping Recommendations

(Revised) All records relevant to the APS assessment **must** be kept for a minimum of 2 years.

2.3 Reference Documents

2.3.1 Reference Documents Recommendations

(Revised) Members **must** hold copies of the following documents:

- E** i) The "Environmental Matters" series of Codes of Good Agricultural Practice for the protection of Water (PB 0587, 1998), Air (PB 0618, 1998) and Soil (PB 0617, 1998), available to download free from www.assuredproduce.co.uk or from DEFRA Publications.
- E** ii) The Code of Practice for Using Plant Protection Products. Copies of the Code can be downloaded from www.pesticides.gov.uk or a free copy is available on CD (product code PB11090) is available by calling 0845 955 6000. Hard copies are available from DEFRA Publications.
- E** iii) Deleted.
- iv) Voluntary Initiative, Crop Protection Management Plans - Blank CPMP available from www.voluntaryinitiative.org.uk or the NFU, Crop Advisors or Agronomists.

- v) Saving Money by Reducing Waste; Waste Minimisation Manual; a practical guide for growers: available from Defra Publications 08459 556000 (product code PB 11674)

2.4 Complaints Procedure

2.4.1 Record Keeping

If the member receives complaints relevant to the Assured Produce Scheme Standards, a record **must** be kept along with documentary evidence of appropriate actions taken.

2.5 Internal Audit

2.5.1 Annual Internal Audits

- E** Members **must** undertake a minimum of one internal audit per annum against the Assured Produce standard. This internal audit must be documented and recorded, and appropriate corrective actions taken.

2.6 Use of Assured Produce Scheme Logo

2.6.1 Scheme Rules

Members **must** only use the APS Trademark/Logo in accordance with the scheme rules on stationary, publicity materials, exhibition stands and signage.

2.7 Contractors

2.7.1 Contractors Obligations

- E (Revised)** Members **must** ensure that any contractors undertaking work on the production of crops covered by the Assured Produce Scheme adhere to the scheme protocols.

There **must** be a Contractor's Commitment document signed by both the member and the contractor confirming that the contractor is complying with the Assured Produce standard requirements.

2.8 Hazard Analysis Critical Control Point

2.8.1 Food Safety

- M (Revised)** Members **must** undertake a Hazard Analysis to identify Critical Control Points in their production process including any microbial hazards and chemical contaminants.

3. Site Selection

3.1 Site History

3.1.1 Recording System

- E M (Revised)** A recording system **must** be established, which includes a visual identification or reference for each field, orchard, glasshouse or growing house to provide a permanent record of the crops and agronomic activities undertaken in those locations. These records **must** include details of sowing/planting method, rate and date

3.1.2 Risk Assessment

E (Revised) A food safety (physical, microbiological and chemical hazard), operator health and environmental risk assessment **must** be undertaken for new agricultural sites and existing sites where the risks have changed (including newly rented land), taking into account the prior use of land, availability and quality of water resources, pest disease and weed levels and the potential impact of the production on adjacent crops, the adjacent area and the site

3.1.3 Risk Control

E (Revised) There **must** be a corrective action plan, setting out strategies to minimise all identified risks in new agricultural sites.

3.2 Rotations (where relevant)

3.2.1 Crop Rotations

E (Revised) Members **must** recognise the value of diverse crop rotations and seek to employ these whenever possible to maintain soil condition and reduce reliance on agrochemicals to maximise plant health. Where rotation is not employed, members must be able to provide adequate justification.

3.2.2 Specific Scientific Predictive Tests

(Revised) Specific scientific predictive tests **should** be undertaken where they are available, to ascertain pest and disease levels in the soil and help schedule crop rotations.

3.3 Temporary Crop Protection Structures

3.3.1 Polytunnels

E (Revised) Growers **should** adhere to the following requirements of the NFU/British Summer Fruits Association Code of Practice for the Use of Polytunnels for the Production of Soft Fruit. (Copies available from NFU or free download from www.assuredproduce.co.uk)

- Polytunnels must not be sited within 30m of the boundary of the nearest residential dwelling unless as a result of prior agreement with the neighbour concerned
- Reasonably practical steps must be taken to minimise noise in early morning (before 7am) or late evening (after 8pm);
- All reasonably practical steps must be taken, using tree or hedge planting to mitigate the visual impact of polytunnels from the immediate view of neighbouring residential dwellings
- Growers must store unused polythene away from public view
- Polythene covering the frames of a polytunnel must be removed for a minimum period of 6 months in any calendar year unless it can be demonstrated different climatic requirements.

Where polytunnels are to be removed from a site, the grower must remove the polythene from the hoops within in one month of the completion of cropping unless to do so would cause damage to the soil because of poor weather conditions

- Waste polythene must be removed and be recycled in an approved manner
- Records must be kept of the following:

The type of crop and whether grown in the ground, in bags or off the ground;

The date when the framework and polythene cover are to be erected and the expected date of removal of the cover (and frame if appropriate);

The area and percentage of the total area of the farm covered by polytunnels

Any notices given, including to any neighbouring residential dwellings, before work commences.

4. Site Management

4.1 Soil Mapping (for field crops only)

4.1.1 Soil Types

E Soil types **should** be mapped for the farm and identify soil texture and analysis so that they can then be used to plan rotations, planting and growing programmes.

4.2 Soil Management (for field crops only)

4.2.1 Soil/Substrate Management Policy

E (**Revised**) In field crops the approach to soil management is crucial. Soil/substrate management policy **should** be discussed with advisors and relevant staff. Cultivations need to be appropriate for soil type, cropping, topography, erosion risk and climate.

4.2.2 Soil Erosion

E (**Revised**) Soil management **must** aim to minimise soil erosion. This would be satisfied by completion of a soil action plan.

4.2.3 Soil Compaction

E (**Revised**) Soil management **must** aim to minimise soil compaction. This would be satisfied by completion of a soil action plan.

4.2.4 Soil Structure

E (**Revised**) The choice of field cultivations **must** maintain and improve soil structure. This would be satisfied by completion of a soil action plan.

4.2.5 Land Drainage Systems

E (**Revised**) Land drainage systems **must** be adequately maintained to ensure the soil profile is not waterlogged. This would be satisfied by completion of a soil action plan.

4.2.6 Organic matter

Growers **should** adopt a general policy to conserve and build up organic matter

4.3 Soil Fumigation

4.3.1 Chemical Fumigation

E Chemical fumigation of soils **should** be avoided wherever possible. Alternatives such as field rotation, planting of break crops, use of disease resistant cultivars, conversion to soil-free cultivation, and similar techniques **should** be considered before resorting to using chemical fumigants.

4.3.2 Justification for Chemical Soil Fumigants

E (**Revised**) Where chemical soil fumigants are used, written justification **must** be documented and the following recorded: location, date, active ingredient, dose, method of application, operator and pre-planting interval.

4.3.3 Deleted.

4.4 Substrates

4.4.1 Source of Substrates

E Substrates **should** be traceable to source and there should be records available which demonstrate that they do not come from designated conservation areas.

4.4.2 Recycling of Substrates

E Recycling of substrates **should** be undertaken, where possible, and documented. Members should be able to justify not recycling inert substrates.

4.4.3 Reuse/Sterilising of Substrates

E In those crop production systems where it is relevant, growth media and substrates **should** be re-used/sterilised, etc. as appropriate.

Steaming **should** be the preferred option for the sterilisation of reused substrate and its use recorded.

4.4.4 Recording of Chemical Sterilisation of Substrates

(Revised) If chemical sterilisation of substrates is undertaken, location, date, chemical name, rate of product and active ingredient, pre-planting interval, method, machinery used and name of operator **must** be recorded.

4.4.5 Substrates with Recycled Content

Substrates which contain recycled materials **should** be used where possible and records kept.

4.5 Drilling and Transplanting

4.5.1 Transplanters

(**Revised**) Drills and transplanters **should** be checked and calibrated to ensure accurate operation.

5. Variety Selection

5.1 Choice of Variety or Rootstock

5.1.1 Deleted

5.1.2 Varietal Resistance

E (**Revised**) Varieties grown **must** possess resistance to commercially important pests and diseases, if these are available, and are commercially acceptable.

5.1.3 'Mother Crops'

Members **should** also be aware of the importance of effective crop husbandry in relation to 'mother crops' (e.g. in the production of seed potatoes see the Safe Haven Scheme), where beneficial results (such as a reduction in pesticide use) may be experienced in the subsequent crop.

5.2 Seed Quality

5.2.1 Seed Quality Records

(**Revised**) Seed quality **should** be checked before use and seed must be traceable to source. Records **should** be kept of the variety name and purity, germination rate, batch number and seed vendor.

5.3 Seed Treatments

5.3.1 Seed and Rootstock Treatment

(**Revised**) Where such an option exists, seed treatment should be the preferred option. the product used and its target **must** be recorded. Where rootstock are treated by the member the product used and its target must be recorded.

5.4 Plants and Nursery Stock

5.4.1a) Pesticide Applications Made to Young Plants and Nursery Stock

(**Revised**) Members must record pesticide applications made to young plants grown in house. The records must detail crop name and variety, location, product trade name, application date, quantity, reason for use, operator, machinery used and harvest interval.

5.4.1b) Pesticide Applications Made to Purchased Plants and Nursery Stock.

(**Revised**) Members **should** be aware of pesticide applications made to plants grown at source and records be held of these applications including reason for use, product name, active ingredient, application date and doses.

5.4.2 Plant Health Quality Certification

E (**Revised**) Where applicable, delivered stock/plants **should** be accompanied by recognised plant health quality certification, such as plant passports conforming to the EU Plant Health Directive or similar for countries outside the European Union. Quality or certified production guarantees must be retained.

5.4.3 Specification Guarantees

(**Revised**) Specification guarantees **must** be held to show nursery stock is fit for the purpose, i.e. quality certificate, terms of delivery, or signed letters.

5.4.4 Plant Health Quality Controls Systems

(Revised) Plant health quality control systems **must** be operational for private or in-house nursery propagation and pest and disease monitoring is recorded.

5.4.5 Records of Delivery Inspections

Records of delivery inspections **should** be made, and any visible signs of pest and disease damage justified.

5.5 Genetically Modified Organisms (GMOs)

5.5.1 GMOs

(Revised) Suppliers must inform all potential customers of any developments including trials relating to the use or production of products derived from genetic modification. Planting of any GMO **must** comply with all existing regulations in the country of production and regulations in the country of the final consumer where product is destined for export. The use of GMO cultivars must be agreed with individual customers prior to planting.

6. Nutrition

6.1 Nutrient Requirement

6.1.1 Deleted

6.1.2 Cropping/Nutrient Management Plan

E (Revised) A cropping/nutrient management plan **should** be developed based on risk and soil analysis, together with the timing, frequency and quantity of applications of nutrients to ensure that nutrient loss is minimised.

6.1.3 Fertiliser Rates

E (Revised) Fertiliser rates **must** be based on a calculation of the nutrient requirements of the crop and on regular analysis of nutrient levels in soil, plant or nutrient solution. Nutrient applications **should** be guided by the levels contained within the DEFRA/SAC Fertiliser Recommendations.

6.1.4 Deleted

6.1.5 Nutrient Supply and Timing

E (Revised) The supply and timing of nutrient application **must** be matched to meet crop demand as nutrient leaching has significant environmental consequences.

6.2 Advice on Quantity, Type and Timing of Fertiliser

6.2.1 Competence and Knowledge

E (Revised) In light of the environmental pressures on the production industry and increasing technical requirements (e.g. the nitrate content of certain fresh produce), members or their advisers **must** be able to demonstrate competence and knowledge. Any distributor staff, consultant or independent adviser whose advice is sought regarding the use of fertilisers **must** be registered with FACTS and a member of the BASIS Professional Register. Where such advisers are unavailable, the person responsible for nutritional decisions must be able to demonstrate their competence through recognised training and/or the use of relevant software programmes.

6.2.2 Training

E (Revised) Relevant staff **should** be trained in the preparation/accurate application of nutrients/fertilisers.

6.3 Nitrate and Phosphate Losses to Surface & Ground Water

6.3.1 Usage of Fertilisers

E Members **should** ensure that they adopt good practice to minimise nutrient losses, and comply with any relevant legislation.

Nitrate

Members operating in Nitrate Vulnerable Zones, currently 55% of England, 3% of Wales and about 15% of Scotland, are required to comply with measures contained in the Action Programme, and to keep records to demonstrate compliance. A key principle is to apply no more nitrogen fertiliser than is required to produce the economic optimum yield, and to make appropriate allowance for nitrate from other sources, such as that released from organic manures, composts and soil organic matter, when deciding on fertiliser application rates.

Outside NVZs, the relevant parts of the Water Code should be followed.

Phosphate

Very small quantities of phosphate are sufficient to cause over-enrichment of some waterways, the equivalent of 1 kg / ha of the catchment. Phosphate bound to soil particles moves to watercourses as a result of soil erosion. It is therefore important to follow good practice in regularly checking the phosphate index of the soil and setting fertiliser rates accordingly so that the soil reserves are not excessive. In addition, good practice measures to prevent the loss of soil to watercourses during rainfall events will make an important contribution to protecting water quality.

6.4 Application Equipment

6.4.1 Accurate Delivery

E (Revised) All nutrient application machinery **must** be suitable for the land/crop on which its use is intended, with regular servicing and calibration at least annually to ensure accurate nutrient application. The maintenance and calibration **must** be recorded.

6.4.2 Non-target areas

E Precautions **must** be taken when applying nutrients to protect non-target areas from fertiliser/nutrients.

6.5 Records of Application

6.5.1 Records

Records of all applications of soil/substrate and foliar fertilisers **must** be retained and include, where appropriate, location, date of application, type and quantity of fertiliser applied, the method of application and the operator

6.6 Fertiliser, Compost & Manure Storage

6.6.1a Location

E (Revised) Fertilisers, manures and slurry **must** be stored where there is no risk of contamination of watercourses and inorganic fertilisers stored in a clean, dry and covered area.

6.6.1b Fertilisers Stored Separately from Fresh Produce

Fertilisers **must** not be stored with fresh produce and plant propagation material.

6.6.2 Fertilisers Stored Separately from Pesticides

(Revised) Fertilisers **must** not be stored with pesticides.

6.6.3 Deleted

6.6.4 Stock Records

(Revised) Fertiliser stock records **must** be maintained which detail up-to-date quantities received and used and these are updated at least every three months.

6.6.5 Warning Signs

(Revised) General hazard warning signs **should** be displayed where over 25 tonnes of fertiliser containing more than 27% nitrogen are stored.

Members **should** be aware of and comply with the Dangerous Substances (Notification and Marking of Sites) Regulations 1990.

6.6.6 Liquid Fertiliser

E (Revised) Liquid fertiliser **must** be stored in accordance with the DEFRA code of practice for the protection of water and a contingency plan must be in place in the event of leakage.

6.7 Organic Manures & Composts

6.7.1a Potential Pollutants

E To avoid pollution by heavy metals and other potential pollutants the levels in the manures, biowastes and composts **should** be assessed and analysed if necessary.

Members **should** comply with the Codes of Good Agricultural Practice for the Protection of Water, Soil and Air and the mandatory rules within the NVZs, in respect of the application or storage of organic manures.

6.7.1b Risk Assessment

E M (Revised) A documented risk assessment **must** be carried out for organic manures and composts which considers its source and characteristics before application. Manure **should** be actively composted for at least 3 months prior to use on land. Raw FYM must not be used on land for a minimum of 12 months before drilling/planting a high or medium risk crop on that land.

6.7.2 Nutrient Contribution

E (Revised) Proper account **must** be taken of the nutrient contribution of applied organic manure and applications be made as part of the nutrient management plan.

6.7.3 Sewage Sludge

Any use of treated Human Sewage Sludge on land destined for agricultural use **must** be in accordance with the DEFRA Code of Practice for the agricultural use of Sewage Sludge. The FPC's Code of Practice for the Control of Microbial Hazards gives further guidance.

6.7.4 Untreated Human Sewage Sludge

Untreated Human Sewage Sludge **must** not be applied to farm land.

6.8 Inorganic Fertiliser

6.8.1 Inorganic Fertilisers

(Revised) Purchased inorganic fertilizers used within the last 12 months **must** accompanied by documentary evidence detailing their chemical content .

6.8.2 Heavy Metals

(NEW) Purchased inorganic fertilizers used within the last 12 months **should** be accompanied by documentary evidence detailing their heavy metal content.

6.9 Fertiliser Security

6.9.1 (Revised) Growers **must** have a copy of the leaflet 'Security of Fertiliser Storage on Farms' and are able to explain how they observe the recommendations contained within the leaflet (See Checklist at Appendix M).

6.9.2 (Revised) Fertiliser **must** be stored in such a way as to reduce the risk of theft. Where possible fertiliser should be stored in a secure building or compound where there is no public access and which is located away from and is not visible from the public highway. Where a secure building or compound is not available, the producer must be able to explain what system is used to ensure that stored fertiliser has not been tampered with or moved without his knowledge.

6.9.3 (Revised) Growers **must** have a protocol in place, which is known to all staff that details what action must be taken if a discrepancy or theft of fertiliser is discovered. (See Appendix N)

7. Irrigation

7.1 Predicting Water Requirement

7.1.1 Identified Need

E (Revised) To avoid excessive or insufficient water usage, scientifically recognised methods of systematically predicting the irrigation requirements **must** be utilised and crop irrigation **must** be based on identified need.

7.1.2 Deleted

7.2 Irrigation Method

7.2.1 Best Utilisation of Water Resources

(Revised) The most efficient and commercially practical water delivery system **must** be used to ensure best utilisation of water resources.

7.3 Water Quality

7.3.1 Risk Assessment

M (Revised) Analysis of sources of water for irrigation **must** be based on an annual risk assessment, which considers potential microbial, chemical and physical contamination. Measures should be put in place to limit the possibility for water borne contamination and to ensure that water quality is appropriate for its intended use.

7.3.2a Analysis

M (Revised) Irrigation water **must** be analysed in line with the requirements of the risk assessment

7.3.2b Results

(Revised) Irrigation water quality records **must** be maintained and reviewed regularly, based on a risk assessment and any actions taken must be recorded.

7.3.2c Analytical Laboratory

(NEW) Analysis of irrigation water **should** be undertaken by a laboratory accredited to ISO 17025 for microbial, chemical and mineral pollutants.

7.3.3 Untreated Sewage Water

Untreated sewage water must not be used for irrigation. (CFP)

7.4 Water Resources

7.4.1 Abstraction Licences

E (Revised) Irrigation water abstraction licences, where held, **must** be complied with.

7.4.2 Usage Records

Irrigation water usage records **should** be maintained.

7.4.3 Water Management Plan (NEW)

E (NEW) Consideration **should** be given to a documented water management plan to identify opportunities or improving efficiency of water use and reducing waste e.g. water audit, irrigating at night, maintenance to reduce leakage, storage of winter storm water, collection of rainwater from glasshouse roofs etc

8. Crop Protection

8.1 The Basic Approach to Crop Protection

8.1.1 Non-Chemical Methods

E (Revised) The protection of crops against pest, diseases and weeds **must** be achieved by employing non-chemical methods (where appropriate biological, physical and cultural) and with minimal reliance on pesticides. However, a comparative risk assessment should always be made to determine the appropriate treatment.

8.1.2 Integrated Crop Management

E (Revised) Integrated crop management (ICM) **must** be adopted and discussed with relevant staff, advisors and contractors. Its use **must** comply with the current protocol for the relevant crop. Advisors used **must** be able to demonstrate their competence through training and/or qualifications.

8.1.3 Regular Crop Inspections

E (Revised) Members **must** undertake and record the outcome of regular crop inspections.

8.1.4 Monitoring of Pests, Diseases and Weeds

E (Revised) Pests, diseases and weeds **must** be monitored, where applicable, by recording results and/or by participating in prediction programmes. Thresholds, where applicable **must** be used to avoid the routine application of pesticides.

8.1.5 Deleted

8.1.6 Deleted

8.2 Plant Protection Product Choice

8.2.1 Appropriate Product

E (Revised) Crop protection products **must** be appropriate for the control required as recommended on the product label or SOLA.

8.2.2 Deleted

8.2.3 Anti-Resistance Strategy

(Revised) An anti-resistance strategy **must** be adopted to avoid the build up of resistance.

8.2.4 Approved Products

E (Revised) Members **must** only use plant protection products that are approved for use in the UK on the crop being protected. Where imported chemicals are used, growers **must** only use chemicals within the legal framework of the country in which they operate. The imported chemical **must** have a label or SOLA approval for its intended use in the country of use. All pesticide applications **must** comply with the statutory conditions regarding the specific crop, maximum permitted total dose, maximum number of treatments, spray intervals and latest time of application as indicated on the product label or by SOLA ('specific off label approval'). Records **must** be maintained to confirm compliance and a hard copy or direct electronic access to the SOLA **must** be shown. Information on current approved off label use is given in Appendix J and in the crop specific protocols. **(CFP)**

8.2.5 Approved List of Pesticides

E (Revised) Members **must** hold a list of currently approved pesticides for the crops registered in the Assured Produce Scheme. The Assured Produce crop protocols will be suitable for this purpose but members **must** ensure that changes in legislation and approval are monitored and added to these listings.

8.2.6 Deleted

8.2.7 MRL Restrictions

Where applicable, members **must** have available, or access to a list of current applicable MRLs for the market(s) where their produce is intended to be sold (either domestic or international). The MRL list may be confirmed by communication with clients confirming these intended market(s), or by evidence that produce supplied complies with a residue screening system that meets the current applicable country(ies') MRLs.

Where these are stricter than the country of production, members **must** be able to demonstrate that during the production cycle, these MRLs have been taken into account (i.e. modification where necessary of plant protection product application regime and/or use of produce residue testing results).

8.3 Advice on the Use of Pesticides

8.3.1 BASIS Certificate

E Members **must** ensure that any individual whose advice is sought regarding the use of plant protection products holds the BASIS Certificate in Crop Protection and is also a member of the BASIS Professional Register

8.3.2 Adequate Training on Pesticide Usage and Application

E Where such individuals are not consulted members **must** be able to demonstrate their competence and knowledge having undertaken adequate training on pesticide usage and application.

8.3.3 Deleted.

8.3.4 Plant Protection Product Re Entry Intervals

(NEW) There **must** be clear documented procedures which regulate the re-entry intervals for plant protection products applied to the crops according to the label instructions. Re-Entry times may be defined as the time in days (the normal accepted unit is 24 hours) from the moment that the application of plant protection product has been finished until it is safe to re-enter the sprayed area without the use of protective clothing. Where no re-entry information is available on the label or SOLA, there are no specific requirements.

8.3.5 Monitoring of Re-entry Times

(NEW) There **must** be documentation (e.g. plant protection products application records) available to demonstrate that all Safety re-entry intervals for plant protection products applied to the crops have been monitored.

8.4 Application of Pesticides

8.4.1 Deleted.

8.4.2 Training of Sprayer Operators

8.4.2a Control of Pesticides Regulations

E The Control of Pesticides Regulations (COPR) 1986 require that all sprayer operators **must** have appropriate training and hold, where relevant, the appropriate certificate(s) of competence, i.e. certificates issued by the National Proficiency Test Council or the Scottish Skills Testing Service.

Thus operators holding "Grandfather Rights" (i.e. born before 31st December 1964) **must** undertake suitable training. Any pesticide applications made as a commercial service (contracting) must only be undertaken by certificate holders.

Untrained operators who require a certificate of competence **must** be supervised whilst they apply pesticides by a certificate holder and must be within sight and sound of the supervisor (those holding Grandfather Rights may not act as trainers).

8.4.2b NRoSO

E (**Revised**) Sprayer operators **must** be registered on the National Register of Sprayer Operators (NRoSO). Where spraying operations are contracted, it is the responsibility of the member to ascertain and record, the sprayer operator's name and valid NRoSO membership number.

8.4.3 Deleted

8.4.4 Handling and Filling Instructions

E (**Revised**) When mixing plant protection products, any handling and filling instructions stated on the label **must** be followed.

8.4.5 Deleted

8.4.6 Pesticide Application Equipment

E (**Revised**) Pesticide application equipment **must** be serviced at least annually and calibrated regularly (at least annually) .

8.4.7 Independent Sprayer Certification Scheme

8.4.7.a (Revised) Pesticide equipment other than hand held applicators and knapsacks **must** be tested under an independent sprayer certification scheme (such as NSTS) and hold a valid pass test certificate. Alternatively, the sprayers **must** be annually serviced, tested (the test to be documented and to cover at least all of the NSTS test criteria appropriate to that sprayer) and achieve a test pass for all criteria, by an engineer certificated by the appropriate sprayer manufacturer(s).

8.4.7.b An annual Routine Operator Check **must** have been undertaken for all hand held applicators and knapsack sprayers and the results recorded

8.4.8 Safe Method of Transport

E (**Revised**) Pesticides **must** not be carried in the cab of the sprayer, and a safe method of transport, as detailed in the Code of Practice for Using Plant Protection Products (available from Defra Publications product code PB11090), **must** be used.

8.4.9 Beekeepers

E (**Revised**) Beekeepers **must** be notified in advance of applications of pesticides.

8.4.10 Overspray or Spray Drift

E (**Revised**) Precautions **must** be taken to avoid or protect non-target areas from direct overspray or spray drift.

8.4.11 Deleted

8.4.12a Surplus Spray Mix, Tank Washings and Rinsates

E Under normal circumstances surplus spray mix should not occur. However if surplus does occur, it **must** be sprayed onto designated areas e.g. sprayed or unsprayed crop left specifically for the purpose,

EA authorised area, handled by recycling units where available or stored pending collection by a registered waste contractor. Tank washings and rinsates **must** be handled in a similar manner following the guidance given in The Code of Practice for Using Plant Protection Products (available from Defra Publications (Product code PB11090). The disposal of surplus spray mix tank washings and rinsates **must** comply with the 1999 Ground Water Directive and the site of disposal must be authorised by your local Environment Agency.

8.4.12b Records

The disposal of all surplus spray mix and tank washings **should** be recorded and these records maintained to demonstrate that recommended procedures have been followed and label doses not exceeded. To do this it is recommended that a Standard Operating Procedure (SOP) is written and followed each time such an area is treated. This will act as a record of process.

8.5 Records of Application

8.5.1 a) Minimum Application Records

(Revised) All pesticide applications **must** be recorded and records must include: crop name, variety, location of application, date of application (where this may occur over a period of more than one day, the start date and finish date **must** be recorded), product trade name and active ingredient, operator name, product quantity and harvest interval.

8.5.1b) Invoices of Registered Plant Protection Products

(NEW) Invoices of the registered plant protection products used **must** be kept for record keeping and available at the time of the external inspection.

8.5.2 Further Application Record

(Revised) The records for all plant protection products used **must** include justification for application, technical authorisation, machinery used.

8.5.3 Start and Finish Times

(Revised) Pesticide application records **must** include start and finish times.

8.5.4 Deleted

8.5.5 LERAP

E Certain pesticides carry a 'buffer zone' requirement when applied near water. When applying these pesticides, via a horizontal boom sprayer or air assisted sprayers (new scheme for 2002), members **must** undertake a 'LERAP' (Local Environment Risk Assessment for Pesticides), whether they reduce the buffer zone laid down to protect water or not, and the result must be recorded.

8.6 Protective Clothing/Equipment

8.6.1 Type

(Revised) Members **must** have all appropriate personal protective equipment (PPE) for all operations to ensure label instructions and/or legal requirements are complied with.

8.6.2 Storage

All PPE **must** be cleaned, maintained, stored and disposed of according to manufacturer's recommendations and statutory requirements.

8.6.3 RPEs

All respiratory protective equipment (RPE) **must** operate efficiently and maintenance records must be kept.

8.6.4 Transport of PPEs

(Revised) Personal protective equipment **must** not be transported in the cab of the sprayer and alternative safe methods **must** be employed to transport PPEs.

8.6.5 Assistance in the Event of an Accident

(Revised) Pesticide application operators **must** be able to contact assistance easily in the event of an accident.

8.7 Pesticide Storage

Pesticides need to be stored in accordance with the Code of Practice for Using Plant Protection Products and HSE requirements to include the following minimum standards:

8.7.1 Structure

8.7.1a Warning Signs

General warning signs **must** be placed on access doors.

8.7.1b Store Structure

E The store **must** be sound, secure, well ventilated, frost proof, have ease of access and have sufficient light to enable the spray operator to read the product label.

8.7.1c Store Sump

E The store **must** be able to retain any spillages or have an adequate sump to prevent contamination of watercourses.

8.7.1d Emergency Facilities

The store **must** have emergency facilities to deal with accidental spillages e.g. bucket of sand or absorbent granules.

8.7.2 Further Structural Requirements

(Revised) The store, including any doors but not the roof, **must** be made of materials which will resist fire for 30 minutes or longer and that the store is away from areas that present a risk of fire and at least four metres from other flammable materials or sources of ignition.

8.7.3 Shelving

The store **should** have shelves made of non-absorbent materials.

8.7.4 Original Packaging

(Revised) All pesticides **must** be stored in their original package. In the case of breakage only, the new container must display the information on the original label

8.7.5 Powders/Liquids

(Revised) Powders **must** be stored on shelves above liquids.

8.7.6 Deleted

8.7.7 Approval

All plant protection products in the pesticide store **must** have current UK approval.

8.7.8 Inventory and Stock Rotation

(Revised) An inventory of pesticide stocks **must** be maintained and a copy held away from the pesticide store and it is updated at least every three months

8.7.9 Safe Disposal

E **(Revised)** The safe disposal of redundant pesticides **must** be planned and recorded, and obsolete pesticides only be disposed of through a certified or approved chemical waste contractor (see NFU Orderline - Appendix A) or the supplying company.

8.7.10 Facilities for Measuring and Mixing Pesticides

(Revised) There **must** be adequate facilities for measuring and mixing of pesticides and that equipment used is calibrated annually by the member.

8.7.11 Emergency Facilities in the Event of Operator Contamination

Adequate emergency facilities **must** be provided to deal with operator contamination, such as running water, eyewash facilities, first aid box and emergency procedures.

8.7.12 Keys and Access

(Revised) Keys and access to the pesticide store **must** be limited to staff with adequate training in the handling of pesticides.

8.7.13 Emergency Plan

E In the immediate vicinity of the pesticide store, there **must** be an emergency plan which covers pesticide incidents involving staff, the operator, the local community and the environment. It must include a list of emergency contact telephone numbers and the location of the nearest telephone.

8.7.14 Deleted

8.7.15 Local Regulations

(Revised) Pesticides **must** be stored in accordance with national, regional and local regulations.

8.8 Empty Pesticide Containers

8.8.1 Cleaning Procedure

E **(Revised)** Empty pesticide containers **must** be cleaned using an integrated pressure rinsing device or rinsed three times with water, and the rinsate returned to the spray tank

8.8.2 Storage and Disposal

E **(Revised)** Growers **must** ensure that:

- Empty pesticide containers are not re-used, and are stored, and disposed of, in accordance with the options available under the Waste Management Regulations 2006.
- When clean, containers are crushed or pierced to prevent re-use.
- Empty containers are kept secure until disposal or recovery is possible. Disposal or recovery must take place within 12 months
- Only registered collection, recovery or and disposal companies are used if empty containers are to be disposed of off farm.

In Scotland the Environment Protection Act 1990 and the Waste Management Regulations were extended to include agricultural waste on 21st January 2006. The unregistered use of drum incinerators and open burning of empty pesticide containers is illegal. Growers in Scotland can still use drum incinerators only if they have registered with their local SEPA (Scottish Environmental Protection Agency) Office and possess an exemption certificate allowing its use.

8.9 Pesticide Residues in Fresh Produce

8.9.1 Pesticide Residue Testing Programme

(Revised) Produce **must** be tested for pesticide residues at least annually, or included in a third party crop protection product residue monitoring system, carried out by an accredited laboratory (accredited by organisations such as NAMAS or UKAS i.e. accredited to a nationally or internationally recognised standard). Documentary evidence must be available which demonstrates that samples are collected in accordance with applicable sampling procedures.

8.9.2 Pesticide Residue Testing Traceability

Pesticide residue analysis results **must** be traceable to the member and to the batch/production site.

8.9.3 Deleted

8.9.4 Harvest Interval

Statutory harvest intervals for applied pesticides must be complied with. Harvest dates must be recorded, in order to demonstrate adherence to the correct harvest interval for all applied pesticides. The harvest interval is the time between application and harvest, and does not include the transportation time to the customer. For crops that are continuously harvested over an extended period of time, the crop protection programme must not compromise these intervals. **(CFP)**

8.9.5 Deleted.

8.9.6 Minimising Residues

8.9.6a Protocol Requirements

(Revised) Growers **must** read the Generic Protocol Guidance Notes Section 8.9.6 and any specific guidance within the relevant crop specific protocols(s) (Section 8.9 and appendices) to minimise residues on crops.

8.9.6b Specific Action

(Revised) Growers **must** determine whether any of their crops grown require specific action to minimise residues.

8.9.6c Crop Protection Advisors

(Revised) Growers **must** discuss the action to be taken on the targeted pesticides with their crop protection adviser.

8.9.6d Action Plan

(Revised) There **must** be a documented action plan detailing how residues are to be minimised, if appropriate, and it includes a section recording changes made to growing and storage practices.

8.9.6e Implications of Residue Minimising Actions

(Revised) Growers **must** consider what implications their residue minimising programme may have on their ICM programme, their pesticide resistance strategy and whether it will have an impact on yield and quality of final produce

9. Harvest and Storage

9.1 Hygiene

9.1.0 Hygiene Risk Assessment

(Revised) Members **must** carry out a hygiene risk assessment (individual, industry wide or national) for the harvest and pre-farm gate transport process, which covers the hygiene aspects of the harvesting operation.

9.1.1a Personal Hygiene Requirements

M **(Revised)** All staff **must** be aware of the need to harvest, transport, store and pack produce with the utmost care having received basic training in personal hygiene requirements for handling of fresh produce. The training **must** be implemented by the member, manager or nominated member of staff and recorded. The hygiene instructions must have been reviewed and signed by the member, manager or nominated member of staff.

Harvesting staff **must** be aware of the requirements of EU Regulation No 853/2004 on the hygiene of foodstuffs which came into force on 1 January 2006. It is executed and enforced by the Food Hygiene Regulations 2006

9.1.1b Compliance with Personal Hygiene Requirements

M **(Revised)** Staff handling produce **must** comply with the hygiene instructions regarding personal cleanliness and clothing, i.e. hand washing, wearing of jewellery and fingernail length and cleaning, etc.; personal behaviour, i.e. no smoking, spitting, eating, chewing, perfumes, etc. Unless exclusion from Produce Handling declaration exists for each registered product.

9.1.1c Documented Hygiene Instructions

(NEW) There **must** be documented hygiene instructions visibly displayed and include:

- the need for hand cleaning;
- the covering of skin cuts;
- limitation on smoking, eating and drinking to certain areas;
- notification of any relevant infections or conditions;
- the use of suitable protective clothing.

9.1.2 Waste

E (**Revised**) Areas around storage and packing buildings **must** be clear of litter and waste, and have adequate provision for waste disposal to prevent creating a breeding ground for pest and disease.

9.1.3a) Pest Control

(Revised) All permanent packing and storage sites **must** have effective pest (including rodent) control measures and these control measures must comply with statutory label instructions and be recorded. The records must include a site plan showing the location of bait points

9.1.3b) Pest Proofing

(**NEW**) All entry points to storage or packing buildings or equipment **must** be suitably protected to prevent, whenever practically possible, the ingress of rodents and birds. Baits must be placed in such a manner that non-target species do not have access to them.

9.1.4 Field Packing

Where products are field packed, product **must** be covered to prevent contamination once packed and during transport and removed from the field overnight.

9.1.5 Packaging

(**Revised**) Procedures **must** be in place to ensure all packaging is clean and free from contamination.

9.1.6a Reusable Plastic Crates

Reusable plastic crates **must** be cleaned where necessary to ensure they are free from foreign material, and crop residues which could re-infect the crop with disease/pests in the pack house.

9.1.6b Produce Containers

(**Revised**) Produce containers **must** only be used to contain produce (i.e. no agricultural chemicals, lubricants, oil, cleaning chemicals, plant or other debris, lunch bags, tools, etc.). Where multi purpose trailers are used they must be cleaned prior to use.

9.1.7a Deleted

9.1.7b Harvesting Equipment and Transport

All harvesting tools, equipment and transportation **must** be cleaned and maintained according to a schedule at least annually.

9.1.8a Toilet Facilities

- M** **(Revised)** Staff **must** be provided with adequate toilet facilities at all permanent sites and in the vicinity of fieldwork, within 500 metres of the working area and in a good state of hygiene. Where an employee is working independently, the 500m distance can be modified to allow the presence of toilets at an increased distance, providing that there is reasonable and adequate transport available to the worker.

9.1.8b Hand Washing Facilities

- M** Harvest workers **must** have access to clean hand washing facilities in the vicinity of their work. The facilities must be within 500 metres of the working area and in a good state of hygiene.

9.1.9 Broken Glass and Hard Plastics

All light bulbs, tubes, windows and any other glass or hard plastics, in produce storage, grading and washing areas **must** be protected. Implemented procedures, written where applicable, **must** be in place to prevent the contamination of product by broken glass or hard plastics (e.g. lights and windows).

9.2 Post-Harvest Treatments

9.2.1 Post-Harvest Treatments

- E** **Post-harvest treatments must be minimised but if there is no alternative to ensure maintenance of good quality, they must only be used in accordance with their statutory requirements.**(CFP)

9.2.2 Records

All applications of post-harvest treatments **must** be recorded and must include batch, location, date of application, product trade name and active ingredient, type of treatment, quantity of product used, and name of operator.

9.2.3 Further Records

(Revised) All records **must** include justification for the application and the application machinery used.

9.2.4 Utilisation Interval

Post-harvest pesticide application records must be linked to consignments leaving the production/storage sites. The labelled interval between treatment and consumption (often referred to as the 'utilisation interval') must be adhered to. (CFP)

9.2.5 Deleted

9.3 Post-Harvest Washing

9.3.1 Final Product Washing

The source of water used for final product washing **must** be to national drinking water standards, with an analysis carried out within the last 12 months. Recycled water must be filtered with an effective system for solids and suspension. There must be a documented routine cleaning schedule and the pH and disinfectant levels routinely monitored.

9.3.2 Deleted

9.3.3 Water Analysis

(Revised) Based on a risk assessment, water analysis **should** be undertaken by a laboratory accredited to ISO 17025. The scope and frequency of the analyses **should** be based on the risk analysis. The analysis results **should** be compared with accepted standards, and adverse results acted upon.

9.3.4 Ice

(Revised) Any ice and/or water used at point of harvest **must** be made with potable water and handled under sanitary conditions to prevent produce contamination

9.4 Produce Handling and Packing

These requirements are applicable for on farm produce packing operations

9.4.1 Hygiene Risk Analysis

(Revised) A documented hygiene risk analysis **must** be carried out for the produce handling process. It must include an assessment of the likelihood and severity of the risks covering physical, chemical and microbiological contaminants and human transmissible diseases, customised to the products and operation of the packing area. The risk assessment must be reviewed annually.

9.4.2 Hazard Analysis

M (Revised) As a direct result of the produce handling hygiene risk analysis, a hygiene (physical, chemical and microbiological contaminants) procedure **must** be implemented.

9.4.3 Toilet and Hand Washing Facilities

M (Revised) Staff **must** have access to clean toilets and hand washing facilities, which are in a good state of hygiene and contain non-perfumed soap and water to clean and disinfect hands and hand drying facilities in the vicinity of their work. Where they are in the packhouse environment, they **must** not open directly onto the produce handling area unless they are contained by self closing doors.

9.4.4 Protective Clothing

(NEW) All workers **should** wear outer garments (e.g. smocks, aprons, sleeves, gloves) that are clean and fit for purpose for the operation according to the risk analysis. This will depend on the product and operation.

9.4.5 Canteen Facilities

(NEW) Smoking, eating, chewing and drinking **must** be confined to designated areas and never allowed in the produce handling or storage areas. (Drinking water is the exception).

9.4.6 Displaying Hygiene Instructions

(NEW) Signs **must** be clearly displayed in the packing facilities which describe the main hygiene instructions for workers and visitors.

9.4.7 Hand Washing Instructions

(NEW) Signs **must** be visible with clear instructions that hands must be washed before handling products, especially after using toilets, eating, etc.

9.4.8 Changing Facilities

(NEW) There **should** be suitable changing facilities which can be used to change clothing and protective outer garments as required. Secure storage facilities or lockers should be provided at the changing facility to protect the workers' personal belongings.

9.4.9 Quality Inspection Procedures

(NEW) There **must** be a documented inspection process in place to ensure compliance with a defined quality standard

9.5 Produce Handling Facilities

These requirements are applicable for on farm produce packing operations

9.5.1 Deleted

9.5.2 Cleaning and Maintenance

M (Revised) Produce handling facilities and equipment (i.e. process lines and machinery, walls, floors, storage areas, pallets, etc.) **must** be cleaned and/or maintained according to a cleaning schedule, to prevent contamination, and documented records kept.

9.5.3 Waste Storage

E **(Revised)** Rejected produce and waste material **must** be stored in designated areas and must be disposed of within 12 months (see Standard 10.4.1). Designated areas **should** be routinely cleaned and disinfected, to prevent produce contamination, and documented cleaning records are kept.

9.5.4 Cleaning Agents Storage

E **(Revised)** Cleaning agents, lubricants etc. **must** be kept in a designated area separate and apart from where produce is packed, to avoid chemical contamination of produce.

9.5.5 Cleaning Agents

E **(Revised)** Documentary evidence **must** be available which authorises (i.e. specific label mention or technical data sheet) the use for the food industry of Cleaning Agents, Lubricants etc. which may come into contact with produce.

9.5.6 Domestic Animals

(Revised) Access of domestic animals to the produce handling facilities **must** be restricted, to prevent product contamination.

9.5.7

9.5.8 Forklifts and Driven Equipment

(NEW) All forklifts and other driven equipment used within the packing facilities **should** be maintained to avoid product contamination, with special attention to fume emissions. Forklifts and other driven transport trolleys should be electric or gas-driven.

9.6 Produce Packing in Field

9.6.1 Quality Inspection Procedures

(NEW) There **must** be a documented inspection process in place to ensure compliance with defined quality criteria.

9.6.2 Packaging in the Field

(NEW) Bits of packaging material and non-produce waste **must** be removed from the field.

9.7 Packed Produce Storage on Farm

9.7.1 Cleaning of Storage Areas for Packed Produce

(NEW) Where packed produce is packed and/or stored on farm, storage areas **must** be cleaned prior to use.

9.7.2 Storage Area Maintenance for Packed Produce on Farm

(NEW) Where packed produce is packed and/or stored on farm, storage areas, temperature and humidity controls (where applicable) for the stores **must** be maintained and documented, in accordance with the hygiene risk assessment results and quality requirements when packed produce are stored on farm.

9.7.3 Stock Rotation

(NEW) Where produce is packed and/or stored on farm stock rotation **should** be managed to ensure maximum product quality and safety.

9.7.4 Calibration of Measuring Equipment

(NEW) Where produce is packed on farm, equipment used for weighing and temperature control **must** be routinely verified to see if equipment is calibrated according to a risk analysis.

9.7.5 Storage of Produce Sensitive to Light

(NEW) For products that are sensitive to light (e.g. potatoes), daylight ingress **must** be controlled in longer term storage facilities

10. Pollution Control and Waste Management

10.1 Waste and Recycling Management Plan

10.1.1 Documented Plan

- E (Revised)** All possible sources of waste in all areas of the farm business **must** be identified e.g. oil, debris, paper, cardboard, plastic, crop debris, oil, rock wool, etc. and recovered and recycled whenever possible.
- E** A plan **must** be documented and implemented which includes all the identified waste and details measures taken to reduce wastage and, whenever possible, recycle to avoid using of landfill or burning. Organic crop debris may be composted on the farm and reused for soil conditioning where there is no risk of disease carry-over.

10.2 Pollution Management Plan

10.2.1 Documented Pollution Management Plan

- E (Revised)** A plan **must** be documented which identifies all potential pollutants within the business e.g. chemicals, oil, fuel, noise, light, and what measures are in place to prevent pollution of the local environment.

10.3 Holding Areas of Potential Pollutants

10.3.1 Environmentally Safe Holding Areas

- E (Revised)** Holding areas for waste **must** be environmentally safe, holding areas/stores for diesel and oil (including waste oil) are be bunded and conform to the guidelines contained in the DEFRA Code of Good Agricultural Practice for the Protection of Water.

10.4 Waste Disposal

10.4.1 Waste Disposal

- E** Waste **must** be disposed of in accordance with the options available under the Waste Management Regulations 2006. This can include storage for up to 12 months; taking waste to a licensed or exempt recovery or disposal site; giving waste to a registered waste disposal carrier; registering licence exemptions or obtaining a Waste Management Licence or a Pollution Prevention and Control (PPC) Permit

In Scotland the Environment Protection Act 1990 and the Waste Management Regulations were extended to include agricultural waste on 21st January 2006. The unregistered use of drum incinerators and open burning of empty pesticide containers is illegal. Growers in Scotland can still use drum incinerators only if they have registered with their local SEPA (Scottish Environmental Protection Agency) Office and possess an exemption certificate allowing its use.

11. Energy Efficiency

11.1 Efficiency

11.1.1 Energy Policy

- E (Revised)** Where businesses use significant amounts of energy there **must** be a written energy policy.

11.1.2 Energy Monitoring

(NEW) The member **should** be able to show monitoring of energy use on the farm. Energy use records **should** exist and for example farming equipment **should** be selected and maintained for optimum consumption of energy. The use of non-renewable energy sources **should** be kept to a minimum.

12. Health & Safety and Worker Welfare

12.1 Health and Safety

12.1.1 Risk Assessment and Health and Safety Policy

(Revised) Where applicable, there **must** be in place an up to date Health and Safety at Work Policy and Risk Assessment.

12.1.2 Deleted

12.1.3 COSHH

(Revised) A COSHH Assessment **must** be carried out for all businesses as required under the Control of Substances Hazardous to Health Regulations (COSHH) 1994. These regulations cover virtually all substances hazardous to health used in farming. The basic principles underlying the COSHH regulations is that risks associated with the use of any substances hazardous to health must be assessed before they are used and the appropriate measures taken to control the risk (see Appendix J 1.1 COSHH 1994; Code of Practice for the Use of Plant Protection Products and model risk assessment available from the NFU Order line

12.1.4 Training

E **(Revised)** Formal training **must** be given to all people handling and using agrochemicals, and all people operating potentially dangerous or complex equipment. Certificates of competence and/or records of training for each employee **must** be kept in the interests of operator safety. Health and Safety training must be given to all staff including sub-contracted staff.

12.1.5 Accident and Emergency Procedures

(Revised) Accident and emergency instructions **must** be available and displayed in the predominant language(s) of the workforce and/or pictograms. It is strongly recommended the procedures identify, if appropriate the following:

- farm's map reference or farm address
- contact person(s)
- location of the nearest means of communication (telephone, radio)
- an up-to-date list of relevant phone numbers (police, ambulance, hospital, fire-brigade, access to emergency health care on site or by means of transport, electricity and water supplier);
- how and where to contact the local medical services, Hospital and other emergency services.
- location of fire extinguisher;
- emergency exits;
- emergency cut-offs for electricity, gas and water supplies.
- how to report accidents or dangerous incidents.

12.1.6 Deleted.

12.1.7 Warning Signs

(Revised) Where appropriate, hazards **must** be clearly identified by warning signs.

12.1.8 Controlled Atmosphere Stores

Safety procedures **must** be in place for operators taking samples from controlled atmosphere stores.

12.1.9 First Aid Training and Equipment

(Revised) There **must** be adequate levels of trained first aid personnel and equipment, on permanent sites and in the field, for the scale of the business.

12.1.10 Worker Health Checks

(Revised) In the interests of worker health, those staff who undertake pesticide applications on the farm **should** receive regular health checks in line with guidelines laid down in the Code of Practice for the Use of Plant Protection Products..

12.1.11 Visitors Personal Hygiene and Personal Safety Requirements

(Revised) The company visitor personal hygiene procedures and personal safety requirements **must** be officially communicated to all visitors and visibly displayed where all visitors/sub contractors read them.

12.1.12 Deleted.

12.1.13 Staff Training Records

(NEW) A record **must** be maintained of all training activities, attendees and staff development. The record must detail the training attended including the date, the trainer and staff attending.

12.2 Worker Welfare

12.2.1 Employment Conditions

(Revised) There **must** be a clearly identified, named member of management has the responsibility for ensuring compliance with existing, current and relevant national and local regulations and the implementation of the policy on workers health safety and welfare. This must be documented.

12.2.2 Worker Welfare Meetings

(Revised) There **should** be regular meetings where the concerns of the workers about health, safety and welfare are being recorded. The meetings should be planned and held at least once a year between management and workers.

12.2.3 Living Conditions

(Revised) On site living quarters **must** be habitable and have basic services and facilities.

12.2.4 Clean Food Storage Areas

(NEW) Workers **must** have access to clean food storage areas including a refrigerator, designated dining areas, hand washing facilities and drinking water.

12.3 Gangmasters

12.3.1 Growers **must** ensure that all labour providers operating in the horticulture and any associated processing and packaging sectors have obtained a licence under the Gangmasters (Licensing) Act 2004 to operate through a compliance auditing/inspection process

13. Conservation Issues

13.1 Environmental Awareness

13.1.1 Deleted

13.2 Environmental Enhancement

13.2.1 Environmental Management

E (Revised) In the light of consumer concern, members **must** understand and assess the impact that their growing activity has on the environment, and consider how they can enhance the environment for the benefit of the local community and flora and fauna

Each member **must** have a plan for the management of wildlife and conservation of the environment on their own property that is compatible with sustainable commercial agricultural production and minimised environmental impact, avoiding damage and deterioration to habitats.

13.2.2 Unproductive Sites

Consideration **should** be given to the conversion of unproductive sites such as low lying wet areas, woodlands, headland strip or areas of impoverished soil, to conservation areas for the encouragement of natural flora and fauna and increase biodiversity wherever possible

13.2.3 Baseline Conservation Audit

(NEW) The plan **should** include a baseline audit to understand existing animal and plant diversity on the farm. This will allow actions necessary to be identified.