

Co-operative Retail

Code of Practice

For the Production of Fresh Produce and Produce used in Co-op Brand Products

No Details Contained In This Code Of Practice Shall Be Revealed To A Third Party Unless Written Permission Is Obtained From Co-operative Retail Quality And Consumer Care

Contents

Introduction

1. **Integrated Crop Management**
 - 1.1. Definition
 - 1.2. Principles
 - 1.3. Organisation and management
 - 1.4. Good Agricultural Practice
 2. **The Use of Chemicals**
 - 2.1. Crop Protection Chemicals
 - 2.2. Control of Vertebrate Pests
 - 2.3. Soil Management and Crop Nutrition
 - 2.4. Processing and other Chemicals
 - 2.5. Pesticide Analysis
 - 2.6. Record Keeping
 3. **Health & Safety**
 - 3.1. Personal Protective Equipment
 4. **Water**
 - 4.1. Water Used in Processing
 - 4.2. Waste or Dirty Water Disposal
 - 4.3. Irrigation
 5. **Land Control**
 - 5.1. Soil Quality
 - 5.2. Atmospheric Deposition
 - 5.3. Soil Fumigation
 6. **Variety Selection**
 7. **Desiccation**
 8. **Harvesting**
 9. **Storage**
 10. **Post Harvest Treatments**
 11. **Product Quality**
 12. **Traceability and Auditing**
 - 12.1 Traceability
 - 12.2 Site Inspection Visits
 13. **Energy Management**
 14. **Waste Management and Pollution Prevention**
 15. **Wildlife & Landscape Conservation**
- Annex 1 Prohibited Pesticides
Annex 2 Monitored Pesticides
Annex 3 Maximum Permissible Concentrations of Potentially Toxic Elements in Soil
Annex 4 Request for use of a Prohibited pesticide

Introduction

Fresh produce is a key category within all Co-op stores. Consumer expectation of produce quality is rising, and the perception of produce quality is one of the most important factors in a customer's overall perception of the store. Increasingly, consumers are also becoming more aware of food safety issues affecting produce, the methods and inputs used to grow these crops and the environmental effects that these cropping practices have. This Code of Practice aims to deliver and support this quality, providing a framework to implement, develop and improve standards now and in the future.

In consideration of the quality of Co-op produce we have developed clear goals:

1. Satisfaction of our Principles, via commitment to: serving everyone, providing a high level of service, with quality and value for money, providing accurate information and respect for customers' rights, and the environment, our employees, the community and the wider world.
2. Produce quality that reflects our brand position and aims.
3. Sustained and consistent quality standards.

To achieve these goals, this Code of Practice identifies key measures to maintain produce quality at all levels, and with a variety of aims:

1. To ensure that all fresh produce meets Co-operative Retail quality standards.
2. Is safe, legal and fully traceable back to the field.
3. Is sourced with regard to best practice and sound sourcing principles.
4. Is managed by systems that provide consumer confidence and evidence of justification and due diligence.
5. To develop and support products, services and technologies, both conventional and organic, to improve the quality of products whilst minimizing the impact on the environment.

Co-operative Retail will work with suppliers and distributors to ensure that these measures and best practice are adopted throughout our supply chain.

Please note compliance with this Code of Practice is referred to in sections 2.4 and 2.4.1 of the 'Agreement for the supply of Co-op Brand products and other product manufactured exclusively for Co-operative Group (CWS) Ltd' and sections 2.2, 2.2.1 and 2.2.2 of the 'Agreement for the Supply of Produce to Co-operative Group (CWS) Ltd'.

UK Growers are required to have current Assured Produce status (and registration number). Suppliers are required to have systems, which check the Assured Produce status of the growers that they use at all times.

All facilities (UK and overseas) used to pack and label Co-op Brand products must have achieved accreditation against the BRC Standard.

Produce sourced from outside UK should be produced to standards that are equitable with Assured Produce at farm level. These parameters should be agreed with Co-operative Retail.

Integrated Crop Management (ICM)

1.1. Definition

Integrated Crop Management (ICM) is a cropping strategy in which the farmer seeks to conserve and enhance the natural environment while economically producing safe, wholesome food. Its long-term aim is to optimise the needs of consumers, society, the environment and the farmer.

ICM is based on an understanding of the biological and ecological interactions, in nutrient cycles, pests, weeds and diseases, with farm management systems. It is also geared towards sustaining and optimising natural resources.

1.2. Principles

The basic principles of ICM are:

- To minimise the impact on inputs, such as fertilisers and crop protection chemicals. This can be achieved by careful consideration of a number of different mechanisms, such as pest and disease development models and threshold levels, (to determine the level at which intervention becomes necessary), and the use of 'attractants', (which delay the development of pest population growth curves), husbandry practices (time of year and type of cultivations), variety choice (thus, sensitivity to various pests and diseases) and seed rate (including the use of mixed cultivars), crop density and ground cover development patterns.
- The maintenance and site-appropriate management of soil and its fertility;
- The efficient and responsible use of crop residues and livestock manures in order to ensure that they do not act as a threat to the health of soil, water, wildlife, human and animals.
- To minimise pollution of water, air and soil;
- The overall reduction in fossil fuel use with the aim of improving the on-farm energy balance;
- The maintenance and improvement of site-appropriate ecological diversity and wildlife habitats;
- The maintenance and improvement of landscape and farm buildings together with the amenity value of the countryside.

1.3. Organisation and management

Integrated Crop Management is a dynamic process that requires, first and foremost, careful and detailed organisation and management, this includes,

- Investment of time in the management of the operation
- Business planning, including setting realistic targets for economic and environmental performance
- Keeping detailed records
- Identification of what skills are required and provision of appropriate training to ensure a safe farm operation
- Commitment from staff to the achievement of the targets and the overall aims of the business
- Knowledge of where to obtain expert advice
- Adaptability and acceptance of scientific and technical advances that are beneficial to the environment, food quality and to economic performance, and which can be integrated into the management of the business as soon as they are perfected and approved

1.4. Good Agricultural Practice

Good Agricultural Practice is summarised as the achievement of the desired degree of control of pests and diseases at an economic cost with minimum hazard to operators and other people in the vicinity, consumers, beneficial organisms and the environment.

Co-operative Retail fully supports the principles of Integrated Crop Management and Good Agricultural Practice and actively endorses our suppliers' participation in industry schemes designed to further their aims for example LEAF, EUREP - GAP and Assured Produce, Farmcare (Farming Environmental Management System) and FWAG.

Co-operative Retail recommends that all farms work from a Crop Protection Management Plan, (obtained from the Voluntary Initiative (VI) website, <http://www.voluntaryinitiative.org.uk/>) and that they hold and understand Material Safety Data Sheets (MSDS), which are available from all agrochemical manufacturers and Environmental Information Sheets (EIS), (available from the Agrochemical Manufacturers and <http://www.voluntaryinitiative.org.uk/>) for all pesticides used.

Agronomy on farm should be supported by an agronomist who is on the BASIS professional register and who carries BETA training and qualifications, available from www.basis-reg.com, All pesticides should be applied by a professional who is currently on the National Register of Spray Operators (N Ro SO) register.

Crops grown outside the UK should operate within similar parameters, please discuss the detail of such operations, with respect to local conditions with Co-operative Retail.

Other recommended sources of information

LEAF (Linking Environment and Farming, website, www.leafuk.org/leaf/)

FWAG, (UK Farming and Wildlife Advisory Group, website, www.fwag.org.uk/)

EUREP – GAP (www.bsi-global.com), or www.eurep-gap.org

Assured Produce (www.assuredproduce.co.uk)

Farmcare(Farming Environmental Management System, (available via <http://www.co-opfarmcare.com/>).

2. The Use of Chemicals

2.1. Crop Protection Chemicals

Produce supplied to Co-operative Retail should be grown with the minimal amount of pesticide needed to achieve economic yield and quality required by the specification. Suppliers must first make full use of non-pesticide measures for the control of pests, diseases and weeds including the selection of resistant varieties as well as cultural and biological forms of control.

Crop protection chemicals must be chosen with regard to the Co-operative Retail hazard profiles i.e. consideration should be given to operator safety, persistence, leachability, mobility, bio accumulation, toxicity, carcinogenic, endocrine disrupting, reproductive and mutagenic characteristics, and the effect on non-target organisms, crop beneficials and minimising the likelihood of resistance build up.

Risk assessments in use should then be carried out.

Pesticides should only be applied when pest levels reach a critical threshold. They should not be applied routinely at set time intervals. Preventative measures such as those detailed below, should be utilised to help reduce the use of control measures.

As part of the Integrated Management decision making process the following stepwise process should be employed to optimise protection for the consumer, operator, the environment and the crop.

- i. Assessment - Identify clearly the pest, disease and weed problems and their effect on the crop yield, quality and the environment.
- ii. Prevention - Use cultural, forecasting, past experience and management measures to prevent, anticipate and delay any problems
- iii. Observation - Monitor the crop for pests, diseases and weeds to determine when to treat.
- iv. Intervention - Direct measures to stop loss in yield and quality i.e. cultural, mechanical, biological and chemical controls. Any intervention chosen, with the high levels of professionalism consideration standards recommended, within the frameworks used, should, by careful selection and by best use in practice, have the least possible food safety risk and impact on the environment. Supporting rationale should be made available if requested.

Good examples of this in practice are the use of sealed seed dressings and 'spot' field treatment, (as opposed to whole field application), to control insect pests that would interfere with crop establishment. Another example of IPM, is the use of reduced rate herbicides, resulting in perhaps incomplete weed control, which may prove sufficient, for instance, in rapidly expanding dense crop canopies. Technology is expected to provide 'new' tools in this process, eg the use of pheromones to attract insects to pollinate flowers to attract other beneficial insects, thus delaying the development of typical pest colonisation. The development of 'trap cropping' and the use of predatory insects and substances, to control pests, is also expected to deliver useful non-chemical control of pests in commercial production.

Under high pest pressure and in controlled circumstances, the use of drenched modules prior to planting out is preferable to whole field dressing. However, operator safety and mechanisms to ensure that environmental impact with respect to treated plants, must be considered very carefully and controls established.

The use of models, that chart the development of a pest or disease, with respect to the development of the crop canopy, recent weather, weather forecasts and the previous application of any pesticides are strongly supported by Co-operative Retail as good supporting rationale for any risk assessments. This type of intelligence allows for thresholds to be clearly established and pesticide application intervals to be logically calculated.

2.1.1. Preventative Measures

- A thorough understanding of the pest's life cycle can assist in preventing quality and yield problems, or unnecessary pesticide application, within a crop. This should also develop the level at which pests and diseases can be tolerated, i.e. the threshold levels, before intervention is needed, to avoid damage to crop quality.
- Avoid the establishment of 'green bridges' from the end of one crop to the start of the same crop, where they are spatially close. This may involve total control of vegetation by non-persistent herbicides and /or cultivations to remove crop debris and control of volunteers/ground keepers. When ploughing in residues, all efforts must be taken to minimise the level of nitrate leaching. Please consider the development of environmental balance sheets, to account for and minimise any N losses, e.g. as available from EMA (University of Hertfordshire and Defra) as the basis of on farm good practice. Consideration must also be given to wildlife conservation. In areas where the pest pressure is low, there may be benefits to local wildlife populations by maintaining green cover for periods of time, as part of an overall managed strategy.
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- Crop rotation. This should involve rationale based on the use of logical and data based cropping history, known pest and disease problems and soil type, with respect to each crop to be grown and its target market and the long-term sustainability of growing each desired crop in that field. Rotation involving long term rental and business arrangements is likely to be more successful than renting on a one year basis.
- Establish and manage good soil structure, correct nutrition and appropriate use of irrigation, to provide for strong healthy growth. Advice and understanding of these issues is available from Farmcare.
- Careful site selection to avoid potential and known problems, thereby enhancing crop health.
- Use of resistant varieties that exhibit the required quality characteristics.
- Use of seed rates to control the speed of crop cover development and the structure of the final canopy, to reduce the need for herbicides.
- Use of husbandry techniques, such as cultivations, to reduce the reliance on herbicides, where appropriate. The use of a pesticide, or the use of any other method of control, (or indeed, non-control !), should be subject to risk assessment ahead of decision-making. Thus, for instance the full environmental implications will

then have been considered, when cultivation could replace a pesticide application e.g. the consequences to nesting birds.

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2.1.2. Crop Protection Chemicals - General Information

Pesticides are only permitted where other measures are inadequate to ensure produce meets the requirements of the relevant specifications.

Co-operative Retail Proposed Prohibited Pesticide List

Active ingredients from the Co-operative Retail prohibited list (see Annex 1) must not be used. In exceptional circumstances, following discussions with Co-operative Retail, approval may be granted for the limited use of a prohibited pesticide on a specific crop, providing, strict controls are adhered to and an exit strategy has been developed. Permission will only be supplied if clear evidence of need for use is provided. (Over time, this list will be split into 2 parts, to reflect, absolutely no use and some highly controlled use).

Co-operative Retail Monitored Pesticide List

Active ingredients listed in the Co-operative Retail monitored pesticide list (see Annex 2) can be used by growers. To fully justify the use of a pesticide on this list, all viable alternatives must be considered with preference given to the use of more benign chemicals or non-chemical alternatives. Growers must be able to provide clear documented justification for use of any active ingredient used from the list on request by Co-operative Retail.

Suppliers should operate a system of positive release for all pesticide treatments, which have been applied, for each crop that is to be supplied to Co-operative Retail prior to the use of each field stock. Please note, section 2.1.6. on recording and checking of pesticide applications, before use for Co-op brand.

Pests, diseases and weeds must be closely monitored to ensure any pesticide treatment is applied to maximum effect with minimal dose.

In certain circumstances it may be possible to apply reduced doses of herbicides, if local conditions allow and control will still be achieved. Consideration of dose should also factor in the likely risk of any resistance to the herbicide developing.

The method for application must be chosen to limit the environmental impact of pesticide usage. Wherever possible, approved seed treatments, module drenches and directed or spot applications should be used in preference to whole field treatments. When whole fields are treated, care should be taken to avoid spraying near field boundaries. When applying pesticides in areas close to a watercourse, reference must be made to the Local Environmental Risk Assessment for Pesticides (LERAP) to determine the correct buffer zone, around any fields to be treated. Please note, that the Green Code expects consideration of approximate air speed at boom height, when setting up spraying parameters. (This should be calculated and quantified using the Beaufort scale.

Note, recording of this data should be carried out at boom height, which is not typically where weather stations are located).

There is now robust work, in the public arena, that demonstrates increases in performance of pesticides from adjustments in droplet size and ballistic properties of spraying liquids, with respect to leaf area index (volume) and weather conditions. This knowledge and use of techniques should be used when agronomists consider the application rate of pesticides. Thus, we should expect to observe reductions in the amounts of active ingredients used for control processes, over time.

There is increasing concern surrounding the use of anti cholinesterase compounds (Organophosphate and Carbamate pesticides). These pesticides should only be used, when no other viable alternative is available. If used, there should be sufficient documentary evidence to support their need. Please refer to the Co-operative Retail prohibited list before selecting an Organophosphate or Carbamate pesticide.

The appropriate use of Nematicides requires considerable care. If it has been established that such pesticides are required and the appropriate dose has been established, careful consideration should then be given to; application machinery, its appropriateness for purpose and calibration and maintenance, operator training and incorporation mechanisms. Where possible, nematicides should be used within closed system transfer. The nematicide manufacturers provide operator-training workshops, aimed at full stewardship of product in use, usually, on an annual basis. Ideally, nematicides should be incorporated in the same pass/operation as application. If this is not possible, incorporation must follow immediately. Consideration should be given to the appropriate disposal of used nematicide containers. Returnable containers are a good option. Otherwise, please operate under best practice regimes, e.g. as available from NFU or CPA.

2.1.3. The Use of Adjuvants

Adjuvants, wetters and stickers should be incorporated whenever their use enhances the activity of the pesticide treatment and thus allows a reduced treatment rate to be used effectively. Adjuvants selected must be legally permitted for the use required and their use must be in accordance with the conditions of use of the pesticide with which they are incorporated.

2.1.4. Pesticide Selection

Under no circumstances should a pesticide from the UK, EC, or country specific legislative system, that is not full compliant with legal registration or is listed on the Co-operative Retail prohibited lists, be used. If such controls do not exist, or the supplier to Co-operative Retail has concerns about the mechanism for the control of pesticide use, the supplier must discuss with Co-operative Retail

Pesticide selection shall only be made following advice from a competent authority (BASIS professional register or equivalent, for country of production) and must be made by using the appropriate Assured Produce Protocol, or equivalent for that country e.g. EUREPGAP and compliance with the Co-operative Retail pesticide lists.

Records shall be maintained of the source of the advice and relevant qualifications. It is essential that competency to give advice is challenged and verified, at least annually.

2.1.5. Minimisation of Residues

The following are examples of approaches, which can help to minimise residues in fresh produce that are to be supplied to Co-operative Retail. These should be considered when selecting a crop protection chemical to be used during production or storage.

- Select products with low active ingredient application rates, which are likely to result in low residues.
- Reduce the number of applications and/or rate compared with maximum label recommendations. (This should only be done when appropriate objective decision support is used and respect is given to resistance management)
- Extend pre harvest interval if efficacy allows.
- Use alternating chemistry in programme.
- Use mixtures (particularly at the end of the season)
- Select products, possibly as mixes of active ingredients, which degrade quickly (particularly at later crop growth stages)
- Select products, which minimise the impact on non-target organisms, as this should improve biological control mechanisms, and thus reduce the reliance on the use of pesticides.

2.1.6. Pesticide Use and Application Procedures

In the UK operators must follow the guidelines in the DEFRA Code of Practice for the Safe Use of Pesticides on Farms and Holdings. This can be obtained from <http://www.defra.gov.uk/>. Similar standards of safe practice must be achieved by producers in other countries and must meet local legislative requirements. Additionally, pesticides must only be used in strict compliance with manufacturers instructions especially in respect of dosage rates, minimum harvest intervals (harvest intervals must be extended wherever possible) and COSHH considerations. All spray operators must be PA1, PA2, PA4 and PA12 trained and be active members of NRoSO scheme, in the UK and operate to equivalent standards in other countries. Application of pesticides must be carefully recorded, such that presentation of a summary sheet is easily accessible and readable. Ideally, such information should be presented via bespoke data packages e.g. Farmplan and Muddy Boots, or via spreadsheets. Ahead of use for in Co-op Brand, a qualified agronomist, who is on the BASIS professional register or equivalent, should check pesticide application records of products as legal and appropriate for use. The use of a separate agronomist, e.g. one who works for the supplier not the grower, thus avoiding any conflicts of interest, to check records, acts as positive release to ensure that risk to Co-op Brand integrity is minimised.

All equipment used to apply pesticides must be regularly calibrated and serviced on an annual basis, with documentary evidence available on request. In the UK, this is

administers via the NSTS (www.nsts.org.uk). The equivalent should be applied in other countries.

Developments in equipment and techniques must be considered, in an on-going effort to minimise the quantities of pesticides that are applied.

Pesticide use must be based on risk assessment, including the use of treatment thresholds, crop, pest and development models and regular crop and weather monitoring. Regular crop supervision in the form of crop walking, feeding data into crop development models and interpreting model output, using insect traps and soil sampling, can help to monitor crop development, pest and disease levels. Tolerance levels can then be used to determine when a control is necessary. It is also important to identify both pests and naturally occurring predators to determine whether it is necessary to apply control measures.

Due to the build up of resistance to typically site-specific chemistry that some pests and diseases are exhibiting, it is important to alternate the use of active ingredients, with different modes of action, to reduce the risk of developing resistance to any one chemical.

The most appropriate application techniques should be used to ensure effective treatment at optimal rates and minimal risk of drift. Avoid spraying, or allowing drift into conservation areas and wildlife corridors such as grassy banks, dyke sides, hedgerows etc., and any wildlife reservoirs. Also consider the implication of buffer zone restrictions on certain chemical uses.

A documented protocol for the disposal of pesticide containers must be established and applied. It is excellent to use re-usable containers, otherwise, the method of disposal of used containers should be according to 'best practice'. Please consult the NFU and CPA for current information. In countries outside the UK, rationale should be given for appropriate disposal of used pesticide containers.

2.2. Control of Vertebrate Pests (birds, rodents, rabbits, etc.)

Regular monitoring of sites for vertebrate pests is essential to avoid the routine need for prophylactic treatment with pesticides.

The following points should be considered when seeking to control the activity of vertebrate pests around packing sites

- The site must be clean and tidy. Remove, where possible, all points offering shelter and ensure that all waste material is held in secure containers.
- Where possible use gloss paint on external walls.
- Cover windows with 6mm mesh.
- Proof doors and ensure all drains are covered.
- Cut back trees and minimise vegetation close to the packing facilities.

At the first sign of vertebrate pests action must be taken to disrupt feeding patterns to allow non-chemical methods of control to be deployed e.g. audible scarers, cage traps and fencing. Only when non-chemical methods have proved inadequate should chemical treatments be considered. The chemicals used for the control of vertebrate pests are very

dangerous to other forms of wildlife, the public and employees. Their use must be restricted to qualified operators only. Application must only be made in ways that avoids all risk to non-target species including pets and humans as defined in label recommendations.

A qualified and professionally registered person must carry out all pest control activities, and full documentation must be in place, with respect to placing of traps appropriately, visits, actions and disposal of spent bait and carcasses. A professional registered contractor is normally expected to carry out this work. It is very important that the supplier/packer works with the contractor to establish and manage the different risk points on any site.

When a rodenticide is selected for use, the following points of good practice should be considered:

- Only use more complex and toxic chemistry when you can demonstrate first generation resistance to simpler, less toxic chemistry.
- Ensure that all bait is covered and secured.
- Regularly search for rodent bodies, up to 100m way from the bait points and dispose of them appropriately.
- Appropriately dispose of all spent bait and document the disposals.

Providing all these points of good practice have been considered carefully, there may be occasions on which it is appropriate to use rodenticides that are currently on the prohibited list of pesticides. Under these circumstances, please bring the use of these compounds to the attention of Co-op Retail, with the appropriate rationale for use.

2.3. Soil Management and Crop Nutrition

Soil is a farmer's most vital asset, but it is also a limited resource. Soil is not only the basic resource for crop growth; it also provides a filtering and buffering action to protect water and the food chain from potential pollutants. It houses a rich and vital micro-fauna and flora. Soil is a living medium and its condition and health are easily damaged, and it is essential that steps are taken to preserve soil in a healthy and productive condition, this involves

- A detailed understanding of the physical, geological and chemical status of the soils on the farm.
- Maintaining or enhancing soil structure.
- Adoption of cultivation practices that minimise damage to soil structure, such as minimum tillage, combined operations, and attention to vehicle size, wheels and axle loads. Cultivations that take out tramlines, under good weather conditions, is a good example of targeted and appropriate cultivations.
- Regular vehicle maintenance, especially tyre pressures.
- Matching soil cultivation methods and timing to prevailing soil conditions.
- Managing soil water balances by appropriate cultivations and field establishment mechanisms and by drainage maintenance in wet climates, and by soil moisture conservation practices in dry conditions.
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2.3.1. Crop Nutrition

All crops remove nutrients from the soil and these must be replaced in an ecological responsible way. This can be achieved by balancing applications of organic and mineral fertilizers including if useful, organic wastes and composts. This requires,

- Detailed analysis of the nutrient status of the soils, repeated on a regular basis
- Where appropriate, planned cropping rotation to minimise nutrient loss (especially by leaching) and to make best use of natural restoration of fertility
- Calculation of crop nutrition requirements and matching fertiliser applications accordingly (including analysis of the contribution by organic nutrients)
- Keeping soil pH at optimum levels through appropriate management
- Taking qualified, professional advice e.g. FACTS and BETA registered adviser, or equivalent if operating outside the UK

2.3.2. Fertiliser Application

All applications should be encouraged to improve soil fertility, workability and structure providing full account is taken of the enhanced nutrient status of the soil so that risk of leaching or run off and residues in the product at harvest are minimised. Any application is only permitted following consideration of optimum crop requirements, recent soil analysis and cropping history. Co-operative Retail strongly recommends the use of models and balance sheets to improve the accuracy of such operations on farm. Manner, EMA, Planet can be used to demonstrate of good agricultural practice.

Do not apply fertilisers to conservation areas or wildlife corridors.

2.3.3. Nitrogen Application

Rate and timing must aim to match optimal need whilst minimising the risk of leaching. Nitrogen applications must be limited to those periods of year when the roots are active and can take up the nutrient. Do not apply fertiliser or manure when the soil is water logged, flooded, frozen solid or covered in snow.

A soil mineral nitrogen test, as part of an appropriate, calculated justification should be used at a point in the rotation where crops are grown using heavy applications of nitrogen (>200kg/Ha) or incorporating large quantities of FYM. A soil N balance sheet approach based on crop requirements and soil N-supply should then be introduced. All nitrogen applications should also take account of the P, K, Mg and S element of farmyard and organic manures applied.

Where crops requiring high levels of nitrogen are grown on light soils, particular care is required to match the amount and timing to crop needs to minimise leaching risks. Additionally, care should also be taken in areas which are designated Nitrate Vulnerable Zones. These are areas where water resources are limited and vulnerable, and growers are asked to observe a programme of measures designed to reduce nitrate loss from the land and help reduce nitrate levels in water.

Consideration should be given to the use of liquid rather than solid fertiliser. It is more accurate to apply liquids and the risk of buffer zone inclusion is less. Under dry conditions, the efficiency of uptake of Nitrogen is usually increased from using liquids rather than solid fertilisers. However, there are additional risks to consider when using liquids, e.g. prevention of spillage, as there may be little opportunity for 'mopping up'. Therefore,

siting of loading for liquid fertilizer requires care. Consideration of the fertilisers' chemistry and its release mechanisms should be given. Thus, increases in the efficiency of use of fertiliser may be gained e.g. from using fertiliser with a steady release over time, as opposed to a rapid release.

The choice of crop, autumn crop cover, cultivation, organic manure use and grassland management all have a major impact on the quantity of nitrogen lost.

2.3.4. Phosphate, Potassium and Magnesium Application

Must only be made to the most appropriate crops in the rotational cycle in order to maintain soil fertility and ensure each crop has the necessary nutrients for optimal crop production and quality.

2.3.5. Eutrophication

Agricultural run off and leaching can lead to eutrophication of fresh and marine waters and be detrimental to sensitive vegetation and have negative environmental consequences. This is a result of the enrichment by nitrogen or phosphorus, causing algae and higher forms of plant life to grow rapidly, reducing the light supply to other existing plant systems and thus disturbing the balance of the existing eco-system.

Section 2.3.2. Identifies certain steps that can be taken to reduce the impact of nitrate and phosphate on the environment. Important sources of contamination are from erodible soils, run off following fresh applications of manures or fertilisers and from fertiliser-saturated soils. Suggestions on methods for minimising contamination through two major processes -leaching and erosion are identified below;

Leaching

- Analyse soil and manure
- Farm nutrient budgeting
- Restrict crop P and N applications
- Slow release fertilisers

Erosion

- Reduce cultivation
- Winter cover crops
- Crop planning and the managing of crop waste
- Rough seed beds and the use of tie-bunds to prevent irrigation erosion
- Establishment of cover crop, to prevent damage to vulnerable crops e.g. drilling barley in young carrots crops.

2.3.6. Farm Yard and Organic Manure Application

Ahead of use of any manure, consideration should be given to its origin, history of storage, consistency of delivery of nutrients, likely contaminants and due diligence with reference to analysis and appropriate dosage. Thus, the risks of any chemical (e.g. heavy metal) or biological contamination should be fully appreciated before application, and type, rate, date of application, quantity of application and accounting of such, should be appropriate for use. Account should be taken of leaching, and not causing odour problems.

We recommend that up to 50% of the nitrogen requirements for field crops, up to a maximum of 250kg/Ha, should be provided as organic manures.

2.3.7. Sewage Sludge

Under no circumstances must Untreated or Treated sludges be applied to land used to grow crops for Co-operative Retail. Advanced treated sludges must not have been used on land, which is to be used to supply produce to Co-operative Retail in a period of 12 months prior of production commencing.

2.3.8. Heavy Metals

Soil analysis to determine the levels of Lead & Cadmium must have been carried out for each field that is to be used for the production of Fresh Produce, within a period of five years. Rationale to limit the testing for these elements may be accepted, using historic and geological data. Reference to the maximum permissible concentrations of potentially toxic elements in soil (Annex 3), should be made and the use of land which exceeds these levels, is prohibited.

Certificates of analysis must be made available to Co-operative Retail on request and must be held for a minimum of five years.

2.4. Processing and Other Chemicals

All chemicals used in the production and processing of food, e.g. as additives to the washing water and in waxes for the protection of fruit and other business activities e.g. cleaning and printing, must be handled and recorded as for pesticides and fertilisers. This should include the development a COSHH assessment for each chemical based on its MSDS sheet and a protocol for its use in the specific situation of use, including storage, when not in use, in conditions that mirror the control of pesticides.

Ahead of use of any of these chemicals, please check with Co-op Retail that their use is acceptable. Use may need to be declared on the packaging. Co-op Retail also needs to be assured that any residual concentration of chemicals used is controlled and within its acceptable parameters. Rationale for the control and testing of any final rinse should be agreed with Co-op Retail. Water used should be of potable water quality standard.

The use of storage chemicals should be reduced and removed wherever possible. All alternatives such as temperature control and the use of non-chemical substances, which do not involve the risk of any residues e.g. ethylene control, should be considered before chemical controls are used.

2.5. Pesticide Analysis

An annual programme of pesticide analysis must be in place for products that are to be supplied to Co-operative Retail. A risk assessment must be in place to support the pesticide analysis programme. The analysis must include all active ingredients applied as a minimum, in addition, reference should also be made to proposed pesticide lists, Co-operative Retail pesticide lists, external or internal information, historical data and any current concerns. In some circumstances the Multi-residue Screen offered by many laboratories will not cover all active ingredients identified and thus further individual

analyses will be required. Residue analysis must be undertaken by a NAMAS or UKAS accredited laboratory.

Details of all results should be forwarded to Co-operative Retail on an annual basis. All results must be held for a minimum of 5 years.

All pesticide residues should be below the EU, UK Maximum Residue Level and the Codex levels.

In addition, Co-operative Retail will manage and maintain a programme of pesticide residue analysis with samples being drawn from produce in depot. A reputable third party laboratory will undertake analysis and details of analytical results will be communicated to the product supplier for appropriate investigation. Costs for this analysis will be borne by the suppliers involved.

2.6. Record Keeping

Identified below is a list of records that all suppliers/growers who are supplying Co-operative Retail must keep. Templates for some of these records can be found in the Fresh Produce Consortiums Code of Practice for the Control of Pesticides. There are also software packages available, e.g. in the UK, Muddy Boots and Farmplan.

Detailed records must be kept for the following

- a) Pesticide recommendations and applications. Appropriate records of all pesticide applications should be made and kept for a minimum of three years.
- b) Growers should also keep records of pest incidence and pest modelling information in crop or field diaries.
- c) Post harvest treatments.
- d) All fertiliser applications and the rationale for use.
- e) All water used for irrigation with supporting justification, i.e. litres per hour, per ha, as recorded by irrigation equipment, details of abstraction licenses, and rationale for use, e.g. SMD data, as it supports modelled crop growth.
- f) Field nutrient status, determined by sampling, analysis and calculation.
- g) Heavy metal analysis of soil.

All records required within this Code of Practice must be made available when requested by Co-operative Retail.

3. Health & Safety

A written Policy statement will acknowledge the responsibility of management for the health and safety of employees and stipulate how the Policy will be implemented in a manner which protects the health and safety of consumers, the public and its employees and others working on the premises.

Producers and suppliers must comply with safety legislation including compliance with the Health and Safety at Work Act, Control of Substances Hazardous to Health (COSHH) Regulations and the need to undertake Risk Assessments

COSHH assessments, driven from MSDS sheets, which are held on farm, for substances hazardous to human health must be reviewed at 12-month intervals.

Producers and suppliers must operate a written system, which verifies that appropriate safety instruction and information has been provided to and is understood by staff. Adequate arrangements must be made for dealing with those who are illiterate or for whom English is not their native language.

3.1. Personal Protective Equipment

Employees who work with pesticides must be provided with Personal Protective Equipment (PPE) where other controls are not reasonably practicable or fail to give the required level of protection.

The use of PPE must comply with any relevant conditions of approval for the pesticide as shown on the chemical MSDS sheet. Reference must also be made to the Code of Practice for the Safe Use of Pesticides on Farms and Holdings.

It is recommended that PPE is provided on a personal basis, but there may be circumstances when more than one person needs to wear the items concerned. In such cases the PPE must be cleaned and where appropriate, disinfected before being issued to the next wearer.

It is important to remove promptly any heavy contamination of PPE by pesticides as use of contaminated equipment leads to increased risk of exposure.

PPE must be inspected before, during and after each day's use so that damaged items can be repaired or replaced before further work with pesticides is undertaken.

Storage of Personal Protective Equipment (PPE) must be in a well-ventilated lockable cupboard separate from other clothing and non-pesticide items and should be appropriately located.

4. Water

Where pesticides and fertilisers are used in localities where water is being abstracted for drinking purposes, analysis should be undertaken to check that drinking water quality standards are being maintained. Samples should be taken at times of highest risk and analysis data may be examined during auditing. Co-operative Retail recommends that this work is carried out in conjunction with the local Environment Agency (EA), or local equivalent, and with respect to the CAMS policy document as produced by the EA. Similar considerations should be taken when water is used for crops grown outside the UK. Water UK website can be used as a resource, www.water.org.uk

Measures must be taken to eliminate where possible the risk of pollution from spillage or run off.

4.1. Water Used in Processing

Water can be drawn from any source providing its quality is satisfactory as per the Water Supply (Water Quality) Regulations, 1989 (in UK) equivalent standard should be applied outside the UK. Routine analysis (micro and chemical) shall be carried out for non-mains water supplies.

4.2. Waste or Dirty Water Disposal

Untreated dirty water must not be allowed to flow into watercourses.

The system used to store, handle and dispose of dirty water must be designed to cope with the amount and type of dirty water that is being produced. Any storage and handling system should include an allowance for sudden increases in volume, above that normally encountered, to prevent over flow to natural watercourses.

When water is used for washing or processing, wherever possible this water should be recycled

Water used for washing crops should not be spread on the land intended for the production of the same crop or similar type of crop due to the risk of spreading soil borne diseases, without robust and Co-op Retail approved treatment.

4.3. Irrigation

Plants under drought stress tend to be susceptible to pest attack, therefore adequate irrigation helps to avoid attacks in addition to improving yield and quality.

Optimum use must be made of irrigation by utilising a scheduling system, which is acknowledged as being technically sound, for each crop. Leaks within the water supply system must be minimised. Equipment should be operated at the correct pressures and pipe spacing. Appropriate calibration should be demonstrated for all equipment used, including water meters.

Crop water balance systems (based on ground cover development and soil type), neutron probes and other techniques can be used to help forecast the timing of irrigation and the priority order. A field inspection to examine the soil is essential to confirm when the profile is becoming dry. This should be appropriate to the soil type and depth and with respect to the crop. This detail should be recorded. Checking on the success of applied irrigation, using rain gauges and recording the detail of such visits should also be carried out after each water application. Application rate must be matched to infiltration capacity of the soil. ,

All water use should be recorded, i.e. litres per hour, per ha, as recorded by irrigation equipment, details of abstraction licenses, and rationale for use, e.g. SMD data, as it supports modelled crop growth.

The sources of water, applied to the land during production of crops, should be tested for chemicals notably heavy metals,(on a likely risk basis) and microbes. Collated

documentation, covering the last 12 months of use, on water quality should be presented regularly.

Irrigation water is a scarce resource and must be applied in accordance with need (water should only be used with respect to appropriate abstraction licences). Carry out a water audit and ensure all water-saving opportunities are used. Help on how to carry out a water audit can be obtained from www.water.org.uk. When purchasing new equipment or establishing new buildings, look for water efficiency products/designs. Consider establishing winter water storage, where this will not cause environmental damage, to the site flooded by the reservoir or to the watercourse filling the reservoir. Records of all irrigation should be kept. DEFRA good practice should be followed on irrigation, as outlined in 'Good Irrigation Practice'.

5. Land Control

5.1. Soil Quality

Under no circumstances should industrial, household or commercial wastes be applied to land, which is to be used for production of Fresh Produce for Co-operative Retail, without prior agreement with Co-operative Retail. Composted municipal waste may be used, but not without written consent from Co-operative Retail.

Please note that under the new waste regulations, manure taken from one holding to another is classified as waste. This may present problems for application and recording. Please fully investigate and justify its use before carrying out this procedure.

History of the land should be present for a minimum of five years. In addition, a risk assessment with respect to the past history of the land should be considered, e.g. has there been any historic industrial work or mining on that site. If any risk is established, robust residue testing for the likely contaminants should be carried out and such information presented to Co-operative Retail for discussion prior to cropping.

Records of soil analysis should be kept detailing both nutrients and heavy metals. Soils that exceed the maximum allowable content of Heavy Metals (Annex 3) must not be used to grow products for Co-operative Retail.

5.2. Atmospheric Deposition

Contaminants, which arise from human activities, may cause large deposits near to a source such as an industrial complex. Therefore it is important that produce supplied to Co-operative Retail is not grown close to such sites. Additionally, crop production should be undertaken as far away from motorways and other major road networks as possible to reduce the risk of contamination from these sources.

5.3. Soil Fumigation

Under no circumstances must Methyl Bromide be used as a soil fumigant for medium, which is to be used to produce products for Co-operative Retail.

5.4. Plant Substrate Policy

Product will often be grown in compost either during propagation or in the final pot. This compost has for many years frequently been peat based, for which there is increasing environmental concern. Co-operative Retail requires all compost used to come from managed sources with minimum impact on the environment, working towards an ideal of using entirely renewable material. Please refer to our Peat Policy for targets on reducing the use of peat. Appropriate use of growing media should be discussed with Co-operative Retail, as much progress has also developed in using reduced amounts of peat per plant, e.g. by developing better watering mechanism in plant raising techniques.

Accordingly, the grower/retailer supplier must ensure that the media supplier has a comprehensive environmental management policy. This should include environmental impact assessment and land restoration policies to nature conservation after-use, wherever appropriate. For peat, these policies should require plans and resourcing to achieve direct restoration to lowland mire conditions, including leaving a suitable peat depth for restoration and maintaining mire refuge for peat land wildlife covering 10% of each worked site at all times during extraction.

Substrate must not be extracted from any SSSI/ASSI in the UK or from any sites of recognised national importance in other countries, e.g. Natura 2000 sites. No peat should be taken from bogs where the surface vegetation has been removed, damaged or set aside for commercial extraction after 1 January 1997: all peat must come from bogs in commercial production at that date. All substrate used should be traceable to source.

Growers must seek to minimise the use of non-renewable resources. Co-operative Retail recognises that it may not currently be possible to completely replace the use of some non-renewable products. It requires growers to substitute the use of non-renewable resources with renewable ones wherever possible, as and when suitable products become available. This may take the form of partial substitution by renewable products and involve the gradual increase in the proportion of renewable material, towards the environmental ideal of using entirely renewable materials.

6. Variety Selection

When choosing a variety to be grown for Co-operative Retail consideration should be given to:

- Resistance to pests and diseases
- Growth habit and physical structure
- Likely quality of harvested crop (in line with specifications)
- Flavour, texture and colour
- Suitability for local growing conditions
- Yield

7. Desiccation

Co-operative Retail encourages growers to minimise the use of Sulphuric Acid, e.g. when used for the destruction of potato haulm, and requires an end to its use by 2005.

Records of all desiccants used must be kept for a minimum of three years.

8. Harvesting

All harvesting or handling equipment used should be practically clean and of such a condition that minimises the risk of damaging the harvested crop. Once harvested, the crop should be transferred immediately to the storage or processing site. All precautions should be taken to ensure that the harvested crop does not become contaminated.

9. Storage

Steps must be taken to reduce or eliminate where possible the use of chemicals both on produce for the control of pests and disease and for the cleaning of the storage facilities.

The need for storage chemicals can be minimised through application of a harvest and storage management strategy which must include consideration and use of, where possible, non-chemical methods.

Store hygiene must be of the highest standard to reduce the risk of pest infestation, once again the use of chemicals to clean storage facilities must be minimised.

Methyl Bromide has been identified as an ozone depletor and the use of this chemical on Co-op Brand Products has been prohibited.

10. Post Harvest Treatments (Fresh Produce only)

The use of all post harvest treatments (including waxes and preservatives) must be in accordance with all EU legislation.

Co-operative Retail is seeking to prohibits the use of waxes of animal origin e.g. Shellac, Beeswax on all fresh produce.

11. Product Quality

All produce supplied to Co-operative Retail must meet all requirements laid down within the code of practice and appropriate specification.

All finished products must be within all limits identified within EU legislation in respect of contaminants e.g. Nitrates and Heavy Metals.

12. Traceability and Auditing

12.1. Traceability

All suppliers of fresh produce must operate a system of stock/production control 'lot identification' in order that the passage of a particular consignment is documented, from receipt through to distribution. Any complaint or adverse residue report can then be traced back to the particular consignment. Consignments should be traceable back to a specific field.

The lot identification method should include intake date, supplier name or code, consignment number and grower name or code. Production quality control and/or distribution personnel must ensure that lot identification details are transferred to despatch records.

Where available computer/database systems should be considered to assist with traceability.

All records relating to Fresh Produce supplied to Co-operative Retail must be held for a minimum of 3 years.

12.2. Site Inspection Visits

All suppliers of Fresh Produce to Co-operative Retail should work closely with Co-operative Retail technical staff, to ensure that the requirements of all specifications and codes of practice are strictly adhered to.

Access to fields, storage areas and processing areas used for the production of raw materials for Co-operative Retail must be provided on request Co-operative Retail.

Records must be accurately maintained and regularly updated at all times. Copies of all records should be made available to Co-operative Retail on request.

Co-operative Retail reserves the right to instruct a third party to carry out an agronomic audit to validate the growers' compliance with this code of practice.

This will be carried out at the suppliers cost.

13. Energy Management

Most energy used in farming is generated from fossil fuels and is therefore a limited and valuable resource. Steps should be taken to improve efficiency of energy use and to minimise wastage. This involves,

Carrying out a farm energy audit, per unit, per year, to ensure that all energy consumption on the farm is as efficient as possible. Please refer to Farm Energy centre for template of how to carry this out, www.fecservices.co.uk

- Adoption of energy saving measures such as improved insulation of buildings, double-glazing, regular maintenance of vehicles and machinery, remote control activation and shut off systems.
- Assessing fuel requirements of different field operations as part of the decision process
- Consideration of the possible use of alternative sources of fuel, other than fossil fuels, e.g. bio diesel
- Combining field operations to save fuel, e.g. minimum tillage, where possible
- Minimising haulage distances
- Investigating alternative energy sources, such as wind power, solar energy and biofuels and adopting them if economically viable.
- Considering carefully the energy cost of producing Nitrogen fertiliser. It is possible to consider the use of sources of N fertilisers that are co- products of existing industrial production, thus delivering a net saving in energy consumption.
- Energy audits should be carried out and be available for inspection.

14. Waste Management and Pollution Prevention

The handling of waste on farms costs money and can potentially be a source of pollutants of the soil, air or water. Waste products should where possible be reused or recycled or minimised if not. Management of waste and pollution prevention involves,

- Identifying and recycling most organic wastes and some inorganic materials
- Minimising non-usable wastes and disposing of them responsibly
- Storing fertilizers, manures and crop protection products securely and in accordance with legislation
- Keep accurate stock records
- Creating emergency action procedures to minimise the risk of pollution from accidents

15. Wildlife & Landscape Conservation

A written Policy Statement will specify a commitment to wildlife and landscape conservation and enhancement and indicate how the Policy will be implemented.

It will also preclude the clearing of any primary forest or destruction of aquatic or terrestrial habitats of specific scientific or cultural interest.

Suppliers must provide and implement a whole farm conservation plan that addresses the conservation and enhancement of flora, fauna and landscapes. This should be to a standard laid down in UK ELS, or the national equivalent, where this exists. The existing wildlife habitats and landscape character should be assessed and evaluated and from this a plan should be prepared, implemented and periodically reviewed (at least every five years). The objectives of the plan should be to protect and encourage diversity of wildlife and respect and enhance landscape character. The assessment and evaluation need to be undertaken by those with appropriate skills.

Wildlife protection and enhancement proposals should:

- Promote the maintenance and enhancement of biodiversity and traditional landscapes both in and around the farmed area, by contributing to the delivery of local and/national biodiversity priorities (e.g. National Biodiversity Strategy and Action Plans)
- Acknowledge and respect officially designated environmental sites and comply with local/national/international wildlife and other relevant legislation (e.g. Special areas of Conservation, Ramsar sites),
- Provide for the responsible management of existing areas of semi-natural habitat, such as field boundaries, watercourses, wetlands, botanically rich grassland and woodland. Field margins, including hedge bottoms and the sides of waterways can be valuable wildlife habitats, and there must be a policy for ensuring these are properly managed so that wildlife is protected and if possible enhanced. Particular care must be taken to avoid contaminating field margins when applying fertilisers and pesticides and there must be compliance with any statutory requirements regarding use in their proximity e.g. buffer zones,

- Take advantage of management options within set-aside rules to maximise the benefit of set aside land for wildlife (EU producers only),
- Consider the potential for creating areas of appropriate new habitat. Establish networks of habitat (wildlife corridors) by providing and maintaining rough grass strips adjacent to woodland and along the sides of ditches and hedges which join existing habitats on the farm holding,
- Encourage the take-up of conservation management advice
- Encourage participation in agri-environment schemes (if available)

Landscape must be protected by:

- Assessing existing landscapes and including the maintenance of features in the whole farm conservation management plan,
- Responsibly managing footpaths and bridle ways and any features and buildings of historical importance.
- Ensuring new developments comply with planning requirements, are designed and constructed to harmonise with the existing landscape character, do not unnecessarily utilise good quality agricultural land and do not destroy valuable wildlife habitats. Where development will result in habitat loss, mitigation measures are necessary.
- Where land is rented on a long-term or regular basis every effort should be made to seek and select land being managed in an environmentally responsible way. When utilising rented land, productions must be in accordance with the guidance set out in this Code of Practice.

Annex 1

Co-operative Retail Proposed Prohibited Pesticides, (subject to consultation with Co-op Retail)

(Please note that this list will be developed into 2 sections, to reflect absolutely no use and highly controlled use, under agreed terms).

1,2-Dibromoethane	Chlordecone	Ethoprophos	Isodrin
2,4,5-T	Chlordimeform	Ethyl phosphonothionate compounds	Lindane
Acetochlor	Chlorethoxyfos	Ethylene Dibromide and	Linuron
Acrylonitrile	Chlorfenvinphos	1,2-Dibromoethane	Maleic Hydrazide *
Alachlor	Chlormephos	Ethylene Dichloride	Maleic- Hydrazide K Salt *
Aldicarb	Chlorobenzilate	Ethylene Oxide	Maneb
Aldrin	Chloroform	Ethofenprox	Mercury- Compounds
Amicarbazone	Chlorophacinone	Fentin Acetate	Metam Sodium
Amitraz	Clopyralid and associated compounds	Fentin Hydroxide	Methamidaphos
Amitrole	Creosote	Flocoumafen	Methoxychlor
Atrazine	Crocidolite	Fluazifop-butyl	Methyl Bromide
Azobenzene	DBCP	Flucythrinate	Mevinphos
Benzene	DDT	Flumioxazin	Mirex
Binapacryl	Demeton-s-methyl	Fluometuron	Monocrotophos
Brodifacoum	Dichlorvos	Fluoroacetamide	Nitrofen
Bromadiolone	Dicofol	Fomesafen	Nuarimol
Bromethalin	Dieldrin	Fonofos	Omethoate
Butralin (TBTO/TBT)	Difenacoum	Formaldehyde	Oxydemeton- Methyl
Cadmium compounds	Difethialone	Haloxyfop Compounds, except haloxyfop-ethoxyetyl, (which is not listed at all)	Parathion
Cadusafos	Dinoseb	HCB/Hexachlorobenzene	Parathion- Methyl
Calcium Cyanide	Diphacinone	HCH	Pentachlorophenol
Captafol	Dipromochloropropane	Heptachlor	Sodium- Pentachlorophenoxide
Carbofuran	Disulfoton	Hexachlorobenzene	Pentachlorophenyl- laurate
Carbon- tetrachloride	Endrin	Imazaquin	Perchloroethylene
Chlordane	EPN/ Ethyl-O-(p-nitrophenyl) phenyl-phosphonothionate	Imazaquin- ammonium	Phenylmercury acetate

Co-operative Retail Proposed Prohibited Pesticides, (subject to consultation with Co-op Retail) contd.

Phorate	Simazine	Tetrasul	Trifloxysulfuron
Phosphamidon	SSF 126	Thiram	Trifluralin
TBTO/TBT/ Butralin	Sodium- Fluoroacetate	Toxaphene	Triphenyltin- Hydroxide
Polybrominated Biphenyls	Sulfallate	Triarathene	Tris-(2,3 dibromopropyl)- phosphate
Polychlorinated- Biphenyls	Sulfentrazone	Triazoxide	Vinclozolin
Polychlorinated- Terphenyls	Sulfotep	Tributyltin	Zineb
Propargite	Tebupirimfos	Trichlorfon	
Prothiofos	Terbufos	Trichlorobenzene	
Silafuofen	Terbumeton	Trichloroethylene	

* The reason that Maleic Hydrazide is on the prohibited list is due to the presence of contaminants in the commercial product, including the anhydride form. It is now understood that more recent formations do not contain this contaminant. Please discuss with Co-op Retail before use.

Annex 2

Co-operative Retail Monitored Pesticides

Trichloroethane compounds	Azinophos ethyl	Butocarboxim	Cloquintocet compounds
2,2'-thiobis (4,6dichlorophenol)	Azinophos- methyl	Butoxycarboxim	Coumaphos
2,4,6-tri-tert- butylphenol	Azocyclotin	Butoxydim	Coumatetralyl
2,4-D	Bendiocarb	Cacodylic Acid	Cyanazine
2,4diclorophenol	Benfluralin	Calcium Arsenate	Cycloxydim
2-Chlorophenol	Benocacor	Captan	
3,5-bis(1,1 dimethylethyl)-phenol	Benomyl	Carbaryl	Cyhalothrin
3-chloro-1,2- propaniol	Bensulfuron- methyl	Carbendazim	Cyhexatin
4,6-di-tert-butyl- m-cresol	Bensulide	Carbophenthiion	Cymoxanil
4-Chloro-3methylphenol	Bentazone	Carbosulfan	Cypermethrin
4-sec-butyl-2,6 di-	Bifenox	Carfentrazone-ethyl	Cyphenothrin
tert-butylphenol	Bifenthrin	Chinomethionat	Cyproconazole
Acephate	Biphenyl	Chlorfenethol	Daminozide
Acequinocyl	Bis(chloroethyl)ether	Chlorfluazuron	DCPA
Acetaldehyde	Bistrifluran	Chlornitrofen	DDD
Acifluorfen	Blasticidin-S	Chloronitrotoluenes	DDE
	Borax	Chlorothalonil	DFDT
Acrinathrin	Bromacil	Chlorphonium- chloride	Diafenthiuron
Acrolein	Bromocyclene	Chlorpyrifos	Diallate
AD67(MON4660)	Bromodiolone	Chlozolinat	Diazinon
Allyl Alcohol	Bromophos	Cinosulfuron	Dibromochlorpropane
Alpha- cypermethrin	Bromophos-ethyl	Clodinafop-propargyl	Dicamba
Aramite	Bromopropylate	Clofencet compounds	Dichlobenil
Arsenic	Bromoxynil compounds	Clofentezine	Dichlone
Asulam	Butachlor	Clomazone	Dichloroethane

Co-operative Retail Monitored Pesticides contd.

Dichloropropene	Ethion	Flumetralin	Hydramethylnon
Diclofop compounds	Ethiozin	Flumetsulam	Hydrogen Cyanide
Dichloroprop	Ethirimol	Fluometuron	Imazalil/Imazalil- sulphate
Dicrotophos	Ethofenprox	Fluoroacetamide	Iminoctadine/ Iminoctadine-
Difenoconazole	Ethofumesate	Fluoxetine- hydrochloride	Triacetate/ Iminoctadine-
Diflufenican	Ethoprop	Fluquinconazole	Tris (Albesilate)
Diflufenzopyr	Etioazole/Etridiazole/ Terrazole	Flusilazole	Iodofenphos
Dimefuron	Famphur	Fluthiacet-methyl	Ioxynil compounds
Dimethametryn	Fenarimol	Flutolanil	Iprodione
Dimethenamid	Fenazaquin	Folpet	Isazofos
Dimethipin	Fenamiphos	Formetanate	Isobenzan
Dimethoate	Fenbuconazole	Furathiocarb	Isofenphos
Dinocap	Fenbutin Oxide	Furilazole	Isoproturon
Dinoterb	Fenitrothion	Furmecyclox	Isoxaben
Dioathion	Fenpropathrin	Glufosinate -ammonium	Isoxaflutole
Diuron	Fenpyroximate	Glyphosate and ass compounds	Isoxathion
DNOC	Fenvalerate	Halofenozide	Kinoprene
Edifenphos	Fipronil	Heptenophos	Kresoxim Methyl
Endosulphan	Fluazifop-P-butyl	Hexachlorobutadiene	Lactofen
Esfenvalerate	Fluazolate	Hexaconazole	Lambda- Cyhalothrin
Ethalfuralin	Fluazuron	Hexaflumuron	Lead Arsenate
Ethametsulfuron compounds	Flubenzimine	Hexazinone	Lenacil
Ethiofencarb	Flucycloxuron	Hexythiazox	Leptophos

Co-operative Retail Monitored Pesticides Contd.

Lufenuron	Nirolidol	Phosmet	Propyzamide/ Pronamide
Malathion	Nitrapyrin	Phoxim	Proquinazid
Mancozeb	Norflurazon	Picolinafen	Prosulfuron
Mancopper	Orthophenylpenol	Pimozide	Pymetrozine
Mecarbam	Oryzalin	Pindone	Pyrethrins
Mecoprop	Oxadiazon	Piperonyl butoxide	Pyridaben
Metalaxyl - M	Oxadixyl	Pirimiphos-methyl	Pyrimethanil
Metamifop	Oxamyl	Prochloraz	Pyriproxyfen
Methidathion	Oxasulfuron	Procymidone	Pyriothiobac- sodium
Methiocarb	Oxyfluorefen	Prodiamine	Quintozene
Methomyl	Oxythioquinox	Profluralin	Quinmerac
Metolachlor	Paclobutrazol	Prometryn	Resmethrin
MGK-264	Paraquat dichloride	Pronamide	Sibelium
Miconazole	Paris Green	Propachlor	Siduron
Milbemectin	Penconazole	Propanil	Sodium Arsenate
Mitotane	Pendimethalin	Propaphos	Sodium Chlorate
Molinate	Penfluridol	Propaquizafop	Sodium Cyanide
Monuron	Pentachloronitrobenzene	Propazine	SSF-126
Naphthalene	Permethrin	Propetamphos	Strobane
Ni dithiocarbs	Pirimicarb	Propiconazole	Strychnine
Nicotine	Phenothrin	Propoxur	Sulfluramid

Co-operative Retail Monitored Pesticides contd.

Sulfosulfuron	Thidiazuron	Triflusulfuron Methyl	
Sulprofos	Thiodicarb	Trikloronat	
TBTO	Thiofanox	Uniconazole	
Tebuconazole	Thiometon	Vamidotion	
Tebufenpyrad	Thiophanate-methyl	Warfarin	
Tebutryn	Triadimenol	Xylene	
Tefluthrin	Triticonazole	Zeta Cypermethrin	
TEPP	Tolclofos-methyl	Zinc- Phosphide/Phosphine	
Terbacil	Toluene	Al and Mg phopsphine	
Terofenamate	Tralkoxydim	Ziram	
Terrazole/Etridiazole	Tralomethrin		
Tetrachloroethane	Transfluthrin		
Tetrachlovinphos	Triadimefon		
Tetraconazole	Triallate		
Tetradifon	Triazophos		
Tetramethrin	Tribenuron Methyl		
Thallium Sulfate	Triclocarban		
Thiabendazole	Tridemorph		
Thiamethoxam	Tridiphane		
Thiazopyr	Triflumizole		

Annex 3

Maximum Permissible Concentrations of Potentially Toxic Elements in Soil (mg/kg dry solids)

Potentially Toxic Elements	Maximum Permissible Concentrations of Potentially Toxic Elements in Soil (mg/kg dry solids)
Zinc	200
Copper	80
Nickel	50
Cadmium	3
Lead	200
Mercury	1
Chromium	400
Molybdenum	4
Selenium	3
Arsenic	50
Fluoride	500

Request for use of a Pesticide on the Prohibited Pesticide List i.e. Annex I of the Code of Practice, Fresh and Freezing Produce, version 4

Fax to 0161 827 5750

Crop		Date	
Packer		Grower	
Pesticide		ai	
Date of Planting			
Pest/Disease			
Rationale for use			
Alternative, either cultural or chemically?			
What prevention methods are available?			
Dose rate requested		% of full rate?	
No of applications requested?		Timing i.e. interval between appellations	
Harvest Interval		Stewardship and engineering mechanism that prevent environmental issues	
Time scale for exit		Signed off (Co-op)	

Please use additional sheets, if required, to explain rationale for use.