



# **ANNUAL REPORT OF THE SASA GM INSPECTORATE**

## **GM Inspection and Enforcement Activities**

*Covering the period 1 April 2004 to 31 March 2005*

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## 1. SUMMARY

1.1 The GM Inspectorate is based at the Scottish Agricultural Science Agency (SASA) and has authority under part VI of the Environmental Protection Act 1990 for inspection and enforcement of the release and marketing of genetically modified organisms (GMOs) in Scotland.

1.2 This is the fifth report of the GM Inspectorate since taking over responsibility from the HSE for inspection and enforcement functions in May 2000. The report covers the period 1 April 2004 and 31 March 2005.

1.3 The report describes the three main work areas of the GM Inspectorate; (1) inspection of research and developments trial sites where GMOs have been authorised for release, (2) management audits of deliberate release consent holders and (3) audits of seed merchants and importers to ensure they are taking appropriate steps to prevent the adventitious presence of GM events in conventional seed. This work is undertaken to ensure compliance of the GM legislation covering the release and marketing of GMOs as set out in the Genetically Modified Organisms (Deliberate Release) (Scotland) Regulations 2002 and Environmental Protection Act (1990). It is also the responsibility of the GM Inspectorate to identify and investigate potential infringements of the legislation on a case-by-case basis, and take action as appropriate.

1.4 In Scotland, the last active GM research trial was terminated on 9 March 2004. During the reporting year, inspections were confined to evaluating whether six former release sites, under going post-harvest monitoring, were compliant with the conditions of specific consents. A further eleven sites under rotational restrictions, were also checked to ensure an appropriate follow-on crop was being grown until the sites are allowed to be brought back to normal cultivation. In all cases the conditions of the consents were met. No issues of harm to human health or the environment were identified. Monitoring will continue until the post-harvest conditions of their consents are fulfilled.

1.5 In connection, with deliberate releases a postal management audit was conducted along with the CSL GM Inspectorate on a consent holder who has active consents in both England and Scotland. The consent holder was responsible for 12 deliberate release sites in Scotland. The audit provided assurance that the consent holder had implemented appropriate management procedures to ensure post-trial monitoring, appropriate cropping and reporting is undertaken in accordance with the consent conditions.

1.6 There were no field releases in Scotland of GM plant varieties that had marketing consents under the Deliberate Release Directive 2001/18/EC during the reporting year.

1.7 SASA and SEERAD's ongoing seed monitoring programme continued throughout the year. Biannual surveys of the Scottish seed industry are undertaken jointly in the spring and autumn. These surveys indicated that imported seed of beet, oilseed rape, maize and some related species to oilseed rape and beet was traded by c. 28 % of the merchants, processors or packers (MPP) registered in Scotland. With the exception of three seedlots of Kale seed, all the seed surveyed in 2004 was imported *via* England.

1.8 Whilst the majority of Scottish seed merchants did not import seed directly into Scotland, they nevertheless have a duty of care to ensure that non-GM seed was free of unapproved GM events. To establish that reasonable steps had been taken to achieve this, the Inspectorate visited a selected sample of eight seed merchants and carried out audits during the year. Four audits were conducted for spring-sown crops (oilseed rape, beet and maize) and for winter-sown oilseed rape. On completion of the auditing procedure, the

SASA Inspectorate had no reason to suspect the presence of GM material in any of the seed marketed by the eight companies. Reports covering the two audits are given in Annex 2 and 3.

1.9 In the previous reporting year, the GM Inspectorate presented a case concerning adventitious GM presence in a seedlot sown in the Farmscale Evaluation trials to the Procurator Fiscal's Office in Fife. On 17 June 2004 the Procurator Fiscal Service returned the case and reported that there would not be a prosecution. During the reporting year, no incidents had either come to the attention or been reported to the GM Inspectorate. The GM Inspectorate did not carry out any enforcement sampling or testing.

1.10 The GM Inspectorate has regularly commented throughout the year on a range of GM issues from inspection, agronomic and scientific perspectives. These have included marketing consent dossiers, management of former deliberate release sites, development of proposals for the Executive's policy on co-existence measures and evaluation of GM related research proposals. Advice on co-existence measures for Scotland included a desk study on the practicalities at the field production stage.

1.11 The GM Inspectorate participates in a number of enforcement groups that operate at a national and European level. These include the GM Enforcement Liaison Group within the UK which attempt to ensure there is a consistent and effective approach to GM enforcement across government departments and enforcement agencies and the European Enforcement Project (EEP) within Europe. The EEP focuses on contained use and deliberate release issues across European Union (EU), European Economic Area (EEA) and European Free Trade Association (EFTA) members.

1.12 The GM Inspectorate regularly attends training courses and relevant conferences to maintain their technical competence and knowledge. Training included an annual Crown Office Seminar for Specialist Reporting Agencies and a course on PCR diagnostic techniques at the Glasgow Caledonian University. Inspectors also attended conferences and workshops on co-existence measures and techniques for post-market monitoring of GM crops.

1.13 SASA's Diagnostics and Molecular Biology Section (DMB) provides a GM diagnostic service for the GM Inspectorate. One inspection sample from a potato field undergoing post-trial monitoring was tested and found to be negative for the GM screening assays performed. During the reporting year the Section undertook three projects: the testing of plasmid-based controls for plant material in PCR assays, development of a real-time PCR method for the quantification of GM oilseed rape event and a validation study of GM maize GA21 quantification using real-time PCR.

## **2. INTRODUCTION - THE REGULATORY FRAMEWORK**

In the UK the EU Directive 2001/18/EC is implemented via the Environmental Protection Act (1990) and the Genetically Modified Organisms (Deliberate Release) (Scotland) Regulations 2002. These provide a statutory safety procedure, involving risk assessment, and the need for prior approval before any GMO can be released or marketed. This is a devolved responsibility. The Executive consents to the release of GM crops for research and development purposes in Scotland. Defra acts as a clearing house for applications for deliberate release; provides the secretariat for the Advisory Committee on Release to the Environment (ACRE) (see below); and co-ordinates the international presentation of UK policy.

The EU Directive recognises two classes of release depending upon their purpose: Part B releases for research and development and Part C releases for placing on the market. In the UK, Part B consents are granted, on a case-by-case basis, after a detailed risk assessment has been submitted to the Northern Ireland, England, Wales and Scotland GM Unit (NIEWS)<sup>1</sup> in Defra and considered by ACRE, a statutory Advisory Committee, consisting of independent scientific experts who advise on the risks to human health and the environment from the release of GMOs. The committee advises Scottish Ministers on whether an application for a release in Scotland should be allowed. Ministers also take advice from the Health and Safety Executive, the Food Standards Agency and Scottish Natural Heritage as appropriate. Consents set out the conditions and limitations governing releases. Part C releases are granted at the EU level and are effective throughout the EU.

Compliance with the above legislation regulations is established by official inspection, to ensure that releases are being conducted in accordance with the conditions of consents. Non-compliance with consent conditions can lead to enforcement action including, where necessary, the prosecution of consent holders. SASA took responsibility for the inspection and enforcement of the deliberate release and marketing of GMOs in Scotland in May 2000.

The GM Inspectorate at the Central Science Laboratory (CSL) is contracted by Defra to carry out the equivalent inspection and enforcement service for England and Wales.

In April 2004, a new approval procedure, under Regulation EC/1829/2003 was introduced. The scope of this regulation is the marketing of any GMO whose produce, or derived products, that are intended for food or feed, including the cultivation of crop plants that are intended for these uses. The majority of marketing applications, will in future, be processed through this new regulation. The regulation provides a single unified approval process for food and feed uses, which will not then require approval under Part C of Directive 2001/18/EC. The initial application is made through the competent authority of a member state but the lead responsibility for processing the applications rests with a central body, the European Food Safety Authority (EFSA). For applications including cultivation an environmental risk assessment in keeping with the requirements of 2001/18/EC is required, and EFSA is obliged to consult the 2001/18 competent authorities concerning environmental risk assessments. The Foods Standards Agency will lead on these applications in the UK while the role of ACRE is to advise on the environmental risk assessments provided with applications for cultivation. Allied to this regulation are new traceability and labelling rules, EC/1830/2003, which include a threshold of 0.9%, above which the adventitious presence of material from an EU authorised GMO in a non-GM product triggers traceability and labelling of the product.

Enforcement of these regulations (1829/2003 and 1830/2003) in Scotland is the responsibility of Local Authority Environmental Health (food) or Trading Standards (feed) Departments.

### **3. THE WORK OF THE GM INSPECTORATE DURING THE REPORTING PERIOD**

The work plan agreed between the GM Inspectorate and SEERAD covering the period 1 April 2003–31 March 2004 is given in Annex 1 of this report.

The report describes the three main work areas of the GM Inspectorate; (1) inspection of research and developments trial sites where GMOs have been authorised for release, (2) management audits of deliberate consent holders and (3) audits of seed merchants and importers to ensure they are taking appropriate steps to prevent the adventitious presence of GM events in conventional seed. This work is undertaken to ensure compliance of the GM legislation covering the release and

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<sup>1</sup> Formerly the Joint Regulatory Authority

marketing of GMOs as set out in the Genetically Modified Organisms (Deliberate Release) (Scotland) Regulations 2002 and the Environmental Protection Act (1990). It is also the responsibility of the GM Inspectorate to identify and investigate potential infringements of the legislation on a case-by-case basis, and take action as appropriate.

### **3.1 Inspections**

Inspections are conducted on GM crop research trials (Part B consents) using a standard operating procedure and a checklist by field inspection, and examination of the site operator's records. They are conducted during an experimental release and for a set period following the termination of the trial to ensure that post-harvest monitoring procedures, such as the control of volunteers or subsequent cropping, are being carried out in accordance with the conditions of a consent.

There is also a period following official monitoring, where cropping is restricted until the site can be returned to a normal agricultural rotation. In these cases the follow-on crops are checked to ensure they are in accordance with the conditions of a consent.

Draft inspection reports are sent to the GM Co-ordination Team of the Scottish Executive after each inspection<sup>2</sup>. Final inspection reports are then placed on the Scottish Executive's website at <http://www.scotland.gov.uk/Topics/Environment/15159/16919>.

During the reporting period inspections covered three types of GM crop research trials namely, farmscale evaluation, variety and seed registration, and research and development trials and two crop types comprising oilseed rape and potato. As the last active GM trial was terminated on 9 March 2004, annual routine inspections were carried out on the six research trials that were under going post-trial monitoring. A further ten sites were checked to confirm that the fields met the cropping restrictions set out in the consents before they can return to a normal agricultural rotation. In all cases the Inspectorate could confirm these conditions in the consents had been met.

The GM Inspectorate took one a sample of a potato volunteer that was found on a deliberate release site that was still undergoing post-harvest monitoring. The sample was tested and found to to be negative for the GM screening assays performed.

At all these sites no risks to human health and the environment were identified.

### **3.2 Management audits of consent holders**

The GM Inspectorate has an on-going programme to audit current Scottish consent holders. Whereas inspections assess compliance at individual deliberate release sites, auditing the management procedures of consent holders at their headquarters provides an overview of their ability to organise and implement releases throughout the life of a consent. The purpose of these audits is to verify that consent holders are aware of their responsibilities for ensuring that the correct procedures and protocols for conducting GM field trials are in place, and that the conditions of a release are known throughout the management chain. Consent holders are required to show evidence of a duty of care by demonstrating that only materials with modifications covered by the consent are released. Further checks are made on the post-trial monitoring procedures and appropriate post-trial cropping as detailed in the consent. Management audit reports are submitted to the GM Co-ordination Team of Scottish Executive.

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<sup>2</sup> The locations of these sites and the inspection reports can be found on the Scottish Executive's Genetic Modification website (<http://www.scotland.gov.uk/gm/trials.asp>).

The CSL and SASA GM Inspectorates conducted a joint postal management audit on a consent holder that has related active consents in both England and Scotland on 29 March 2005. The consent holder was responsible for 12 deliberate release sites in Scotland during the reporting year. On the basis of information provided by the consent holder, the Inspectorates were satisfied that the consent holder had implemented management procedures to ensure that post-monitoring, appropriate cropping and reporting is undertaken in accordance with the consent conditions.

### ***3.3 Auditing marketing consents including inspection, sampling and testing of shipments***

There were no field releases in Scotland of GMOs that had marketing consents under the Deliberate Release Directive 2001/18/EC during the reporting year.

As from April 2004, the responsibility for inspecting the importation and marketing of approved GMOs for food and feed purposes, under the EC Regulation 1829/2003 and 1830/2003, falls in Scotland to Local Authority Environmental Health (food) or Trading Standards (feed) Departments.

### ***3.4 Monitoring the sale of conventional seed that may be at risk from adventitious GM material***

Under the Directive 2001/18/EC, GM seeds cannot be sold in Europe unless their GM events have been granted a marketing (Part C) consent. Importers and merchants of non-GM seed must take all reasonable steps to ensure that there is no adventitious presence of unapproved GM events before obtaining or marketing conventional seed. The GM Inspectorate has the statutory powers to enter premises of seed companies and to carry out inspections where it suspects that there may be a possibility that the Environmental Protection Act (1990) and GMO Regulations are not being met.

As a result of finding unapproved, adventitious GM material in non-GM oilseed rape varieties in the spring of 2000, which led to crop destruction, many countries in Europe introduced mechanisms to prevent similar incidents from re-occurring. In the UK, the GM Inspectorates were asked to develop programmes for auditing seed imports for the presence of adventitious GM events in non-GM seed, paying particular attention to imported seed in beet, oilseed rape, maize and soya bean. In 2004 the list was extended in Scotland to include species and sub-species that are related to oilseed rape (*Brassica napus*, *B.rapa*, *B.juncea* and *B. oleracea*) and beet (*Beta vulgaris*). Scottish programmes start by surveying seed merchants to establish which companies are marketing seed of the relevant species and whether they imported the seed directly into Scotland. Surveys are then followed up by auditing a selected number of merchants to provide evidence that they have taken appropriate steps to ensure that the seed being marketed does not contain GM material.

#### ***3.4.1 Biannual Surveys***

Biannual surveys of the Scottish seed industry are conducted jointly by SASA and Plants, Horticulture and Potatoes staff in the spring and autumn of each year. With the exception of three lots of Kale seed, all the seed that was surveyed was imported via England. No Soya seed was traded in Scotland.

On completion of the spring 2004 audit, out of the one hundred and ninety-six Scottish registered seed merchants, processors and packers (MPPs), thirty-eight

had failed to reply. Fifty-eight (29%) of the MPPs had traded in one or more of the species of interest. Companies that traded in spring crops (including related species) were as follows:

- 35 in spring oilseed rape
- 11 in maize,
- 23 in fodder beet and beetroot
- 46 in swede
- 47 in turnip
- 9 in mustard, and
- 38 in related *Brassicas*.

Fifteen MPPs previously known to trade these species no longer did so. Eighteen MPPs who did not trade in the species of interest, according to the 2003 questionnaires, now do so.

On completion of the autumn 2004 audit out of the one hundred and ninety MPPs, seventeen had failed to reply. Fifty-four (28%) of the MPPs had traded in one or more of the species of interest. These were as follows:

- 38 in winter oilseed rape (swede or turnip)
- 28 in swede,
- 32 in turnip, and
- 19 in related *Brassicas*.

Seventeen MPPs previously known to trade the species of interest no longer did so. Fourteen MPPs who did not trade in the species of interest, according to the 2003, questionnaires now do so.

### **3.4.2 Seed Audits**

During the reporting year, the Inspectorate visited eight seed merchants and carried out audits, which involved follow-up action and cross-referencing SASA and CSL audit information. Four audits were conducted for spring-sown crops (oilseed rape, beet, maize and related *Brassicas*) and four for winter sown oilseed rape (and related *Brassicas*).

During the autumn audit the CSL GM Inspectorate were unable to cross reference all of the seedlots investigated during the audit of two seed merchants (CSL aim to audit c. 90% of seed imported into England). However, the SASA Inspectorate were able to obtain satisfactory assurances from the two Scottish seed merchants to be satisfied that they had demonstrated 'due diligence' in obtaining assurances from their suppliers and that the seed that was supplied to them was free from adventitious GM material. As a result of the audit procedure seed sold by the Scottish seed merchants were found to have taken appropriate measures to ensure that the conventional seed that they were marketing did not contain unauthorised adventitious GM material.

The SASA Inspectorate had no reason to suspect the presence of GM material in any of the seed marketed by the eight companies.

The spring 2004 and autumn 2004 seed audit reports are at Annex 2 and 3.

### **3.5 Case by case investigations of potential enforcement cases**

In the previous annual report the GM Inspectorate reported a second case concerning adventitious GM presence in a seedlot sown in the Farmscale Evaluation trials under consent 98/R19/18. On the 27 January 2004 the Executive referred the case to the Procurator Fiscal's Office in Fife to consider whether legal proceedings should be taken. On 17 June 2004 the Procurator Fiscal Service returned the case and reported that there would not be a prosecution.

During the year, there have been no incidents that have either come to the attention or been reported of the GM Inspectorate. The GM Inspectorate did not carry out any enforcement sampling or testing.

## **4. OTHER ACTIVITIES**

### **4.1 Provision of technical support**

Throughout the reporting year the GM Inspectorate has been in regular contact with policy divisions of the Scottish Executive (GM Co-ordination Team and Plants, Horticulture and Potatoes Branch) and Northern Ireland, England, Wales and Scotland GM Unit (NIEWS) in Defra. The GM Inspectorate has commented throughout the year on applications for consent to market GMOs and issues concerning the management of former release sites. During the year, assistance was given with the development of proposals for the Executive's policy on co-existence measures. These included a desk study review of the scientific literature on practical issues during field production<sup>3</sup> and assisting in workshops concerned with specific aspects of co-existence. The Inspectorate has also commented on Scottish, UK and EU policy documents and legislation. It has also assisted in the evaluation of some GM related research proposals.

### **4.2 GM Enforcement Liaison Group**

The Enforcement of the European GM legislation<sup>4</sup> within the UK is the responsibility of a number of government departments and enforcement agencies. To establish a co-ordinated and consistent approach across government, Defra and the Food Standards Agency, established a working group in October 2004 to discuss enforcement issues and develop proposals for responding to any specific issues, especially the release or marketing of unauthorised GMOs. The SASA GM Inspectorate is a member of this group. Other members include the Scottish Executive and the other Devolved Authorities, the CSL Inspectorate, the Health and Safety Executive, the Local Authorities Co-ordinators of the Regulatory Services (LACORS) and the Association of Port Health Authorities (APHA).

### **4.3 European Enforcement Project**

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<sup>3</sup> Co-existence of GM crops with other forms of Agriculture in Scotland: Practicalities at the field production stage. J.Kerr & J.Davey (2004). Unpublished.

<sup>4</sup> Directive 2001/18/EC on Deliberate into the Environment of GMOs, Regulation on GM Food and Feed EC/1829/2003, Regulation on Traceability and Labelling of GM Food and Feed EC/1830/2003 and Regulation on Transboundary Movement s EC/1496/2003.

The GM Inspectorate participates in a European Enforcement Project concerned with inspection and enforcement issues of GMOs in contained use and deliberate release. This group consists of GM Inspectorates from EU (members and applicants), EEA and EFTA States. Whilst funding for the project was formally stopped in June 2003, some of the work of the group has continued including notification of GM incidents in other Member States and publication of scientific papers. There were no formal meetings during the reporting year, although a meeting was scheduled for 26 and 27 May 2005 in which the GM Inspectorate was invited to present a paper on presenting enforcement cases for legal proceedings.

#### **4.4 Training**

A member of GM Inspectorate attended a course on PCR theory and practice at the Glasgow Caledonian University and a training day for Specialist Reporting Agencies given by the Crown Office and Procurator Fiscal Service on 18 March 2005.

#### **4.5 Conferences**

Members of the Inspectorate attended the following conferences and workshops during the year.

- A European Science Foundation Workshop, Scientific Programme on Assessment of the Impacts of Genetically Modified Plants (AIGM) on 'Measuring and Monitoring the Impacts of GMOs. 30 March – 1 April 2004, Cambridge.
- Workshops organized by the Scottish Executive and SASA on Agronomic Measures for oilseed rape and potatoes (14 September 2004), Voluntary GM-free zones (7 October 2004) and Organic and Environment Issues (8 October 2004).

### **5. DETECTION OF GMOs TO UNDERPIN GM INSPECTION AND ENFORCEMENT**

SASA's Diagnostics and Molecular Biology Section (DMB) provides a GM diagnostic service for the GM Inspectorate. The presence of GM material in both seed and plant material is detected using qualitative DNA -based (polymerase chain reaction {PCR}) analyses. These tests use a range of primers that detect common elements used in GMOs for both authorized and unauthorized events. Sequence Detection Systems (real-time PCR) are also available for quantitative PCR analyses.

GM detection work was limited to a potato leaf sample from a deliberate release site undergoing post-trial monitoring. This sample was found to be negative for the GM screening assays performed.

The following projects have been undertaken during the reporting period.

- Testing of plasmid-based controls as part of an ENGL-organised trial of these alternatives to a requirement for plant material as controls in PCR assays.
- Development of a real-time PCR method for the quantification of GM oilseed rape event.
- Participated in a validation study of GM maize GA21 quantification using real-time PCR. This ring test was organised by the Community Reference Laboratory (CRL) which validates assays on an EU-wide basis.



SASA is a full member of the European Network of GMO laboratories (ENGL). ENGL is an enforcement network of GMO laboratories. The network provides up to date and detailed information on GMOs, particularly in the sampling, detection and identification and quantification of GMOs in the environment, food, feed and seeds. Through this group, GM Inspectorate and DMB staff are participating in the KeLDA (Kernel Lot Distribution Assessment) project.

For the KeLDA project in 2005 a soybean bulk shipment was sampled. One hundred samples were taken sequentially through the discharging of hold. The samples were ground (in Belgium) and extracted in duplicate, and tested for the presence of GM material at SASA. Data has been submitted to the project co-ordinators and will contribute to the final report.

DMB Section has recently acquired a liquid handling robot which will be used to streamline testing procedures for qualitative GM analyses and also to improve the accuracy and precision of quantitative PCR assays performed by the Section. In addition DMB have purchased a new real-time PCR machine (Applied Biosystems 7900HT Fast Real-Time PCR System), with an automated plate loader, which will significantly increase through-put for real-time PCR assays.

During 2005/6 the Section will be participating in a validation experiment on maize T25 quantification organized by the CRL, and has applied to take part in a copy number certification study of certified reference materials organized by the Institute for Reference Materials and Measurements.

*SASA GM Inspectorate*  
7 September 2005



## WORK PLAN: 1 APRIL 2004 - 31 MARCH 2005

1. Inspections will be conducted on all GMO deliberate release sites in Scotland where there is a requirement for consent holders to conduct for post-harvest monitoring. Provision will be made for emergency and unannounced inspections. Reports in an agreed format will be provided as soon as possible after an inspection. The number of planned inspections for the forthcoming year will be reviewed in the annual work plan.
2. Conduct management audits on Scottish consent holders. Conduct joint management audits with the CSL GM Inspectorate on consent holders where consents are relevant to both England & Wales and Scotland.
3. Audit marketing consents, including inspection, sampling and testing of shipments to ensure effective enforcement of the GM Regulatory Regime.
4. Audit Scottish seed importers and merchants to verify whether can demonstrate due diligence to ensure the non-GM seed which they import or obtain, and supply is free of unauthorised GM material.
5. Conduct a desk study on co-existence measures as they relate to Scotland.
6. Develop sampling and testing procedures for GM presence in line with the European Commission's recommendations on sampling and detection of GM seeds in seed lots and GM grain in bulk commodities. This includes development of quantitative PCR methods. This work will be done in liaison with SASA's Diagnostic and Molecular Biology Section (DMB), European Enforcement Project (EEP), European Network of GM Laboratories (ENGL) and the International Seed Testing Association (ISTA).
7. Attendance as required at ACRE meetings.
8. Liaison with the Scottish Executive and the NIEWS GM Unit in Defra on the development of standards, technical guidance and publications in connection with inspection and enforcement functions.
9. Institute appropriate actions where breaches of consent have occurred, to remedy the breach and prevent realisation of harm.
10. Participate in the EEP and liaise between this group and the ENGL via DMB.



**SASA BIENNIAL REPORT OF AUDITS ON THE SUPPLY OF CONVENTIONAL SEED TO ASSESS COMPLIANCE WITH PART VI ENVIRONMENTAL PROTECTION ACT 1990 AND THE GENETICALLY MODIFIED ORGANISMS (DELIBERATE RELEASE) (SCOTLAND) REGULATIONS 2002**

Version: 1  
Status: Final

The Scottish Agricultural Science Agency (SASA) audited four Scottish seed merchants during June/July 2004 in order to verify that:

- all reasonable steps had been taken by them to ensure that the seed marketed was free from the presence of adventitious GM material and that,
- the merchants were able to demonstrate due diligence in making sure the seed marketed was compliant with the Council Directive 2001/18/EC and the EU Interim Measures for the adventitious presence of GM material in conventional seed.

The audit covered seed marketed in Scotland the period of autumn 2003 to spring 2004. The conclusions from the four seed audits are summarised in Table 1 below.

<b>Seed Merchant</b>	<b>Conclusion of the SASA GM Inspectorate Seed Audit</b>
<ul style="list-style-type: none"> <li>• Bert M Eggo &amp; Sons</li> <li>• David Bell Ltd</li> <li>• George Duncan Agri Solutions</li> <li>• South West Seeds</li> </ul>	<p><i>As a result of the audit procedure, seed sold by the merchants listed was found to be in compliance with the European Council Directive 2001/18/EC. There was no evidence to suspect that any of the seed marketed by the merchants was contaminated with the adventitious presence of GM elements.</i></p>

Table 1. Conclusions of SASA GM Inspectorate Seed Audit

SASA conducted the seed audit procedure in liaison with the CSL GM Inspectorate who were able to provide details of seed lots imported via, and produced, in England covered by their audit programme. During the audit procedure, which includes cross referencing information provided by the seed merchants with information obtained from CSL, SASA had no reason to suspect the presence of adventitious GM material in any of the seed marketed by the four companies. Therefore all seed encountered in the spring 2004 audit programme was found to be in compliance with the EC Directive 2001/18/EC.

As with previous years, some seed suppliers remain unwilling to supply letters of assurance stating that the CSL GM Inspectorate's guidance for seed importers and producers had been followed. Through close liaison with the CSL, the SASA GM Inspectorate had been informed that these suppliers do in fact provide satisfactory assurance to the CSL GM Inspectorate with regard to the seed production/GM absence. The SASA GM Inspectorate will continue to stress that, whilst GM presence is not covered by the seeds legislation, there is still a need for merchants to obtain appropriate assurance from their suppliers in order to demonstrate their duty of care in supplying seed which is compliant with EC Directive 2001/18/EC.

GM INSPECTORATE  
April 2005



**SASA BIENNIAL REPORT OF AUDITS ON THE SUPPLY OF CONVENTIONAL SEED TO ASSESS COMPLIANCE WITH PART VI ENVIRONMENTAL PROTECTION ACT 1990 AND THE GENETICALLY MODIFIED ORGANISMS (DELIBERATE RELEASE) (SCOTLAND) REGULATIONS 2002**

Version: 1  
Status: Final

The Scottish Agricultural Science Agency (SASA) audited four Scottish seed merchants during November/December 2004 in order to verify that:

- all reasonable steps had been taken by them to ensure that the seed marketed was free from the presence of adventitious GM material and that,
- the merchants were able to demonstrate due diligence in making sure the seed marketed was in compliance with the Council Directive 2001/18/EC and the EU Interim Measures for the adventitious presence of GM material in conventional seed.

The audit covered seed marketed in Scotland during the period spring to autumn 2004. The conclusions from the four seed audits are summarised in Table 1 below.

<b>Seed Merchant</b>	<b>Conclusion of the SASA GM Inspectorate Seed Audit</b>
<ul style="list-style-type: none"> <li>• <i>JI Warnock Agriculture</i></li> <li>• <i>Murray Duguid Ltd</i></li> <li>• <i>Scotgrain Ltd</i></li> <li>• <i>Tayside Grain Co Ltd</i></li> </ul>	<p><i>As a result of the audit procedure, seed sold by the merchants listed was found to be in compliance with the European Council Directive 2001/18/EC. There was no evidence to suspect that any of the seed marketed by the merchants was contaminated with the adventitious presence of GM elements.</i></p>

Table 1. Conclusions of SASA GM Inspectorate Seed Audit

SASA conducted the seed audit procedure in liaison with the CSL GM Inspectorate who were able to provide details for the majority of seed lots imported via, and produced in, England covered by their audit programme. The CSL GM Inspectorate were not able to cross reference all of the seedlots investigated during the audit of two seed merchants (CSL aim to audit c. 90% of seed imported into England). However, the SASA Inspectorate were able to obtain satisfactory assurances from the Scottish seed merchants to be satisfied that they had demonstrated 'due diligence' in obtaining assurances from their suppliers and that the seed that was supplied to them was free from adventitious GM material.

As a result of the audit procedure seed sold by the four seed merchants was found to be in compliance with the Council Directive 2001/18/EC and the EU Interim Measures for the adventitious presence of GM material in conventional seed.

As with previous years, some seed suppliers remain unwilling to supply letters of assurance stating that the CSL GM Inspectorate's guidance for seed importers and producers had been followed. Through close liaison with the CSL, the SASA GM Inspectorate had been informed that these suppliers do in fact provide satisfactory assurance to the CSL GM Inspectorate with regard to the seed production/GM absence. The SASA GM Inspectorate will continue to stress that, whilst GM presence is not covered by the seeds legislation, there is still a need for merchants to obtain appropriate assurance from their suppliers in order to demonstrate their duty of care in supplying seed which is compliant with EC Directive 2001/18/EC.

GM INSPECTORATE  
April 2005