

Code of Practice (Standard)

PART 1 - ABOUT THE SCHEME

1 INTRODUCTION

In recent years increased emphasis has been given to hygiene and safety issues in the production of quality farm produce. Consumers are becoming more discerning and seek assurance that produce meets high standards in respect of quality and safety.

Against this background the Cereals Association of Ireland (CAI) introduced the Irish Grain Assurance Scheme (IGAS) for cereals and other combinable crops in 2002. This replaced the existing scheme which had been in place since 1997.

The scheme is designed to assure consumers that grains are produced, handled, stored and transported according to a defined code of practice. The scheme places strong emphasis on record keeping and sets minimum standards which must be adhered to by all members. Supportive evidence of compliance is sought for various sections.

2 AIMS OF THE SCHEME

The aims of the Scheme are:

To establish minimum standards in hygiene and safety for the growing, handling, storage and transport of grain and to ensure that grain produced by members of the Scheme meet these standards. This will be achieved through the operation of recording and audit systems. The benefits accruing will be enhanced consumer confidence and maintenance and expansion of markets.

SCOPE: The scheme covers primary producers involved in the production, harvest, storage and transport from farm to first point of placing on the market.

3 STRUCTURE

The members of CAI are The Irish Farmers Association (IFA), The Irish Grain and Feed Association (IGFA), Dept of Agriculture Food and the Marine (DAFM), and Teagasc. *CropSure Ltd*, on behalf of the CAI, manages IGAS and carries out the certification of its members. Other relevant stakeholders are consulted as various issues arise.

The certification system is an independent third party system for determining conformity with product standards. It requires examination of the production processes, the production environment, the distribution facilities and assessment of the quality management system. Acceptance after initial assessment is followed by ongoing surveillance.

4 JOINING IGAS

Complete the application form, which is available from your local merchant or directly from *CropSure*. On receipt of your application *CropSure* will send you an information pack containing the IGAS Code of Practice and Crop Record Book. Study the standard and rules, satisfying yourself that you can meet the requirements.

The IGAS Record Book will be sufficient for most growers for a number of years. When it is full please write to us quoting your IGAS registration number and we will send you a new copy. The address can be found on the back page of this booklet.

4.1 IGAS Membership Categories:

IGAS membership is divided into three categories:

PO - (Production Only): for grain growers who do not store grain long term.

Temporary storage can extend up to **two** weeks after harvest or until September 30th, whichever is later. Grain traded by PO members after this is not covered by your IGAS certification.

P+S - (Production and Storage): for grain growers who also store grain long term.

SO - (Storage Only): for members with long term grain storage who are not grain growers (i.e. merchants).

This IGAS Code of Practice covers grain production and temporary storage. There is a separate IGAS Code of Practice for long-term storage.

4.2 Initial Assessment

An initial assessment **may** be carried out within 28 days of receiving the application. An assessor will contact you to arrange the assessment. Assessments will cover all aspects of the standard and will include an examination of the farm systems and physical features of the farm and equipment as they relate to the IGAS standards.

The Assessor will note all points on which the farm meets the IGAS Standards. He/ she will also note any points where the applicant needs to take further action in order to achieve the IGAS standards. At the end of the initial assessment growers sign a declaration agreeing to be bound by the scheme standards and operating procedures as outlined in this manual. In particular they agree to implement all improvements drawn to their attention during the assessment.

If the applicant cannot agree a suitable appointment date for assessment *CropSure* will write to the applicant indicating that the onus is on the applicant to contact *CropSure* when they are ready for the assessment. The applicant must contact *CropSure* in writing within six months of this notice; otherwise their application will be withdrawn. This only applies to new applicants. Once certified, approved growers must make themselves available for assessment promptly.

4.3 Outcome of Initial Assessment

Once the assessment visit has been completed *CropSure* will either make a decision to accept the applicant or defer membership pending the completion of corrective action to address non-compliances found during the assessment.

5. ONGOING SURVEILLANCE

Members' farms will be revisited during subsequent years of membership to check that they maintain the standards required by the scheme. These assessments may take place at any time throughout the year and will focus on specific standards identified as requiring attention.

All grower members are subject to a Production Assessment. Growers seeking Production and Storage certification are subject to an additional **annual** Storage Assessment. Both Assessments are normally carried out during the same visit.

5.1 Assessment Procedure

The Assessment will examine the following:-

- Production, handling and storage records for the last five years or since the scheme was joined, whichever is the most recent.
- Physical condition and maintenance records of equipment used in the production, storage and handling of crops.
- Physical condition and cleaning records of crop holding and storage areas.
- Pesticide storage area.
- Records of grain intake, drying/preservation, in-store monitoring, pest control

and out-loading where grain is stored long term.

Members are notified by post or phone when an Assessment is due.

Every reasonable effort is made to assess the member at a convenient time. Failure to make oneself available for assessment will result in suspension of membership. At the end of the Assessment a checklist is agreed with the member and the probable outcome is indicated to him/her. ~~The checklist is signed and dated by both the member and Assessor. At this stage the member may record any comments he/she has on the Assessment sheet, a copy of which is retained.~~ Digital audit results will be emailed to the member a few days after the audit.

5.2 Assessment Outcome

The Assessors return the completed checklists to the certification body where the final outcome is decided.

CFP: Incurring a Critical Failure Point results in automatic rejection of the member from the scheme. If a member is rejected all his/her listed potential buyers will be automatically notified. Rejected members may reapply for membership when all Critical Failure Points have been remedied.

Otherwise members are either certified or suspended and may be issued with a Notice of Remedy for non-compliances. This notice details the areas where the member is not achieving the IGAS standard and gives the member a deadline by which improvements must be made in order to maintain IGAS approval. The producer should inform *CropSure* once the non-compliances have been remedied. *CropSure* may then arrange for a second assessment where

applicable. The costs associated with these procedures, including any additional farm visits will be borne by the producer, but will be kept as low as reasonably possible.

See checklist appended.

6 APPEALS AND COMPLAINTS

Complaints, appeals and disputes brought to the attention of *CropSure* are treated very seriously and are dealt with in a constructive and timely manner.

6.1 Appeals against Certification Decisions

- All appeals by members must be received in writing, outlining why they feel the certification decision is incorrect and should also provide any relevant supporting evidence. *CropSure* must receive this appeal within 14 days of the applicant receiving notification of the certification decision.
- *CropSure* at this stage will make contact with the member in order to clarify the basis for appeal. This may lead to the issue being resolved or a re-assessment may be organised with another assessment officer appointed by *CropSure*.
- If the issue is not resolved at this stage, *CropSure* will appoint an Appeals Board. This board will meet within 30 days of the appeal being received. The member will be expected to attend this meeting.
- The decision of the appeals board is sent to the member within 10 days of the meeting taking place, and is final and binding for both the member and *CropSure*.

6.2 Complaints

- Where a complaint is made to *CropSure* the complainant will be asked to make the complaint in writing.
- All complaints will be properly investigated and all necessary action will be taken.

7 CONFIRMATION OF PARTICIPATION

CropSure will treat all information about applicants and approved members with strictest confidence.

CropSure will routinely inform the listed grain buyers of approved members of their current membership status.

In addition *CropSure* will respond to queries from third parties who wish to confirm the status of any approved member. *CropSure* may notify those with a commercial interest (e.g. other grain buyers) that an approved member's certification has been suspended or withdrawn.

CropSure will not divulge more specific information (eg. details of individual assessment reports) to any third party without the applicant's or approved member's written agreement.

General underlying principles:

- The member must be in a position to demonstrate title or lease agreements including maps to show their entitlement to farm each parcel of land.
- The member should constantly review the farm operation to optimise the crop rotation and crop choice in order to optimise farm income and minimise risks to crops, crop losses, inputs and crop losses.
- The local community should be notified if any operations are to take place on the farm which may cause disruption e.g. odours from slurry etc.
- Where applicable, Free, Prior and Informed Consent (FPIC) must be used during the land acquisition process to prevent and resolve land conflicts.
- The member must ensure that all permanent and seasonal staff are paid the minimum wage and satisfy all employment contractual legislation.
- There must be a farm policy on medical leave and protections in case of illness, disability or accident, and evidence of how this is implemented on the farm.
- Staff should be made aware and advised on available health insurance options.
- Where staff have poor reading skills or do not have good english, have a system in place so information is provided in such a way that it is understood by all workers.
- This is N/A if the primary language and ethnicity is common to the entire permanent, temporary and seasonal workforce.
- Any workers who may have a condition which leaves their immune systems compromised should not be asked to handle Plant Protection Products (PPP) or hazardous substances. Any staff handling these products must have completed a sprayer training course.
- Emergency contact details for medical emergencies must be displayed in clearly visible signage near the sprayer filling area and any other key assembly area on the farm.
- Appropriate sanitation and toilet facilities must be available to employees at all times.

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PART 2 - THE IGAS STANDARDS FOR GRAIN PRODUCTION AND TEMPORARY STORAGE

IGAS is a dynamic scheme the standards of which will alter in response to consumer, trade and legislative concerns and requirements.

The manual standards are constantly reviewed and members will be kept fully informed of any changes in the standards and conditions that may affect them. These are the standards required by IGAS for the production and temporary storage of grain. All grain produced by IGAS members must meet these standards.

8. PRODUCING THE GRAIN CROP

Members of the Scheme must keep detailed records of grain crops grown. These records will include details of crop type, variety, areas sown, sowing dates, harvesting dates, fertiliser(s) and plant protection product(s).

- It is recommended that crop records are kept in accordance with the format in the supplied IGAS record book. A member's own recording system will suffice on condition that it meets the minimum standards of the Scheme.

- Records must be retained for a minimum of five years from the sowing of the Crop
- Seeding rate/spacing must be optimised for each crop and variety and total grain weight of the batch of seed. Batch number or seed treatment of the seed must be recorded.

8.1 Crop Protection Products

The Pesticide Controls Division (PCD) of the Department of Agriculture, Food and the Marine (DAFM) is the national body responsible for approving pesticides and regulating how they may be used. Only plant protection products (PPPs) registered with the (PCD) and bearing an approved PCS No. may be applied to crops in Ireland. **Failure to comply with all relevant pesticides legislation (see below) is deemed a CFP (Critical Failure Point).**

The use of PPPs by farmers is subject to Good Plant Protection Practice (GPPP) guidelines and compliance with the requirements of the Sustainable Use of Pesticides Directive (SUD). The former places a legal obligation on professional users to ensure that all products stored and used, are used in accordance with the conditions of use (specified on the product label), and that such products are disposed of in a safe manner. Additionally the SUD has requirements for farmers with regard to training, registration (with the DAFM), sprayer testing, the practice of Integrated Pest Management (IPM), and the need to protect water courses from contamination with pesticide residues.

- Members should read and comply with Teagasc's Code of Practice for plant protection products - see *"Pesticides – the handling, application and storage of pesticides on farms."*

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General information with regard to the SUD can be found at <http://www.pcs.agriculture.gov.ie/sud/>. More specific information for users, detailing GPPP, registration requirements, sprayer testing, IPM and record keeping etc., can be found at <http://www.pcs.agriculture.gov.ie/sud/professionalluserssprayeroperators/>

The following summarises the principal requirements that farmers must adhere to if using (or employing a contractor to apply) PPPs on their holding,

- The user (farmer/contractor) must be trained and registered with the DAFM as a Professional User (PU). Evidence (certificate/qualification) should be available for inspection on request.
- Since 26 November 2016, all boom sprayers >3m and all blast and orchard sprayers must be tested by a DAFM registered Equipment Tester. The testing interval must not exceed 5 years up to 2020, and three years thereafter. Separate from sprayer testing, all sprayers should be calibrated (have their output checked) **at least once per year**. Poorly maintained sprayers will not apply pesticides effectively, will risk contamination of the crop and also give poor value for your money.
- All farmers must be able to demonstrate the practice of IPM being implemented on their holding, i.e. that they are controlling pests and diseases by combining biological, cultural, physical and chemical tools in a way that minimises economic, health and environmental risks. This requirement is best met by completing an annual IPM record sheet (download from PCS website).

- It is illegal to fill a sprayer directly from water courses.
- All users of PPPs are required to have a pesticide store on their holding which is

dedicated to the storage of pesticides. The store should display a warning sign on the door, have a secure lock, be constructed so that any leakages or spillages are retained within the store, have shelving made of non-absorbent material, be well lit, and in the case of walk in stores be well ventilated. A spill kit (bucket of peat or sand) should be available to deal with small spills or leakages. Where small quantities of pesticide are stored, the use of lockable metal containers, e.g. disused chest freezer is acceptable, provided it is watertight and lockable.

- Additionally, dedicated facilities (jug, scales) should be available for accurately measuring PPPs. Appropriate, clean protective clothing should also be available.
- The DAFM has developed a STRIPE initiative (Surface water Tool for Reducing the Impact of Pesticides on the Environment). This initiative incentivises farmers to adopt spray drift reducing technology to reduce the impact of pesticide exposure on the environment whilst also increasing farm efficiency. Essentially, by using low drift nozzles, farmers may reduce the size of buffer zone that apply for a particular PPP; - see <http://www.pcs.agriculture.gov.ie/plantprotectionproducts/useofplantprotectionproducts/stripe-surfacewatertoolforreducingtheimpactofpesticidesintheenvironment/>
- The keeping of accurate and up-to-date records is the principal way in which a grower demonstrates compliance with pesticide legislation. Product labels contain the statutory conditions of use and it is an offence to apply pesticides not in compliance with these conditions. This information should be read carefully. **DO NOT ASSUME THAT THE PRODUCT USED LAST YEAR HAS THE**

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SAME CONDITIONS OF USE IN THE CURRENT YEAR. From the perspective of the PCD the following is the information that must be recorded for each application of a PPP on the holding;

- Date of application
- Product name and PCS No.
- Crop (spring barley, winter wheat etc)
- Location/LPIS No.
- Area/tonnage treated (*ha or t*)
- Application rate (*kg or l per ha*) - maximum recommended application rates should never be exceeded
- Water volume (*l/ha*)
- Method of application (boom sprayer, weed wiper, knapsack etc.)
- Buffer Zone applied (m)
- Nozzle type (relevant to STRIPE)
- Rationale/reason for use
- PU No. - evidence may be requested to support qualification claimed

Records must be maintained for a minimum of five years.

- Only approved chemicals may be used for the treatment of home saved seed and all such treatments must be recorded. [If certified seed is used, lot

numbers should be recorded].

8.2 Fertilisers

OMI (organic municipal and industrial material/sludges)

There are gaps in the current knowledge on the transfer of the pathogen and chemical contaminants contained in OMI to the food chain. In addition there are significant gaps in the source control and monitoring of the treatment of these products. The Food and Feed industry will not purchase grain from land treated with OMI. Therefore members should always consult their grain buyer and notify them before applying this product. For further information please see the FSAI website for the report on the Food Safety Implications of Land Spreading OA and OMI material on Agricultural Land (2008) http://www.fsai.ie/resources_publications.html
All products applied to crops must conform to the upcoming revised Fertilising Products Regulation

8.2.1 Soil Analysis

- Soil analysis is the basis for proper plant nutrition and is essential to optimise fertiliser applications and maximise soil potential. Soil analysis must be carried out for each field at least every four years. Evidence of this will be required in an inspection.

8.2.2 Application of Crop Nutrients

- Application of crop nutrients should be matched to the requirements of the crop, its growth stage and the prevailing weather conditions.
- Fertiliser must be applied uniformly

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Fertilizer misses or excessive overlaps will affect both crop yield and quality. Care should be taken to prevent spreading fertilizer into hedges, drains etc.

8.2.3 Fertiliser Records

- Records of fertiliser type, application rates and dates of application for each field must be kept. Machinery used to apply fertilizers must be properly checked and calibrated. Calibration checks must be recorded.

Application rates should be constantly monitored and adjusted for variations in fertilizer and weather conditions. Spreaders should be kept clean and worn parts replaced.

8.3 Harvesters

- Members must ensure that combine harvesters are adequately maintained, correctly adjusted, clean and free of insects, contaminants and odours. A record of the inspection must be kept.

8.4 Transport Vehicles

- Members must inspect and ensure that all trailers used for transporting grain from the field or from temporary storage are clean and free of insects, contaminants and odours. Tractors and trailers must be free of oil leaks. A record of the inspection must be kept. Trailers must be clean and dry before use. Equipment not dedicated to grain haulage or handling must be cleaned (power washed) and disinfected (food grade with a disinfectant containing a PCS or IE/BPA No for PT 4 Food and Feed) before use. Growers should be

aware of the TASCC prohibited list and sensitive list for haulier's available on

the TASCC website.

It is the grower's responsibility to ensure his contractor is aware of and operates to the scheme hygiene standards. Third party haulage should be TASCC registered or equivalent if delivering to a UFAS accredited mill or intake point.

Growers hauling their own grain should consult with their intake points. Grain where possible should be covered during transport. A record of grain movement off farm should be kept for inspection.

Dirty combines and trailers can contaminate grain. A poorly adjusted combine will give a poor sample and may lead to rejection of the grain. Care should be taken when adjusting the drum to avoid abrading or splitting the grains.

9 GRAIN HOLDING

Grain holding areas are used to temporarily hold grain immediately after harvest and prior to delivery to permanent stores or buyers' premises. Grain must be moved out of temporary storage as quickly as possible, especially at higher moistures. Adequate aeration must be used.

Temporary storage can extend to a maximum of two weeks after harvesting. Grain stored after this must be certified as complying with the terms of the IGAS Long Term Grain Storage Code of Practice.

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Temporary storage is intended primarily to facilitate the smooth delivery of grain to dryers and long term stores. **Two** weeks is the absolute maximum period for this type of storage and is only suitable for grain at very low moisture. Storage of grain at high moistures can lead to growth of moulds and the production of mycotoxins. These poisons can cause serious illness in humans and livestock and may lead to rejection of your grain.

9.1 Grain Holding Areas: This is a critical Failure Point (CFP)

- Grain holding areas must be kept clean and free of insects, contaminants, odours and oil spillages. A record of cleaning must be kept. Particular attention should be paid to the removal of any toxic material such as farmyard manure, rat bait, dressed seed, fertiliser residues, etc.

- Where livestock has been housed in the temporary storage area surfaces must be power washed and disinfected (with a disinfectant containing a PCS or IE/ BPA No for PT 4 Food and Feed if it is to be used for storage of grain).
- Grain must only be stored on a sound concrete surface and there must not be any risk of contamination from disintegrating ground surface.

There should not be a risk of effluent or any other material leaking into this area. Domestic and farm animals must not be allowed to contaminate the storage area.

9.2 Lights and Glass Materials

- All light bulbs, tubes, lamps, windows or any other glass material must be protected or constructed to avoid contaminating the grain. This applies to temporary holding areas, long-term stores and all grain movement areas. A glass breakage log must be kept.

9.3 Pest Control

In addition to physical exclusion measures, all sites must have a pest control programme with particular emphasis given to the control of birds and rodents. This programme should be reviewed annually. In the

case of rodents, each site should have a map showing the location of numbered baiting points in tamper resistant bait stations. Baiting points must be placed in accordance with the instructions for use on the product label for your user category. Farmers fall under the category 'professional users'. Bait boxes must be located and anchored to avoid contamination of grain i.e. not within the grain store. Baits must be placed in a manner that prevents access by non-target species and minimises the risk of contamination of feed or water or to non-target species. All bait points should be checked as per frequency specified on the product label but at least monthly for evidence of activity and these checks must be recorded. Carcasses must be disposed of in line with rodenticide product label instructions. The following is a link to the CRRU (Campaign for Responsible Rodenticide Use) code of practice: www.crru.ie/CRRU-code/

Proof of competence is required at point of sale to purchase professional use rodenticides (Herd/Flock/HFR/HPR No.) and trained professional use rodenticides (PMU No.). Professional use includes control of rats and mice in and around buildings ONLY,

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pulsed and permanent baiting are NOT permitted, baiting for a max period of 35 days, after this, the user should seek advice from the product supplier or call a pest control service.

Trained Professional use includes control of rats and mice in and around buildings, open areas and waste dumps.

Only pesticide products approved for sale and use in Ireland containing a PCS No. or an IE/BPA No. can be used, this number must be recorded along with application of the products and collection of unused bait at the end of a baiting period (Max 35 days for anticoagulant rodenticides). Pesticides can only be used as per label instructions.

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PART 3 - THE IGAS STANDARDS FOR LONG TERM GRAIN STORAGE

IGAS is a dynamic scheme the standards of which will alter in response to consumer, trade and legislative concerns and requirements.

The manual standards are constantly reviewed and members will be kept fully informed of any changes in the standards and conditions that may affect them. These are the standards required by IGAS for handling, transport and long-term storage of grain. Grain storers who grow grain should also refer to the IGAS Code of Practice for Grain Production and Temporary Storage (above).

10 HACCP

Hazard Analysis Critical Control Point (HACCP) based systems are now a legal and customer requirement in all food and feed businesses. IGAS uses a HACCP approach to identify potential hazards and critical control points for each stage of transport, handling, preservation and storage of grain and constructs standards to control them. Storage Only Members must also have a documented HACCP plan for their own circumstances.

HACCP identifies the different stages of transport, handling, preservation and storage of grain, which must be carried out according to written procedures that define, check and control the critical control points at each stage of the process. Records must be kept which confirm that procedures are followed and that corrective actions are implemented in the event of a breakdown, loss of control or deviation from the critical limits.

- Members should be aware of, and comply with, all Food Safety legislation that relates to their business Responsibilities relating to the Food Safety Management System.
- Adequate training must be given to all employees in all areas, including food safety, relating to their job.
- A Management Review meeting should be held once per year and attended by the General Manager and Staff. The purpose of the Review is to ensure the continuing suitability of the HACCP for the Business. Minutes of the meeting should record any decisions taken to maintain and improve the HACCP System.

11 HANDLING AND TRANSPORT

All contracted transport used for hauling grain must be comply with the TASCC Code of Practice for Road Haulage of Combinable Crops and Animal Feeds.

11.1 Vehicle Cleanliness

- Members must inspect and ensure that all trailers transporting grain are clean and dry. Vehicles must be free of contaminants, odours and oil leaks.

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11.1.1 Haulage Exclusion List

No vehicle that has carried material shown in the TASCC Haulage exclusion List (*see below) shall be used for the carriage of grain.

11.1.2 Haulage Contaminant Sensitive List

All Vehicles and drivers must comply with the TASCC Haulage Contaminant Sensitive List which defines the materials, after carriage of which there must be appropriate cleaning and any disinfecting of the vehicle using a disinfectant containing a PCS or IE/BPA No for PT 4 Food and Feed.

* Consult the TASCC website for full current exclusion and contaminant sensitive lists of all products.

11.2 Previous Load History

- Vehicles hauling grain must be inspected and cleaned appropriately where necessary.
- Details of previous three loads carried in trailers transporting grain must be checked against the Haulage Exclusion List and Haulage Contaminant List.

11.3 Handling Equipment

Members must inspect and ensure that all equipment used for handling and loading grain is maintained in a hygienic condition.

- Loaders must be clean and free of oil leaks. If they handle material other than grain they must be adequately cleaned and sanitised/disinfected using a product containing a PCS or IE/BPA No for PT 4 Food and Feed before returning to grain handling.

- Intake hoppers must be covered when not in use.
- Augers, conveyors and elevators must be regularly cleaned and purged with

dry grain.

Conveying may damage grain and make it more susceptible to insect, mite, fungal and mycotoxin attack. Handling equipment should always be adjusted to avoid such damage, e.g. augers should

be run full.

Intake hoppers, conveyor channels and elevator pits must be cleaned when the harvest intake is completed **but not later than 31st October in each year.**

12 GRAIN INTAKE

- A clearly labelled representative sample must be taken from each load and retained for three months.
Due attention must be paid to intake moistures to avoid any deterioration of grain prior to drying.
- Where grain from a number of growers is assembled, all grain must have a representative sample taken at intake.
- Each sample must be visually inspected to ensure that it is sweet and sound and free of moulds and contaminants.
- The specifications for grain at intake should be documented. These may include moisture, screenings, hectolitre weight, protein and hagberg as is relevant to the grain type.

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- All sampling and testing equipment should be maintained according to manufacturer's instructions and must be calibrated at least annually. Frequency of maintenance and calibration of equipment will depend on its level of use.
- For each intake of grain the following information should be recorded.
 - Grower ID including IGAS Registration No.
 - Vehicle cleanliness
 - Three load history
 - Date and weighbridge docket number
 - Sample No.
 - Weight
 - Grain type and use (incl. variety where appropriate)
 - Moisture content
 - Appropriate quality parameters (e.g. screenings, hectolitre weight, protein, hagberg)
 - Confirmation of acceptance (initials of intake operator and supplier)
 - Records for grain outside specification which has been accepted
 - Vehicle/trailer registration and ID number

13 GRAIN HOLDING

Grain holding areas are used to temporarily store grain immediately after harvest at buyers' premises. Grain must be moved out of temporary storage as quickly as possible, especially at higher moistures. Adequate aeration must be used. Temporary storage can extend to a maximum of **TWO** weeks after harvesting. Grain stored after this must be certified as complying with the terms of the IGAS Long Term Grain Storage Code of Practice.

Temporary storage is intended primarily to facilitate the smooth delivery of grain to dryers and long term stores. Two weeks is the absolute maximum period for this type of storage and is only suitable for grain at very low moisture. Storage of grain at high moistures can lead to growth of moulds and the production of mycotoxins. These poisons can cause serious illness in humans and livestock and may lead to rejection of your grain.

13.1 Grain Holding Areas

- Grain holding areas must be kept clean and free of insects, contaminants, odours and oil spillages. A record of cleaning must be kept. Particular attention should be paid to the removal of any toxic material such as farmyard manure, rat bait, dressed seed, fertiliser residues, etc.

- Where livestock have been housed in the temporary storage area surfaces must be power washed and disinfected using an disinfectant containing a PCS or IE/BPA No for PT 4 Food and Feed.
- Grain must only be stored on a sound concrete surface and there must not be any risk of contamination from any disintegrating surface. **This is a Critical Failure Point (CFP)**
- Grain must be stored completely separate from other farm feeding materials

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ie compound animal feed, straights (i.e. Distillers, Soya etc), silage, hay etc. Storage must be managed to prevent any cross contamination from such materials

- Farm pets such as dogs and cats must be excluded from the store

There should not be any risk of effluent or any other material leaking into this area. Domestic and farm animals must not be allowed to contaminate the storage area.

13.2 Lights and Glass Materials

- All light bulbs, tubes, lamps, windows or any other glass material must be protected or constructed to avoid contaminating the grain. This applies to temporary holding areas, long-term stores and all grain movement areas. A Glass Breakage Log must be kept.

13.3 Pest Control

In addition to physical exclusion measures, all sites must have a pest control programme with particular emphasis given to the control of birds and rodents. This programme should be reviewed annually.

In the case of rodents, each site should have a map showing the location of numbered baiting points in tamper resistant bait stations. Baiting points must be placed in accordance with the instructions for use on the product label for your user category. Farmers fall under the category 'professional users'. Bait boxes must be located and anchored to avoid contamination of grain i.e. not within the grain store. Baits must be placed in a manner that prevents access by non- target species and minimises the risk of contamination of feed or water or to non- target species. All bait points should be checked as per frequency specified on the product label or at least monthly for evidence of activity and these checks must be recorded. Carcasses must be disposed of in line with rodenticide product label instructions. The following is a link to the CRRU (Campaign for Responsible Rodenticide Use) code of practice: www.crru.ie/CRRU-code/

Proof of competence is required at point of sale to purchase professional use rodenticides (Herd/Flock/HFR/HPR No.) and trained professional use rodenticides (PMU No.).

Professional use includes control of rats and mice in and around buildings ONLY, pulsed and permanent baiting are NOT permitted, baiting for a max period of 35 days, after this, the user should seek advice from the product supplier or call a pest control service.

Trained Professional use includes control of rats and mice in and around buildings, open areas and waste dumps.

Only pesticide products approved for sale and use in Ireland containing a PCS No. or an IE/BPA No. can be used, this number must be recorded along with application of the products and collection of unused bait at the end of a baiting period (Max 35 days for anticoagulant rodenticides). Pesticides can only be used as per label instructions.

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14 GRAIN DRYING

- All grain drying and ancillary handling equipment must be thoroughly cleaned before each season.
- Grain drying equipment (especially burners) must be calibrated pre-harvest by a qualified technician and maintained in line with the manufacturer's instructions. Results of this calibration must be kept including: date of service, name of service company / agent, evidence of competency of agent. Direct-fired burners should be adjusted to avoid contamination of the grain with unacceptable fumes. A clean flame is necessary to indicate the correct air to oil mix to avoid a smokey end to the flame which would taint the drying grain. Only fuels approved by the Department of Agriculture, Food and Marine can be used in grain driers. In the case of each fuel delivery the grade and standard of fuel will be clearly stated on the delivery docket. This docket must be retained for inspection.
- As grain must be maintained in a sweet and sound condition it should be dried to 13% - 15% moisture content soon after harvest. The acceptable range of moistures for grain ex-drier should be documented in the HACCP plan.
- Drying must not damage grain.
- Where drying is delayed the use of a ventilation system is essential.
- The following records must be kept for each batch of grain dried:
 1. Dryer identity
 2. Date and time
 3. Grain type and use (incl. variety where appropriate)
 4. Air-on temperature
 5. Moisture in and moisture out
 6. Grain temperature ex-drier
 7. Grain storage destination

8. Operator initials

Grain must be cooled to ambient temperature as soon as possible after drying. Cool storage extends grain storage life. It maintains quality and protects against infestation. Aim to get grain as close as possible to the ambient temperature before moving it to store.

GRAIN PRESERVATION (non-drying)

All products used to aid in grain preservation must be approved by the Dept. of Agriculture, Food and Marine. All products must be used according to the manufacturer's instructions.

- Grain for rolling may be preserved during harvest using approved liquid Organic Acids which can be (a) blends of acids, salts of acids and surfactants which are usually non-corrosive and safer to handle, or (b) straight Propionic Acid liquid which is corrosive or (c) alkali products.
- All handling equipment must be thoroughly cleaned prior to use.
- The liquid preservative should be applied to the moving grain in a mixing auger of adequate length, using applicator pumps which are tested and calibrated at

least annually by the supplier.

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The following records should be kept:

- Applicator identity & Calibration certificate
- Date and time
- Grain type and use
- Grain moisture
- Product application rate
- Grain storage destination
- Operator initials
- Grain should be cooled to approx 10 deg C within 6 weeks after harvest. Records of deliveries of preservative must be maintained as well as the appropriate Product Information Sheet, Material Safety Data Sheet & suppliers registration with the Department of Agriculture, Fisheries, Food and Marine.

15 GRAIN STORES

IGAS must be notified of all stores (including rented and temporary) used by a member.

15.1 Physical Condition:

Buildings used for long-term storage of grain must:

- Be in sound structural condition;
- Have solid floors and suitable walls and doors;
- Be weatherproof - with all leaks, broken sheeting, gutters, etc. repaired prior to

storage of grain;

- Have external doors which are proofed against rodents and small animals;
- Have all light bulbs, tubes, lamps, windows or any other glass material

protected or constructed to avoid broken glass contaminating grain;

- Be numbered and identifiable.
- Flat stores must have an adequate concrete loading apron.
- Roads and yards within the premises should be surfaced to avoid excessive

dust or loose stones.

It is important to avoid contamination of loading apron or temporary storage area with dust/mud or loose stones which may be swept up with grain.

- If stores are clad with asbestos it should be assessed for safety and there should be procedures in place for safe removal, replacement and disposal of damaged sheets.
- All oil, water and chemical storage tanks must be banded if there is any risk of a spillage contaminating grain. Particular care should be taken when refuelling dryers.
- All water storage tanks and reservoirs should be covered to prevent contamination by birds, rodents, etc.

15.2 Store Hygiene:

- Stores must be kept clean at all times including storage operations.
- Stores must be thoroughly cleaned before filling. Only approved pesticides or disinfectants/sanitizers with a PCS No. or IE/BPA No. may be used and only in

accordance with approved use practices.

- Walls and roofs must be free of cobwebs, dampness, condensation and mould.

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- Stores and silos must be bird and rodent proofed.
- Immediate surroundings of stores must be kept clean and free of weeds and

debris.

Pallets, building materials, etc. should be stored in clearly defined areas away from stores to avoid providing harbourage for rodents and insects. Other buildings on the site should be kept clean for the same reason.

- Skips and waste containers must be kept tidy and should be covered (particularly if any grain spillage is stored for disposal). They should be located as far as possible from processing and storage areas.
- Store doors must be kept shut at all times except when loading and unloading grain.
- All persons entering stores, including visitors and sub-contractors, should wear suitable clothing and protective footwear when walking on top of grain to prevent contamination.
- Food should only be consumed in designated areas.

15.3 Store Management:

- Empty grain stores may be used for temporary storage of other food products and inert dry goods. Stores must be appropriately cleaned and disinfected/ sanitised using a disinfectant containing a PCS or IE/BPA No for PT 4 Food and Feed before grain is stored again.
- Meat and Bone Meal (MBM) is a very special case and may not be stored in the same complex at the same time as food and feed products. MBM is stored in sealed stores, under the strict control of the Department of Agriculture, Food and the Marine. There are strict sanitation protocols to be adhered to, to return MBM stores to general use.
- Any grain left over in stores from the previous harvest should be fully checked using a sieve test for insect infestation to avoid the risk of contamination of a new grain crop. When infestation occurs the grain must be fumigated.
- There must be effective specification and identification of different grain types.
- Grain, which does not meet the required standards should be immediately separated and removed.
- All cleaning products and pesticides should be stored in a locked designated store out of contact with grain.

15.4 In-store Monitoring

- Grain temperature must be monitored weekly.
- Adequate aeration must be used to achieve safe storage temperatures.

Aim to get temperatures below 15 C as quickly as possible and then reduce to approximately 10 C to eliminate all insect, mite and fungal activity. Appropriate action must be taken to remedy hotspots.

- Stores must be monitored regularly for rodent activity (minimum once every three weeks).

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- Stores and out-loading areas must be continuously monitored for bird activity.

Birds contaminate grain as well as causing direct losses. Bird proofing, including the use of appropriate mesh, netting or plastic curtains, can prevent bird entry into stores. It is important to keep doors closed when not in use and to clean up grain spillages immediately. Grain left on out-loading aprons and in open skips attracts birds to the area.

- Stores must be monitored regularly for insect and mite activity. A record of this must be kept.
- Where grain is treated for insects or mites only approved pesticides with a PCS No. may be used in accordance with approved use practices and should have the prior approval of any potential end user. Where grain is fumigated it must be done by trained personnel strictly in line with product manufacturers instructions and must also have the full approval of any potential end-user. Full records of products used, rates and dates of use must be kept. Withdrawal periods between application on grain and marketing of that grain must be observed.
- Physical condition of stores must be monitored regularly and necessary maintenance carried out promptly.

Members should have a maintenance programme and record repairs.

16 GRAIN OUT-LOADING

- For each load of grain dispatched the following information must be recorded on a grain out-loading docket or stamped weighbridge statement. Grain out-loading forms are available from IGAS.

1. IGAS Registration No.
2. Date.

3 Docket Number.

4. Store ID.
5. Grain Type and use.
6. Analysis results as appropriate.
7. Customer /Destination.
8. Order Number (if applicable)
9. Haulier.
10. Transport Reg No and Trailer I.D
11. Previous three load history

12. Confirmation that transport and loading equipment clean.
 13. Sample No.
 14. Weight
 15. Confirmation of approval of load (signature of outloading operator and haulier)
- When grain is being outloaded a clearly labelled representative sample must be taken from each load and retained for three months.
 - As is the case for loading into stores, any grain spillage must be quickly removed from loading areas
 - Vehicles should be covered at all times.

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17 PRODUCT RECALL AND INCIDENT MANAGEMENT PROCEDURE

- Members should have a documented product recall and incident management

procedure (IMP) in place. A documented procedure enabling the recall of grain, either in transit to the customer or already in the customer's premises should be on file. The document must identify management responsibilities should an incident arise. The member must also maintain an up to date list of all customer contacts and those working for regulatory authorities in the event of a serious Food Safety issue.

18. SUSTAINABILITY

- Attention must be paid to any activity on the premises to minimise any impact on the environment i.e. pollution, careful baiting to minimise impact on non target species, runoff, tidiness of the site, etc.
- Where applicable, the necessary legal permits for any cleared grassland or deforested secondary forest, or to farm adjacent to or in protected areas, must be obtained in accordance with relevant legislation and customary laws.
- Efforts should be made to encourage biodiversity on the farm and every effort should be made to maintain and improve habitats by planting native species in difficult corners of fields etc. Any areas on the farm where beneficial flora and fauna can be found every effort should be made to promote their existence.
- Members must be able to demonstrate evidence of practices to enhance soil organic matter to enhance water holding capacity, nutrients retention and soil biodiversity e.g. spreading Farmyard manure, compost, crop residue or growing/incorporating cover crops.
- The member must carry out assessments and record the presence of rare or endangered species and habitats on the farm and within the local area. Records should also be kept of any known wildlife corridors within the landscape.
- Illegal hunting, fishing and extraction of flora and fauna from land is not permitted.
- Measures should be taken to avoid crop, crop residue or product going to landfill.
- The deliberate use of fire for land clearance purposes is not permitted.
- Every effort should be made to reduce power usage e.g. switch to LED lighting, solar/water/wind power, water conservation, rainwater harvesting, etc. Opportunities should be examined to source sustainable energy on farm e.g. wind, solar etc.
- Greenhouse gasses should be monitored on farm and use every option possible to reduce their production.
- PPE equipment and First aid equipment should be available at all times to the staff.

- Where staff are employed a hygiene training policy should be in place to avoid disease spread (e.g. Covid 19) and/or possible contamination of the harvested crop. Training records should be kept of the course and trainer,
- Support the local economy wherever possible.

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APPENDIX

See overleaf for a sample of the IGAS Production Assessment Check-list.

Disclaimer:

Under no circumstances will *CropSure* Ltd. or its employees or agents be liable for any losses, damage, charges, costs or expenses of whatever nature (including consequential loss) which any applicant or member may suffer or incur by reason of or arising directly or indirectly out of the administration by *CropSure* Ltd. or its employees or agents of the Scheme or the performance of their respective obligations in connection with the Scheme save to the extent that such loss, damage, charges, costs and, or, expenses arise as a result of the finally and judicially determined gross negligence or wilful defaults of such person.

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Integrated Pest Management. (IPM) (Sustainability)

EU regulations place increasing emphasis on the reduction of pesticide usage and the increasing role of IPM. Many measures involved in IPM are already part of a grower's normal management and decision making. We have included space in the crop records page to record some of the IPM measures which you operate.

General principles of integrated pest management

1. The prevention and/or suppression of harmful organisms should be achieved or supported among other options especially by:
 - - crop rotation,
 - - use of adequate cultivation techniques (e.g. stale seedbed technique, sowing dates and densities, under-sowing, conservation tillage, pruning and direct sowing),
 - - use, where appropriate, of resistant/tolerant cultivars (varieties) and standard/certified seed and planting material,
 - - use of balanced fertilisation, liming and irrigation/drainage practices,
 - - preventing the spreading of harmful organisms by hygiene measures (e.g. by regular

cleansing of machinery and equipment),

- – protection and enhancement of important beneficial organisms, e.g. by adequate plant

protection measures or the utilisation of ecological infrastructures inside and outside

production sites.

2. Harmful organisms must be monitored by adequate methods and tools, where available.

Such adequate tools should include observations in the field as well as scientifically sound warning, forecasting and early diagnosis systems, where feasible, as well as the use of advice from professionally qualified advisors - e.g. Teagasc or your agronomy consultant.

3. Based on the results of the monitoring the grower has to decide whether and when to apply plant protection measures. Robust and scientifically sound threshold values are essential components for decision making. For harmful organisms threshold levels defined for the region, specific areas, crops and particular climatic conditions must be taken into account before treatments, where feasible.
4. Sustainable biological, physical and other non-chemical methods must be preferred to chemical methods if they provide satisfactory pest control.
5. The pesticides applied shall be as specific as possible for the target and shall have the least side effects on human health, non-target organisms and the environment.
6. The grower should keep the use of pesticides and other forms of intervention to levels that are necessary, e.g. by reduced doses, reduced application frequency or partial applications, considering that the level of risk in vegetation is acceptable and they do not increase the risk for development of resistance in populations of harmful organisms.
7. Where the risk of resistance against a plant protection measure is known and where the level of harmful organisms requires repeated application of pesticides to the crops, available anti-resistance strategies should be applied to maintain the effectiveness of the products. This may include the use of multiple pesticides with different modes of action.
8. Based on the records on the use of pesticides and on the monitoring of harmful organisms the grower should check the success of the applied plant protection measures. EN 24.11.2009 Official Journal of the European Union L 309/85 Please record any of the above measures which you undertake on your farm in order to demonstrate that you comply as much as possible with the principles of Integrated Pest Management.
9. When baiting please refer to the CRRU Ireland Best Practice document for rodenticide use <http://www.crru.ie/download/crru-code-of-best-practice/?wpdmdl=15952>