



# F E M A S

Dried Forage  
Crops

## FEED MATERIALS ASSURANCE SCHEME

### DRIED FORAGE CROPS SECTOR NOTES

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**NOTE:** Although these Sector Notes may be translated into various languages for the convenience of users, the English version remains the definitive reference document in the event of any dispute.

## **NOTES ON THE IMPLEMENTATION OF FEMAS FOR BUSINESSES DRYING FORAGE CROPS**

Sector Notes are provided to assist FEMAS participants and assessors in establishing some background knowledge of specific feed industry supply sectors where issues may exist that are uncommon, or of less relevance, in other sectors. These Notes are not necessarily exhaustive.

These Sector Notes are relevant for businesses involved in the processing and supply of Dried Forage Crop (including: lucerne, sanfoin, clover, lupins after flowering, vetches, herbage legumes, herbage grasses and protein concentrates obtained from lucerne juice and from grasses) for use in animal feeds.

These Notes are laid out in the same format as the FEMAS International Core Standard. Where additional comment is necessary, the clause reference is to the appropriate section of the FEMAS International Core Standard. It is emphasised that the comments included in this document are intended to assist in the application of the corresponding requirements of the FEMAS International Core Standard and are not to be considered in isolation. For clauses where no additional comments are provided in this document, the original requirements of the FEMAS International Core Standard continue to apply without any additions or exclusions.

The most recent additions and amendments to these Notes are shown in *blue italics*, for ease of reference.

The assistance of the British Association of Green Crop Driers (BAGCD) Ltd in preparing these notes is gratefully acknowledged. For further information on BAGCD, please contact:

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## 1.10 Definitions

***Dried Forage Crops:*** Forage crops, including: lucerne, sanfoin, clover, lupins after flowering, vetches, herbage legumes, herbage grasses and protein concentrates obtained from lucerne juice and from grasses, which have been mechanically dried prior to supply as animal feed.

For additional definitions refer to FEMAS International Core Standard

## **SECTION 3      RESOURCES      AND      GOOD      HYGIENIC PRACTICES**

### **3.1 General Requirements**

Where drying operations are undertaken on farms, there is recognition that sites may not always have the general appearance of industrial processors. It is the requirement of FEMAS that participants ensure the safety, quality, and specification of feed ingredients: measures required to achieve these goals must be implemented.

### **3.2 Personnel**

Where agrochemicals and fertilizers are used in association with the production of Forage Crops, personnel responsible for application of treatments must be specifically trained for these tasks. Records of qualifications / training must be maintained.

### **3.3. Production / Processing Facilities & Equipment**

In considering equipment and design, participants must also be sure to include harvest equipment, farm vehicles and any handling equipment used in the forage drying operation by either the participant or his suppliers and subcontractors.

### **3.7 Driers / Drying**

Where waste / recycled fuels are used to fire driers used for processing Forage Crops, participants must demonstrate through risk assessment that there is no consequential risk of significantly increasing the levels of dioxins, PCBs, heavy metals or other hazards in the feed ingredients being produced. This is particularly the case where combustion gases come into direct contact with feed ingredients (or forage crops used to produce them).

Where waste / recycled fuels are used to fire driers, participants must:

- Obtain written assurances from suppliers of waste / recycled fuels with regard to undesirable substances.

#### **AND**

- Obtain analytical data (at a frequency dictated by risk assessment) for the fuels used, to confirm that undesirable substances are at acceptable levels, unless risk assessment specifically demonstrates that no hazard exists.

### **3.16 Control of Contaminants**

It is possible for rodents, hares / rabbits, birds, etc to be caught by mowing machines. All reasonable precautions must be taken to:

- Prevent animals entering product streams

And

- To remove from products during processing any animals mowing machines may have caught.

Participants supplying to the EU should be aware that verbal guidance from the EU Competent Authorities suggests that failure to show due diligence in this area could result in prosecution under the EC Council Decision 2000/766/EC.

## **SECTION 4      TRANSPORT REQUIREMENTS**

### **4.2.1 Transport of Bulk Goods**

Forage crops must be delivered to processing plants on clean and hygienic vehicles. Suppliers and hauliers must comply with procedures that will ensure no transport or loading equipment will contaminate or adversely affect Forage Crops.

## SECTION 5      PRODUCT SAFETY MANAGEMENT

### 5.1.5 Hazard Analysis / Identification

*Hazard analysis must consider the following potential hazards and participants must introduce controls to address those identified as relevant:*

- The possibility of animals being caught in mowing machines (and thereby triggering a positive animal protein result during official testing)*
- The possibility of undesirable plant species being incorporated into dried forage crops (e.g. medicinal poppies, wild poppies, ragwort, hemlock, nightshade species, etc)*
- Where feed products may be fed to horses subject to Jockey Club rules, any potential contaminants likely to trigger a positive test for prohibited substances*

### 5.2 Raw Materials

Risk assessments must be undertaken for all sources of forage crops processed by the participant (whether or not grown by the participant) and testing regimes established accordingly.

It is acceptable to rely upon survey data produced by other sources as long as these can be shown to have relevance for feed ingredients produced by the participant.

### 5.7 Control of Monitoring & Measuring Devices

All field machinery utilised for the application of agrochemicals or fertilizers must be calibrated and records kept confirming that this has been effectively done. All applications must be recorded and records be available for inspection.

### 5.13.5 Undesirable Substances

Forage Crops can be at risk from contamination by undesirable substances present in the soil. Participants' risk assessments must take this into account. Particular consideration should be given to heavy metals (cadmium, lead, mercury, arsenic, etc) if manure, slurry or sewage is spread on the fields used to grow crops being processed / dried. Participants must establish whether such contaminants represent a hazard and implement monitoring and control procedures accordingly.

### 5.13.6 Microbiological Analysis

Pathogens (salmonella, E. coli, etc) may be a hazard if manure, slurry or sewage is spread on the fields used to grow crops being processed / dried. Participants must establish whether such contaminants represent a hazard and implement monitoring and control procedures accordingly.

## **Applicable Regulations**

**N.B.** This section of the Sector Notes is intended to assist participants and assessors in identifying specific regulations that should be considered with regard to this sector. It is not necessarily exhaustive nor does it reduce the obligation of both participants and assessors to ensure they are familiar with any regulations relevant to this sector.

Because of the real possibility of wild animals being caught in mowing machines, in addition to those regulations that apply to all feed ingredients, suppliers of Dried Forage Crops based in, or supplying to, the EU must be aware of the following specific regulations:

1. **Regulation (EC) No 1774/2002** Laying down health rules concerning animal by-products not intended for human consumption
2. **TSE Regulations 2006** (UK only)
3. **EC Council Decision 2000/766/EC** Concerning certain protection measures with regard to transmissible spongiform encephalopathies

**NOTE:** Those participants supplying feed products for race horses must be aware of any relevant rules applied in those countries they supply. It should be noted that some substances prohibited in feeds for race horses may be present in naturally occurring plants.