REPUBLIC OF SOUTH AFRICA DEPARTMENT OF AGRICULTURE

STANDARDS AND REQUIREMENTS

REGARDING CONTROL OF THE EXPORT OF

FEED PRODUCTS

DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE PRIVATE BAG X258 PRETORIA 0001

DEPARTMENT OF AGRICULTURE

STD No. G13

AGRICULTURAL PRODUCT STANDARDS ACT, 1990 (ACT No. 119 OF 1990)

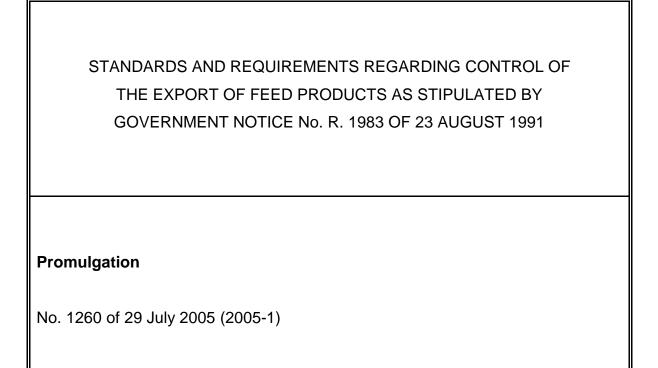
STANDARDS AND REQUIREMENTS REGARDING CONTROL OF THE EXPORT OF FEED PRODUCTS

The Executive Officer: Agricultural Product Standards has stipulated under section 4(3)(a)(ii) of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990), these standards regarding the quality of feed products and the requirements regarding the packing, marking and labelling thereof.

Page 2 of 25

2005-1

STD. No. G13



EXPORT STANDARDS AND REQUIREMENTS: FEED PRODUCTS

Page 3 of 25

			2005-1
	CONTENTS		
		Items	Page numbers
Definitions		1	4-7
Scope		2	8
Requirements for a	approval	3	8
Quality and feed sa	afety standards	4-8	9-11
Containers, packing and marking requirements		9-12	12-13
Traceability		13	14
Sampling		14	15-16
Method of inspection	on	15-25	17-22
Application of results		26	23-24
Annexure			
Table	Maximum Percentage allowabl (m/m) for hay products	le deviation	25

EXPORT STANDARDS AND REQUIREMENTS: FEED PRODUCTS

Page 4 of 25

2005-1

Definitions

1. In these standards and requirements, unless inconsistent with the context, any word or expression to which a meaning has been assigned in the Act, shall have a corresponding meaning, and --

"bag" means a bag made from jute, phormium or other suitable material;

"bone meal" means ground, sterilised, dried bones;

"blood meal" means ground, sterilised, dried blood;

"bran" means also wheaten feed bran, wheaten feed pollard and rice bran;

"bulk container" means a grain truck or any vehicle or container used for the transport or storage of products;

"bulk probe" means a double tubed probe with multiple apertures on one side of both tubes;

"carcass meal" a mixture of meat and bone meal;

"chemical residues" means residues of agricultural remedies which in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947), are permissible for the treatment of pests and diseases and which do not exceed the prescribed maximum residue limit;

"consignment"

- (a) in relation to feed products, means a quantity of feed products of the same grade delivered at any one time under cover of the same consignment note, delivery note or receipt note or from the same bulk container or which is loaded from the same bin of a grain elevator into a ship's hold or;
- (b) in the case where a quantity referred to in paragraph (a); is subdivided into different types, each quantity of each different types;

"container" means a bag or bulk container in the case of milled products and a bale in the case of hay;

"Executive Officer" means the officer designated under section 2(1) of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990);

Page 5 of 25

2005-1

"feed products" means -

- (a) a substance or substances which consist mainly of kinds of grain, (excluding maize), kinds of hay and by-products of slaughtered animals -
 - (i) which have been reduced to a finer or different form by a process of cleaning, grinding, breaking, reducing to grit, cutting, chopping, sterilising or pressing;
 - (ii) whereto a certain substance or substances may have been added; or
 - (iii) from which a certain substance or substances may have been removed;
- (b) mixtures of two or more products mentioned under (a), which may, inter alia, include a maize product; and
- (c) hay which has not been ground, chaffed or chopped;

"feed safety" means an assurance that feed products are acceptable for the target animal consumption according to its intended use;

"fibre" means crude fibre;

"foreign matter" in relation to -

- (a) all feed products, means sand, gravel, stones or soil, pieces of wire, wood and weeds; and
- (b) feed products which are derived from grain, means the matter mentioned in

 (a) as well as any other part of the plant concerned and also any other plant
 material except the feed product or products which are an integral part of the
 feed product or mixture concerned but excluding an improved binding agent;

"grain sorghum" means the seed of all grain sorghums excluding broom sorghum, hay sorghum and sweet sorghum;

"grain sorghum meal" means a full grain sorghum product which includes the embryo and bran portions and which is obtained by the grinding of grain sorghum;

"grass" means plants which belong to the *Gramineae* family;

"grind" means the process by which a feed product is cleaned and reduced to a finer product by a process of grinding, breaking, reducing to grit, cutting and chopping;

Page 6 of 25

2005-1

- "hand sieve" means a square sieve with internal dimensions of 300 mm to 310 mm in length, 300 mm to 310 mm in width and at least 76 mm in depth and of which the sides are made of wood with a polyester or wire cloth screening which is suspended uniformly tight and which does not hang excessively loose;
- "harmful plants" means plants or parts of plants which may be harmful to livestock such as *Crotalaria* spp, *Datura* spp, castor oil seed (*Ricinus* spp), tulips and similar plants;
- "hay product" means a product obtained by mowing and drying the above ground vegetative growth of grain, grass or leguminous crops which may be with or without cobs, ears or pods and which is used for the purpose of feeding animals;
- "hazard" means a biological, chemical or physical agent in or condition of, a feed product with the potential to cause an adverse health effect of the person working with the product, the target animal or the consumer;
- "insects" means live weevils or any other live insects which are harmful to stored feed products, irrespective of the stage of development of the insects;
- "lucerne" means that portion of the plant *Medicago sativa* and related species, which is usually cut for hay;
- "meal" means the product obtained by a process of grinding;
- "meat meal" means ground, sterilised, dried meat;
- "oil-seed cake meal" means a product obtained after oil has been extracted from seeds which contain oil such as cotton seed, groundnuts, sunflower seed, soybeans, linseed, and any other seeds which contain oil, (excluding maize) and which has thereafter been ground into a finer form;
- "oil-seed meal" means a product obtained by grinding soybeans, groundnuts, sunflower seed, cotton seed, linseed or any other seeds which contain oil, (excluding maize) which are ground before the oil is extracted;
- "other kinds of hay" in relation to hay products, means hay made from other kinds of grass or crops except weeds, than which the consignment is supposed to consist of;
- "per cent", in relation to the protein content of lucerne meal, means the percentage according to mass on a 90 per cent dry basis;

"protein" means crude protein;

"rice bran" means a by-product which is obtained when dehulled rice is polished and includes broken rice;

EXPORT STANDARDS AND REQUIREMENTS: FEED PRODUCTS

Page 7 of 25

2005-1

- "sieve" means the process by which the coarser particles are separated from the finer particles of meal or grit;
- "the Act" means the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990);
- "traceability" means the ability to trace and follow a feed product or any substance intended to be, or expected to be incorporated into a feed product through all stages of production, packing, processing, handling and distribution;
- "weeds" means wild volunteer plants, except grass;
- "wheaten feed bran" means a by-product obtained when wheat is ground and which consists mainly of the outer coarse testa of wheat kernels irrespective of whether it contains a portion of ground rye;
- "wheaten feed pollard" means a by-product obtained when wheat is ground and which consists mainly of the finer testa of wheat kernels and to which a portion of the endosperm or wheat kernels, is attached irrespective of whether it contains a quantity of ground rye;
- "1,25 mm hand sieve" means a hand sieve with a polyester or wire cloth screening bottom with apertures of 1,25 mm by 1,25 mm and a wire or thread diameter of 0,40 mm;
- "1,4 mm hand sieve" means a hand sieve with a polyester or wire cloth screening bottom with apertures of 1,4 mm by 1,4 mm and a wire or thread diameter of 0,45 mm;
- "2 mm hand sieve" means a hand sieve with a polyester or wire cloth screening bottom with apertures of 2,0 mm by 2,0 mm and a wire or thread diameter of 0,50 mm;
- "6,35 mm round hole sieve" means a sieve with round holes 6,35 mm in diameter.

Page 8 of 25

2005-1

Scope

2. These standards and requirements shall relate to feed products in respect of which an approval for the export thereof is required in terms of section 4 of the Act.

Requirements for approval

3. An approval referred to in section 4 of the Act, shall be issued in respect of a consignment of feed products if --

- (a) the consignment concerned is graded in accordance with the grades as set out in item 5;
- (b) the containers in which the consignment concerned is packed, comply with the requirements as set out in item 9;
- (c) the consignment concerned complies with the packing requirements as set out in item 10;
- (d) the containers concerned are marked in accordance with the marking requirements as set out in item 11;
- (e) the sample for inspection is drawn in accordance with the requirements as set out in item 14;
- (f) the consignment concerned is inspected in accordance with the methods as set out in items 15 to 25;
- (g) the feed products comply with the traceability requirements set out in item 13;
- (h) that consignment has been presented for inspection in accordance with the Regulations Regarding Control of the Export of feed products; and
- (i) an inspector has after an inspection in terms of the said regulations found that the provisions of these standards and requirements have been complied with in respect of the consignment concerned.

Page 9 of 25

2005-1

QUALITY AND FEED SAFETY STANDARDS

General

4. Feed products which are intended for export shall comply with the requirements as set out in this part.

Grades

- 5. (1) The grades for the different types of feed products are as follows:
 - (a) Hay products:

(b)

Grade

(i)	Hay (excluding lucerne)	H1
(ii)	Lucerne hay	L1 L2
(iii)	Lucerne meal (finely ground)	LM1F LM2F
(iv)	Lucerne meal (coarsely ground)	LM1C LM2C
Feed	products derived from grain:	
(i)	Grain sorghum meal	K1
(ii)	Oil-seed meal	OM1

- (iii) Oil-seed cake meal OC1
- (iv) Wheaten feed bran WB1
- (v) Wheaten feed pollard WP1
- (vi) Rice bran RB1
- (vii) Balanced rations BR1
- (c) Animal by-products:
 - (i) Meat meal, bone meal, blood meal and carcase mealDP1.

- (2) Subject to the allowable deviations as prescribed in Table -
 - (a) all grades of feed products, excluding hay products, shall -
 - (i) be free from waste or mould;
 - (ii) be free from a rancid, sour, objectional or mouldy smell or taste;
 - (iii) be free from wet or caked patches;
 - (iv) not be of an excessively high temperature;
 - (v) subject to the provisions as set out in subitem 26(7) be free from insects;
 - (vi) not be treated with a poisonous chemical substance which may render them unfit for human or animal consumption;
 - (vii) in the case of bran and grain sorghum meal have a moisture content not exceeding 12,5 per cent;
 - (viii) contain not more than 6 per cent foreign matter; and
 - (ix) in the case of grain sorghum meal at least 95 per cent (m/m) shall pass through a 1,25 mm hand sieve;
 - (b) all hay products shall -
 - (i) not be wet, sweated, mouldy or warm;
 - (ii) be sound, sweet and cool;
 - (iii) be free from foreign matter;
 - (iv) be free from harmful plants or parts thereof; and
 - (v) be free from other kinds of hay.
 - (c) lucerne hay and lucerne meal shall, in addition as set out in subregulations (b)(i), (ii), (iii), (iv) and (v) -
 - (i) be of a pea green colour: Provided that Grades L2, LM2F and LM2C may be of a slightly faded green colour;

Page 11 of 25

2005-1

- (ii) in the case of grades L1, LM1F and LM1C be derived from young leafy lucerne;
- (iii) in the case of grades L2, LM2F and LM2C be derived from leafy but older and coarser lucerne;
- (iv) in the case of grades LM1F and LM1C contain at least 16 per cent protein (m/m);
- (v) in the case of grades LM2F and LM2C contain at least 14 per cent protein (m/m);
- (vi) in the case of grades LM1F and LM2F at least 95 per cent (m/m) shall pass through the 1,4 mm hand sieve;
- (vii) in the case of grades LM1C and LM2C at least 90 per cent (m/m) shall pass through a 6,35 mm round hole sieve; and
- (viii) in the case of lucerne meal have a moisture content not exceeding 10 per cent.

(3) Meal products may be exported in pellet form but may not contain more than 3 per cent of binding agent approved by the Executive Officer.

Deviations

6. The maximum deviations from the requirements as set out in item 5 which are allowed in respect of the various grades, as the case may be, are as set out in Table 1.

Physical hazards

7. No consignment of feed products shall contain:

- (a) any foreign matter in excess of the tolerance;
- (b) any organism which may be a source of danger to the animal.

Biological and chemical hazards

8. No consignment of feed product shall contain biological or chemical contaminants in quantities that may potentially cause an adverse health effect.

Page 12 of 25

2005-1

CONTAINERS, PACKING AND MARKING REQUIREMENTS

Containers

9. Containers containing feed products intended for export shall be suitable, whole, clean, dry and odourless.

Packing

10. (1) Lucerne and other kinds of hay shall be pressed in bales which are approximately 766 mm in length, 457 mm in width and 381 mm in height.

(2) Each bale shall be tied firmly with at least two strands of wire of a diameter of at least 2 mm to 2,65 mm.

(3) Feed products of different types shall not be packed in the same container except in the case of compounded rations.

(4) Bags shall be securely closed.

Marking

Particulars

11. (1) In the case of lucerne hay a label measuring 100 mm by 50 mm shall be firmly attached to one of the strands of wire of every bale indicating clearly and legibly in printed letters of at least 5 mm high, the grade of such bale.

- (2) (a) Each bag which contains lucerne meal shall be marked with the marks LM1F, LM2F, LM1C or LM2C respectively according to the grade of the lucerne meal in the container, in letters and numbers at least 50 mm high at a place not more than 75 mm from where the mouth of the bag is sewn up; or
 - (b) as an alternative a label 100 mm by 40 mm shall be firmly attached to each bag containing lucerne meal, indicating clearly and legibly in letters at least 5 mm high, the grade expressed as LM1F, LM2F, LM1C or LM2C according to the grade of lucerne meal packed in the bag.
- (3) Before despatch to the port of export -
 - (a) each bag containing feed products shall be clearly and legibly marked by means of stencilling, in letters and figures at least 50 mm in height on and at a place not more than 75 mm from where the mouth of the bag is sewn, with the code indicating the grade of the contents, or

Page 13 of 25

2005-1

((b)	and or and fu	alternative a label, measuring not less than 50 mm by 25 mm n which the name and grade of the contents is clearly, legibly illy indicated in letters not less than 2 mm in height, shall be attached to each bag.
((c)	Provic	name and address or registered trade mark of the owner: led that it may be substituted by a code which has been ved beforehand in writing by the Executive Officer.
((d)		ountry of origin: Provided that no abbreviation or the expression Africa" on its own shall be used.
((e)	Execu	roducer's code or the silos code which is registered with the tive Officer by the producer, exporter, packer, as the case may rovided that
		(i)	if a producer has more than one farm, each farm shall be registered separately; and
		(ii)	such code shall be preceded by the expression "producer", "silos", "packer", "PUC,", "FBO", as the case may be, or any other suitable term having a similar meaning.

Prohibited particulars

12. (1) No wording, illustration or other device of expression which constitutes a misrepresentation or which, directly or by implication, creates a misleading impression of the contents shall appear on a container, containing feed products.

Page 14 of 25

2005-1

TRACEABILITY

- 13. Producers, packhouse managers and exporters shall:
 - (a) establish the traceability of feed products at all stages of production, packing, handling and distribution;
 - (b) be able to identify any person or supplier from whom they have been supplied with feed products, or any substance intended to, or expected to be used in the production or processing of feed products;
 - (c) have in place systems and procedures to identify other businesses to which their feed products have been supplied;
 - (d) ensure that adequate procedures are in place to withdraw feed products from the market where such feed products present a serious risk to the health of consumers;
 - (e) immediately withdraw feed products which was identified as feed products that present a serious risk to the health of consumers;
 - (f) immediately inform the Executive Officer of such withdrawal;
 - (g) immediately make available, on request, any information or documentation mentioned in (a), (b), (c), (d), (e) or (f); and
 - (h) keep records of the information mentioned in (g), as well as any other relevant information for at least two years.

Page 15 of 25

2005-1

SAMPLING

Obtaining of sample

14. (1) An inspector shall for the purpose of these standards and requirements draw representative sample of feed products in the following manner:

- (2) Random samples
 - (a) Out of bags.

Small amounts of feed products shall be drawn from a number of bags which is at least equal to the square root of the total number of bags in the consignment, in such a manner that the samples so drawn will be representative of the whole consignment. These samples shall be mixed thoroughly.

- (b) In bulk:
 - (i) In bulk containers, excluding grain elevators.

When feed products are presented for inspection in bulk in a bulk container, samples shall be drawn at four to five different places in the bulk container with a bulk probe in such a manner that the samples drawn will be representative of the contents of the bulk container. Samples may also be drawn by hand at regular intervals while a bulk container is being emptied. The collective sample from a bulk container shall be mixed thoroughly and kept separate.

(ii) Out of grain elevator.

Where feed products are loaded from a grain elevator into a hold of a ship, samples shall be drawn at regular intervals at the outflow of the shipping bins onto the conveyor belts in such a manner that the samples drawn will be representative of the consignment which is loaded. Each separate sample shall be mixed thoroughly before further examination.

(iii) An inspector may at any time draw samples from any place in a grain elevator.

Page 16 of 25

2005-1

(c) Out of bales.

One per cent of the number of bales in a consignment shall be drawn at random. Each such bale shall be opened and examined for quality deviations, which can be determined by smelling, feeling or by visual inspection. Small amounts of hay shall be drawn from each bale abstracted for inspection, in such a manner that they are representative of such a bale. Before analysis and examination the composite sample shall be mixed properly.

(3) Samples drawn in the manner prescribed in subitem (2) shall, in the application of these regulations, be considered as random samples.

(4) Deviating samples: If during the process of drawing the random samples an inspector should notice that any quantities of feed products drawn from any bags or bales or portion of a bulk container, are obviously inferior to or differ from the samples drawn from the remaining bags, bales or other portions of a bulk container, he shall draw samples only from such deviating bags, bales or portions of a bulk container, collect them in a recepticle and mix them thoroughly. Samples drawn in this manner shall, in the application of these regulations, be considered as deviating samples.

(5) While these random or deviating samples are being drawn from the bags or bales they shall be examined simultaneously and separately for deviations in quality requirements which can be determined by feeling, smelling or by visual inspection. Any bags or bales which do not comply with the requirements, or from which deviating samples have been drawn shall be marked with a distinguishing mark.

Page 17 of 25

2005-1

METHOD OF INSPECTION

DETERMINATION OF FINENESS AND PERCENTAGE DEVIATONS

15. (1) The degree of fineness and percentage deviations shall be determined as set out in this item.

(2) Determination of fineness. - The percentage of a feed product which must pass through a specified hand sieve shall be determined as follows:

- (a) Measure out 100 g of feed products from a random or deviating sample, as the case may be;
- (b) sieve the 100 g for 60 seconds by means of the prescribed sieve. The sieve shall be firmly grasped with both hands at two opposite sides and shall be moved briskly and continuously in an approximately circular path in a horizontal plane at such a rate that not less than 120 nor more than 140 complete revolutions are made in the prescribed 60 seconds. During the sieving process the sieve shall be so manipulated that the material on the wire mesh shall move over the entire sieving surface;
- (c) determine the mass of the material which has passed through the sieve and express it as a percentage of the 100 g; and
- (d) such percentage represent percentage of fineness in the consignments.
- (3) Determination of percentage pieces of other kinds of hay in lucerne meal.
 - (a) Measure out 100 g of lucerne meal from a random or deviating sample as the case may be;
 - (b) sort the 100 g in such a manner that the pieces of other kinds of hay are retained;
 - (c) determine the mass of the pieces of other kinds of hay so obtained and express it as a percentage of the 100 g; and
 - (d) such percentage represent percentage pieces of other kinds of hay in Lucerne in the consignment concerned.

Page 18 of 25

2005-1

(4) Determination of foreign matter in lucerne meal and products derived from grain and animal carcases.

- (a) Measure out 100 g feed products from a random or deviating sample, as the case may be;
- (b) sort the 100 g in such a manner that the foreign matter is retained;
- (c) determine the mass of the foreign matter so obtained and express it as a percentage of the 100 g; and
- (d) such percentage represents percentage of foreign matter in Lucerne meal and products derived from grain and animal carcases in the consignment concerned.

(5) Determination of foreign matter, other kinds of hay, and harmful plants in hay products excluding lucerne meal.

- (a) Measure out 500 g hay from a random or deviating sample, as the case may be;
- (b) sort the 500 g in such a manner that --
 - (i) the foreign matter;
 - (ii) other kinds of hay;
 - (iii) harmful plants are retained separately; and
- (c) determine the mass of -
 - (i) foreign matter;
 - (ii) other kinds of hay; and
 - (iii) harmful plants separately;

and express each as a percentage of the 500 g.

Page 19 of 25

2005-1

DETERMINATION OF MOISTURE CONTENT

16. The moisture content of a quantity of feed products excluding hay shall be determined by means of --

- (a) the Brabender semi-automatic moisture tester; or
- (b) the warm air oven method.

Sampling

17.. A representative sample of at least 70 g but not exceeding 80 g shall be taken from a random or a deviating sample, as the case may be.

Grinding and mixing of sample

- 18. The following apparatus is required for the grinding and mixing of the sample:
 - (a) A coffee mill or other suitable mill;
 - (b) a jar with a capacity of at least 350 ml but not exceeding 400 ml and which is equipped with a screw cap; and
 - (c) a 2 mm hand sieve.

Method

19. (1) Products which are so fine that at least 90 per cent (m/m) passes through a 2 mm hand sieve need not be ground.

(2) Products which are coarser than prescribed in subitem (1) must first be ground so as to comply with the prescribed fineness requirements.

(3) The mill shall be operated at a uniform speed so that the temperature of the meal is raised as little as possible in the process (not more than 10°C above room temperature) and the milling process shall not last more than 60 seconds.

(4) The ground product [or the production mentioned in subitem (1) which is fine enough] shall immediately be screwed down in a clean and dry jar and be thoroughly mixed by simultaneous rapid tilting and turning of the jar for at least 30 seconds.

Page 20 of 25

2005-1

Determination of moisture content by means of the Brabender semi-automatic tester

Apparatus

20. The apparatus required for the determination of moisture content according to the above-mentioned method, is as follows:

- (a) Brabender semi-automatic moisture tester (Type HA or equivalent);
- (b) flat-bottom aluminium dishes with a diameter of approximately 85 mm and a mass of 11,5 g with a variation not exceeding 0,01 g;
- (c) automatic laboratory precision balance capable of measuring 21,5 g accurate to 0,01 g; and
- (d) air tight desiccator with glass taps; fresh activated aluminium oxide or silicagel (in the form of coarse particles) shall be used as a drying medium in the desiccator.

Erection and checking of Brabender semi-automatic moisture tester

21. The Brabender semi-automatic moisture tester as well as the automatic laboratory precision balance shall be placed on a rigid, level base away from draughts. The manufacturer's instructions shall be carefully carried out in the erection of the apparatus. Before any moisture determinations are commenced the following checks shall be carried out:

- (i) The apparatus shall be levelled by adjusting the foot screws;
- (ii) to calibrate the apparatus it shall be switched on and allowed to heat up. The temperature in the drying compartment shall be set at 130°C (with a variation not exceeding 3°C) by means of the contact thermometer. When the temperature of the drying compartment has reached 130°C, the calibration piece, supplied with the apparatus, is placed in one of the recesses in the turn table. The balance incorporated in the apparatus, is then actuated. If a reading other than 20 per cent is obtained on the graduated scale the adjusting screw to the right of the graduated scale is loosened, the adjusting lever set to register exactly 20 per cent and the adjusting screw retightened. To check the zero point the calibration piece is left in position and a 2 g mass piece is placed on the plate to which the three prongs of the balance are attached. If the reading registered differs by more than 0,1 from the zero reading on the graduated scale, the balance itself must be adjusted.

Page 21 of 25

2005-1

Method

22. A flat-bottom aluminium dish, which has previously been heated to 130°C for at least 30 minutes and then cooled in a desiccator to room temperature, is placed on the automatic laboratory precision balance. The air-dry sample shall be mixed thoroughly as prescribed in item 20 just prior to mass measuring. Sufficient of the sample is placed in the moisture dish to give a total mass for the dish and contents of 21,5 g with a variation of not more than 0,01 g.

The dish with contents is placed in one of the recesses in the turn table of the Brabender Moisture Tester which has previously been brought to and maintained at a temperature of about 130°C. After one hour of heating of the sample at a temperature of 130°C (with a variation not exceeding 3°C), the moisture percentage (m/m) of the sample is read off on the graduated scale of the built-in mass meter.

Determination of moisture content by means of a dry air oven

Apparatus

23. The apparatus required for the determination of moisture content according to the above-mentioned method is as follows:

- (a) Flat bottom aluminium dishes with a diameter of approximately 60 mm and lids which fit tightly thereon;
- (b) airtight desiccator with glass taps; fresh activated aluminium oxide or silicagel (in the form of coarse particles) shall be used as a drying medium in the desiccator;
- (c) aperiodic analytical mass meter of the automatic or semi-automatic type, with a capacity for 200 g and a sensitiveness of 0,1 mg; and
- (d) electric warm air oven of which the temperature can be regulated, and which will give a corresponding result to the Brabender moisture meter.

Method

24. Place a flat bottom aluminium dish with its lid in a warm air oven at 130° C (with a tolerance of 3° C) for 30 minutes. Thereafter quickly place the dish with lid in a desiccator to cool down to ambient room temperature and thereafter measure its mass accurately. Then measure off accurately in the dish an amount of approximately 2 g (with a tolerance of not exceeding 0,1 g) of the sample obtained as set out in item 20. Place the dish with the contents and the lid, so that the lid leans against the dish, back in the warm air oven at 130° C (with a tolerance of 3°) for one hour exactly. Place the lid on the dish while the dish is still in the oven. Thereafter, take it out of the oven and place

Page 22 of 25

2005-1

it immediately in a desiccator to cool down to ambient room temperature. Measure the mass of the dish with its lid and contents accurately. Deduct this mass from the mass of the dish plus lid and sample before heating and express the loss of mass as a percentage of the original mass of the sample.

Repetition of test

25. In the event of the result of the test with the Brabender or with the warm air oven being less than 0,3 per cent above or below the maximum tolerance for moisture content, a second test shall be carried out on the same sample. Before a consignment can be rejected, however, an additional sample obtained from the same or additional sample, shall be tested. The average of the tests shall be regarded as the moisture content of the consignment.

Page 23 of 25

2005-1

APPLICATION OF RESULTS

26. (1) A consignment of feed products can be approved by an inspector by virtue of the results obtained from a single analysis of a random sample, subject to the conditions as set out in subitem (2) to (7).

(2) In the event of the result of an analysis of a random or deviating sample differing less than the following percentages from the allowable deviations as indicated in the following table, being either within the limits or exceeding the limits, a second analysis shall be made on the same sample to control the result of the first analysis.

Allowable deviation %	Difference in respect of allowable deviation		
	%		
More than 0,15 but not exceeding 0,5	0,10		
More than 0,5 but not exceeding 1	0,25		
More than 1 but not exceeding 10	1,0		
More than 10 but not exceeding 96	4,0		

(3) A consignment may however not be rejected before further two analyses are made from the same or an additional random sample: Provided that the average of the results of all such analyses shall be valid in respect of the consignment or containers concerned, subject to conditions as set out in subitems (5) to (7).

(4) Basis for approval or rejection of a consignment or portion thereof: Bags or bales containing feed products which have become wet, resulting in the contents being detrimentally affected, shall be individually rejected for export and removed irrespective of the number in any consignment: Provided that if more than 10 per cent of the bags in the consignment is wet, the whole consignment shall be rejected.

(5) An inspector shall, if he or she has taken a deviation sample by virtue of item 14(4), reject the consignment if the average results of at least two analysis of the deviating sample do not comply with the requirements which are prescribed in item 4, 5, 6 and 7.

(6) A consignment of feed products of which the contents have an excessively high temperature, shall be rejected for export. Such consignments may be presented again for inspection after cooling down.

(7) Where live insects are found during inspection --

(a) on or between bags;

Page 24 of 25

2005-1

- (b) on or between feed products; or
- (c) in bulk containers;

the whole consignment shall be rejected: Provided that such consignments may be presented again for inspection after fumigation.

EXPORT STANDARDS AND REQUIREMENTS: FEED PRODUCTS

Page 25 of 25

2005-1

ANNEXURE

MAXIMUM PERCENTAGE ALLOWABLE DEVIATION (M/M) FOR HAY PRODUCTS.

(a) Hay (excluding lucerne): Nature of deviation	Maximum percentage allowable deviation (m/m)			
	Grade H1			
Other kinds of hay	10			
Foreign matter	2			
Harmful plants	0,25			
(b) Lucerne hay: Nature of deviation	Grade L1		Grade L2	
Other kinds of hay	4		8	
Foreign matter	2		2	
Harmful plants			0,25	
(c) Lucerne meal: Nature of deviation	Grade	Grade	Grade	Grade
	LM1F	LM2F	LM1C	LM2C
Pieces of other kinds of hay	4	8	4	8
Foreign matter	2	2	2	2
Fibre content	20	24	20	24