

No. R. 1087

3 November 2006

FERTILIZERS, FARM FEEDS, AGRICULTURAL REMEDIES AND STOCK REMEDIES ACT, 1947
(ACT NO. 36 OF 1947)

REGULATIONS RELATING TO FARM FEEDS

I, Lulama Xingwana, acting under section 23 of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947), made the regulations in the annexure hereto.

L. Xingwana
Minister of Agriculture.

SCHEDULE

Definitions

1. Words and phrases in these regulations shall have the meaning assigned hereto and any other word or expression shall have the meaning thereto in the Act, and unless the context otherwise indicates—

“**additive**” means any intentionally added substance to feedstuffs, premixes, feed or food, not normally consumed as feed by itself when in combination with other substances, whether or not it has a direct or indirect nutritional value and is not classified as a medicine or an essential nutrient, which affects the characteristics of feedstuffs, feed, food, animal products, animal production or animal performance and is generally recognized or proven to be safe under the conditions of its intended use;

“**all life stages**” means gestation/lactation, weaning, growth, adult and senior life stages of an animal;

“**analysis certificate**” means a certificate issued by an accredited laboratory that indicates the complete chemical and/or physical composition of the particular product as required by the Registrar;

“**animal**” means any mammal, bird, fish, reptile or amphibian which is a member of the phylum vertebrates;

“**applicant**” means the person in whose name an application for the registration of farm feed has been filed;

“**application fee**” means fees that, in terms of these regulations, are payable for the registration or renewal of registration for a farm feed;

“**balanced pet food**” means a term that may be applied to a pet food or diet having all known required nutrients in proper quantities and proportion as recognized by the Registrar. The species for which it is intended and the functions such as maintenance plus production (growth, foetus, fat, milk, eggs, wool. Feathers, or work) shall be specified;

“**batch number**” means the number or symbol allocated to a batch of farm feed by the manufacturer for traceability recall purposes;

“**batch**” means the uninterrupted production of a specific product of a specific formula;

“**bulk**” means the packaging of a farm feed other than in a sealed container;

“complementary pet food” means a pet food which is either a treat, or is a fresh, frozen or canned meat or fish product that does not meet all the daily feeding requirements of a pet animal;

“complete animal feed” means a animal feed which contains all the necessary nutrients in the correct quantities and proportions for a given physiological need of the animal as recognised by the Registrar and which meets the total daily requirements of an animal;

“complete pet food” means a pet food which contains all the necessary nutrients in the correct quantities and proportions for a given physiological need of the animal as recognized by the Registrar and which meets the total daily requirements of an animal;

“concentrate” means an animal feed that must be mixed with one or more feedstuffs to obtain a complete animal feed or supplement;

“custom mix” means a mixture compiled on the written advice of a qualified person for a specific client or a mixture of registered feedstuffs mixed at the written request of an end user. Prescription mixture shall have a corresponding meaning;

“enzyme activity” means the catalytic activity required to convert a given quantity assay substrate to a given quantity of product per unit time under the standard conditions set forth in the assay procedure;

“enzyme substrate” means the material or substance which is acted upon catalytically by the enzyme;

“enzyme” means a protein made up of amino acids or their derivatives which catalyses a defined chemical reaction. Required co-factors should be considered as an integral part of the enzyme;

“family” means a group of products which are nutritionally adequate for any or all stages based on their nutritional similarity to a lead product which nutritional adequacy has been successfully substantiated;

“farm animal” means animal nourished and kept by man for food and/or for commercial purposes;

“farm feed” means any mixture of acceptable feedstuffs intended for the feeding of animals as defined in the Act. Farm feed has the same meaning as animal feed;

“feedstuff” means a product of vegetable or animal origin, in its natural state, fresh or preserved; a product derived from the industrial processing thereof; and an organic or inorganic substance, whether or not used as a carrier in a mixture. Feedstuff has the same meaning as raw material, feed ingredient or any words of similar connotation;

“good manufacturing practice or GMP” means a system of manufacturing designed to ensure that the final products made are fit for their intended purpose and meet all agreed specifications and statutory requirements;

“guaranteed analysis” means the stated minimum and/or maximum nutrient value of animal feed;

“immediate container” means in relation to farm feed, a container which is in direct contact with the farm feed;

“ingredient statement” means a collective and contiguous listing on the label of the feedstuffs of which the farm feed is composed;

“invoice” means an accompanying letter, delivery note or weigh bridge ticket, receipt note or receipt, or commercial document;

“kind of farm feed” means different kinds of farm feeds as defined in the Act under section 23 (2);

- “label”** means when used as a noun, any written, printed or graphic representation attached to an immediate container of a farm feed or produced on an immediate container in any possible manner and which states the details required in terms of these regulations for the particular farm feed;
- “labelling”** means all labels and other written, printed or graphic matter upon a farm feed or any of its immediate containers or wrappers accompanying such a farm feed;
- “manufacture”** means make, compound, mix, formulate, process, package and label for purpose or sale. Manufacturing and manufacturing process have a similar meaning;
- “mark”** means a mark as defined in section 1 of the Trade Marks Act, 1993 (Act No. 194 of 1993);
- “mixed animal feed”** means a mixture of feedstuffs, whether or not containing additives, for oral animal feeding in the form of a complete, supplementary or concentrated animal feed;
- “mixed pet food”** means a mixture of feed ingredients, whether or not containing additives, for oral pet feeding in the form of a complete, supplementary or concentrated pet food and complementary pet food;
- “non-protein nitrogen”** means an organic or inorganic nitrogen source that can be converted to protein by ruminants;
- “nutrient”** means a substance which conveys nourishment to an animal;
- “particular nutritional purpose”** means the purpose of satisfying the specific nutritional needs of certain animals whose process of assimilation, absorption or metabolism could be temporarily impaired or is temporarily or irreversibly impaired and are therefore able to derive benefit from ingestion of animal feeds appropriate to their condition;
- “pet animal”** means an animal belonging to a specie domesticated by man which is kept as a companion and nourished, and/or used for recreational purposes by man;
- “pet food”** means an animal feed for pet animals;
- “premix”** means a mixture of additives or mixtures of one or more additives with substances used as carriers, intended for the manufacture of animal feeds;
- “protein equivalent”** means the percentage of protein derived from non-protein nitrogen sources included in the animal feed and is calculated by multiplying the inclusion of the non-protein nitrogen source by the appropriate factor;
- “registration holder”** means the legal or natural person to whom the Registrar has issued a registration number;
- “registration number”** means the number given by the Registrar once a product has been registered under which such product may be sold;
- “sealed”** means to close a container in such a visible manner with a mechanism that will break visibly the first time the container is opened;
- “sensory additives”** means any substance added to the feed in order to improve or change the organoleptic properties of the feed, or the visual characteristics of the food derived from animals;
- “source organism”** means an organism that actually produces the enzyme(s);
- “supplement animal feed”** means a feed used with another feed to improve the nutritional balance or performance of the total feed and is intended to be fed undiluted as a supplement to other feeds;

“**supplement pet food**” means a nutrient or nutrients used with another feed to change the nutritional balance or performance of the total feed and is intended to be fed in accordance with the manufacturers feeding guide/instructions as a supplement;

“**sworn translator**” means a person admitted and enrolled by any division of the Supreme Court (High court) in terms of Rule 59 of the Rules of Superior Court Practice;

“**technological additives**” means any substance added to the feed for a technological purpose;

“**the Act**” means the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947);

“**the Department**” means the Department of Agriculture;

“**tolerance**” means the permitted deviation in the natural variation of the stated value of an animal feed that occurs in manufacture, sampling and chemical analysis, where the deviation is expressed as a percentage of the stated value of the animal feed;

“**treat**” means when used as a noun, means a composed pet food product that is not necessarily balanced or complete;

“**zootechnical additives**” means any substance used in order to effect favourably the performance of animals in good health or used to affect favourable the environment;

PART I

REGISTRATIONS

Application for registration

2. (1) An application in terms of section 3(1) of the Act for registration of an animal feed shall be submitted to the Registrar on the form which is obtainable from him for this purpose, or on a clearly legible facsimile thereof on good-quality A4 size paper of the same colour as that of the form supplied by the Registrar for the application concerned.

(2) Such an application shall -

- (a) be made by a person residing in the Republic of South Africa, or, in the case of juristic person, who has a registered office in the Republic;
- (b) signed by an approved person;
- (c) be accompanied by the applicable fee specified in Table 1;
- (d) be accompanied by two copies, at least one copy in English with or without another official language, of a typed version of the details relating to the particular farm feed that will be marked on the immediate container in which it will be sold, or will be attached to the label of such immediate container, or by an example of an actual label which will be used for that product;
- (e) be accompanied by a certificate of analyses for the product which was obtained in the current year of application for registration;
- (f) be accompanied, when required by the Registrar, two samples each containing at least 100 ml, in case of a liquid, or 100g in case of dry product;
- (g) be accompanied, when required by the Registrar, a risk assessment satisfying that the animal feed has no adverse effect on animal health, human health or environment;

- (h) in case of an additive be accompanied by a description of the method of production, manufacturing and intended uses, method of analyses of the additive or premix in feed according to its intended use and where appropriate method of analyses for the determination of residue levels of the additive or its metabolite in food; and
- (i) in the case of an animal feed being manufactured in facilities which are being used for the first time for the purpose of manufacturing by the animal feed applicant, only be made after there has been a full inspection of the facilities by the Registrar and the Registrar is satisfied that the facilities are suitable and adequate for the manufacture of the animal feed concerned and fully meet the requirements for establishments set out elsewhere in these regulations. Where animal feed facility has previously produced animal feed and is then taken over by a new company or is no longer operated by the same legal entity that previously operated it, it shall be re-inspected before continuing operations. In the case of importers whose premises are outside the Republic of South Africa, the facilities shall have been inspected by the acceptable accredited foreign authority and recognized by South African authorities as accredited.

Period of registration

3. (1) Subject to the provisions of sections 4 and 4A of the Act, an animal feed registration in terms of section 3 of the Act shall be valid until 30 September of a calendar year.

(2) In the event that a registration is granted after 1 July in a particular calendar year, such registration shall remain valid until 30 September in the following calendar year.

Renewal of registration

4. (1) An application in terms of section 3(4)(a) of the Act for renewal of registration of an animal feed shall be submitted to the Registrar on either a form available to the Registrar on a form which is obtainable for this purpose, or on good-quality A4 size paper of the same colour as that of the form supplied by the Registrar for the application concerned.

(2) Such an application shall -

- (a) be made by the person to whom the current registration certificate has been issued;
- (b) be postmarked or courier dispatched by the applicant no later than 30 September of the year in which registration lapses;
- (c) be accompanied by an applicable fee specified in Table 1;
- (d) be accompanied, when required by the Registrar, by two copies of all labels currently used in connection of the sale of the animal feed; and
- (e) be accompanied, when required by the Registrar, a certificate of analyses for the product.

(3) Apart from the provisions of subregulation 2(b) above, an application under subregulation 4(1) received by the Registrar 30 days after the expiry date of a particular year, will not be considered and a new application must be made for the registration of the respective animal feed in terms of regulation 2; Provided that the Registrar may grant exemption from submission of the application form as intended in subregulation 2 (1).

(4) Anyone applying for renewal of a registration in terms of this regulation must submit a sworn statement that the information he supplies with such application for the particular animal feed, or a label used in connection therewith, does not deviate in any respect at all from the comparable details that

have already been registered or approved with respect to that animal feed or label, provided that only the original of each application need be so attested.

Conditions for certain registrations and renewal of certain registrations

5. Registration and the renewal of a registration of an animal feed, in terms of Section 3 of the Act, is granted on condition that during the period of registration or a renewal of registration –

(1) the composition of the particular animal feed does not deviate by more than the allowable deviation under which it was registered;

(2) the details approved for use on a label or immediate container for sale of the particular animal feed may not be altered without the prior written approval of the Registrar; and

(3) the particular registration may not be transferred in any manner or aspect to anyone else.

Application for amendment of certain registrations and approved labels

6. (1) In the event that any amendment to the registered composition or a change to the details approved for use on the label are contemplated by the registration holder during the period of registration, the registration holder shall apply to the Registrar under regulation 2.

(2) Such an application for amendment shall be accompanied by the applicable documents, the current registration certificate and application fee stated applicable under regulation 2(2)(c), on the proviso that the Registrar may waive the application fee should the particular change or amendment be either in the public interest, or is effected on the insistence of the Registrar.

Existing and new registration numbers

7. (1) In cases where significant changes have been made to a product's guaranteed analysis or a product's specification has been changed relating to new claims and resulting from guarantees and/or ingredient changes which have not previously been claimed, a new application for registration shall be submitted in order to allow the granting of a new registration number. A written request must accompany the application to retain the existing registration number, which will be allowed should conditions and circumstances warrant this.

(2) Where the registration holder changes, for example as a result of corporate restructuring or a change in business ownership or control, the Registrar shall be advised of such change by letter in affidavit form on or before the effective date of such change. Where the products which are already registered in the name of such holder have not undergone a change in specification within the meaning of subregulation 7 (1), a new registration number may not be required. However, the new registration holder shall be obliged to submit a new label(s) with the new registration holder's details. This application shall be made within two months of the effective date of the change.

Return of registration certificate

8. A registration certificate that is returned under Section 4A(3) of the Act should reach the Registrar –

(1) within 14 days of the day on which –

(a) the person to whom the particular registration certificate has been issued, is informed in writing in terms of section 5 of the Act of the reason for cancellation of such registration; or

(b) the registration of the animal feed has expired in terms of section 4A(2) of the Act; or

(2) at least 30 days prior to the date on which the registration is transferred to another person; provided that the registration envisaged in regulation 2 for the particular animal feed in favour of such other person shall be submitted concurrently.

PART II

APPEALS

Submission of appeals

9. (1) An appeal in terms of section 6 of the Act shall be submitted to the Director-General of Agriculture within 60 days of the date on which the reason for which the decision has been furnished in terms of section 5 of the Act.

- (2) Such an appeal shall -
- (a) be in the form of a written statement which is sworn or affirmed as envisaged in regulation 4(4);
 - (b) state the reference number and date of the notification by which such person or applicant has been informed of that decision;
 - (c) indicate the grounds on which the appeal is based;
 - (d) be accompanied by the documents relating to the subject of the appeal; and
 - (e) be accompanied by an applicable fee as specified in Table 1.

(3) The person who appeals may be represented by a third party, in which case the appeal application shall be accompanied by a power of attorney attesting to the fact that such third party is empowered to act for him.

(4) The applicable fee within the meaning of regulation 9(2)(e) shall be paid by cheque, postal order or money order in favour of the Director-General; Agriculture, provided that such amount may be paid in cash if the appeal concerned is delivered by hand.

Address for submission of appeals

10. An appeal within the meaning of regulation 9(1) must -

(1) When submitted by post, be addressed to the Director-General, Department of Agriculture, Private Bag X250, Pretoria 0001; or

(2) When delivered by hand or private courier service, be delivered to The Director-General, Department of Agriculture, Agriculture Building, Beatrix Street 20, Pretoria.

PART III

REQUIREMENTS FOR ANIMAL FEEDS

General requirements for animal feeds

11. (1) A product may be registered as an animal feed if -
- (a) it possesses the applicable properties specified in these regulations;
 - (b) depending on its nature, it is available for sale in any form which the animal can consume by oral ingestion; and

- (c) Genetically Modified Organisms Act, 1997 (Act No. 15 of 1997) provides for an authorisation procedure for using genetically modified food and feed. Genetically modified products shall only be registered after undergoing an authorisation procedure provided for under GMO Act.

(2) A product containing feed grade urea or another non-protein nitrogen source may be registered as an animal feed only if -

- (a) it is intended for ruminants only;
- (b) the urea or another non-protein nitrogen source used in the feed is registered as an animal feed additive;
- (c) the protein equivalent of an animal feed mixture -
- (i) in the case of a complete dairy meal intended for calves except for calf starter, does not exceed 15 percent;
- (ii) in case of a complete and semi complete dairy meal, does not exceed 30 percent;
- (iii) in case of a concentrated dairy meal, does not exceed 35 percent;
- (iv) in case of a concentrated dairy meal containing anionic salts which is intended for dry cows, does not exceed 67 percent;
- (v) in the case of finisher feeds intended for ruminants, does not exceed 40 percent; and
- (vi) in the case of any other farm feed mixture intended for ruminants, does not exceed 30 percent.

(3) A product containing undesirable substances may be registered as an animal feed if its contents do not exceed the quantity specified in column 3 of Table 2.

(4) A product shall not be registered as an animal feed if -

- (a) it contains any feedstuffs of such nature or in such quantities that it could cause an interaction leading to the loss of one or more of the nutrients in that product such as to be below the intended nutritional requirement for that product;
- (b) it consists of or contains any substance of animal origin, including excreta or other by-products, and which has not been sterilised beforehand to such extent that the infection or contamination of such product with *Bacillus anthracis*, organisms of the gas-gangrene type, other pathogenic or putrefactive organisms of viable micro-organisms or substances has been reduced to the level where such organisms or substances will be injurious to or endanger the health or detrimentally affect the productive capacity of animals to which such product is fed;
- (c) the weed seed content or foreign material thereof exceed the maximum determined in the grading regulations of the of the product as determined under the Agricultural Product Standards Act , 1990 (Act No. 119 of 1990), for the product concerned; and
- (d) It contains ingredients which are prohibited for use as products intended for animal feeding as listed in Table 3.

- (5) A product-
- (a) not specifically provided for in these regulations, or containing a feedstuff likewise not provided for;
 - (b) containing a feedstuff in excess or less than the quantity provided for in these regulations:

may be registered as an animal feed if the Registrar is satisfied, based on supporting scientific documentation, that such product or ingredient will not be injurious to or endanger the health or detrimentally affect the productive capacity of animals to which such product is fed.

(6) A product containing more than **80** grams of oil or fat per kilogram thereof shall only be registered as an animal feed if an anti-oxidant which is approved by the Registrar, is added thereto: Provided that if the Register is, in respect of particular product, satisfied that the addition of an ant-oxidant is undesirable, he/she may determine that such addition need not be made.

Requirements for unmixed animal feed of plant and/or animal origin

12. (1) A mechanically and/or chemically treated product of plant origin and/ or animal origin may be registered as an unmixed animal feed if -

- (a) the minimum and/or maximum nutrients that are guaranteed are declared.
- (b) it conforms to the requirements of these regulations; and
- (c) it is available in a form which will facilitate proper mixing.

(2) A mechanically processed grain and/or oilseed mixture may be registered as farm feed under subregulation 21(4)(j)

Requirements for additives

13. (1) An additive may be registered as an unmixed animal feed if -

- (a) another product has to be added before it can be fed to animals;
- (b) it possesses the applicable properties specified in these regulations;
- (c) it conforms to the requirements of these regulations; and
- (d) it *is* available in a form which will facilitate proper mixing.

(2) Additives shall be grouped and registered according to the classes assigned to them under this subregulation -

- (a) 'technological additives' shall comprise of the following classes-
 - (i) Preservatives: substances for prolonging the shelf life of feedingstuff and feed material through protection against deterioration caused by micro-organisms or their metabolites;
 - (ii) Antioxidants: substances for prolonging shelf life of feedingstuff and feed material through protection against deterioration caused by oxidation;
 - (iii) Emulsifiers: substances for maintaining a homogeneous mixture of two or more immiscible phases in feedingstuff;

- (iv) Stabilizers: substances for maintaining the physico-chemical state of feedingstuff;
 - (v) Thickeners: substances for increasing the viscosity of feedingstuffs;
 - (vi) Gelling agents: substances for the formation of a gel in the feedstuff;
 - (vii) Binders: substances which increase the tendency of particles of feeding **stuffs** to adhere;
 - (viii) Substances for the control of radionucleid contamination: substances that suppress absorption of radionucleids or promote their excretion;
 - (ix) Anticaking agents: substances that reduce the tendency of individual particles of a feedstuff to adhere;
 - (x) Acidity regulators: substances which adjust the pH of feedingstuffs;
 - (xi) Silage additives: substances, including enzymes or micro-organisms, intended to **be** incorporated into feed to improve the production of silage;
 - (xii) Denaturants: substances which are used for the manufacture of processed feedingstuffs in order to allow for the identification of the origin of specific food or feed materials;
- (b) 'sensory additives' shall comprise of the following classes-
- (i) Colourants; substances that add or restore colour in feedstuffs or substances which, when fed to animals, add colour to food of animal origin or substances which favourable affect the colour of ornamental fish or birds
 - (ii) flavouring compounds: substances which, when included in feedingstuffs increases feed smell or palatability
- (c) 'nutritional additives' shall comprise of the following classes-
- (i) Vitamins, pro-vitamins and chemically well defined substances having similar effect;
 - (ii) Compounds of trace elements;
 - (iii) Amino acids, their salts and analogues;
 - (iv) Urea and its derivatives;
- (d) 'zootechnical additives' shall comprise of the following classes-
- (i) Digestibility enhancers: substances which, when fed to animals, increase the digestibility of the diet, through action on target feed materials;
 - (ii) Gut flora stabilizers: micro-organisms or other chemically defined substances, which when fed to animals, have a positive effect on the gut flora;
 - (iii) Substances which favourable affect the environment;
 - (iv) Other zootechnical additives.

Requirements for premixes

14. (1) A product containing a mixture of additives or mixtures of one or more additives with substances used as carriers, intended for the manufacture of animal feeds and contains nutrients and/or other ingredient in quantities and such ratios that it will supply the prescribed requirements for animals may be registered as an animal feed premix.

(2) A person manufacturing a premix shall keep a reference sample for at least 6 months.

Requirements for Custom Mixes

15. (1) A person managing the undertaking where custom mixes are manufactured for specific clients, shall, in respect of each batch or series of the different custom mixes, manufactured, controlled, packed, marked or labelled there, keep comprehensive records of –

- (a) the results of quality checks made on the additives used as ingredients in the manufacture of the custom mix comprising such batch or series and of each such custom mix;
- (b) each date on which a quantity of such batch or series was sold, the names and addresses of the purchaser to whom each such quantity was sold, and the quantity thereof which was sold to each such person;
- (c) the name and address of the person on whose behalf the custom mix was prepared;
- (d) the composition and mixing instructions, as well as the purpose for which it is needed;
- (e) the quantity mixed;
- (f) the signature of and date on which the person on whose behalf the custom mix was prepared, submitted a request.

(2) Where the custom mixes are not sold in containers, the label or invoice shall contain the following information:-

- (a) name and address of the person who placed the order;
- (b) the words “not for public sale”;
- (c) the name of the product or for which purpose the product is intended;
- (d) the mass of the product;
- (e) the name and address of the manufacturer; and
- (9) all NPN warnings as required in the regulations

(3) A person manufacturing a custom mix shall **keep** a reference sample for at least 3 months

Requirements for complete animal feed

16. (1) A product which consist of a mixture of different feedstuffs, whether or not containing additives, and which contains nutrients and other ingredients in such quantities and such ratios that it will supply the nutritional requirements of animals of a kind indicated in column 1 of Table 4 may be registered as complete animal feed of which the name is indicated in column 2 of the said Table if it meets the nutrient contents specified in the applicable columns of Table 4 for the respective kind of animal feed.

(2) A person manufacturing a complete animal feed shall keep a reference sample for at least 3 months.

Requirements for complete Pet Foods

17. (1) A product which consist of a mixture of different feedstuffs, whether or not containing additives, and which contains nutrients and other ingredients in such quantities and such ratios that it will supply minimum and maximum nutrients as specified in column 3 and 4 of Table 5 for dog food and Table 6 for cat food shall be registered as a complete pet food of which the name is indicated by the kind of animal if it meets the nutrient contents so specified in the applicable columns of the applicable tables. Where the digestibility of a complete pet food is higher than 65% on which the Tables are based, the corresponding corrections shall be made and evidence of the higher digestibility provided to the Registrar;

- (a) The application for registration shall be accompanied by data attesting to the nutritional adequacy of the complete pet food. This shall be established by at least one of the following methods -
 - (i) submission of the full details of the nutritional profile of all relevant nutrients as specified in Tables 5 and 6. All nutrients shall be corrected for moisture, energy and processing losses; or
 - (ii) submission of the scientific results of a feeding trial using the latest American Association of Feed Control Officials (AAFCO) testing procedures; or
 - (iii) submission of the full results of a chemical analysis of the finished pet food product. The data shall include at least an analysis of those elements with asterisks in Table 7. Applicants shall be at liberty to submit more comprehensive data if they so desire. The Registrar shall reserve the right to require the analysis of further elements in the table without asterisks in the event that he or she is of the opinion that such analysis is necessary in order to substantiate nutritional adequacy of a particular product.
- (b) Despite method (i), (ii) or (iii) under (a) above that is used to substantiate nutritional adequacy, the application shall be accompanied by an affidavit sworn by an approved person attesting to the nutritional adequacy of the pet food;
- (c) With regard to registration applications for dry pet foods with a moisture content of more than 100 g/kg, the applicant shall provide the Registrar with additional stability data to prove that the product in question is stable enough to be stored and sold bearing in mind the weather conditions in the Republic of South Africa;
 - (i) Dry pet food containers must carry a "best before" date which is up to 12 months from date of manufacture and information in support of the shelf life must be supplied to the Registrar with the application for registration.
- (d) With regard to registration applications for all semi-moist products the applicant shall provide the Registrar with additional stability data to prove that the product in question is stable enough to be stored and sold, bearing in mind the weather conditions in the Republic of South Africa;
- (e) With regard to registration applications for wet pet foods with a moisture content of more than 820 g/kg, the Registrar shall be entitled to request from the applicant supporting documentation and evidence attesting to the nutritional adequacy of the product in question in order to satisfy himself that the product should be registered;

- (i) Wet pet food pet food containers must carry a "best before" date which is up to **24** months from date of manufacture and information in support of the shelf life must be supplied to the Registrar with the application for registration.
 - (f) In the case of complete pet foods for cats, manufacturers shall ensure that their products contain the minimum quantity of taurine required to maintain the health status of the cat, based on the most recent scientific information available, and taking into account that the availability of taurine from products, and in particular from moist products, is influenced by factors such as the feed ingredients used, processing and nutrient profile of the pet food;
 - (g) Each manufacturing establishment may establish families of products which are nutritionally similar to a lead product produced by that establishment of which the nutritional adequacy has been successfully substantiated. The other products within the established family must meet the criteria set out in Table **8**; and
 - (h) Feeding guidelines will be checked for nutritional adequacy using the standards and formulations as specified in Table **9** and **10**
- (2) A Person manufacturing a complete pet food shall keep a reference sample for at least 3 months.

Requirements for complementary pet food

18. (1) A product may be registered as a complementary pet food if it satisfy the following requirements-
- (a) Pet chews and toys and exercisers made of raw hide, wood or any man-made material, hooves, ears, bones and ligaments, whether flavour coated or unflavoured shall be exempt from registration unless any nutritional value or benefit to the animal is claimed on the label or labeling of the product (example digestibility, tartar control etc);
 - (b) **No** specific nutritional adequacy validation procedure shall be required for treats or complementary pet foods; and
 - (c) Complementary pet foods and treats with a nutritional value must show a guaranteed analysis on the label, as well as an ingredient statement, as per complete pet foods.
- (2) Applications for the registration of pet foods for a particular nutritional purpose **must** satisfy the following requirements-
- (a) Where an applicant is seeking to register a pet food for a particular nutritional purpose, he shall submit to the Registrar appropriate substantiation demonstrating that the precise use, i.e. the particular nutritional purpose which he intends to attribute to the product, is in fact appropriate.

Requirements for complementary, supplementary and concentrated animal feeds

19. (1) In the case of a complementary, supplementary and concentrated animal feed which contains any feedstuff in excess of the maximum content specified for that feedstuff in relation to the complete animal feed by Table 2, the instruction for use shall state, according to the species and age of the animal, the maximum quantity in grams or kilograms of the animal feed to be given per animal per day, and shall be so formulated that, when they are correctly followed, the final content of the animal feed does not exceed the maximum so specified. This subregulation shall not apply to products delivered to manufacturers of complete animal feeds or to their suppliers.

(2) Such a product shall be registered according to animals of a kind indicated in column 1 of Table 4 may be registered as complementary, supplementary or concentrated animal feed of which the name is indicated in column 2 of the said Table.

(3) A person manufacturing a concentrated animal feed shall keep a reference sample for at least 3 months.

PART IV

LABELLING AND CONTAINERS

Containers of animal feeds

20. (1) Animal feeds shall -

- (a) be sold in containers which are sound and clean; and
- (b) subject to the provisions of the Trade Metrology Act, 1973 (Act 77 of 1973), be sold in containers which are sealed in such manner as the nature of such farm feed and containers thereof permit.

(2) Notwithstanding the provisions of subregulations (1) animal feed may be sold otherwise than in containers if -

- (a) it corresponds in all respects to the same product sold in containers; and
- (b) the provisions of regulations 23, are complied with at such sale.

Marking and labelling of unmixed, complementary, supplementary, concentrated, additives, premixes and complete animal feeds

21. (1) (a) A container in which an animal feed is sold shall be marked in clearly legible symbols, letters and figures with, or be furnished with, a label on which is indicated -

- (i) the trade name, if any, under which such an animal feed is sold;
- (ii) the kind of animal feed, as indicated in column 2 of Table 4, expressed as "(class: _____)";
- (iii) in the case of the additives, the class of additive as indicated in regulation 13(2);
- (iv) In the case of enzymes and their preparations, the specific name of the active constituent(s) according to enzyme activity(ies);
- (v) the registration number of such an animal feed together with a reference to the Act, expressed as "Reg No _____ Act No. 36 of 1947";
- (vi) an indication of the composition of such an animal feed, expressed in the form and manner contemplated in subregulation (2);
- (vii) subject to the provisions of the Trade Metrology Act, 1973 (Act No. 77 of 1973), the quantity of an animal feed in such container at the time of packing;
- (viii) ingredient statement using collective terms listed in Table 11 instead of listing each and every ingredient. Inorganic substances in the feed shall be listed according to their groups i.e vitamins, minerals etc. Use of ingredients identified with an (*) in the Table is restricted to non-ruminants unless this ingredient source is pure porcine material. Feed

- containing these ingredients shall bear the following label statement "Do not feed to ruminants";
- (ix) warning where applicable;
 - (x) feeding recommendations;
 - (xi) the name and address of the person in whose favour such an animal feed is registered; and
 - (xii) the number of the batch from which the animal feed in such container originates.
- (b) Such information shall appear in the sequence as specified under regulation 21(1)(a).
- (2) (a) An indication of the composition of animal feed in terms of subregulation (1)(a)(iv) shall reflect the name of each of its nutrients, as well as the actual minimum or maximum contents, as the case may be, of each such nutrient.
- (b) The particulars required in terms of paragraph (a) shall appear on the label (as required) expressed as grams per kilogram for macronutrients, milligrams or micrograms per kilogram for micronutrients, International unit per kilogram for vitamins A, D and E, as activity units per gram or activity unit per milliliter for enzymes and their preparations, as colony forming units per gram for microorganisms and their preparations in the following order-
- (i) Crude protein (minimum)
 - (ii) Equivalent crude protein from non-protein nitrogen (**NPN**) (maximum)
 - (iii) Amino acids (minimum)
 - (iv) Moisture (maximum)
 - (v) Crude fat (minimum and/or maximum)
 - (vi) Crude fiber (minimum and/or maximum)
 - (vii) Calcium (minimum) and (maximum)
 - (viii) Phosphorus (minimum)
 - (ix) Salt (minimum) and (maximum)
 - (x) Sodium (minimum) and (maximum)
 - (xi) Other minerals guarantees (minimum)
 - (xii) Vitamins (minimum)
 - (xiii) Total sugar as invert (minimum)
 - (xiv) Viable microorganisms producing lacting acid (minimum)
 - (xv) Other guarantees (minimum)
- (c) The animal feed which is made from or contains feed grade urea or another non-protein nitrogen source, the protein equivalent of such urea or other non-protein nitrogen source shall appear on the label and it shall be expressed as a

percentage of the total protein content of the animal feed appearing in parentheses together with an indication of the protein content of **such** animal feed: The urea content of the animal feed must **be** indicated where applicable. The label of the animal feed shall bear the appropriate warning appearing in Table 12 according to the respective kind of animal feed.

- (3) In addition to the information referred to in subregulation ~~(1)~~ (2), there **shall also**-
- (a) in the case of an animal feed where an additive or premix is added that has a substance which possess medicinal properties, be indicated –
 - (i) where applicable, the period during which such animal feed or water should be withheld from animals intended for slaughtering; and
 - (b) in the case of an animal feed to which a stock remedy **is** added, those particulars which, in terms of the registration of the stock remedy in question, **shall be** indicated or otherwise a label of such stock remedy may **be** affixed to the container of the animal feed.
- (4) In addition specific guarantees shall be given for complete, concentrate feeds and supplement feeds which are specific to the following species;
- (a) Milk replacers fed to calves
 - (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for lysine
 - (iii) A maximum guarantee for moisture
 - (iv) A minimum guarantee for crude fat
 - (v) A maximum guarantee for crude fibre
 - (vi) A minimum and maximum guarantee for calcium
 - (vii) A minimum guarantee for phosphorus
 - (viii) A minimum guarantee for pH, if applicable
 - (ix) A maximum guarantee for starch
 - (b) Dairy cattle feed
 - (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for non-protein nitrogen, if added
 - (iii) A maximum guarantee for moisture
 - (iv) A minimum and maximum guarantee for crude fat
 - (v) A minimum and maximum guarantee for crude fibre
 - (vi) A minimum and maximum guarantee for calcium
 - (vii) A minimum guarantee for phosphorus
 - (c) Dairy cattle, beef cattle, sheep, goat, game and horses - fed mineral supplement

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- (i) A minimum and maximum guarantee for calcium
 - (ii) A minimum guarantee for phosphorus
 - (iii) A minimum and maximum guarantee for salt
 - (iv) A minimum guarantee for magnesium
 - (v) A minimum guarantee for potassium
 - (vi) A minimum guarantee for Sulphur
 - (vii) A minimum guarantee for specific trace minerals
 - (viii) A minimum guarantee for vitamins, if added
- (d) Beef cattlefeed
- (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for non-protein nitrogen, if added
 - (iii) A maximum guarantee for moisture
 - (iv) A minimum and maximum guarantee for crude fat
 - (v) A minimum and maximum guarantee for crude fibre
 - (vi) A minimum and maximum guarantee for calcium
 - (vii) A minimum guarantee for phosphorus
- (e) Sheep, goat and game feed
- (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for non-protein nitrogen, if added
 - (iii) A maximum guarantee for moisture
 - (iv) A minimum and maximum guarantee for crude fat
 - (v) A minimum and maximum guarantee for crude fibre
 - (vi) A minimum and maximum guarantee for calcium
 - (vii) A minimum guarantee for phosphorus
 - (viii) A maximum guarantee for copper (mg/kg) if copper exceeds 22,5 ppm
- (f) Horsefeed
- (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for moisture
 - (iii) A minimum guarantee for crude fat
 - (iv) A minimum and maximum guarantee for crude fibre

- (v) A minimum guarantee for phosphorus
- (g) Ostriches
 - (i) A minimum guarantee for crude protein
 - (ii) A minimum guarantee for lysine
 - (iii) A maximum guarantee for moisture
 - (iv) A minimum guarantee for crude fat
 - (v) A maximum guarantee for crude fibre
 - (vi) A minimum and maximum guarantee for calcium
 - (vii) A minimum guarantee for phosphorus
- (h) Fish (all), crocodile, pigeon, parrot, mice and rat
 - (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for moisture
 - (iii) A minimum guarantee for crude fat
 - (iv) A maximum guarantee for crude fibre
 - (v) A maximum guarantee for calcium
 - (vi) A minimum guarantee for phosphorus
- (i) Rabbits and chinchillas
 - (i) A minimum guarantee for crude protein
 - (ii) A maximum guarantee for moisture
 - (iii) A minimum guarantee for crude fat
 - (vii) A minimum and maximum guarantee for crude fibre
 - (viii) A maximum guarantee for calcium
 - (iv) A minimum guarantee for phosphorus
- (j) Grain mixtures for pigeons, birds and poultry
 - (i) Race and breed mixtures and Maintenance mixtures
 - a. Grain , a minimum and maximum
 - b. Protein seeds, a minimum and maximum
 - (ii) Bird seed
 - a. Grain , a minimum and maximum
 - b. Protein seeds

- (iii) Mix poultry grain
 - a. Grain , a maximum
- (k) Duck and geese
 - (i) A minimum guaranteed for crude protein
 - (ii) A maximum guaranteed for moisture
 - (iii) A minimum guaranteed for crude fat
 - (iv) A maximum guaranteed for crude fibre
 - (v) A minimum and maximum guaranteed for calcium
 - (vi) A minimum guaranteed for phosphorus
 - (vii) A maximum guaranteed for salt, *if* added
- (l) Pigs
 - (i) A minimum guarantee for crude protein
 - (ii) A minimum guarantee for lysine
 - (iii) A minimum guarantee for methionine
 - (iv) A maximum guaranteed for moisture
 - (v) A minimum guaranteed for crude fat
 - (vi) A maximum guaranteed for crude fibre
 - (vii) A minimum and maximum guaranteed for calcium
 - (viii) A minimum guaranteed for phosphorus
 - (ix) A maximum guaranteed for salt, *if* added
- (m) Chicken and poultry
 - (i) A minimum guarantee for crude protein
 - (ii) A minimum guarantee for lysine
 - (iii) A minimum guarantee for methionine
 - (x) A maximum guaranteed for moisture
 - (xi) A minimum guaranteed for crude fat
 - (xii) A maximum guaranteed for crude fibre
 - (xiii) A minimum and maximum guaranteed for calcium
 - (xiv) A minimum guaranteed for phosphorus
 - (xiv) A maximum guaranteed for salt, *if* added

- (n) Mineral feeds (*if not identified as a specific specie feed*)
 - (i) A minimum and maximum guarantee for calcium, if present
 - (ii) A minimum guarantee for calcium, if present
 - (iii) A maximum guarantee for salt, if added
 - (iv) A maximum guarantee for fluoride, if present
 - (v) A minimum guarantee for other minerals that are present in significant amounts
 - (vi) A minimum guarantee for vitamins, if added

Marking and labelling of pet foods

22. (1) A container in which a pet food is sold shall be either marked in clearly legible symbols, letters and figures, or have an affixed label. A minimum print size of 8 point is recommended where possible. The following mandatory details shall appear on the container or label in a sufficiently conspicuous manner and (c) and (d) details of the registration holder and the product's registration number - must appear below each other in that sequence on the label.

- (a) The type of pet food in question, i.e., whether it is a complete or complementary pet food, and the pet for which it is intended;
- (b) The directions for proper use of the pet food including the purpose for which the pet food is intended and the life stages at which the pet food may be fed and in what quantities expressed in grams per day;
- (c) The quantities fed in grams per day must be based on the Metabolisable Energy (ME) content of the diet (determined or calculated) and based on the energy requirements as set out in Table 10;
- (d) The name, company registration number and address of the person in whose favour such pet food is registered;
- (e) The registration number of such pet food together with a reference to the Act, expressed as "Reg. No.V _____ Act no 3611947";
- (f) A declaration of all the feed ingredients;
- (g) The information that is required to appear in the "Guaranteed Analysis" shall be listed in the following order-
 - (i) Crude protein (minimum)
 - (ii) Moisture (maximum)
 - (iii) Crude fat (minimum)
 - (iv) Crude fibre (maximum)
 - (v) Crude ash (maximum).
- (h) The guaranteed analysis shall be expressed in terms of grams per kilogram (g/kg) for macro nutrients, milligrams or micrograms per kilogram (mg/kg or µg/kg) for micro nutrients and International Units per kilogram (IU/kg) for vitamins A and D. All guarantees shall be expressed on an as fed basis. Vitamin inclusion levels shall be those present in the pet food at the "best before" date;
- (i) Subject to the provisions of the Trade Metrology Act, 1973 (Act 77 of 1973), the net quantity of pet food in such container at the time of packing;

- (j) Information which allows the consumer to readily ascertain whether the product is past its shelf life, in one of the following two formats-
 - (i) A "best before" date shall be used for non-highly perishable products and shall be expressed as "best before.." followed by the date (indicating at least month and year).
 - (ii) A "use by" date shall be used for microbiologically highly perishable products to be expressed as "use by.." followed by the date (indicating day, month and year).
 - (k) Information which allows the product to be traced in the event of a product recall, if this information is not already inherent in the "best before" or "use by" date expressed under (i) above or the date of manufacture which may **be** presented in code provided that the Registrar is advised in writing of the interpretation of the code system. This information may also be in the form of a batch number;
- (2) Pet food labels shall also conform to the following requirements-
- (a) A vignette, graphic, or pictorial representation of a product on a pet food shall not misinterpret the contents of the package;
 - (b) Personal or commercial endorsements are permitted on labels where said endorsements are factual and not otherwise misleading;
 - (c) The label of a pet food shall not contain an unqualified representation or claim, directly or indirectly that the pet food therein contained or a recommended feeding thereof is or meets the requisites of a complete, scientific or balanced ration for dogs or cats unless such product or feeding complies with the requirements of regulation 17(1) above;
 - (d) The use of claims on pet food labels stating improvement or newness shall be substantiated and limited to the first twelve months' production. The use of claims stating a preference or comparative attribute shall be substantiated and limited to one year of production after which the claim must be removed or re-substantiated;
 - (e) Enriched or fortified terms used on a pet food label requires that the food must contain 25% and 15% more than the nutrient requirements as laid down in Tables 5 and 6 for enriched and fortified respectively;
 - (f) Calorie terms such as light, less, reduced or terms and words of similar connotation must be substantiated against a standard maintenance diet in the applicant's own product range;
 - (g) Fat content related terms such as lean, less, reduced fat or terms and words of similar connotation must be substantiated against a standard maintenance diet in the applicant's own range;
 - (h) The term "real meat" is interpreted as the soft substance of an animal body consisting predominantly of muscle and fat and this claim must be substantiated;
 - (i) Claims as to the content of particular ingredients shall **be** subject to the following rules, which are based on finished products. and for which credible rehydration or dehydration factors respectively shall be used when applying them to products containing a combination of dry and wet ingredients-

- (i) "with X flavour" shall mean that either there are traces of the flavour substance, essence or extract present in the product, or that there is up to or including 4 % of X itself in the product.
- (ii) "with X" shall mean that there is at least 4 % of X present;
- (iii) "high in X", "rich in X", or "with extra X" shall mean that there is at least 14% of X present;
- (iv) "X dinner", "X recipe" or "X menu" shall mean that there is at least 26 % of X present;
- (v) "all X" shall mean that at least 65 % of X is present;
- (vi) When the material is described as a form following the name of the material then the inclusion level must be at least 26% e.g. Beef Cubes – beef inclusion at least 26%:
- (vii) When the form of the material precedes the name of the material then the inclusion level must be at least 65%. e.g. **Cubed Beef** – beef inclusion at least 65%.
- (j) Where "X" in subparagraph (g) above refers to the meat of an animal, the meat used for the purposes of making such a meat claim may include all parts of that species except-
- * added blood;
 - bone and bone meal;
 - bone fraction of fresh materials which consist of fleshy or other moist material with associated bone;
 - bone contents of meat and bone meals;
 - bone content of poultry carcasses;
 - bone component of poultry meals;
 - meals/greaves from knackers;
 - claws;
 - hair;
 - horns;
 - hide (except pork rind);
 - feathers;
 - teeth;
 - hooves;
 - the content proportion of intestines;
 - added fat.

An affidavit pertaining to the use and inclusion level of this ingredient must be submitted-

Where "X" in subparagraph (g) above refers to a species of an animal, the material used for the purpose of making such a species claim may include all parts of that species except-

- e bone and bone meal:
- meals/greaves from knackers;
- e claws;
- e hair;
- e horns;
- e hide (except pork rind);
- e feathers;
- e teeth;
- hooves;
- e the content proportion of intestines.

In addition the material shall contain at least 25 % tissue material.

- (k) The "best before" or "use by date" and the batch number may be marked on a different part of the packaging other than the label. In such cases the relevant expression shall be accompanied by an indication of where the information appears on the container;
- (l) Declarations of feed ingredients shall conform to the following requirements-
 - (i) The listing of feed ingredients on pet foods shall either indicate the amount contained or name the feed ingredients in descending order by mass;
 - (ii) The feed ingredients shall be described by internationally recognized specific names. However, categories grouping several feed ingredients may be used, as set out in Table 13. In that case the indication of the specific name of the feed ingredient may be replaced by the name of the category to which the feed ingredient belongs. Use of one of these two forms of declaration shall exclude the use of the other, save where one of the feed ingredients belongs to none of the categories which has been defined. In that case, the feed ingredient, designated by its specific name, shall be mentioned in order of importance by mass in relation to the categories; and
 - (iii) Vitamins and minerals may be grouped or split into individual elements independent of item k(ii).
- (m) The labelling of pet foods may also draw particular attention outside the area designated on the label for the items listed to the presence or content of one or more feed ingredients and/or nutrients which are essential aspects of the characteristics of the pet food, In such case applying the following procedure-

- (i) If the item to which particular attention is drawn is classified as an ingredient, the ingredient must form part of the ingredient statement;
 - (ii) An Ingredient with ingredients shown as Groups in the Ingredient List, and the particular attention ingredient forms part of a specific Group, requires the individual ingredient with its inclusion % to be shown in the Ingredient List in brackets following the specific Group;
 - (iii) An Ingredient, to which particular attention is drawn, with ingredients shown as individual inclusions in the Ingredient List, the inclusion % is optional;
 - (iv) In the case of nutrients, the minimum or maximum content, expressed as set out in regulation 22(1)(g) above, must clearly be indicated as part of the guaranteed analysis and must follow the mandatory guarantees;
 - (v) If particular attention is drawn to an inclusion as part of a beneficial claim then the level may require substantiation to ensure inclusion at a level achieving the benefit claimed;
 - (vi) If particular attention is drawn to an inclusion as an optimum ratio then the inclusion ratio must be shown in the Guaranteed Analysis;
 - (vii) The inclusion of herbs with particular attention will require documentation substantiating the inclusion level.
- (n) Guarantees are not required for label claims that refer to a nutrient that is contained in a specific ingredient (for example: "corn is a rich source of linoleic acid"); or for claims that refer to a group of ingredients or nutrients (for example: "fortified with vitamins and minerals");
- (o) The person responsible for the labelling particulars of a pet food may provide information in addition to that required under these regulations. However, such information -
- (i) may not be designed to indicate the presence or content of analytical constituents other than those present;
 - (ii) must not mislead the user, in particular by attributing to the pet food effects or properties that it does not possess or by suggesting that it possesses special characteristics when in fact all similar pet foods possess such characteristics;
 - (iii) must not claim that the pet food will treat or cure a disease;
 - (iv) must relate to objective or quantifiable factors which can be substantiated; and
 - (v) must not misrepresent the contents of the container.
- (p) In the case of a complementary pet food the directions for use shall be sufficient to make it clear to the person administering the pet food that the complementary pet food is not a complete food and is therefore only suitable for short term or intermittent use or, in the case of pure meat and fish products, that the complementary pet food has to be mixed with a complete dry pet food so that together they will provide all the energy and nutritional needs of the particular animal and physiological state for which they are intended;
- (q) Statements of energy content shall not be permitted on labels;

- (r) Statements of digestibility of nutrients or dry matter content shall not be permitted on labels;
- (s) Claims such as premium, super premium, high digestibility or claims with a similar connotation must be scientifically substantiated by the manufacturer against standard or base line products within the manufacturer's own product range;
- (t) No reference to quality or grade of an ingredient shall appear in the ingredient statement of a pet food;
- (u) A reference to the quality, nature, form, or other attributes of an ingredient shall not be made unless such reference is accurate and unless the ingredient imparts a distinctive characteristic to the pet food because it possesses that attribute;
- (v) Urinary tract health claims are limited to the claims and criteria as set out in Table 14;
- (w) Label claims using the term "natural" shall conform to the following rules-
 - (i) The use of the term "natural" is only acceptable in reference to the product as a whole without the use of a disclaimer when all of the ingredients and components of ingredients meet the definition for "natural";
 - (ii) The use of the term "natural" in reference to the product as a whole is false and misleading if any chemically synthesised ingredients are present in the product either by way of direct inclusion or as part of an ingredient included in the product;
 - (iii) A disclaimer may be used with the use of "natural" such as "Natural with added vitamins, minerals, and other trace minerals" where the "with" disclaimer includes all the items as appropriate to match the chemically synthesised ingredients included directly or indirectly when juxtaposed with the term "natural";
 - (iv) The disclaimer must appear with the largest or most prominent use of the term "natural" on each panel of the label on which the term appears, in the same style and color print and at least one-half the size of the term "natural";
 - (v) Where a disclaimer is used juxtaposed with the term "natural", all other ingredients and components of ingredients in the product must meet the definition of "natural";
 - (vi) If the disclaimer that is juxtaposed with the term "natural" is used only to identify in generic terms those vitamins, minerals and other trace nutrients which are not natural, then the disclaimer is not a nutrient claim;
 - (vii) If the disclaimer makes reference to a specific nutrient (e.g. "with added calcium") then the nutrient referred to by the disclaimer must be included in the Guaranteed Analysis statement;
 - (viii) When the term "natural" is used only in reference to a specific ingredient, when other ingredients used in the product are not natural then the term "natural" must not be used in such a way as to imply that the product as a whole is "natural";
 - (ix) Products (mixed food) should not be described directly or by implication as "natural" but as "made from natural ingredients" even if all the ingredients meet the criteria for natural and particularly where the use of a disclaimer is also necessary;

- (x) Products (mixed food) which cannot meet the criteria for natural may not be claimed to have a "natural" taste, flavour, or, colour;
- (xi) "Natural" or its derivatives, may not be included in brand or fancy names nor in coined or meaningless phrases in such a way as to imply that a food which does not meet the natural criteria is natural or made from natural ingredients.
- (x) Labels claims with respect to raw hides, biscuits and other pet food products claiming to cleanse, freshen or whiten teeth by virtue of their abrasive or mechanical action are allowed but must be substantiated;
- (y) Food bearing claims for plaque or tartar reduction or prevention, or control of breath odour must be substantiated;

(3) The following additional indications shall appear on the label or labelling of pet foods for a particular nutritional purpose-

- (a) the precise use, i.e., the particular nutritional purpose for which the product is intended;
- (b) the indication of the essential nutritional characteristics of the pet food; and
- (c) the recommended length of time for use of the pet food.

(4) The labelling of pet foods for particular nutritional purposes may make reference to a specific pathological condition as long as no drug claims are made and proper product registration has been completed;

(5) The label of pet foods for particular nutritional purposes must bear the indication, such as "It is recommended that a specialist's or veterinarian's opinion be sought before use";

(6) The labelling of a pet food for a particular nutritional purpose may also highlight the presence of the low level of one or more nutrients and/or ingredients which are essential for the description of the pet food. In such cases, the minimum and/or maximum level of the nutrients expressed in g/kg of the pet food must be expressed in the guaranteed analysis. The ingredients must be clearly indicated in the ingredient list.

(7) Notwithstanding the provisions of subregulation (1) the Registrar may, on written request of the applicant grant certain exemptions from the stipulations of this subregulation under certain conditions.

PART V

INVOICES

invoices for animal feeds

23. (1) An invoice given or sent in terms of section 9 of the Act in respect of an animal feed which is not sold in a container, shall indicate -

- (a) the particulars required in terms of regulation 21 or 22; provided that such particulars may be omitted from an invoice if a label which would otherwise have been affixed to a container is supplied together with such invoice;
- (b) the names and addresses of the seller and the purchaser of such an animal feed;
- (c) the date on which such an animal feed was sold in this manner; and
- (d) the quantity of such an animal feed which was sold in this manner.

(2) A copy of an invoice referred to in subregulation (1) shall be preserved by the seller of an animal feed for at least two years after the date on which such an animal feed was sold in this manner.

PART VI

ADVERTISEMENTS

Publication or distribution of false or misleading advertisements relating to animal feeds

24. (1) No person shall publish or distribute any false or misleading advertisement relating to animal feeds:

(2) It shall be a sufficient defence for any person, other than the person selling the animal feed to which the false or misleading advertisement relates, who is charged with a contravention of subregulation (1), if he proves to the satisfaction of the court that he/she did not know that the advertisement was false or misleading in any respect, unless it is proved that the accused failed on demand by the Registrar or a police official to furnish the name and address of the person at whose instance the advertisement was published or distributed;

(3) An advertisement relating to farm feeds shall only be published or distributed with the written approval of the Registrar and an application for such an approval shall-

- (a) be lodged with the Registrar in writing at least two months prior to the date of presentation of the advertisement in question for publication or distribution;
- (b) be accompanied by two copies of a typed version of the advertisement in question and, if applicable, two copies of illustrations to be used in connection with that advertisement; and
- (c) **An** advertisement shall only be published or distributed in the form which was approved by the Registrar and within the period which he/she in each case determine.

(4) An advertisement shall in addition to any other relevant particulars which the Registrar may approve to appear therein when published in a newspaper, magazine or other printed matter-

- (a) furnish the trade mark, if any, and the trade name which may be used by the person in whose favour the animal feed in question is registered;
- (b) furnish the name of an animal feed in question in accordance with the name prescribed for that kind of animal feed in these regulations and applicable annexure of the guidelines;
- (c) contain the registration number of the animal feed in question together with a reference to the Act, expressed as "Reg. No.Act 36/1947".

(5) An advertisement when screened or broadcasted, at least furnish those particulars referred to in subregulation 4 (a);

(6) All advertising shall conform to the standards of the Advertising Standards Authority of South Africa.

PART VII

IMPORTS

Harbours and Ports through which imports may occur

25. (1) Animal feeds may only be imported through the ports of entry as set out in Annexure 1;

(2) Notwithstanding the provisions of subregulation (1) the Registrar may, on the written request of the person to whom the registration certificate has been issued in terms of section 3, read in conjunction with section 16(1) of the Act for a farm feed authorise the importation of a particular consignment thereof through a port of entry other than those mentioned in Annexure 1;

(3) A container in which an imported animal feed for sale in the republic shall in addition to any other relevant particulars which the Register may approve, be marked or labelled with the applicable particulars which are required to be marked or labelled on containers of similar animal feed manufactured in the republic.

PART VIII

MANUFACTURING ESTABLISHMENTS

Requirements for establishments

26. (1) The premises where an animal feed is manufactured, controlled, packed, marked, labelled or stored for the purpose of sale shall be kept orderly and clean;

(2) The facilities and equipment which are available at an establishment shall be suitable for the purpose for which it is to be used and be operated in such a manner as to ensure that composition of the animal feed normally manufactured, controlled, packed, marked, stored or labelled there complies with the particulars registered in respect thereof, and that such an animal feed possesses the chemical, physical and other properties thus registered;

(3) Where premix are added in the manufacture of animal feeds, the processing of premixes in animal feed shall be carried out in such a way that correct premixes are processed in the correct animal feed at a correct dosage and shall be uniformly applied;

(4) All facilities and equipment which are available at an establishment for the manufacture, control, packing, marking or labelling of animal feeds shall be maintained in good working order and shall be cleaned and serviced at regular intervals;

(5) Any establishment where animal feeds are manufactured, controlled, packed, marked or labelled for the purpose of sale, shall be duly registered under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

Practices to be followed at establishments

27. (1) The practices in respect of the operation of the undertaking at an establishment, which relate to the manufacture, control, packing, marking or labelling of an animal feed for the purpose of sale shall be such that the composition of the animal feed in question shall comply with the particulars registered in respect thereof, and that it possesses all the chemical, physical and other properties so registered;

(2) The company shall establish and document a quality management plan. This plan shall document procedures with tasks, responsibilities and authority for employees on how the critical points are controlled in the order of the production process;

- (3) The equipment for manufacturing of animal feeds shall be operated in such a way that—
- (a) there is a uniform distribution of feedstuffs in an animal feed;
 - (b) after manufacture of the animal feed, the feedstuffs in the animal feed shall remain uniformly distributed until the animal feed is sold;
 - (c) unacceptable carry over of additives is prevented; and

- (d) where cross contamination occurs, it shall be documented and stipulated to what level it occurs.

(4) Feedstuffs used in the manufacture of animal feed shall be handled and stored at the premises of an establishment in such a manner that -

- (a) they are protected against damage, contamination and deterioration;
- (b) different additives and premixes are kept separate from each other and from anything else; and
- (c) there is controlled access to the different additives and premixes.

(5) The names of the feedstuffs used in the manufacture of an animal feed shall be marked clearly and legibly on the containers thereof, with the provision that if such feedstuffs are stored in bulk, the names of such feedstuffs shall be shown on the containers in which or the places at which they are stored in this manner:

(6) The feed manufacturer shall draw up, establish and maintain a documented quality system as means of ensuring that products and consignments of feedstuffs or additives used in the manufacture of an animal feed shall conform to requirements. Records shall be kept of such checks in accordance with regulation 28 below;

(7) Any person at an establishment who is responsible for the manufacture, control, packing, marking or labelling of an animal feed shall have the knowledge of the practices to be followed in the operation of the undertaking at such an establishment, and of the provisions of the Act and these regulations which, in the opinion of the Registrar, are sufficient for the performance of the duty imposed upon such person. Such persons shall further possess the necessary skills for the manufacture of products which are not hazardous to human or animal health or detrimental to the environment;

(8) In the event that an animal feed is not packed and marked or labelled immediately after manufacture, its name shall be shown on the containers in which or the places at which it is stored.

Keeping of records

28. (1) A person managing the undertaking at an establishment shall, in respect of each batch or series of the different animal feeds manufactured, controlled, packed, marked or labelled there, keep comprehensive records of -

- (a) where applicable, each date on which a quantity of animal feed was received from suppliers, the names and addresses of the supplier to whom such animal feed is registered, the quantity and description according to these regulations;
- (b) each date on which a quantity of such batch or series was sold, the names and addresses of the purchaser to whom each such quantity was sold, and the quantity thereof which was sold to each such person;
- (c) the results of quality checks made under regulation 27(6) on the feedstuffs or additives used in the manufacture of an animal feed comprising such batch or series and such animal feed;
- (d) each date on which a quantity of such batch or series was sold, the names and addresses of the purchaser to whom each such quantity was sold, and the quantity thereof which was sold to each such person;
- (e) the date on which each quantity thus sold was manufactured or the number of the batch or series from which each such quantity originated;
- (f) complaints which were received in connection with the composition of such batch or series or the chemical, physical or other properties thereof; and

(g) the formulation or batch reports of each product manufactured.

(2) The manufacturer's administration shall be organised in such a way that products delivered can be traced from the receipt of feedstuffs, additives and veterinary medicines to the final product delivered to the customer. The degree of traceability for tracing and retrieving products shall be documented;

(3) The records to be kept at an establishment in terms of subregulation (1), as well as the formula used for mixing each batch or series of an animal, shall be preserved at the registered office of such establishment or such other place as may on application be approved by the Registrar, for at least two years after the date of manufacture.

PART IX

RESTRICTED AND CONTROLLED SUBSTANCES

Undesirable substances in raw materials

29. (1) Feedstuffs for use in animal feed may not be sold in the Republic of South Africa unless they are sound, genuine and of merchantable quality;

(2) In particular, feedstuffs for use in animal feeds cannot be considered as sound, genuine and of merchantable quality if the level of undesirable substances or products is so high as to make it impossible to respect the maximum levels fixed for mixed animal feeds in Table 2;

(3) The undesirable substances and products present in feedstuffs listed in Table 2 shall be tolerated in animal feeds only under the conditions set out in subregulation 29(2);

(4) The feedstuffs intended for use in animal feeds may only be sold if their content of the undesirable substance or product mentioned in these regulations does not exceed the maximum level specified in Table 2;

(5) Where the content of the undesirable substance or product listed in Table 2 exceeds the maximum level laid down in column 3, in respect of an unmixed animal feed, the feedstuffs may, without prejudice to subregulation (3), be sold only if it is intended for use by an establishment which has received written permission from the Registrar to do so, and if the undesirable substance concerned is accompanied by a document stating -

- (a) that the feedstuff is intended for manufacturers of mixed animal feeds who have been given permission by the Registrar;
- (b) that the raw material will not be fed unprocessed to animals; and
- (c) the quantity of the undesirable substance in the feedstuffs.

(6) Establishments wishing to sell raw material specified in subregulation (5) shall apply in writing to the Registrar for such permission. The Registrar may, at his discretion, inspect the establishment concerned, before either granting or refusing in writing the request for permission;

(7) Where a person, as a result of new information or of a reassessment of existing scientific information made since the provisions in question were adopted, has detailed grounds for establishing that a maximum content fixed in the applicable Table or a substance or product not listed therein constitutes a danger to animal or human health or the environment, that person shall inform the Registrar immediately, giving his reasons. The Registrar shall investigate the matter and make a decision on whether the Table should be modified or not;

(8) The Registrar shall be entitled to inspect establishments at random, take random samples and take all necessary measures to ensure that animal feeds conform to this regulation;

(9) Any person who possesses, or has possessed or has had direct contact with a consignment of animal feeds which does not comply with this regulation shall immediately inform the Registrar, even if the destruction of the consignment is envisaged. The Registrar shall take the necessary measures to ensure that the necessary measures are taken to ensure that the consignment is not used in animal nutrition and that the final destination of the contaminated consignment, including possible destruction, cannot have harmful effects on public or animal health or on the environment.

Additives in supplementary and concentrated animal feeds

30. In the case of a complementary, supplementary and concentrated animal feed which contains any additive in excess of the maximum content specified for that additive in relation to the complete animal feed, the instruction for use shall state, according to the species and age of the animal, the maximum quantity in grams or kilograms of the animal feed to be given per animal per day, and shall be so formulated that, when they are correctly followed, the final content of the additive does not exceed the maximum so specified. This subregulation shall not apply to products delivered to manufacturers of complete animal feeds or to their suppliers.

Addition to farm feeds substances possessing medicinal properties

31. A product which complies with the requirements referred to in these regulations, and to which a substance possessing medicinal properties is added, may be registered as an animal feed in term of the applicable regulations if -

(1) in case of a substance of which the use is regulated under the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) or under the Foodstuffs, Cosmetics and disinfectants Act, 1972 (Act no. 54 of 1972), the Registrar has approved the addition of that substance to such an animal feed;

(2) in the case of any other substance, that substance is registered under section 3(2) of the Act as a stock remedy;

(3) stock remedies shall only be used in animal feeds taking account of the maximum and minimum levels set in the approved label of the product for application in the final product;

(4) the mixing of medicinal substances shall only be permitted in animal feeds where there is physio-chemical and biological compatibility between the components of the mixture in relation to the effects desired;

(5) the Registrar shall maintain a database of all registered and approved medicinal substances for use in animal feeds.

Stock Remedies in supplementary and concentrated farm feeds

32. In the case of a complementary, supplementary and concentrated animal feed which contains any stock remedy in excess of the maximum content specified for that stock remedy in relation to the complete farm feed by the applicable annexure of the guidelines, the instruction for use shall state, according to the species and age of the animal, the maximum quantity in grams or kilograms of the animal feed to be given per animal per day, and shall be so formulated that, when they are correctly followed, the final content of the stock remedy does not exceed the maximum so specified.

PART X

DATABASE

Registered feedstuffs

33. The Registrar shall maintain a database of all feedstuffs registered as animal feeds for use in animal nutrition.

PART XI**INSPECTIONS*****Routine inspections***

34. An officer delegated under section 2(2)(a) of the Act shall perform routine inspection at manufacturing establishments at least once a year. The officer shall verify the following -

- (1) there is compliance to hygienic requirements and standards of the premises, equipment and staff;
- (2) the effectiveness of own checks conducted by plant management in accordance with manufacturer's own procedure developed to comply with the requirements of this regulation, particularly in taking samples and examining the results;
- (3) the standard of products after processing, analyses and test are carried out in accordance with scientifically recognized methods;
- (4) availability of good storage facilities and conditions;
- (5) make the following validation inspections-
 - (a) description of the manufacturing process by a process of flow diagram;
 - (b) identification of critical control points (CCPs) including the material process rate for continuous systems; and
 - (c) compliance with specific process requirements as stipulated in these regulations.

Sampling of animal feeds

35. (1) (a) An animal feed which is sold in containers shall be sampled by selecting at different places from the stock of a particular animal feed the number of containers required to obtain a sufficient quantity of such an animal feed for a sample;
- (b) Such containers shall be similarly marked or labeled and shall contain an animal feed originating from the same batch or series;
- (c) If a sample is composed of the contents of more than one container, such sample shall be thoroughly mixed before being divided in terms of section 15(3)(c) of the Act;
- (d) Notwithstanding the provisions of paragraph (a) at least three sealed containers in which an animal feed is sold, may also be taken as the sample of such an animal feed, and the containers comprising such sample shall, without being opened, be delivered in terms of section 15(3)(c) of the Act.
- (2) (a) An animal feed which is not sold in a container shall be sampled by taking small quantities at different places from the stock of such an animal feed to obtain sufficient quantity for a sample;
- (b) Such a sample shall be thoroughly mixed before being divided in terms of section 15(3)(c) of the Act.
- (3) The provisions of subregulation (2) shall *mutatis mutandis* apply to the sampling of animal feed referred to in subregulation (1) prior to the packaging thereof in containers, and to the sampling of feedstuffs used in the manufacture of animal feed:

- (4) A certificate in terms of section 15(4)(b) of the Act relating to a sample of an animal feed which is forwarded to an analyst shall be in a form of Annexure 2;
- (5) A certificate in terms of section 15(4)(b) of the Act relating to the result of a test, examination or analyses of a sample of an animal feed shall be in the form of Annexure 3;
- (6) That part of a sample of an animal feed which is referred to in section 15(4)(c) of the Act-
- (a) shall, if a certificate referred to in subregulation (5) indicates that such sample is not of the composition specified in the application for registration of the animal feed in question, or in an application in terms of regulation 11 in connection therewith, does not possess the chemical, physical or other properties so specified or does not comply with any requirements referred to in these regulations, be retained until the action arising from such certificate is concluded;
 - (b) may otherwise be destroyed.

Analysis method

36. (1) In the case of a dispute only a method of analysis which the Registrar may recognise from time to time may be used;
- (2) Laboratories performing such analyses shall be accredited by South African Accreditation System (SANAS) to perform those specific analyses.

Permissible deviations in mixed and unmixed animal feed

37. An animal feed is not considered to have a deficiency of one or another of its registered nutrients as long as it is within the limits set out in Table 15(a), (b) and (c).

PART XII

GENERAL

Offences and Penalties

38. Anyone who refuses or omits to comply with the provisions of these regulations shall be guilty of an offence and upon conviction in a court of law shall be liable to a fine not less than R1000 or imprisonment for a period not less than 1 year or to both the fine and imprisonment.

Payment of fees

39. (1) The postal charges on and the delivery costs of an application or documents submitted under these regulations as well as the postal charges and the delivery costs of anything else in connection therewith must be paid by the sender;
- (2) Any fee payable in terms of these regulations must be paid by means of a cheque, postal order or money order in favour of the Director-General of Agriculture. If such fees are delivered by hand, they may be paid in cash in which case a receipt shall be issued;
- (3) Fees which are paid in terms of these regulations shall subject to section 6 of the Act, not be refundable.

Address for submission

40. An application or item or anything connected therewith that under these Regulations has to be submitted to the Registrar, must –
- (a) When sent by post, be addressed to – The Registrar: Act No. 36 of 1947, Private Bag X250, Pretoria, 0001; and

- (b) When sent by rail, delivered by hand, or delivered by a private courier service, be addressed to or delivered to – The Registrar: Act No. 36 of 1947, Agricultural Building, Beatrix Street 20, Pretoria.

Repeal of Regulations

41. The following Regulations are hereby repealed in as much as they apply to farm feed-

Regulations relating to farm feeds, Government Notice No R 1359 of 27 June 1980.
Regulations relating to the registration of fertilizers, animal feeds, Agricultural Remedies, Stock Remedies, Sterilizing Plants and Pest Control Operators, appeals, imports and Amendments to and repeal of certain regulations Government Notice No R1449 of 1 July 1983.

TABLE 1
FEES PAYABLE
[REG.2(1)(C)]

| PURPOSE | AMOUNT PAYABLE PER APPLICATION |
|---|--------------------------------------|
| A. Application for the registration of: | |
| (a) a fertilizer, farm feed or sterilizing plant | R1 100 |
| (b) an agricultural remedy or a stock remedy | R2 250 |
| (c) a pest control operator | R 480 |
| B. Application for the renewal of the registration of: | |
| (a) a fertilizer, farm feed or sterilizing plant | R 600 |
| (b) an agricultural remedy or a stock remedy | R1 100 |
| (c) a pest control operator | R 330 |
| C. Payment in addition to that specified in paragraph B, in the case of a late application for the renewal of the registration of: | |
| (a) fertilizer, farm feed or sterilizing plant | R 450 |
| (b) an agricultural remedy or a stock remedy | R 800 |
| (c) a pest control operator | R 145 |
| D. An appeal in terms of section 6 of the Act | R3 600 |
| E. Payment for information and documentation: | |
| (a) Application form and instructions | R45,00 per package |
| (b) Certificate of free sale | R15,00 per certificate |
| (c) Import permit | R10,00 per permit |
| (d) Documents from own product files as requested by registration holders | R45,00 per request plus 50c per page |

TABLE 2
UNDESIRABLE SUBSTANCES IN ANIMAL FEEDS
[REG. 11 (3)]

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm-feed with a moisture content of 120g/kg |
|-------------------------------|--|---|
| Substances (ions or elements) | (2) | (3) |
| 1. Arsenic | Feed ingredients with the exception of: Hays, straws, Lucerne, roughages and bagasse - phosphates and ingredients obtained from the processing of fish or other marine animals. Complete farm feeds with the exception of: complete farm feeds for fish Supplements/concentrates with the exception of: - Mineral feeds, concentrates & pre-mixtures | 2 4 10 2 4 4 12 |
| 2. Lead | Ingredients with the exception of: - green roughages - phosphates yeasts Complete farm feeds Supplements/concentrates with the exception of: - Mineral feeds | 10 40 30 5 5 10 30 |
| Fluorine | Feed Ingredients with the exception of: - ingredients of animal origin - phosphates Complete farm feeds with the exception of: - complete feeds for lactating cattle, sheep and goats - other | 150 500 95 per 1% P 150 30 50 100 |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg |
|---|---|---|
| (1) | (2) | (3) |
| . Mercury | - complete feeds for poultry | 350 |
| | complete feeds for chicks | 250 |
| | Mineral supplements for cattle, sheep and goats | 2000 |
| | Other Concentrates/supplements | 125 per 1% P |
| | Feed ingredients except feed ingredients produced by the processing of fish or other marine animals | 0,1 |
| | Feed ingredients produced by the processing of fish or other marine animals | 0,5 |
| | Complete feeds except for dogs and cats. | 0,1 |
| | - Complete feeds for dogs and cats | 0,4 |
| | Concentrates/supplements except complementary food for dogs and cats | 0,2 |
| | . Nitrites | Fish meal |
| Complete feeds excluding; ingredients intended for pets except birds and aquarium fish. | | 15 (expressed as sodium nitrite) |
| . Cadmium | Ingredients of vegetable origin | 1 |
| | Ingredients of animals origin except feeding stuffs for pets | 2 |
| | Phosphates | 10 per 1% P |
| | Complete farm feeds for cattle, sheep and goats except complete feeds for calves, lambs and kids | 1 |
| | Other complete feeds except feeds for pets | 0,5 |
| | Mineral feeds | 5 |
| | Other Concentrates/Supplements for cattle, sheep and goats | 0,5 |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONCENTRATION IN mg/kg relative to a feed of 120g/kg moisture |
|---------------------|--|---|
| (1) | (2) | (3) |
| Copper | Feed for free-range meat pigs Pigs: Piglets up to 12 weeks Other pigs Bovine: Bovine before the start of lactation Milk replacers Other complete feedingstuffs Other bovine Bovine Fish Crustaceans Other species | 25 170 25 15 15 35 15 25 50 25 |
| Nickel | Food fats | 50 (based on fat) |
| Zinc | Feed for free-range meat pigs Pet animals Fish Milk replacers Other species | 90 250 200 200 150 |
| Aflatoxin B1 | Feed ingredients with the exception of: Groundnut, copra, palm- kernel, cotton seed, maize and products derived from the processing thereof Complete farm feeds for cattle, sheep and goats with the exception of: | 0,02 0,05 0,05 |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg | |
|---|--|---|----|
| (1) | (2) | (3) | |
| DON (Deoxynivalenol) | - dairy cattle | 0,005 | |
| | - calves and lambs | 0,01 | |
| | Complete feeds for pigs and poultry (except young animals) | 0,02 | |
| | Other complete farm feeds | 0,01 | |
| | Supplement/concentrates for cattle, sheep and goats (except for dairy animals, calves and lambs) | 0,05 | |
| | Feeding stuffs on full ration basis for: | | |
| | -Pigs | 1 | |
| | -Cattle | 5 | |
| | -Calves up to 4 months | 2 | |
| | -Dairy cattle | 3 | |
| | -Poultry | 4 | |
| | Fumonisin B1 | .Horses | 5 |
| | | Pigs | 10 |
| | | Beef and poultry | 50 |
| | Ochratoxin A | Feedingstuffs on full ration basis or: | |
| Sows, pigs and piglets | | 0.05 | |
| Poultry | | 0.2 | |
| 5. Zearalenon | Feedingstuffs on full ration basis or: | | |
| | Sows and pigs | 0.25 | |
| | Young pigs | 0.1 | |
| | Young cattle and dairy cattle | 0.5 | |
| 6. Dioxin Sum of dioxins, furans and dioxin-like | Meat and meat products: | | |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg ppm) relative to a farm feed with a moisture content of 120g/kg |
|-----------------------------|--|--|
| (1) | (2) | (3) |
| CB's | - Ruminants | 4,5 |
| | Poultry and farm game | 4,0 |
| | - Pigs | 1,5 |
| | Liver of terrestrial animals and derived products | 12.0 |
| . Polychlorbiphenols (Pcbs) | Frying fats and oils | 200 µg/kg |
| | Feed materials of animal origin (where fat content >2%fat) except fish oil | 250µg/kg(based on fat) |
| | Feed materials of animal origin (where fat content <2% fat) | 50µg/kg(based on fat) |
| | Compound feeding stuffs except fish food | 200µg/kg(based on fat) |
| . Hydrocyanic acid | Feed ingredients with the exception of: | 50 |
| | Linseed | 250 |
| | Linseed cakes | 350 |
| | Manioc products and almond cakes | 100 |
| | Complete feeds with the exception of: | 50 |
| Hydrocarbons(C10 – C40) | Animal fats, with the exception of: | 400 |
| | -Raw fish oil | 3000 |
| | Vegetable oil (except sunflower oil) | 400 |
| | Sunflower oil and sunflower fatty acids | 1000 |
| | Vegetable fatty acids incl. mixes of fatty acids(except sunflower fatty acids) | 3000 |
| | - complete feeds for chickens: | 10 |
|). Free gossypol | Feed ingredients with the exception of: | 20 |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg |
|---|--|--|
| (1) | (2) | (3) |
| 1. Theobromine | <ul style="list-style-type: none"> - cottonseedcakes - cottonseed <p>Complete farm feeds with the exception of:</p> <ul style="list-style-type: none"> complete feeds for cattle, sheep and goats complete feeds for poultry (except laying hens) and calves complete feeds for rabbits and pigs (except piglets) <p>Complete farm feeds with the exception of:</p> <ul style="list-style-type: none"> complete feeds for adult cattle | <p>1 200</p> <p>5 000</p> <p>20</p> <p>500</p> <p>100</p> <p>60</p> <p>300</p> <p>700</p> |
| 2. Volatile mustard oil | <p>Feed ingredients with the exception of:</p> <ul style="list-style-type: none"> - rape seed cakes <p>Complete farm feeds with the exception of</p> <ul style="list-style-type: none"> complete feeds for cattle, sheep and goats (except young animals) complete feeds for pigs (except piglets) and poultry | <p>100</p> <p>4 000 (expressed as allyl isothiocyanate)</p> <p>150 (expressed as allyl isothiocyanate)</p> <p>1 000 (expressed as allyl isothiocyanate)</p> <p>500 (expressed as allyl isothiocyanate)</p> |
| 3. Vinyl thioxazolidone (vinylloxazolidine thione) | <p>Complete feeds for poultry with the exception of:</p> <ul style="list-style-type: none"> - complete feeds for laying hens | <p>1 000</p> <p>500</p> |
| 14. Rye ergot (<i>Claviceps purpurea</i>) | All farm feeds containing unground cereals | 1 000 |
| 15. Weed seeds and unground and uncrushed fruit containing alkaloids, glucosides or other toxic substances separately or in combination including | All farm f | 3 000 |
| (a) <i>Lolium temulentum</i> L., (b) <i>Lolium remotum</i> Schrank, | | 1 000 |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg ppm) relative to a farm feed with a moisture content of 120g/kg |
|--|--|--|
| (1) | (2) | (3) |
| 16. Castor oil plant – <i>Ricinus communis</i> L. | All farm feeds | 10 (expressed in terms of castor-oil plant husks) |
| 17. <i>Crotalaria</i> spp. | All animals feeds | 100 |
| 18. Aldrin singly or combined expressed as dieldrin | All farm feeds with the exception of: | 0,01 |
| | - fats | 0,02 |
| 19. Polycyclic Aromatic Hydrocarbons (Pah's) | Fodderfats | 50ug (Based on fat) |
| 20. Dieldrin | | |
| 21. Camphechlor (Toxaphene) | All farm feeds | 0,1 |
| 22. Chlordane (sum of cis-and trans-isomers and of oxychlordane, expressed as chlordane) | All farm feeds with the exception of: | 0,02 |
| | - fats | 0,05 |
| 23. DDT (sum of DDT- TDE and DDE-isomers, expressed as DDT) | All farm feeds with the exception of: | 0.05 |
| | - fats | 0,5 |
| 24. Endosulfan (sum of alpha- and beta-somers and of endosulfansulphate expressed as endosulfan) | All farm feeds with the exception of | 0,1 |
| | - maize | 0,2 |
| | - oilseeds | 0,5 |
| | - complete feeds for fish | 0.005 |
| 25. Endrin (sum of endrin and delta-ketoi-endrin, expressed as endrin) | All farm feeds with the exception of: | 0,01 |
| | - fats | 0,05 |
| 26. Heptachlor (sum of heptachlor and of heptachlor-epoxide, expressed as Lixidized L L) | All farm feeds with the exception of: | 0,01 |
| | - fats | 0,2 |
| 27. Hexachlorobenzene(HCB) | All farm feeds with the exception of: | 0,01 |
| | - fats | 0,2 |
| 28. Hexachlorocyclo-hexane(HCH) | All farm feeds with the exception of fat | 0.02 |
| 29.1 alpha-isomer | All farm feeds with the exception of: | 0,02 |
| | - fats | 0,2 |

| SUBSTANCE, PRODUCTS (1) | FARM FEEDS (2) | MAXIMUM CONTENT IN mg/kg (ppm) relative to a farm feed with a moisture content of 120g/kg (3) |
|--|---|---|
| 29.2 beta-isomer | Compound farm feed with the exception of: - feeding stuffs for dairy cattle Feed ingredients with the exception of: - fats | 0,01 0,005 0,01 0,1 |
| 29.3 gamma-isomer | All farm feeds with the exception of: - fats | 0,2 2,0 |
| <p>3. BOTANICAL IMPURITIES</p> <p>Apricots – <i>Prunus armeniaca</i> L.</p> <p><i>sativa</i> (L). Crantz</p> <p>Mowrah, Bassia, Madhuca – <i>Madhuca longifolia</i> (L.) Macbr. (= <i>Bassia longifolia</i> L. = <i>Illipe malabroum</i> Engl.) <i>Madhuca indica</i> Gmelin</p> | All farm feeds | Seeds and fruit of the plant species listed opposite as well their processed derivatives may only be present in feed ingredients in trace quantities not quantitatively determinable. |

| SUBSTANCE, PRODUCTS | FARM FEEDS | MAXIMUM CONTENT IN mg/kg (ppm) to a farm feed with a moisture content of 120g/kg |
|--|------------|--|
| (1) | 21 | (3) |
| <i>juncea</i> Chinese mustard – <i>Brassica Juncea</i> (L.) Czern and Coss. Ssp. <i>Junica var lutea Batelin</i> | | |

TABLE 3
PROHIBITED INGREDIENTS
 [REG. 11(4)(d)]

| | |
|----|---|
| 1. | Faeces, urine as well as separated digestive tract content resulting from the emptying of removal of the digestive tract. |
| 2. | Hide treated with tanning substances, including its waste. |
| 3. | Seeds and other plant propagating materials which, after harvest, have undergone specific treatment with plant protection products for their intended use (propagation), and any derived by-products. |
| 4. | Wood, sawdust and other materials derived from wood treated with wood protection products. |
| 5. | Sludge from sewage plants treating waste waters. |
| 6. | Solid urban waste, such as household waste. |
| 7. | Untreated waste from eating places. |
| 8. | The packaging and parts of packaging or the use of products from the agri-food industry. |

TABLE 4
REQUIREMENTS FOR COMPLETE, COMPLEMENTARY, SUPPLEMENTARY AND CONCENTRATED ANIMAL FEED .
 (REG. 16 & 19)

| 1 Kind of animal | 2 Kind of animal feed | 1 Kind of animal | 2 Kind of animal feed |
|---------------------|--------------------------|---------------------|--------------------------|
| Broiler | Pre-starter | Fish | Starter |
| | Starter | Abalone | Grower |
| | Grower | Cat fish | Breeder |
| | Finisher | Carp | Maintenance |
| | Post finisher | Gold fish | Complete |
| | Supplement | Koi | Supplement |

| | | | |
|-----------------|----------------------|------------|-------------|
| | Concentrate | Marron | Concentrate |
| | | Tilapia | |
| | | Trout | |
| Broiler breeder | Starter | Crocodile | Starter |
| | Grower | | Grower |
| | finisher | | Maintenance |
| | Layer | | Complete |
| | Layer (late phase) | | Supplement |
| | Supplement | | Concentrate |
| | Concentrate | | |
| Chickens | Chick starter | Pigeon | Complete |
| | Pullet grower | | Maintenance |
| | Puller developer | | Breeder |
| | Laying | | Racing |
| | Laying (late phase) | | Supplement |
| | Supplement | | Concentrate |
| | Concentrate | | |
| Turkey | Starter | Parrot | Complete |
| | Grower | | Maintenance |
| | Pullet developer | | Supplement |
| | Finisher | | Concentrate |
| | Pre-breeder | | |
| | Breeder | | |
| | Supplement | | |
| | Concentrate | | |
| Duck & Geese | Starter | Rabbit | Complete |
| | Grower | | Production |
| | Finisher | | Maintenance |
| | Developer | | Supplement |
| | Breeder | | Concentrate |
| | Supplement | | |
| | Concentrate | | |
| Ostrich | Maintenance | Chinchilla | Complete |
| | Pre-starter | | Production |
| | Starter | | Maintenance |
| | Grower | | Supplement |
| | Finisher | | Concentrate |
| | Slaughter | | |
| | Breeder (ad lib) | | |
| | Breeder (restricted) | | |
| | Supplement | | |
| | Concentrate | | |
| Horse | Full grown | Mice & Rat | Maintenance |
| | Brood mares | | Production |
| | Weanlings | | Complete |
| | Yearlings | | Supplement |
| | Supplement | | Concentrate |
| | Concentrate | | |
| Pig | Creep | Game | Grower |

| | | | |
|--------------|--------------------------------------|--------------|-------------|
| | Weaner | | Complete |
| | Grower | | Maintenance |
| | Finisher | | Drought |
| | Dry sow and boar | | Supplement |
| | Lactating sow | | Concentrate |
| | Supplement | | |
| | Concentrate | | |
| | | | |
| Sheep & goat | Lamb/kid | Beef | Calves |
| | Grower | | Grower |
| | Finisher | | Finisher |
| | Ram | | Complete |
| | Ewe & Lamb | | Bull |
| | Complete | | Drought |
| | Drought | | Supplement |
| | Supplement | | Concentrate |
| | Concentrate | | |
| | | | |
| Dairy | Complete | Dairy Calves | Starter |
| | Semi-complete | | Grower |
| | Concentrated dry cow | | Complete |
| | Concentrated dry cow + anionic salts | | Supplement |
| | Concentrated dairy feeds | | Concentrate |
| | Supplement | | |
| | Concentrate | | |

TABLE 5
NUTRIENT REQUIREMENTS FOR COMPLETE DOG FOOD PER KILOGRAM DRY MATTER (DM)
 (based on 65 % digestibility)
 (REG. 17)

| Nutrient | Unit/ kg DM (a) | Adult Minimum (b) | All stages Minimum (b) | Maximum l |
|----------------------------|--------------------|----------------------|---------------------------|-----------|
| Crude Protein (e) | g | 200 | 245 | |
| Arginine (f) | g | 6,1 | 7,6 | |
| Histidine (f) | g | 2,2 | 2,8 | |
| Isoleucine (f) | g | 4,3 | 5,4 | |
| Leucine (f) | g | 7,0 | 8,8 | |
| Lysine (f) | g | 6,2 | 7,7 | |
| Methionine-cystine (f) | g | 4,6 | 5,8 | |
| Phenylalanine-tyrosine (f) | g | 8,3 | 10,8 | |
| Threonine (f) | g | 6,5 | 7,0 | |
| Tryptophan (f) | g | 1,8 | 2,3 | |
| Valine (f) | g | 4,6 | 5,8 | |
| Crude Fat (g) | g | 50 | 70 (g) | |
| Crude Fibre (d) | g | | | 50 |
| Linoleic acid | g | 10 | 10 | |
| Calcium | g | 7,2 | 10 | 32(l) |
| Phosphorus | g | 6,0 (h) | 9 | 16 |
| Ca : P ratio (l) | | 1 : 1 | 1 : 1 | 2 : 1 |
| Potassium | g | 6,0 | 6,0 | |
| Sodium | g | 0,5 | 0,7 (j) | |
| Chloride (k) | g | 0,8 | 1,0 | |
| Magnesium | g | 0,4 | 0,4 | |
| Iron (l) | mg | 50 (m) | 80 | 3 000 |
| Copper | mg | 4,0 (m) | 7,3 | 250 |
| Manganese | mg | 5,0 | 5,0 | |

| | | | | |
|------------------|----|---------|-------|---------|
| Zinc (n) | mg | 120 | 120 | 1 000 |
| Iodine | mg | 0,7 (m) | 1,5 | 50 |
| Selenium | mg | 110 | 110 | 200 |
| Vitamin A | IU | 5 000 | 5 000 | 400 000 |
| Vitamin D | IU | 500 | 500 | 5 000 |
| Vitamin E (p) | IU | 30 (m) | 50 | |
| Vitamin K (q) | mg | - | - | |
| Thiamin l | mg | 1,0 | 1,0 | |
| Riboflavin | mg | 4,5 | 4,5 | |
| Pantothenic acid | mg | 10 | 10 | |
| Niacin | mg | 11 | 11 | |
| Pyridoxine | mg | 1,0 | 1,0 | |
| Folic acid | mg | 180 | 180 | |
| Vitamin B12 | mg | 22 | 22 | |
| Choline | mg | 1 200 | 1 200 | |
| Biotin (s) | mg | - | - | |

Table 5 (continued – explanations)

- a. Conversion of units/MJ to units/100 g on dry matter (DM) basis or units/1 000 kcal can be obtained by multiplying units/MJ by 1,6736 and 4,184 respectively. The conversion from units/MJ to units/100 g DM assumes that the diet has an energy density of 14,64MJ (3 500 kcal)/kg metabolisable energy (ME). Rations greater than 16,74MJ (4 000 kcal)/kg should be corrected for energy density; rations less than 14,64MJ (4 000 kcal) should not be corrected for energy density.
- b. Values are suitable for products of average RSA (65 %) digestibility and availability. These values should be increased in products of lower digestibility and availability. Values in the table are principally based on published recommendations of the National Research Council (NRC '85 +25 % and NRC '85 +35 %) for protein, amino acids and certain minerals (refer to footnotes). Where differences exist between the RSA guidelines and NRC '85 +25 or 35 % explanations are provided in footnotes.
- c. Maximum values are based on AAFCO 1999 and RSA regulatory requirements. Where differences exist with AAFCO explanations are provided in footnotes. Maximum values are only given for nutrients where a toxic level has been established in dogs. For nutrients where no value is provided, although the nutrient may still be toxic in the dog if consumed at high levels, no data exist specifying the toxic level in this species.
- d. Legal maximum crude fibre level to ensure energy density and digestibility.
- e. Adult maintenance requirement based on AAFCO 1999 plus 10 % to compensate for the quality/digestibility of local protein sources. A lower level of protein may be adequate. However, manufacturers should ensure that the bioavailability of protein and its constituent amino acids, as well as the amino acid pattern, are in line with current scientific recommendations and have biological testing to support data.
- f. The level of essential amino acids for "adult minimum" is based on NRC 1985 for growth plus 10 % and for all lifestages on NRC 1985 for growth plus 35 %. In practical diets the level of essential amino acids should be at least as high as the values stated. A lower level of essential amino acids may be adequate. However, as long as minimum values stated by NRC 1985 are met and manufacturers can ensure the bio-availability of the amino acids and have biological testing to support data.
- g. Based on AAFCO '99. There is no evidence to support increased requirement for total fat in growing puppies, but a higher value was deemed necessary for all lifestages to support lactation.
- h. Based on NRC '85 + 35 % due to high cereal and cereal by product inclusions in typical RSA products that could result in a decrease in the availability of phosphorous.

- i. Ca : P ratio is a regulatory requirement for product validations. Maximum calcium level based on double the maximum phosphorus level to compensate for the high calcium content in local animal protein sources. This high calcium level could be harmful for puppies and manufacturers should **not** exceed 25 g/kg for puppy diets.
- j. Studies in dogs have demonstrated that 45,5 mg/MJ (0,19 g/1 000 kcal) sodium is adequate for all lifestages (Czarnecki-Maulden et al., (1989) J. A. Vet. Med Assoc. 195, 583–590).
- k. Value based on assumption that chloride is provided as NaCl (see footnote j).
- l. Because of very poor availability, iron from carbonate or oxide sources that are added to the diet should not be considered as components in meeting the minimum nutrient level.
- m. Based on NRC 1985 + 25 %.
- n. Based on AAFCO 1999 providing adequate allowance for high cereal and cereal by product inclusions in locally produced diets.
- o. Based on Hathcock et al. 1990 *Am. J Clin. Nutr.* 52: 183 – 202.
- p. Requirement depends on intake of polyunsaturated fatty acids (PUFA) and other antioxidants. A fivefold increase may **be** required under conditions of high PUFA intake.
- q. Vitamin K does not need to be added unless diet contains antimicrobial or antivitamin compounds.
- r. Because processing may destroy up to 90 % of the thiamin in the diet, allowances in formulation should be made to ensure the minimum nutrient level is met after processing.
- s. Biotin does not need to be added unless diet contains antimicrobial or antivitamin compounds.

TABLE 6
NUTRIENT REQUIREMENTS FOR COMPLETE CAT FOOD PER KILOGRAM DRY MATTER (DM)
(based on 65 % digestibility)
(REG. 17)

| Nutrient | Unit/ Kg DM (a) | Adult M+inimum (b) | All stages Minimum (b) | Maximum l |
|----------------------------|----------------------------|-------------------------------|-----------------------------------|------------------|
| Crude Protein | G | 275 | 310 (e) | |
| Arginine (g) | G | 8,8 | 11,0 | |
| Histidine (g) | G | 2,6 | 3,3 | |
| Isoleucine (g) | G | 4,4 | 5,5 | |
| Leucine (g) | G | 10,6 | 13,2 | |
| Lysine (g) | G | 7,0 | 8,8 | |
| Methionine-cystine (g) | G | 6,6 | 8,3 | |
| Methionine (g) | G | 3,5 | 4,4 | |
| Phenylalanine-tyrosine (g) | G | 7,5 | 9,4 | |
| Threonine (g) | G | 6,2 | 7,7 | |
| Tryptophan (g) | G | 1,3 | 1,7 | |
| Valine (g) | G | 5,3 | 6,6 | |
| Crude Fat | G | 90 | 90 | |
| Linoleic acid | G | 5,0 | 5,0 | |
| Arachidonic acid | mg | 200 | 200 | |
| Crude Fibre | G | | | 45 (d) |
| Linoleic acid | G | 5,0 | 5,0 | |
| Calcium | G | 7,1 | 10 | |
| Phosphorus | G | 6,0 | 8,4 | |
| Ca : P ratio (l) | | 1 : 1 | 1 : 1 | 2 : 1 |
| Potassium | G | 6,0 | 6,0 | |
| Sodium | G | 0.6 (f) | 2.0 | |

| | | | | |
|------------------|----|-----------|----------|-------------|
| Chloride | G | 0,9 (j) | 3,0 | |
| Magnesium | G | 0,3 (k) | 0,5 (f) | |
| Iron (l) | mg | 80 | 100 (f) | |
| Copper (m) | mg | 5,0 | 10 (n) | |
| Manganese | mg | 5,0 | 10,0 (f) | |
| Zinc (o) | mg | 75 | 75 | 2 000 |
| Iodine | mg | 0,3 | 1,0 (f) | |
| Selenium | mg | 100 | 100 | |
| Vitamin A | IU | 3 330 (i) | 9 000 | 400 000 (p) |
| Vitamin D | IU | 250 (h) | 750 | 10 000 |
| Vitamin E (q) | IU | 30 | 30 | |
| Vitamin K I | mg | 100 | 100 | |
| Thiamin (s) | mg | 5,0 | 5,0 | |
| Riboflavin | mg | 4,0 | 4,0 | |
| Pantothenic acid | mg | 5,0 | 5,0 | |
| Niacin | mg | 40 (l) | 40 (l) | |
| Pyridoxine | mg | 2,5 (t) | 4,0 | |
| Folic acid | mg | 0,8 | 0,8 | |
| Vitamin B12 | mg | 20 | 20 | |
| Choline (u) | mg | 2 400 | 2 400 | |
| Biotin (v) | mg | 70 | 70 | |
| Taurine (wet) | G | 2,5 | 2,5 | |
| Taurine (dry) | G | 1,0 | 1,0 | |

Table 6 (continued – explanations).

- a. Conversion of units/MJ to units/kg on dry matter (DM) basis or units/1 000 kcal can be obtained by multiplying units/MJ by 1,6736 and 4,184 respectively. The conversion from units/MJ to units/kg DM assumes that the diet has an energy density of 16,7 MJ (4 000 kcal)/kg metabolisable energy (ME). Rations greater than 18,8MJ (4 500 kcal)/kg should be corrected for energy density; rations less than 16,7Kj (4 000 kcal) should not be corrected for energy density.
- b. Values are suitable for products of average RSA (65 %) digestibility and availability. These values should be increased in products of lower digestibility and availability. Values in the table are principally based on published recommendations AAFCO 1999 and AAFCO 1999 plus 10 % for protein, amino acids and certain minerals (refer to footnotes). The majority of AAFCO 1999 recommendations are based on NRC 1986 recommendations plus 25 % to allow for practical diets. Where differences exist between the RSA guidelines and AAFCO 1999 explanations are provided in footnotes. Values below the recommended minimum may still be adequate as long as minimum values stated by NRC 1986 are met and manufacturers can ensure bioavailability and have biological testing done to support data.
- c. Maximum values are based on AAFCO 1999 and RSA regulatory requirements. Where differences exist with AAFCO explanations are provided in footnotes. Maximum values are only given for nutrients where a toxic level has been established in cats. For nutrients where no value is provided, although the nutrient may still be toxic in the cat if consumed at high levels, no data exist specifying the toxic level in this species,
- d. Legal maximum crude fibre level to ensure energy density and digestibility.
- e. Based on NRC 1978 plus 10 %
- f. Based on NRC 1978.
- g. The level of essential amino acids for “adult minimum” is based on NRC 1986 minimum recommendations for growth plus 10 % and for all lifestages on NRC 1986 for growth plus 35 %. In practical diets the level of essential amino acids should be at least as high as the values stated. A

lower level of essential amino acids may be adequate. However, manufacturers should ensure that the bioavailability of protein and the amino acid profile satisfies the minimum values stated.

- h. J. G. Morris and K.E. Earle (1996) Vet. Clin. Nutr. Vol 3 (3): 93-96.
- i. Yu & Morris (1997) J. Nutr. 127: 494-501.
- j. Values based on the assumption that chlorine provided as NaCl.
- k. Studies have demonstrated that 10 mg/MJ will maintain adult cats. This value has been doubled to accommodate interactions with other dietary factors. Pastoor et al. (1993) Doctoral Thesis, University of Utrecht.
- l. Because of very poor availability, iron from carbonate or oxide sources that are added to the diet should not be considered as components in meeting the minimum nutrient level.
- m. Foods high in zinc, iron, and/or soy or other sources of phytic acid should be at a minimum of 0,9 mg/MJ. Due to its low availability copper oxide should not be considered as a copper source.
- n. Facetti et al. (1997) J. Nutr. (1998) (submitted).
- o. Based on AAFCO 1999 providing adequate allowance for high cereal and cereal by product inclusions in locally produced diets.
- p. Seawright et al (1967) J. Comp. Path. 77: 29 – 39.
- q. Add 10 IU Vitamin E above minimum level per gram of fish oil per kilogram (16,7MJ) of diet.
- r. Vitamin K does not need to be added unless the diet contains antimicrobial or antivitamin compounds, or contains more than 25 % fish on a DM basis. Strieker et al. (1996) JSAP 37 322-326.
- s. Because processing may destroy up to 90 % of the thiamin in the diet, allowances in formulation should be made to ensure the minimum nutrient level is met after processing.
- t. Bay et al, (1989) J. Nutr. 119: 1020–1027 and Bay et al (1990) J. Nutr. 121: 1054–1061.
- u. Methionine may substitute for choline as a methyl donor at a rate of 3,75 parts for 1 part choline by mass when methionine exceeds 0,62 %.
- v. Biotin does not need to be added unless diet contains antimicrobial or antivitamin compounds.

| | |
|------------------------|--|
| Major nutrients | *Protein (N x 6,25) *Fat (NB: acid hydrolysis for most pet foods) *Moisture (NB: Karl Fisher method for semi-moist products) *Ash *Crude fibre |
|------------------------|--|

| |
|--|
| |
|--|

| | | | |
|--------------------|---------------|-------------|------------|
| Amino acids | Arginine | Histidine | Isoleucine |
| | Cystine | Tyrosine | *Lysine |
| | Phenylalanine | Threonine | Tryptophan |
| | Leucine | *Methionine | Valine |

| | | | |
|-----------------|-----------|-------------|------------|
| Minerals | "Calcium | *Phosphorus | *Potassium |
| | Sodium | Copper | *Iron |
| | Chloride | Magnesium | Iodine |
| | Manganese | *Zinc | |

| | | | |
|-----------------|----------------------|--------------|------------------|
| Vitamins | *A | D (b) | E |
| | *Thiamin | Riboflavin | Pantothenic acid |
| | Niacin | Pyridoxine | Biotin |
| | B12 (cyanocobalamin) | Folic acid | |

| | | |
|--------------------------------|--------------------|---------|
| Vitamin-like substances | *Taurine (a) & (c) | Choline |
|--------------------------------|--------------------|---------|

- a. Arachidonic acid and taurine analyses are only necessary for cat food.
- b. Vitamin D analysis of pet foods containing levels which are approaching the minimum recommendation, say between 500 and 1 000 IU/kg DM is difficult and unreliable. The detection limit for HPLC methods is approximately 3 000 to 5 000 IU/kg. Analysis is not required if supplementation is oxidized and it is unlikely that unsupplemented products with adequate levels of vitamins A and E will be deficient in vitamin D.
- c. For taurine (a kind of amino acid having a vitamin-like activity) analysis).

TABLE 8
PRODUCT FAMILIES
[REG. 17(1)(g)]

1. All products within a family must be of the same processing type and within the same moisture content category (less than 20%, 20% or more but less than 65%, 65% or more), and
2. all product family members must be adequate for the same or less demanding life stage as the lead family product, and
3. the first four ingredient (exclusive of added water, vitamins, minerals, food additives and condiments) or the product family members:
 - a. must be identical and in the same order of predominance as the first four ingredient (exclusive of added water, vitamins, minerals, food additives and condiments) as the lead family product.
4. the product family members must meet the metabolizable energy (ME) of the lead product members and be formulated on an ME basis to:

- a. meet the nutrient levels of the lead family product for key nutrients (crude protein, lysine, methionine, crude fat, linoleic acid, calcium, phosphorus, zinc, vitamin A and thiamine and additionally potassium and taurine for cat foods), and
- b. meet the nutrient levels of the lead family product or the AAFCO Nutrient Profiles, whichever is lower, for all other essential nutrients, and
- c. not exceed the maximum levels of any nutrient or nutrient ratio established in the AAFCO Nutrient Profiles.

TABLE 9
CALCULATION OF ENERGY VALUE OF FOOD
[REG. 17(1)(h)]

The gross energy value of foods is defined as the total combustible energy released as heat when a food is completely oxidized in a bomb calorimeter.

Gross energy values of individual food components are as follows (NFE* = nitrogen free extracts):

| | |
|-------------------------------------|-------------|
| Carbohydrate (Crude fibre and NFE*) | 4.14 kcal/g |
| Fat | 9.40 kcal/g |
| Protein | 5.65 kcal/g |

However, in practical diets not all this energy is available due to incomplete digestion of the various nutrients.

In the absence of animal digestibility results for a particular diet, one of the following formulae to calculate metabolisable energy values of practical diets can be used:

(a) Dogs (NRC 1985)

$$\text{ME (kcal/g)} = \text{protein/g} \times 3.5 + \text{fat/g} \times 8.5 + \text{NFE*/g} \times 3.5$$

(b) Cats (NRC 1986)

Moist foods :

$$\text{ME (kcal/g)} = \text{protein/g} \times 3.9 + \text{fat/g} \times 7.7 + \text{NFE*/g} \times 3.0 - 0.05$$

Semi-moist foods :

$$\text{ME (kcal/g)} = \text{protein/g} \times 3.7 + \text{fat/g} \times 8.8 + \text{NFE*/g} \times 3.3$$

Dry foods :

$$\text{ME (kcal/g)} = 0.99 (\text{protein/g} \times 5.65 + \text{fat/g} \times 9.4 + \text{NFE*/g} \times 4.15) - 1.26$$

(c) Cats and dogs (AAFCO 2001)

$$\text{ME (kcal/g)} = \text{protein/g} \times 3.5 + \text{fat/g} \times 8.5 + \text{NFE*/g} \times 3.5$$

TABLE 10
ENERGY REQUIREMENTS FOR DOGS AND CATS
[REG. 17(1)(h)]

Practical recommendation for ME requirements of dogs at different ages

| Age | AVERAGE | Range |
|---------------------------------------|------------------------------|------------------------------|
| years | kcal ME / kg ^{0.75} | kcal ME / kg ^{0.75} |
| 3 – 7 | 115 | 100 – 130 |
| 7 (senior dogs) obese prone adults | 100 ≤90 | 80 – 120 ./. |

Practical recommendation for ME requirements for dogs in relation to activity

| Activity level | kcal ME / kg^{0.75} | kJ ME / kg^{0.75} |
|---------------------------------|------------------------------------|----------------------------------|
| Low activity (< 1 h/day) | 100 | 420 |
| Moderate activity (1 – 3 h/day) | 125 | 525 |
| Higher activity (3– 6 h/day) | 150-175 | 625 – 730 |

Metabolisable energy requirements for cats

For cats, given less variation in adult body weights, the metabolisable energy need for adult maintenance is 60 – 70 kcal/kg body weight/day (based on NRC 1986).

TABLE 11
FEED INGREDIENT TERMS
[REG. 21(1)(a)(vi)]

Animal protein products.

*Animal byproduct meal
 Animal digest
 Animal liver
 Animal plasma
 *Bloodmeal
 *Bloodmeal, flash-dried
 Casein
 Condensed fish protein digest
 Dried (dry) whey
 Dried buttermilk, Feed Grade
 Dried fish protein digest
 Dried kelp
 "Dried meat solubles
 Dried milk, Feed Grade
 Dried skimmed milk, Feed Grade
 Dried whole milk, Feed Grade
 Fish byproduct
 Fish meal
 Hydrolysed poultry feathers
 *Meat and bone meal
 *Meat and meat by-products
 *Meat meal
 *Meat protein isolate
 Poultry
 Poultry byproduct and feather meal
 Poultry byproduct meal
 Poultry by-products (fresh)

Rye

Sorghum
 Triticale
 Wheat

Oils and fats

Acid oil/fat product (Feed Grade)
 Animal fat
 Corn endosperm oil
 Fish oil
 Greaves
 Hydrolysed fat or oil (Feed Grade)
 Restaurant oil and fat
 Vegetable fat or oil

Plant protein products

Active dry yeast
 Algae meal
 Brewers dried yeast
 Canola meal/cake
 Cereal food fines
 Chipped rice, broken rice, or brewers rice
 Coconut meal/cake, mechanical extract
 Coconut meal/cake, solvent extract
 Cottonseed meal/cake, Mechanical extract
 Cottonseed meal/cake, solvent extract

Poultry hatchery byproduct meal

Poultry meal

*Spray-dried animal blood

Whey

White fish meal

Forage products

Dehydrated lucerne meal or pellets

Sundried lucerne meal, or pellets or ground lucerne

Ground grass

Ground soya-bean hay

Ground straw

Grain products

Barley

Brewers rice

Grain sorghum

Ground/processed grain sorghum

Ground rice

Ground rough rice or ground paddy

Ground brown rice

Maize

Maize feed meal

Maize ground/processed

Oats

Rice

Sunflower mealbake, dehulled, mechanical extract

Sunflower meal/cake, dehulled, solvent extract

Sunflower mealbake, mechanical extract

Sunflower meal/cake, solvent extract

Tapioca/manioca and/or cassava root

Textured soya protein product

Torula dried yeast or candida dried yeast

Yeast culture

Yeast dried grains

Processed grain by-products

Barley mill byproduct

Brewers dried grains

Brewers wet grains

Chipped rice, broken rice, or brewers rice

Condensed distillers' solubles

Defatted wheat germ meal

Dehydrated maize plant

Distillers' dried grains

Distillers' dried grains with solubles

Distillers' dried solubles

Flaked maize

Grain sorghum bran

Grain sorghum germ cake or grain sorghum germ meal

Grain sorghum gluten feed

Grain sorghum gluten meal

Grain sorghum grits

Grain sorghum mill feed

Ground maize-cob

Ground rough rice or ground paddy

Dried beans

Dried potato

Ground extruded whole soya-beans (full-fat soya)

Ground soya-beans

Groundnut meal/cake, mechanical and/or solvent extract

Guar meal

Heat-processed soya-beans

Linseed meal

Peas

Primary dried yeast or dried yeast

Rapeseed mealbake, mechanical extract

Safflower meal/cake, mechanical extract

Safflower mealbake, solvent extract

Soy flour

Soya protein isolate

Soya protein isolate

Soya-bean meal, dehulled, solvent extract

Soya-bean meal, mechanical extract

Soya-bean meal, mechanical extract

Soya-bean meal, solvent extract

soya-beans

Wheat germ meal

Wheat germ meal, defatted

Wheat midlings

Wheat mill run

Roughage products

Bagasse

Barley hulls

Barley mill by-product

Barley mill by-product

Beet pulp, dried, plain

Citrus meal, dried

Dried apple pomace

Dried citrus pulp

Dried tomato pomace

Ground maize-cob

Ground straw

Groundnut hulls

Oat hulls

Oat mill by-product

Rice mill by-product

Rice mill run

Soya-bean hulls

Soya-bean meal, mechanical extract

Sunflower hulls.

Ground/processed grain sorghum
 Ground/processed grain sorghum
 Groundnut skins
 Hominy chop
 Maize and cob meal
 Maize and cob meal with husks
 Maize bran
 Maize feed meal
 Maize flour
 Maize germ meal (dry milled, defatted)
 Maize germ meal (wet milled) / maize germ
 cake
 Maize gluten feed (Gluten 20)
 Maize gluten meal (Gluten 60)
 Maize grits
 Maize ground/processed.
 Oat groats
 Oat hulls
 Oat meal
 Pearl barley by-product
 Rice bran
 Rice mill by-product
 Rice polishings
 Sorghum flour, partially aspirated, gelatinized
 Wheat bran
 Wheat flour

TABLE 12
NPN WARNINGS
[REG. 21(2)(c)]

| |
|--|
| <p>Applicable to all feeds</p> <p>1. Vinegar is an effective remedy against NPN poisoning. Mix with an equal amount of water. Dose half a bottle per calf or large sheep or 2-4 bottles per head of cattle. (1 bottle = 750 ml)</p> <p>2. Protect this farm feed against rain. NPN is soluble and animals drinking such a solution could be poisoned.</p> <p>3. Do not feed this farm feed indiscriminately with other NPN containing farm feeds. Consult an animal scientist.</p> |
| <p>Concentrates</p> <p>4. Mix this concentrate thoroughly with the prescribed ingredients.</p> |
| <p>Finisher feeds</p> <p>5. Adaptation : Limit the intake of the finisher feed to approximately 1% of the animals live mass during the first week in order to prevent digestive disturbances.</p> <p>6. Finisher feeds are fed ad lib with adequate roughage or natural grazing. Feeding troughs must always be kept filled.</p> |
| <p>Complete feeds</p> <p>7. During the first week additional roughage must be fed to facilitate adaptation.</p> |
| <p>8. This farm feed must be fed ad lib. Ensure that the feed troughs are always full.</p> |

| |
|--|
| <p>Animal licks</p> <p>9. This is a supplement and not a feed. Sufficient grazing and/or roughage must be available at all times.</p> |
| <p>10. Keep lick troughs filled and prevent gluttonous eating by hungry animals. A constant daily intake can help prevent poisoning.</p> |
| <p>11. Before feeding a NPN containing lick, feed an ordinary salt/phosphate lick at least 7 days.</p> |
| <p>Dairy meal</p> <p>12. Adaptation: When changing from a NPN-free dairy meal to a NPN-containing meal it is advisable to feed a 50/50 mixture over a period of 4-6 days.</p> <p>13. Dairy meal must be fed two or more times daily.</p> <p>14. The quantity of dairy meal fed depend on:</p> <p>(a) The quality and quantity of the available grazing and/or roughage;</p> <p>(b) The stage of lactation; and</p> <p>(c) The milk and butterfat production</p> |

TABLE 13
CATEGORIES OF INGREDIENTS WHICH MAY BE INDICATED IN PLACE OF INDIVIDUAL
INGREDIENTS FOR PET FOOD
[REG. 22(2)(i)(ii)]

| Description of the Category | Definition |
|-----------------------------|---|
| Meat and animal derivatives | All the fleshy parts of slaughtered warm-blooded land animals, fresh or preserved by appropriate treatment, and all products and derivatives of the processing of the carcass or parts of the carcass of warm-blooded animals |
| Milk and milk derivatives | All milk products, fresh or preserved by appropriate treatment, and derivatives from the processing thereof |
| Eggs and egg derivatives | All egg products fresh or preserved by appropriate treatment and derivatives from the processing thereof |
| Oils and fats | All animal and vegetable oils and fats |
| Yeasts | All yeasts, the cells of which have been killed and dried |
| Fish and fish derivatives | Fish or parts of fish, fresh or preserved by appropriate treatment, and derivatives from the processing thereof |
| Cereals | All types of cereal, regardless of their presentation, or products made from the starch endosperm |
| Cereal by products | By products resulting from the treatment of cereals. |
| | products, in particular cereals, vegetables, legumes and oil |
| Vegetable protein extracts | All products of vegetable origin in which the proteins have been concentrated by an adequate process to contain at least 50 % crude protein, as related to the dry |
| | trace substances |
| Various sugars | All types of sugars |
| Fruit | All types of fruit, fresh or preserved by appropriate treatment |

| | |
|--------------------------|--|
| Nuts | All kernels from shells |
| seeds | All types of seeds as such or roughly crushed |
| Algae | Algae, fresh or preserved by appropriate treatment |
| Molluscs and crustaceans | All types of molluscs, crustaceans, shellfish, fresh or preserved by appropriate treatment, and their processing derivatives |
| Insects | All types of insects and their stages of development |
| Bakery products | All bread, cakes, biscuits and pasta products |

TABLE 14
REQUIREMENTS TO SUBSTANTIATE URINARY TRACT HEALTH CLAIMS
[REG. 22(2)(v)]

- ▶ **Low magnesium claim**
Mg < 1.2 g/kg Dm
Or
Mg c 25mg/100kcal ME
Proximate analysis plus Mg analysis for 3 production runs.
- **Reduces Urinary pH claim**
As above
Plus
Biological trial to verify that the urinary pH = 6.2 - 6.4
- ▶ **Helps maintain urinary tract health claim**
Proximate analysis
Urinary Ph trial as above

Plus

| | | |
|------------|-----------------|--------------------------------|
| Calcium | 9 g/kg DM max | analysis for 3 production runs |
| Phosphorus | 7 g/kg DM max | analysis for 3 production runs |
| Magnesium | 1.2 g/kg DM max | analysis for 3 production runs |

TABLE 15(a)

**ACCEPTABLE ANALYTICAL VARIATION AND SAMPLING VARIATIONS FOR MOISTURE, PROTEIN,
FAT, FIBRE, ASH, Ca, P, Na, Cl, K, Mg AND S IN COMPLETE FEEDS**

| Registered Nutrient level (X), % | Variation (A) from X | Relative variation (RV) from (X), % |
|----------------------------------|----------------------|-------------------------------------|
| 1 | 0.25 | 25.0 |
| 2 | 0.30 | 14.9 |
| 3 | 0.34 | 11.5 |
| 4 | 0.39 | 9.8 |
| 5 | 0.44 | 8.8 |
| 6 | 0.48 | 8.1 |
| 7 | 0.53 | 7.6 |
| 8 | 0.58 | 7.2 |
| 9 | 0.63 | 6.9 |
| 10 | 0.67 | 6.7 |
| 12 | 0.77 | 6.4 |
| 14 | 0.86 | 6.1 |
| 16 | 0.95 | 6.0 |
| 18 | 1.05 | 5.8 |
| 20 | 1.14 | 5.7 |

| | | |
|----|------|-----|
| 25 | 1.38 | 5.5 |
| 30 | 1.61 | 5.4 |
| 35 | 1.84 | 5.3 |
| 40 | 2.08 | 5.2 |
| 50 | 2.55 | 5.1 |
| 60 | 3.02 | 5.0 |
| 70 | 3.48 | 5.0 |
| 80 | 3.95 | 4.9 |

$$A = 0.046875 \cdot X + 0.203125$$

$$RV = A/X \times 100$$

| Registered Nutrient level (X), % | Variation (A) from X | Relative variation (RV) from (X), % |
|----------------------------------|----------------------|-------------------------------------|
| 1 | 0.25 | 25.0 |
| 2 | 0.30 | 14.9 |
| 3 | 0.34 | 11.5 |
| 4 | 0.39 | 9.8 |
| 5 | 0.44 | 8.8 |
| 6 | 0.49 | 8.1 |
| 7 | 0.50 | 7.2 |
| 8 | 0.52 | 6.5 |
| 9 | 0.54 | 6.0 |
| 10 | 0.55 | 5.6 |
| 12 | 0.59 | 4.9 |
| 14 | 0.62 | 4.5 |
| 16 | 0.66 | 4.1 |
| 18 | 0.69 | 3.9 |
| 20 | 0.73 | 3.6 |
| 25 | 0.82 | 3.3 |
| 30 | 0.90 | 3.0 |
| 35 | 0.99 | 2.8 |
| 40 | 1.08 | 2.7 |
| 45 | 1.16 | 2.6 |
| 50 | 1.25 | 2.5 |
| 60 | 1.42 | 2.4 |
| 70 | 1.60 | 2.3 |
| 80 | 1.77 | 2.2 |

6 to 80 %
1 to <6%

$$A = 0.01738 \cdot X + 0.3810$$

$$A = 0.046875 \cdot X + 0.203125$$

$$RV = A/X \times 100$$

$$RV = A/X \times 100$$

| Registered level % | (X) mg/kg | Variation (A) from X | Relative variation (RV) From X, % |
|-----------------------|--------------|----------------------|--------------------------------------|
| 0.10 | 1000 | 0.040 | 40.0 |
| 0.25 | 2500 | 0.075 | 30.0 |
| 0.50 | 5000 | 0.133 | 26.7 |
| 0.75 | 7500 | 0.192 | 25.6 |
| 1.00 | 10000 | 0.250 | 25.0 |

Values < 0.10% (1000mg/kg) relative variation (RV) from X = 50%

ANNEXURE 1

PORTS OF ENTRY

| Land boarder posts | International Airports | International harbours | Inland |
|--------------------|------------------------|------------------------|------------------|
| Beitbridge | Cape Town | Cape Town | Johannesburg |
| Caledonspoort | Durban | Durban | Kimberly |
| Ficksburg | Gateway (Pietersburg) | East London | Pretoria |
| Golela | Johannesburg | Mossel Bay | Mmabatho |
| Groblersburg | Lanseria | Port Elizabeth | Pietermaritzburg |
| Kapfontein | Port Elizabeth | Richards Bay | Upington |
| Jeppesreef | Richards bay | Saldanha Bay | Bloemfontein |
| Lebombo | Upington | | Stellenbosch |
| Mahamba | Bloemfontein | | Germiston |
| Mananga | Mafikeng | | |
| Maseru bridge | | | |
| Nakop | | | |
| Nerston | | | |
| Oshoek | | | |
| Qachas' Nek | | | |
| Ramatlabana | | | |
| Skilpadshek | | | |
| Van Rooyenshek | | | |
| Violsdrif | | | |

ANNEXURE 2



agriculture

Department
Agriculture
REPUBLIC OF SOUTH AFRICA

Department of Agriculture
Private Bag X 250
Pretoria
0001

CERTIFICATE IN RESPECT OF THE TAKING OF SAMPLES IN TERMS OF SECTION 15 OF ACT 36/1947

**Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947)
(To be completed in duplicate)**

I here by certify that the accompanying sample of an animal feed identified by the above serial number, was taken by me on day..... of..... 20.....
At..... in the presence of.....
*(Name of owner/person in charge of stocks/witness)
From the stock of.....
(Name and address of seller)

PARTICULARS OF ANIMAL FEED FROM WHICH SAMPLE WAS TAKEN

- 1. Name of registration holder.....
- 2. Trade name†.....
- 3. Name of product†.....
- 4. Animal feed class†.....
- 5. Registration number†..... Act 36/1947
- 6. Manufacturer details.....
- 7. Composition of farm feedt
 - 7.1 Chemical composition.....
(List chemicals which appear on the label)
 - 7.2 Physical properties.....
- 7. Conditions of container from which sample was taken.....
- 8. Estimated quantity of animal feed from which sample was taken:
 - 8.1 Number of containers.....
 - 8.2 Capacity of containers.....
- 8 Remarks.....

Signature of witness

Registrar

† Shall be particulars as indicated on the affixed label to the containers from which the sample was taken or as it is marked on such containers, or if the animal feed which is sampled, is not sold in containers, as it appears on the invoice which is supplied together with that animal feed.

‡ One copy shall accompany each of the three parts of the sample and the fourth copy shall be kept by the officer who took the sample

ANNEXURE 3

Analyst address

.....

.....

**CERTIFICATE OF RESULTS OF ANALYSES OR TEST OF A SAMPLE OF FARM FEEDS BY
ANALYST
Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947)
(To be completed in duplicate)**

I (full name) _____

Of _____

A duly appointed analyst in terms of section 14 of the Fertilizer, Farm Feeds, Agricultural Remedies and Stock remedies Act, 1947 (Act 36 of 1947) do hereby make oath and state:

(a) that on _____ I received a sample of * _____
from+ _____

for analyses and/or test;

(b) that the sample was labelled, sealed and
marked# _____

(c) that I have analysed and/ or tested the said sample and as a result of the analyses and/or test I
found it to be constituted as follows:

1. Chemical composition _____

2. Physical properties _____

Signature of analyst

(a) state name of farm feed as specified on label/insert name of person supplying the sample and
state whether it was "by hand, "by post" or by courier.

(b) Insert distinguishing mark or number of sample.

(c) State names of particular chemical constituents and physical properties

DECLARATION TO BE MADE IN THE PRESENCE OF JUSTICE OF PEACE/ COMMISSIONER OF OATHS.

.....
DATE

.....
INITIALS AND SURNAME

TEL NO.....

.....
SIGNATURE OF THE DEPENDENT

I certify that the dependant has acknowledged that he/she know and understands the contents of this declaration which was sworn to/affirmed before me and the dependants signature/thumb print/mark was placed thereon in my presence.

.....
JUSTICE OF PEACE/COMMISSIONER OF OATHS

Full first name and surname:

(BLOCK LETTERS

Designation (rank):..... **Ex Officio Republic of South Africa**.....

Business address:.....

(street address must be stated)

Date:.....

Place:.....