Nutrition of Animal \Practical

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**Feed Material**

**Division of feed materials**

**(A) The old division of feed materials**

* **First: coarse:**

They are foods that are characterized by low energy per unit weight for the animal, usually because of the high percentage of fiber in them, and sometimes because of the increase in the percentage of water in them, and they are also called a filling ration.

Accordingly, it is necessary to know the categories of feed materials, which are based on their nutritional properties, and then substitution.

Feed law in Canada is considered a coarse material if it contains more than 18% of raw fibers, and this makes some of the residues follow this section: such as. Unhulled cotton gain, which is considered by many to be a concentrate. In fact, such food may be considered concentrated if it is used for ruminants; Because the useful energy from it is relatively high, and if it is used for poultry, it is considered rough and full for it due to the low energy useful from it.

**Rough feeds are divided into:**

(1) Dry forages, according to:

A - Hay

B - straw

C- Other materials containing more than 18% fibers.

 (2) Sacculent Forages, followed by:

A Pasturage

b- silage

C- Roots and tubers

* **Second:-, concentrate:**

It is a feed material characterized by high energy useful for animals per unit weight. This is due to the high protein, starch, or fat content in them, and the low percentage of fiber.

It can be divided into the following:

1- Basal Feeds, containing 16% crude protein, or less.

2- Protein supplements, which are foods that contain - usually - more than 40% of raw protein and include the following:

a- Foods of vegetable origin, which include materials containing 20-30% crude protein and foods containing more than 30% crude protein.

b- Food of animal or marine origin.

* **Third-: Other materials from the feed:**

They include:

1- Foods that contain vitamins

2- Foods that contain mineral elements for carriers

3- Other substances such as antibiotics, amino acids, etc

**(B International Classification of Feed Materials;-**

When food is used in rations, or feed mixtures, it is necessary - first - to know its main purpose, in addition to its chemical analysis. From this point of view, the recognized division - in the past - has been modified to a division that includes eight main sections, and these sections are numbered from 1 to 8, and are known as code numbers; So that it is possible to distinguish between one food and another simply by knowing this number, and it is also easy to enter the data inside the computer, and retrieve it again, by simply writing the code number and the rest of the numbers that accompany it, as the following will become clear in it, and what we will call the International Number of the food item

**1- Dry and rough feed:**

It is characterized by being low in net energy per unit weight, and this is due to its high fiber content, and in other cases, it contains a high amount of water.

In other words, they are foods that in their dry state contain more than 18% of raw fibers. This section includes two types of hay: strawberry, nutmeg, and straw.

**2- Pastures and green meadows:**

This section includes foods that are eaten green, without going through a drying stage, such as the winter fresh fodder, the most important of which are Egyptian alfalfa, alfalfa, alfalfa, and summer, such as alfalfa (in limited places), heat (sudan grass), and sugary sorghum , fodder cowpea.

 **3- Silage:**

It is the condition in which the green fodder is kept away from the air, and it can be applied with both leguminous and grass-fed feeds.

**4- Energy-carrying foods:**

They are foods that have less than 20% protein, and less than 18% crude fiber. These foods can be divided internally into:

A- Grass grains: These include grains that are low in cellulose, such as: corn, barley, and other grains that are high in cellulose.

B - Residues from mills, the most important of which is fine and coarse wheat bran, and their mixture.

C- Tuberous roots, which are added to feed mixtures, such as: fodder beet, potatoes and potatoes.

**5- Protein foods:**

It includes foods that contain a protein content of more than 20% and can be divided internally into:

(a) Food from animal sources, such as: dried meat, dried blood, milk.

b- Food from a marine source, such as: dried fish.

C - Foods from birds, such as: blue, feathers.

d- Vegetable foods, such as: legumes.

**6- Metal materials:**

It includes all metals; Calcium, phosphorous, copper, zinc and .........

**7- Vitamins:**

It contains all vitamins, whether soluble in fat or soluble in water.

**8- Food additives**

This contains:

A- Medicines and antibiotics.

b- Colored materials.

C- The flavors.

D- hormones.