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INTERNATIONAL ROUND TABLE DISCUSSIONS

on

CURRENT AGRICULTURAL PRODUCTION AND TRADE STATISTICS

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

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LIVESTOCK STATISTICS

CONCEPTS, DEFINITIONS AND CLASSIFICATION

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The paper discusses concepts, definitions and standards underlying statistics of livestock, products from slaughtered and from live animals, together with their classification. It also describes the related international recommendations prepared by FAO in consultation with international statistical bodies intended for application by government agencies concerned in order to enhance international comparability of such statistics.

LIVESTOCK STATISTICS

CONCEPTS, DEFINITIONS AND CLASSIFICATION

I. INTRODUCTION

The importance of collecting and publishing countries' agricultural statistics and the difficulties encountered in assembling them according to the maximum possible degree of international comparability as regards concepts, definitions and classifications, have been illustrated in Chapter I of the paper dealing with crop statistics.

II. LIVESTOCK NUMBERS

1. Importance of Livestock

Domestic animals are very important to mankind. They furnish precious food products (meat, milk, eggs, honey) and valuable non-food-industrial products (wool, hair, silk, hides, skins, furs, wax, feathers, bones, horns, etc.). Quadrupeds are widely used, particularly in developing countries, as beasts of burden and for draught or are used for commuting to and from agricultural holdings. Some are used also for recreation purposes (horse riding), and most of them are a source of organic/natural fertilizers and fuel.

Feeds of animal origin are also important, e.g. meat meal, bone meal, blood meal, tankage, etc. These are produced from slaughtered animals rejected at the sanitary inspection, from inedible offals, from residues of meat scraps and trimming after the fat has been extracted, from tannery by-products, from poultry by-products (particularly from those processed into ready-to-cook), from hatcheries by-products (infertile eggs and other refuse), from eggshells, etc.

2. **Definition**. The terms "livestock" and "poultry" are used in a very broad sense, covering all domestic animals irrespective of their age and location or the purpose of their breeding. Non-domestic animals are excluded from the terms unless they are kept or raised in captivity, in or outside agricultural holdings, including holdings without land.

Cattle, buffaloes, camels, sheep, goats, pigs, horses, mules, asses and chickens are raised and enumerated in many countries. Some countries raise and enumerate ducks, geese, turkeys and beehives, whereas rabbits, guinea fowl, pigeons, silkworm cocoons, fur animals, reindeer and various kinds of camelids are limited to far fewer countries.

Many factors are known to affect the comparability of statistics of livestock numbers between countries. The main ones relate to the coverage of data, the date and frequency of enumeration and the classification of animals.

3. **Classification**. Livestock is generally classified by countries by genera, sub-divided in a few cases by species. More frequently, individuals of various genera or families are being aggregated into a single group, e.g., the term "poultry" covers domestic fowls, guinea fowl, ducks, geese and turkeys.

It is recommended that countries enumerate, when applicable, at least the animals listed below, classified according to this list. All the items underlined have been recommended, while those items not underlined are suggested on an optional basis:

CATTLE, total

A. Calves and young stock under 1 year of age

B. Young stock, 1 year of age and under 2 years

C. Cattle, 2 years of age and over

a) Females

i) cows

- mainly for milk production

ii) heifers (including in calf)

b) Males

- mainly for meat production (including spent)

BUFFALOES, total

A. Buffaloes under 3 years of age

B. Buffaloes, 3 years of age and over

Buffalo cows
- mainly for milk production

SHEEP, total

A. Lambs under 1 year of age

B. Sheep, 1 year of age and over

Females
- intended for breeding
- intended for slaughter

GOATS, total

A. Goats under 1 year of age

B. Goats, 1 year of age and over

- Females

PIGS, total

A. Young pigs, less than 50 kg

B. Pigs for breeding, 50 kg and over

- Gilts
  - gilts in pig

- Sows
  - sows in pig

C. Pigs for fattening, 50 kg and over

a) 50 kg and less than 80

b) 80 kg and over

HORSES, total

A. Horses for agricultural production or use

B. Other horses

MULES, total

ASSES, total

CHICKENS (domestic fowl), total

A. Chickens for breeding and egg production

- Laying hens and pullets

B. Chickens for meat production (slaughter)

- Broilers
- Other (capons, etc.)

C. Other chickens (multi-purpose mixed stock)

- Laying hens and pullets

TURKEYS, total

DUCKS, total

GEESE, total

GUINEA FOWL, total

RABBITS, total

BEEHIVES, total

It is suggested that countries collect data on births and natural losses of various livestock categories, as well as further sub-divisions, according to age and/or utilization. These data are important indicators of productivity of the livestock herd and are used for the construction of herd balances and herd models.

In the poultry sector, considerable changes have taken place over the last twenty years in many countries, particularly with regard to the growth of a modern specialized and intensive sector alongside the traditional sector. It is, therefore, desirable to collect and publish, whenever possible, poultry data for the modern sector separate from the traditional sector. For the modern sector, several countries conduct monthly enumerations to collect data on poultry numbers, as well as on closely related items, such as number of eggs put in incubators, chicks hatched and chicks placed, all separately for laying hens and for broiler production. It is recommended that countries collect and publish this information which is usually available from commercial hatcheries.

4. Date and Frequency of Enumeration. The livestock population is subject to marked seasonal fluctuations, resulting in periods of maximum and minimum numbers within the course of the year. These periods are different for various species of livestock and are, also, different from country to country.

While recognizing the need for estimating livestock numbers more than once a year, particularly pigs and poultry, it is recommended that at least one enumeration should be made towards the end of the year.

5. Coverage of the Data. All domestic animals should be taken into account in an enumeration, irrespective of their age or purpose of breeding.

In areas where nomadism and transhumance are practised, livestock may be enumerated twice, or may not be enumerated at all if enumerators fail to pay sufficient attention to these livestock-rearing practices. Nomadic animals are those without any fixed installation which continually or periodically shift from place to place. The seasonal migration of livestock from

pastures on plains and lowlands (autumn- winter) to pastures on mountain-sides (in spring and summer) and vice versa is known as transhumance. The phenomenon of nomadism exists in Africa and in the Near East. The transhumance, including alpine pasture, is no longer as important as it was at one time in Spain, Italy and other European countries, but it is still widely practised in some other countries.

III. ELEMENTS APPLICABLE TO ALL OR MAIN SPECIES OF LIVESTOCK

Total numbers. Animals enumerated in a given day, or in few consecutive days of the year.

Females in reproductive age. This includes females of 3 years of age and over for horses and buffaloes; 2 years of age and over for cattle; one year of age and over for sheep and goats; and six months of age and over for pigs.

Females actually reproducing during the year. The number of females which have had offspring during the year. In the case of species which can have more than one offspring during the year, the breeding female has to be included for each litter.

Birth rate. The number of animals born alive as a percentage of number of females actually reproducing.

Number born. The number of animals born alive during the year.

Natural deaths. The number of animals which died during the year because of any natural event.

Number of animals slaughtered. Includes all animals slaughtered during the year, of both indigenous and foreign origin, within the national boundaries.

Take off rate. The percentage of all animals of the species which are taken from the national herd during the year, for slaughter in the country or in other countries.

IV. LIVESTOCK PRODUCTS FROM SLAUGHTERED ANIMALS

1. **Primary products**. Those products, coming directly from the slaughtered animals, including meat, offals, raw fats, fresh hides and skins.

2. **Processed products**. These are derived from the processing of primary products and include sausages, lard and salted hides.

V. CONCEPTS, DEFINITIONS, COVERAGE AND RECOMMENDATIONS PERTINENT TO LIVESTOCK PRODUCTS FROM SLAUGHTERED ANIMALS

1. Slaughterings and Meat Production

1.1 Definition. Meat can be defined as "the flesh of animals used for food". In the statistical language, meat is intended to be with bone-in, unless otherwise stated, and to exclude meat unfit for human consumption. From the term "meat" are to be excluded edible offals and slaughtered fats.

1.2 Concept of production. Data on meat production are usually reported according to one or more of the following concepts:

1.2.1 Live weight of animals intended for slaughter is the weight taken immediately before slaughter. It is assumed that animals intended for slaughter are kept in the slaughterhouse premises for 12 hours and are not fed or watered during this time.

1.2.2 Killed weight is the gross weight of the carcass including the hide or skin, head, feet and internal organs, but excluding the part of the blood which is not collected in the course of slaughter.

1.2.3 Dressed carcass weight is the weight of the carcass after removal of the parts indicated for each of the livestock species listed below:

Cattle, Buffaloes, Horses, Mules, Asses, Camels;

- the hide or skin
- the head where it joins the spine
- the fore feet at the knee joint, and the hind feet at the hock joint
- the large blood vessels of the abdomen and thorax
- the genito-urinary organs (other than the kidneys)
- the offals (edible and inedible)
- the tail
- the slaughter fats other than kidney fats

Sheep and Goats:

- the skin
- the offals (edible and inedible)
- the genito-urinary organs (other than the kidneys)
- the feet
- the slaughter fats other than kidney fats

Pigs

- the offals (edible and inedible)
- the genito-urinary organs (other than the kidneys)
- the slaughter fats other than kidney fats and back fat which are butchering fats)

1.2.4 Carcass weight is the weight of the carcass as defined above, including slaughter fats.

1.2.5 Data on production of meat for minor animals (poultry, rabbits, game, etc.), are usually reported according to one or the other of the following concepts:

a = Thighs + Wings+ Breast + Ribs + Back = Ready-to-cook (oven ready)

b = a + Heart + Liver + Gizzard + Neck = Ready-to-cook (incl. giblets)

c = b + Feet + Head = Eviscerated weight

d = c + Viscera (inedible offals) = Dressed weight

e = d + Blood + Feathers + Skins (when applicable) = Live weight

The concept of meat production changes with the coverage of production as follows:

1.2.6 Production from slaughtered animals (SP): all animals of indigenous and foreign origin, slaughtered within the national boundaries.

1.2.7 Production from indigenous animals (GIP): indigenous animals slaughtered plus the exported live animals of indigenous origin.

1.2.8 Total indigenous production (TIP) or biological production: indigenous animals slaughtered, plus the exported live animals of indigenous origin and net additions (plus/minus) to the stock during the reference period. If it is expressed in weight, this measure should take into account also the change in the total live weight of all the animals.

1.2.9 In calculating indigenous production, it should be noted that as imports and exports of live animals are generally recorded in numbers, not weight, it is important to know what kinds of animals (large or small) are imported and exported. For example, the meat equivalent of two million chicks can vary by 80 to 250 tons, while the meat equivalent of two million adult chickens can vary by 2000 to 4000 tons.

1.3 Coverage of production. Most countries distinguish in their statistics between controlled or inspected or commercial slaughterings and other slaughterings, called variously, farm or private, non-commercial or uncontrolled slaughterings.

Under the first category, slaughterings in public and industrial slaughterhouses, meat processing plants and major poultry farms are usually included. Statistics on those slaughterings, and corresponding meat production, are easy to obtain from the administrative records of the establishments concerned. They report normally on a monthly basis; in some countries, weekly.

Under the second category are included slaughterings in small slaughterhouses, butchers' shops and on farms, mainly for the farmers own consumption. Statistics on non-

commercial slaughterings, which can be derived from various sources, are essentially rough estimates and should be established once a year.

1.4 Recommendations

1.4.1 On the different possibilities of measuring the production of meat, it is recommended that countries collect and publish data primarily in terms of dressed carcass weight. However, in view of the fact that national practices regarding the definition of carcass weight are still far from homogeneous, each country should clearly indicate which parts of the animal are included in or excluded from its carcass weight concept. It would be desirable if countries would provide conversion factors from carcass weight to live weight or *vice versa*.

1.4.2 Countries not reporting according to the dressed carcass weight concept should clearly indicate which concepts they use when reporting production figures. They should provide appropriate conversion factors to convert their production into carcass weight equivalent, indicating also which parts or organs of the animal are excluded for the conversion to dressed carcass weight.

1.4.3 Production of meat of small animals should be reported, preferably according to the concept "ready-to-cook", specifying whether giblets are included or excluded. It is important that whatever concept is used be clearly explained.

1.4.4 It is recommended that all countries collect and report meat production data and corresponding numbers of slaughterings according to the concept of slaughtered production and indigenous production, both in line with FAO definitions, (see 1.2.9 above). In all cases, production should cover only that "approved for human consumption".

1.4.5 It is also recommended that countries which report edible offals and fats together with meat production in one figure provide the approximate percentage of edible offals and fats in the aggregated meat figures.

1.4.6 It is recommended that countries report at least annual figures covering all slaughterings, commercial and non-commercial, and corresponding meat production, for the following livestock species as applicable: cattle, buffaloes, sheep, goats, pigs, horses, chickens, turkeys, ducks, geese, guinea fowl, rabbits, other.

1.4.7 Countries reporting commercial figures only should indicate this limitation in a note or footnote and furnish, at least from time to time, estimates on non-commercial production. In general, separate figures should be reported for commercial and non-commercial production, particularly when the estimates of the last category are considered to be weak.

1.4.8 It is recommended that slaughterings data be reported in terms of both numbers slaughtered and meat production. In case any country collects and publishes statistics only in terms of one or the other, appropriate conversion factors should be provided, i.e., average carcass weight figures. If possible, countries should report, in addition to annual data, also monthly or quarterly data, at least for commercial slaughterings and production.

1.4.9 It is recommended that figures for cattle slaughterings be shown separately for calves and adult cattle, a suggested borderline between the two being 220 kg, live weight. Other animals, for which a breakdown of the total slaughterings between young and adult animals are considered to be useful, are: sheep, goats and pigs.

1.5.0 It is suggested that countries collect and release also statistics on meat production from non-domestic animals, such as game meat, etc.

2. Edible Offals

2.1 Edible offals are those edible parts or organs of the animals, other than fats, which are usually separated in the course of the preparation of the carcasses at slaughterhouses. Which of these organs or parts are considered edible offals varies from country to country, depending on the definition of "dressed carcass weight" adopted by the countries in reporting meat production data as well as on the countries' habits. Some countries calculate edible offals as a percent of the carcass weight, the percentage varying from 3 to 10 percent according to various classes of animals.

2.2 In view of the above remarks, it is recommended that countries report separately production figures of what they consider edible offals, which, logically, should not be included in meat production figures. Below is a list of items which are considered edible offals in most countries:

Head or head meat	Throat bread	Thick skirt
Tongue	Sweet bread	Genital organs
Brains	Lungs	Udder
Feet (cleaned)	Liver	Stomach or tripes
Tail meat	Spleen	Blood
Heart	Diaphragm	

2.3 See 1.4.5 above.

3. Fats

3.1 Under this heading, national sources report production data which include one or more of such fats as slaughter fats, butchering fats, rendered fats (lard, tallow), etc., giving rise to the following concepts:

a) Total unrendered fat: slaughter fats and butchering fats (edible and inedible).

b) Total unrendered edible fats: edible slaughter fats and edible butchering fats.

c) Slaughter fats: edible and inedible unrendered fats which fall in the course of dressing the carcasses and are recovered from discarded and fallen animals, guts, sweepings, hide trimmings, etc.

d) Edible slaughter fats (loose fats): unrendered fats which fall in the course of dressing the carcasses, such as fats in abdominal and thoracic cavities.

e) Inedible slaughter fats: unrendered fats from discarded and fallen animals, guts, sweepings, hide trimmings, etc.

f) Butchering fats: unrendered fats obtained from the excess fat trimmed or removed from the wholesale and retail cuts during butchering. Kidney fats and pig-back fat are also included in this definition.

g) Processed fat: rendered fats such as lard, tallow, etc., obtained by melting or processing slaughter and butchering fats.

3.2 The coverage of slaughter fats differs from country to country, depending on the definition of "dressed carcass weight" adopted by each country in reporting meat production data.

3.3 It is recommended that countries report separately production data at least for slaughter fats as defined above, preferably broken down into edible and inedible. Countries reporting slaughter fats together with meat production in one figure should indicate the approximate percentage of slaughter fats on the aggregated meat/fats figures.

3.4 As for processed fats, production data should be collected for lard and tallow (preferably in product weight basis rather than in fat content), as well as data on utilization of these products for food, feed and industrial uses.

4. Hides and Skins

4.1 It is suggested that all countries collect and release production data for hides, skins and fur skins. Data should be given in terms of weight (fresh or green), except for fur skins which should be reported in numbers.

4.2 Countries reporting production in numbers or expressed in dry, cured or salted weight, should provide appropriate conversion factors to green weight.

4.3 Production figures for hides and skins may include also those coming from fallen animals, in addition to those from slaughtered animals.

VI. LIVESTOCK PRODUCTS FROM LIVE ANIMALS

1. Primary products include the following: milk, eggs, honey, beeswax and fibres of animal origin.

2. Processed products are those derived from primary products.

VII. CONCEPTS, DEFINITIONS, COVERAGE AND RECOMMENDATIONS PERTINENT TO LIVESTOCK PRODUCTS FROM LIVE ANIMALS

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1. Milking animals and milk production

1.1 Concepts, Definitions and Coverage

1.1.1 The definition of milking animals varies considerably among countries, from those which include all females in reproductive age to those which include only dairy females bred especially for milk production which were actually milked during the year.

1.1.2 On the other hand, estimates of milk production given by countries may refer to one or more of the following concepts: gross production includes milk actually milked and milk sucked by young animals; net production excludes milk sucked by young animals but includes amounts of milk fed to livestock; production available for consumption is net production minus milk fed to animals and waste at the farms; milk deliveries to dairies or dairy plants, excludes also quantities retained by farmers for food, feed and direct sales to consumers.

1.1.3 The FAO concept relates to net milk production as defined above, and, as regards milking animals, to all the animals which have contributed to produce that milk.

1.1.4 Data on production delivered to dairies are easily obtained from the dairy plants. Estimates for the balance of the production may be obtained from various sources, such as *ad hoc* surveys or subjective estimates.

1.2 Recommendations

1.2.1 In view of the differences identified above, it is recommended that countries report the number of milking animals along with milk production, and also that countries at least ensure that the concept of milking animals adopted is in line with the estimated average milk yield per animal.

Countries are encouraged to refine their concept of milking animals to gradually approach to the concept of animals actually milked during the year, keeping, when possible, separate records for dairy females bred especially for milk production and for other females milked.

1.2.2 Countries should report data on milking animals by animal type, i.e. cows, buffaloes, sheep, goats, etc.

1.2.3 It is recommended that all countries report (at least annually) total net milk production as defined above, in addition to the data on deliveries to dairies or milk plants. Such data are to be given by kind of milking animal (cows, buffaloes, sheep, goats) and they should relate to whole milk. If possible, they should be reported in terms of weight rather than in liquid measures.

1.2.4 Countries reporting on a different basis should indicate the concept behind their figures.

1.2.5 Countries are advised to report production, or at least deliveries, either monthly or quarterly, and to report the average fat content of their milk production.

2. Layers and Egg Production. Statistics of Hatcheries

2.1 Concepts, definitions and coverage

2.1.1 The definition of layers is not yet uniform among countries. Under this term, some countries recognize all females in laying age, whether laying or not, while in other countries the term is much more limited, covering only those females of egg-type breeds which have laid eggs during the year.

2.1.2 Female layers are classified by breed according to dominant production characteristics. There are egg-type females, as well as meat-type and mixed-type. They may also be classified according to the agricultural sector in which they are bred: the traditional sector (widely scattered and individually-owned small flocks in farms and backyards), and the modern sector (large scale, semi-intensive and intensive commercial poultry farms).

2.1.3 On the other hand, egg production is generally reported by countries as total or gross production, i.e., production from all types of females and from females kept in all agricultural sectors. Few countries report net production, i.e., gross production minus eggs used for hatching. Certain countries report data for both categories.

2.1.4 Several countries also report figures for commercial production, i.e., the part of the net production which enters into commercial channels. Data on commercial production are easily obtained from the modern sector where most, if not practically all, of the commercial production is produced. Data on the traditional sector are rather weak in certain countries as they are based on assumptions of the number of females and/or rates of egg laying, or are rough estimates based on food consumption surveys and similar indirect sources.

2.1.5 The FAO concept of egg production covers all domestic birds which have contributed to the egg production during the year, wherever they lay and the corresponding total production, including eggs intended to be used for hatching but excluding waste on farms.

2.2 Recommendations

2.2.1 In line with the FAO concept, it is recommended that countries report at least annually on layer numbers and egg production. Layers of all types and from all sectors which have laid eggs during the year should be included.

Whenever possible, a distinction should be made between layers of the traditional sector and those of the semi-intensive and intensive sectors.

2.2.2 It is recommended that all countries report, at least annually, both total production of eggs, excluding only waste on farms, as defined by FAO, and production available for consumption, i.e., total production excluding hatching eggs and all types of waste. Countries

reporting on different basis should indicate how their data differ from the recommended coverage.

2.2.3 It is further recommended that in reporting production data, countries should use both numbers and weight, or, at least, provide a conversion factor from one unit of measurement to the other.

In addition to annual figures, countries should release also monthly or quarterly data, at least for commercial production.

It is suggested that countries report production figures separately for the traditional sector and for the modern sector, particularly when the data of the traditional sector have a certain importance and are much less reliable than those of the modern sector.

2.2.4 In all cases, it is recommended that separate data be collected and released by countries according to various kinds of domestic birds: hens, ducks, goose, turkeys, etc.

2.3 Statistics of Hatcheries

Considerable changes have taken place in the poultry sector (eggs and meat) during the last two decades in most countries, resulting in the rapid growth of a modern and specialized sector alongside the traditional sector.

An important role in the devilment of the poultry sector is played by commercial hatcheries. In fact, several countries collect and publish monthly data on various hatcheries' operations, e.g. number of eggs placed, chicks hatched and chick placements.

It is recommended, therefore, that all countries collect data (monthly, if possible) on the number of eggs placed in incubators, chicks hatched and chicks placed, separately for chickens, ducks, geese, turkeys and guinea fowl. Figures for chickens should be divided into, at least, two categories: eggs/chicks for the laying stock and eggs/chicks for the meat stock.

3. Honey and Beeswax

Honey is a sweet viscous fluid, being the nectar of flowers collected and worked up for food by certain insects, especially the honey-bee. Flavour and colour of honey depend largely on the plants from which the nectar is gathered.

Bees store honey in honeycombs prepared by them, consisting in hexagonal wax cells. Beeswax is obtained by melting honeycombs with boiling water (yellow wax). White wax is yellow wax bleached. Beeswax is used for candles, cosmetics and other non-food use.

In principle, honey and beeswax production data should cover production recorded from bee-keepers operating commercially, as well as any other honey produced or collected.

4. Wool and Fine Hair

It is recommended that wool production data should be collected and released by all countries, including both shearing wool and pulled wool, i.e. that recovered from skins.

Wool production figures should be reported on both a greasy basis and a clean or scoured basis. When reported in one way only, appropriate conversion factors should be included.

Countries producing significant quantities of fine hair or wool, such as cashmere and mohair, should report relevant production figures separate from common wool figures.

5. Cocoons and Silk

In countries where sericulture is an important activity, data should be collected on the annual cocoon crop as well as on production of natural raw silk, including waste. The cocoons are those suitable for reeling.

6. Processed Products from Live Animals

6.1 Dairy products

6.1.1. The quantities of raw (crude, whole) milk used as such for human consumption are very small. The bulk undergoes more or less complex processes to obtain either products which are still liquid milk (standardized milk, pasteurized milk, partly skimmed milk, skimmed milk, buttermilk, etc.) or products which are not anymore liquid milk (cream, butter, cheese, evaporated and condensed milk, milk powder, casein, yogurt, ice cream, etc.). Most milk and products are sterilized, generally with the UHT method (Ultra High Temperature).

In the processing of milk into dairy products, a certain number of by-products are also obtained, such as skim milk, buttermilk and whey, which in turn are used in the manufacture of dairy products, particularly dry skim milk, dry butter milk, dry whey and low fat cheese.

Cheese is the curd of milk coagulated by rennet separated from the whey and pressed and moulded into a more or less solid mass. Data on cheese relate, unless otherwise stated, to all kinds of cheese, from full fat cheese to low fat cheese; hard and soft cheese, ripe and fresh cheese, including cottage cheese and curd.

Whey is the serum or watery part of milk which is separated from the curd in the process of making cheese.

Cream is the yellowish part of milk, containing from 18 to 45 percent or more of butterfat that rises to the surface on standing or is separated by centrifugal force.

Butter is a solid emulsion of milk fat and water made to coalesce by churning the cream obtained from milk. Fat content is about 80 percent. Ghee is liquid butter clarified by boiling, produced chiefly in countries of the Far East. Butter oil is butter melted and clarified.

Buttermilk is the fluid milk remaining after milk is converted into butter in the churning process.

The products resulting from a modest or medium reduction of water are evaporated and condensed milk.

Products resulting from an almost complete dehydration are called dry milk or milk powder or powdered milk.

Yogurt is a fermented, slightly acid semifluid milk food made of milk and milk solids (whole, semi-skimmed, skimmed) and sometimes fruit, to which cultures of bacteria have been added.

Casein, named also lactoprotein, is the main protein of milk. It is obtained mainly from skimmed milk.

Lactose or milk sugar is a disaccharide sugar present in milk. It is commercially produced from whey.

Ice cream is a frozen food containing cream or butter fat or milk or milk solids, various flavouring substances, sweetening and usually eggs.

6.1.2. Recommendations. It is recommended that countries collect and report data on utilization of the milk produced according to the following uses: milk for liquid consumption, feed, processing, waste and losses. Separate figures should be reported for the various classes of milk-producing animals. The figures should include utilization at farms, as well as at dairy plants. A breakdown of data into the two categories would be most useful. All data should be reported on an annual basis at least, better even on a quarterly or monthly basis.

Countries producing significant amounts of the various products mentioned above should report relevant production data along with the quantities of whole and/or skimmed milk employed in their manufacture.

Cheese production data are classified by countries according to different criteria: full-fat and low fat cheese, hard and soft cheese, ripe and fresh cheese, cottage cheese, curd, processed or melted cheese. While countries are encouraged to develop their cheese statistics, they should report production data at least classified according to the originating livestock species (cow milk cheese, sheep milk cheese, etc.), separately for cheese produced mainly from whole milk and cheese mainly from skim milk or whey. Countries reporting data on melted cheese should carefully avoid double counting in reporting total cheese production.

It would be desirable that countries furnish some information on the utilization of various kinds of milk powder: food, feed, etc.

6.2 Egg products

The main products derived from eggs are: liquid eggs, white and yolk, together or single; eggs dehydrated or dried or in powder form, white and yolk, together or single, e.g. albumin, dried whites obtained usually as lumps or powder containing ovalbumin and other proteins.

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