



INDIAN MEAT INDUSTRY

RED MEAT

MANUAL

3rd Edition

Dr. Tarun Bajaj

Dr. S.K. Ranjhan

**AGRICULTURAL & PROCESSED FOOD PRODUCTS
EXPORT DEVELOPMENT AUTHORITY**

(Ministry of Commerce & Industry, Govt. of India)

Indian Meat Industry, Red Meat Manual

Dr. Tarun Bajaj, Dr. S K Ranjhan

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3rdEdition

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कृषि और प्रसंस्कृत खाद्य उत्पाद निर्यात
विकास प्राधिकरण

(वाणिज्य एवं उद्योग मंत्रालय, भारत सरकार)

**Agricultural and Processed Food Products
Export Development Authority**

(Ministry of Commerce & Industry, Govt. of India)

FOREWORD

It is a matter of pleasure that the last two editions of "Indian Meat Industry Red Meat Manual" were well received by all stakeholders, both within India and abroad. The manual is a compendium of information, which has helped APEDA to exercise greater surveillance on exports keeping with international requirements as prescribed by OIE. The meat export Industry has also found manual useful as it provides them information on all aspects of meat production for exports at one place. The manual contains useful information on various aspects like quality and food safety standards to be followed, chilling, freezing, packaging and labeling requirements, edible offals and other by-products. The manual also contains elaborate information on various Regulations of Govt. of India for export of meat.

Department of Animal Husbandry & Dairying, Govt. of India has launched National Animal Diseases Control programme for FMD and Brucellosis to control and eradicate these diseases in next 5 years and approved a budget of Rs.13,400 crores for the programme which will have far reaching implications in terms of boosting productivity and profitability from livestock rearing as well as opening up global markets for livestock products. The programme will give fillip to meat exports from India as we would be in a position to get access in markets like USA and EU which are big markets for bovine meat. Identification and traceability are also important from the view point of quality and sanitary reasons. The Department of Animal Husbandry & Dairying has taken up this issue at a massive scale through various schemes. Under NLDCP, all vaccinated animals will be ear tagged and record maintained for identifications and traceability of animals.

Encouraged with the overwhelming response from various stake holders, APEDA has revised and upgraded the manual and the third edition of "**Indian Meat Industry Red Meat manual**" has been launched.

Paban Kumar Borthakur
Chairman, APEDA



PREFACE

India is rich in its livestock wealth, which plays an important role in the socio-economic aspects of India. Exports of animal products contribute significantly in the overall agri products exports. Export of Animal Products include Buffalo meat, Sheep/ Goat meat, Poultry products, Animal Casings, Milk and Milk products, Honey, etc.

Buffalo meat for export is largely of frozen deboned, deglanded meat of below 6 pH packed in different cuts at the meat export plants. Vacuum packed chilled buffalo meat is also being exported.

Buffalo meat produced in India has become popular year after year due to its merits and quality.

India ranks 1st in production of buffalo meat with share of 42.60%.

The country has exported 1.24 Million MT of buffalo meat products to the world for the worth of US\$ 3.61 billion during 2018-19.

India is free of major trade related diseases like Rinderpest, Contagious Bovine Pleuro pneumonia (CBPP), Rift valley fever, etc. OIE has listed India in the countries where there is negligible risk of Bovine Spongiform Encephalopathy (BSE). India is successfully implementing Foot & Mouth Disease (FMD) Control Programme which has been recognized by OIE in its General Session in May, 2015. The FMD-CP was reconfirmed by the OIE as it is compliant with the chapter 8.8.22 of Terrestrial Animal Health Code of OIE.

Following the OIE guidelines, the meat produced in India for export, is in the form of deboned and deglanded frozen Buffalo meat. The animals are raised on natural feeds without any supplement of antibiotics, hormones and growth promoters.

India is successfully exporting buffalo meat to more than 70 countries globally in South East Asia, Middle East, Africa, CIS Countries, etc. The major markets of Indian buffalo meat are Vietnam, Malaysia, Egypt, Iraq, Saudi Arabia, Philippines, Indonesia, UAE, Algeria, and Russia. In fact, India has been exporting meat to several OIE recognized FMD free countries, without vaccination, such as the States of Sarawak and Sabah in Malaysia, Philippines, Brunei, Seychelles, Mauritius and Indonesia. India has an excellent track record of over 50 years and no country has ever implicated Indian bovine meat in any form of livestock disease, including FMD.

The third edition of ***“Indian Meat Industry Red Meat manual”*** is being published with additional focus on export of green offals, which are high in demand globally these days.

January, 2020

Dr. Tarun Bajaj

Dr. S.K. Ranjhan



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1 LIVESTOCK RESOURCES

Livestock sector is an important component of India's economy in terms of income, employment and foreign exchange earnings. Following the sustained economic growth and rising domestic income, the demand for livestock products has increased tremendously. This has encouraged the rapid expansion of livestock output during the last two decades, particularly for exports.

India is world's largest exporter of buffalo meat globally. In 2018-19, it exported 70% of its buffalo meat production accounting for 1.24 Million Tonnes of deboned buffalo meat equivalent to 2.0 Million Tonnes of dressed buffalo carcasses valued at Indian Rupees 25,168 Millions (US \$ 3.61 billions). There are 111 modern meat plants many of which are fully integrated right from slaughter to the production of frozen buffalo meat with rendering and effluent treatment plants to ensure green safe production. The plants are world class with HACCP and ISO 22,000.

Among the livestock sector, cattle and buffalo play a major role in Indian economy since it has about 13% of world cattle population and 42.61% (110.17 million) of world buffalo population. **(Table 1)** These animals are maintained by rural families with small land holdings of 1-2 acres and landless labourers for milk, draught and meat production. In addition, India has 148.77 million goats, 74.26 million sheep and 9.06 million pigs for meat and fiber production. (GOI-2017).

In India, large ruminants are primarily kept for milk production and secondarily buffaloes for meat production. When the dairy animals are retired from productive age, they are utilized for meat production, in addition to male progeny born. Utilization of large animals as draught animal has gone down due to progressive mechanization.

PRODUCTION SYSTEMS

Cattle and Buffaloes

The majority of cattle/buffalo owners are subsistence farmers with little or no land (½ to 1 acre), and with 2 cattle-buffalo on an average. Bovines (cattle and buffaloes) provide milk, draught power and manure and utilize non-marketable farm by products and extra

family labour. The general features of production system of small farms under village conditions are: (1) It is complimentary to crop production; (2) Marginal lands and non marketable bio-mass are efficiently utilized; (3) readily available/surplus family labour are economically utilized, (4) simple and traditional technologies requiring minimum cash inputs are employed; (5), therefore, economic risks are very little.

For city milk supply specially in large metropolitan cities large herds of superior cattle and buffaloes purchased from their home tract, are maintained under stall fed conditions. Their major feeding system is composed of dry roughages supplemented with some seasonal green fodder and large quantities of concentrates.

Well managed government owned farms also exist where scientific breeding, feeding, management and health care are practiced. These farms maintain 100-300 breedable females and their followers.

Sheep and Goats

Small ruminants (sheep and goats) are maintained both under confinement (stall feeding) with 1-5 units and extensive grazing system where 10 to 50 units are maintained.

The sheep population is 74.26 Million in 2019 (provisional). The sheep is used mainly for mutton production and also for fiber production.

The goat population is about 148.88 Million in 2019 (provisional). Goats are reared for meat, milk and hides.

Poultry and Pigs

Poultry production is being steadily commercialized where a few hundred thousands of layers and broilers are kept. Sixty per cent production at present is under this system and remaining 40 per cent is still with small farmers as backyard system. Pig production is in nascent stage and a few commercial breeding units have come up in some States.

Feeding of Animals

Animal feeding is one of the major inputs in livestock industry accounting for 55-75%. Feed resources are the major constraints in exploiting the genetic potential of the livestock. Ruminants are fed on crop residues, green fodders, non conventional feed resources and compounded livestock feeds. Animals are also grazed on natural pastures. Feeding of mammalian by-products is prohibited in India. Similarly, hormones and antibiotics are not fed as feed supplements to lactating and meat animals. Therefore, dairying and meat production is almost organic. The compound Livestock Feed Manufacturing Industry is well organized producing livestock feed to cater requirement of animals.

India's Veterinary Services and Disease Control Scenario

Animal Health

India is free from all the trade related diseases listed at List 'A' of OIE except of insignificant incidence of foot and mouth disease. India is free from Rinderpest, Bovine Spongiform Encephalopathy (BSE) and Contagious Bovine Pleuropneumonia (CBPP) as per the Organization International Des Epizooties (OIE) Notification. India has been exporting quality and safe meat.

India has a very elaborate and effective Animal Health Service System for systematic control of livestock diseases.

Veterinary Services Scenario: India has robust veterinary services

- 1. Primary responsibility and mandate:** Veterinary Services are provided by State Governments as prevention of animal disease is primarily a State Subject.
- 2. Central Govt** Supplements State Govt's efforts through Centrally Sponsored Scheme under National Animal Disease Control Programme (NADCP) and Livestock Health and Disease Control (LH&DC) Scheme.
- 3.** Central Government also regulates animal quarantine, import of livestock & livestock products as per the provisions of Livestock Importation Act, 1898 as amended in 2001.
- 4.** Technical support by R&D Institutions under Department of Agricultural Research and Education (DARE)/Indian Council of Agricultural Research (ICAR).

Veterinary Service Infrastructure: At present India has **12,234** Veterinary Hospitals/ Polyclinic, **27,140** Veterinary Dispensaries, **25,867** Veterinary Aid Centre/Mobile Dispensaries, a large number of Veterinary Personnel looking after the livestock sector with **70,258** registered veterinarians.

Veterinary Education in India: As far as veterinary education is concerned, there are 50 recognized Veterinary Colleges offering B.V.Sc. & A.H. Education, **35 Colleges** under 14 State **Veterinary & Animal Science** universities; **14 Colleges** under 14 State **Agricultural Universities**, **03 Colleges** under 03 **Central Universities**. **Additionally**, Degree qualifications of **13** Foreign Universities are also recognized, **226** institutions offering diploma/certificate courses to render minor veterinary services.

Professional competence in Veterinary services:

- **Professional Competence - Veterinarians**
 - Veterinary services are provided by veterinary graduates holding graduate degree in veterinary science and animal husbandry duly recognized by the Veterinary Council of India.

- Have professional integrity, impartiality and transparency in professional judgment to work independently
- **Professional Competence-Para-Veterinarians**
 - Veterinary Field Assistant (VFA)/Para veterinary personnel, work under the supervision of an assigned VO.
 - VFAs have 2 years training (Diploma) from state run Para-Veterinary training schools. They impart veterinary clinical aid to livestock and carry out preventive vaccination to livestock.
- Training programmes are being regularly conducted to maintain a trained manpower all over the country under **Assistance to States for Control of Animal Diseases (ASCAD)**.

Veterinary Service Infrastructure

- **OIE Reference Laboratory – One**
 - A. National Institute of High Security Animal Diseases (NIHSAD, Bhopal)
- **Central Disease Diagnostic Laboratory – One**
 - IVRI, Izzatnagar
 - **Regional Disease Diagnostic Laboratories – Five**
 - East (Kolkatta), West (Pune), North (Jalandhar), South (Bengaluru) and North East (Guwahati)
 - **National Reference Laboratories –Three**
 - NIHSAD, Bhopal - AI and other exotic diseases
 - DFMD, Mukteswar - FMD
 - NRCE, Hisar – Equine diseases

India's Technical capabilities

Currently, there are 256 State laboratories, 31 FMD RRC for FMD surveillance, diagnosis and monitoring; ICAR-NIVEDI – 32 collaborating units of ADMAS; Laboratories under National Dairy Development Board (NDDDB); Veterinary Biologicals - 20 States, 1 public sector & 8 private sector; Two quality control of veterinary biologicals - ICAR-IVRI, Izzatnagar/Bengaluru & CCS National Institute of Animal Health, Baghpat.

Central/Regional Disease Diagnostic Laboratories (RDDLS)

- In order to provide referral services over and above the 256 existing disease diagnostic laboratories in the States, one Central and five Regional Disease Diagnostic Laboratories have been set up by strengthening the existing facilities.
- These RDDLS have been of great help to the country for surveillance and diagnosis of various livestock and poultry diseases including Avian Influenza.

Directorate of FMD

- Laboratory diagnosis of FMD is done by the 31 Regional / Network Laboratories under the network of All India Coordinated Research Project (AICRP) for epidemiological studies on FMD (since 1968).
- Confirmatory diagnosis and detailed characterization of the outbreak strains including vaccine matching exercise is carried out at the Central FMD Laboratory (FAO Reference Laboratory on FMD) at Directorate of FMD (DFMD), Mukteswar.
- The DFMD has an inbuilt component of 8 Regional Centres and 24 AICRP on FMD.

ICAR-NIVEDI

- Providing the country with comprehensive animal health information, prevalence of diseases and forecasting and forewarning of the animal diseases, to help in taking necessary control or preventive measures for the specific diseases affecting livestock and poultry.

Disease Reporting System

- There is a well-knit infrastructure of Government Veterinary Service Units at each level for disease reporting.
- In order to streamline the disease reporting system from the grass root level, Government of India has set up a computerized system of animal disease reporting - National Disease Reporting System (**NADRS**).
- For collaboration amongst SAARC countries, a SAARC EpiNet Forum has been established with national focal points at the DAHDF – for sharing of epidemiological information among the member states.
- For disease epidemiology and forecasting, ICAR-NIVEDI has developed NADRES (National Animal Disease Referral Expert System).

Foot & Mouth Disease Control under NADCP

- Vaccination of all cattle, buffaloes, sheep, goats and pigs at six monthly interval.
- State provides manpower & infrastructure.
- Maintaining schedule of vaccination to develop herd immunity in animals is the most critical factor for control of FMD.
- Well designed Sero-Monitoring Programme.

In case the area surroundings a production unit gets affected by FMD, it is cordoned off and mass vaccination is done against the disease to restrict the spread of disease from one village to another. The cattle markets are closed to contain the infection. There is virtually no possibility of bringing animals from FMD infected endemic areas to the export oriented plants. It would be further relevant to mention that the buffalo carcasses are chilled at a temperature of 2-4°C for minimum of 24 hours in chillers. Scientifically, it has been proved

that the lactic acid produced in the muscle tissue during this period helps to bring down the pH value of the meat to below 6. No FMD virus could remain viable below a pH value of 6 so as to cause any disease problem in the importing country. Moreover, the meat is deboned and deglanded as stipulated in the OIE Terrestrial Animal Health Code. Hence, the product is absolutely safe and risk free. A massive FMD control programme has been launched by the Govt. of India in 2004 covering entire country. India's official FMD- CP received OIE's endorsement in May, 2015 as per the provisions of Terrestrial Animal Health Code and the endorsement is being continued by OIE as FMD-CP is compliant with the chapter 8.8.22 of Terrestrial Animal Health Code.

Department of Animal Husbandry & Dairying, Govt. of India has launched National Animal Diseases Control programme for FMD and Brucellosis to control and eradicate these economic important diseases in next 5 years and approved a budget of Rs.13,400 crores with this India is likely to reach status of FMD free as per OIE.



2 INDIAN MEAT INDUSTRY: OVERVIEW

India is world's largest exporter of buffalo meat. In 2018-19, India exported 1.24 Million MT of buffalo meat worth 3.61 US\$ billions. There are more than 111 modern meat processing plants many of which are fully integrated right from slaughter to the production of frozen buffalo meat with rendering and effluent treatment plants to ensure green safe meat production.

The plants are world class with HACCP, ISO 22,000 certifications. There is big potential for meat industry because of large livestock population. Although India has acquired number one status in the world, contributing 21.91% (176 million tonnes) of the world's total milk production, the meat production which jibes well with dairying, is still lagging behind.

COMPONENTS OF MEAT INDUSTRY

There are distinct components of meat and meat byproducts related industries, namely:

1. Trade in live animals-buffaloes, sheep, goats, pigs, bullocks, poultry;
2. Slaughtering the animals for retail domestic market;
3. Slaughtering in municipal abattoirs for both domestic and for approved abattoirs for export markets
4. Slaughtering in integrated mechanized abattoirs (Export Oriented Unit) for export of meat and edible offals;
5. Transportation services for fresh frozen meat in refrigerated containers from the point of production to the ports for export;
6. Marketing of raw and wet blue hides and skins;
7. Marketing of bones for further processing into gelatin, ossein, di-calcium phosphate etc.
8. Production of casings from the intestine;
9. Production of souvenirs from horns and hooves;
10. Marketing of blood for the production of pharmaceuticals from mechanized slaughter houses;

11. Production of meat-cum-bone meal and tallow in the rendering plants from offals and bones;
12. Production of pet foods.

Domestic Market

The India domestic meat industry is mostly based in production of fresh meat which is produced and sold daily.

The export oriented plants produce chilled and frozen meat. There is good scope of value added processed meat which has good potential for export.

Livestock Markets

Under the supervision of State Government Veterinary Departments the live animals, namely, buffaloes, cattle, sheep, goats and pigs are sold in livestock markets. They are mostly weekly markets and are owned privately or by trust or local bodies (Panchayat/ Municipality/ Corporation). The animals are either sold individually (cattle, buffaloes), or are grouped in lots of 10-20 (buffalo, sheep and goats). Marketing of livestock is also undertaken under Agriculture Produce Markets Acts (APMA) notified by various States. All the functionaries in the markets particularly those maintained by local authorities or in most of the markets, the transactions take place after examination of the animals.

Municipal Abattoirs

For domestic market, there are above 4,000 slaughter houses registered with the local bodies. Traders/individual butchers buy their animals from weekly livestock markets and bring them to slaughter houses which cater either to domestic market or export oriented units, if approved.

Retail Meat Shops

Goat and sheep meat is marketed in the retail meat shops in small towns and in air conditioned shops in the metro towns. Similarly, meat of other permitted species is also sold in the retail shops. In metro towns, these shops are licensed to maintain the hygienic conditions as per Food Safety and Standards Authority of India Act & Rules made there under.

Export Market

Export Oriented Abattoirs

Export Oriented Abattoirs, 111 at present are modern units established as per the prescribed standards and as per the guidelines given by APEDA. They follow world class sanitary and phytosanitary measures having mandatory requirements of HACCP and ISO Certification and regulations notified from time to time.

Export of Meat

India's international trade in livestock and livestock products is mainly in live animals, meat and meat products and eggs. Export Oriented Units for meat and meat products are registered with the Agricultural and Processed Food Products Export Development Authority (APEDA) of the Government of India after due inspection by the expert committee. Trade of live animals is monitored and controlled by Department of Animal Husbandry, Govt. of India.

India is the largest buffalo meat exporting country. Production and export of meat from India commenced in the year 1969. During the last 50 years, the quantity of meat exported from India has been increasing and so also the number of countries to which it is exported.

Currently, India has been exporting quality and safe meat to about 70 countries. Till date, not a single importing country has recorded the outbreak of any disease in livestock as a consequence of the import of the meat from India. Deboned and deglanded (boneless) meat having pH below 6, where no FMD virus can survive, is exported. India meat exporters are strictly following all the guidelines mentioned in the OIE Terrestrial Animal Health Code, in Volume II (8.8.22).

India has a competitive advantage in the export of buffalo meat. Besides being strategically located with the meat importing countries, the buffalo meat has many positive characteristics mentioned hereunder:

The livestock in India is reared in green pastures and agricultural crop residues thus are raised **under green livestock production system**;

There is **no practice of using hormones, antibiotics or any other chemicals** to promote growth and fattening of livestock;

The Indian livestock is **free from the dreaded Bovine Spongiform Encephalopathy (Mad Cow Disease), Rinderpest** and CBPP certified by OIE;

The India buffalo meat is **93% chemically lean** and blends very well with other ingredients for value added products;

India meat is **free from radiation**;

The animals are slaughtered according to the requirement of importing country/importer;

Indian buffalo meat **blends very well with other meats** and best suited for value added products;

Indian buffalo meat is **low in fat and cholesterol**; (Table – USDA)

Animal welfare practices are adopted, which follow the guidelines given in Society for Prevention of Cruelty toward Animals (SPCA) Act of Animal Welfare Board and the transport of animals to the slaughters houses.

The meat exports together with their value (US \$) from India during 2009-10 to 2018-19, are given in **Table 2**. The present export is valued at Rs. 25,168 crores (US\$ 3.60 Billion) annually. Table 3 gives sheep and goat meat exports from India.

From these Tables, it is noticed that approximately 1.13 million tonnes of deboned buffalo meat is exported which comes about 2.0 million tonnes of meat with bones. It has more future as new markets are being added each year and demand is likely to increase in the existing markets.



3 Agricultural and Processed Food Products Export Development Authority (APEDA)

The Agricultural and Processed Food Products Export Development Authority (APEDA) under Ministry of Commerce and Industry, Govt. of India, was established under the Agricultural and Processed Food Products Export Development Authority Act 1985 which came into force with effect from 13th February, 1986 by a notification issued to this effect (Gazette of India). The Authority replaced the hitherto Processed Food Export Promotion Council. It has its Head Office in New Delhi and five regional offices at Mumbai, Hyderabad, Bangaluru, Kolkata and Guwahati.

MANDATE OF THE ORGANISATION

As per the APEDA Act, the Authority is responsible for the development and promotion of the export of following 14 products groups mentioned in the first schedule to the APEDA Act.

THE FIRST SCHEDULE

- Meat and Meat Products
- Poultry and Poultry Products
- Dairy Products
- Fruits and Vegetables and their products
- Confectionary, Biscuits and Bakery Products
- Honey, Jaggery and Sugar Products
- Cocoa and its Products, chocolates of all kinds
- Alcoholic and Non-Alcoholic Beverages
- Cereal and Cereal Products
- Groundnuts, Peanuts and Walnuts
- Pickles, Papads and Chutneys

- Guar Gum
- Horticulture and Floricultural Products
- Herbal and Medicinal Plants

In addition, APEDA has been entrusted from time to time with the responsibility to monitor export of some non scheduled items such as import of sugar. The number of products looked after works out to approximately more than 700 lines.

FUNCTIONS

As per Section 10 of APEDA Act, the following functions have been assigned to the Authority:

- I. Development of Industries relating to the scheduled products for export by way of providing financial assistance or otherwise by undertaking surveys and feasibility studies, participation in the equity capital through joint ventures and other relief and subsidy schemes.
- II. Registration of person as exporters of the scheduled products on payment of such fees as may be prescribed.
- III. Fixing of standards and specifications for the scheduled products for the purpose of export;
- IV. Carrying out inspection of meat and meat products in slaughter houses, processing plants, storage premises, conveyances or other places where such products are kept or handled, for the purpose of ensuring the quality of such products. Format for meat inspection plant is given in annexure-II;
- V. Improvement of packaging for the scheduled products;
- VI. Improve marketing of the scheduled products outside India;
- VII. Promotion of Export oriented production and development of the scheduled products;
- VIII. Collection of the statistics from the owners of factories or establishments engaged in product processing, packaging, marketing or export of the scheduled products or from such other persons as may be prescribed on any matter relating to the scheduled products and publication of the statistics so collected or of any portions thereof or extracts therefrom;
- IX. Training in various aspects of the industries connected with the scheduled products;

The Activities of APEDA range from development of data base of mandate products, markets and services and dissemination of this information to the exporters. APEDA endeavours towards strengthening of marketing intelligence and database, quality upgradation, research and development of infrastructure, development of market and transport assistance.

INITIATIVE FOR EXPORT OF RED MEAT

The demand for Indian buffalo meat is gradually growing in export markets due to its cost competitiveness, perceived organic in nature and proportion of less fat. Indian exporters have been able to meet international demand by utilizing modern integrated abattoirs and meat processing facilities thereby working to improve the quality of Indian product. The major steps taken for quality control assurance are:

REGISTRATION OF MEAT PLANT/ABATTOIRS BY APEDA

The Government of India has laid down standards for export of meat which include standards for abattoirs and processing plants for various meat products. Registration of abattoirs and meat processing plant is done by Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce and Industry, Government of India. Procedure for grant of registration certificate is given in Annexure-I.

Inspection of the meat processing plants carried out by a committee of experts as per the standards laid-down. An inter ministerial committee has been constituted comprising of representatives from Department of Animal Husbandry, Ministry of Agriculture, Department of Animal Husbandry and Dairying of the State Government, Export Inspection Council, Secretary, Veterinary Council of India and reputed Veterinary Scientists. The Registration of the plant is given after detailed inspection by the said committee. During inspections, infrastructure, staff hygiene maintained by the plant, ante-mortem and post-mortem laboratory facilities, record maintenance, etc is checked as per the standards and specifications. The registration of the meat processing plant is renewed every year after a detailed plant inspection by the committee.

Under the existing Foreign Trade Policy, the export of beef (meat of cow, oxen, calf) and bone-in meat of buffalo is prohibited and is not permitted to be exported. However, the export of sheep and goat meat and boneless buffalo meat is freely allowed subject to fulfillment of the condition stipulated in the policy. The policy further states that the meat should be sourced from abattoirs and meat processing plants registered with APEDA.

ANIMAL HEALTH CERTIFICATE

According to the current Export and Import Policy of the Government of India, each export consignment is subject to compulsory microbiological and other tests and a comprehensive pre-shipment inspection certificate is issued by the recognized laboratory. Each export consignment is accompanied by this health certificate. This certificate also states that meat has been produced from healthy, disease-free livestock, which are free from contagious and infectious disease, including foot-and-mouth disease and other diseases. The Health Certificate also confirms that the livestock have been subject to ante-mortem inspection followed by post-mortem examination and that the meat is fit for human consumption.

In fact the procurement of animals from registered markets to the final export of the meat consignment is under the constant monitoring and inspection of government agencies, besides having the services of highly qualified and experienced veterinarians, microbiologists etc.

The Govt. of India has nominated following agencies for issuance of health certificates:

- I. All State Directorates of Animal Husbandry
- II. Export Inspection Agencies (EIAs)
- III. Deonar abattoirs, Mumbai (for chilled sheep and goat meat only)
- IV. Ghazipur abattoir, Delhi (for buffaloes, sheep and goat)

Meat consignments conforming to the notified standards and specifications are allowed for export. Each consignment is accompanied by a test certificate issued by any of the above agencies. The certificate is based on the micro-biological examination of the consignment.

Ante-mortem and post-mortem inspection of the animals is carried out under Government supervision by the qualified veterinarian registered with State Veterinary Council or Veterinary Council of India to ensure that meat derived from only healthy animals is exported. Moreover, in processing inspection of meat is also carried out by the qualified veterinarians.

LIST OF APEDA APPROVED INTEGRATED PLANTS

There are about 69 integrated meat processing plants (A) which are approved for export of meat beside 32 processing plants (B) which receive carcasses from APEDA approved for export of meat integrated plants is given in Annexure-II. This list is dynamic in nature which is also available on website of APEDA (www.apeda.gov.in).



4

MINIMUM REQUIREMENTS FOR AN APPROVED ABATTOIR

LOCATION OF ABATTOIR

The location of the abattoir where animals are slaughtered and meat is produced should conform to notified guidelines. The premises should be away from environmentally polluted areas and industrial activities which produce obnoxious soot, dust, smoke, chemical and biological emission and pollutants that pose a serious threat of contaminating the meat. The location should be free from floods, pests and where wastes, either solid or liquid, are dumped and cannot be removed.

The abattoirs and processing plant should not be used for residential purposes and livestock market.

LAYOUT AND DESIGN OF ABATTOIRS / MEAT PROCESSING PLANT

The layout of the abattoirs and processing unit should permit Good Hygienic Practices (GHP) including protection against cross contamination between and during the operations. The activities in lairage, abattoir, processing, packaging and loading should be compartmentalized. The layout should have a bio-security built-in in the plant where two zones should be clearly demarcated namely, black zone and white zone. There should not be any cross movement of trucks / animals. The trucks carrying the animals for slaughter should enter through the black zone where there is arrangement for disinfecting the truck tyres with 1% formalin so as to exclude the contamination entering into the plant. The trucks carrying animals should never be allowed to enter through the white zone which is meant for exit of finished product only.

There is always a forward movement of the animals. The animals are registered and tagged at the unloading area. Thereafter, animals are kept in the resting pen. The resting pens should be covered. The capacity of the resting pens including isolation pen depends upon the capacity of slaughtering per shift.

The plant should have lairage, race, abattoir hall, slaughter lines, chillers, deboning and packing area, freezing and cold storage.

EMERGENCY SLAUGHTER ROOM

An emergency slaughter room adjacent to the main abattoir to slaughter 8-10 animals at any one time should be provided. Emergency slaughtering is done for injured animals or animals escaped from confinement which might be of concern to the workers employed in the plant. It has to be carried out in the emergency slaughter room provided in the premises and may be carried out even beyond the working hours in order to minimize the sufferings of the animal under control and suspension of veterinarians.

IDENTIFICATION AND TRACEABILITY– EARTAGGING OF ANIMALS

Identification of animals has to be carried out as soon as the animals arrive at the slaughter house at unloading area for slaughter. At unloading, the animal has to be tagged by recording arrival time, sex and age along with source from which it has been drawn. This creates a preliminary traceability system that will commence as soon the animal arrives and is a first step. Thereafter the traceability should be enforced at various stages, namely, ante-mortem, abattoirs, post-mortem, chilling and processing hall with assigning the batch number.

Resting Pens

The resting pens should be covered and provided with adequate supply of drinking water so that animals can rest after a stressful transportation. It is here that ante-mortem examination is carried out. A 2.5 square meters area for large animals (adult above 400 kg body weight) and 1.2 square meters for sheep and goat may be provided.

Isolation Pen

The premises should have an isolation pen where suspected animals can be kept for detailed examination.

Lairage And Race

A covered lairage and race have to be provided where animals are cleaned, washed and moved before slaughter.

Utility Services

1. Suitable and adequate facilities should be provided to the workers employed in the plant for changing their clothes, cleaning of their foot wear, hand gloves etc.
2. Similarly adequate provision of toilets and change room should be made. Separate toilets, latrines and change rooms are provided for male and female workers.
3. As per FSSAI norms where five or more employees are working the following provisions are to be made.

| Number of workers | Number of latrines | Number of wash basin |
|-------------------|--------------------|----------------------|
| Not exceeding 25 | 1 | 1 |
| Between 25-29 | 2 | 2 |
| Between 50-100 | 3 | 3 |
| More than 100 | 5 | 5 |

4. Adequate facilities for lockers be provided.
5. Adequate facilities of canteen for workers and executive be provided.
6. Facilities for prayers should also be provided.
7. Hand sanitation station should also be provided where elbow and knee operated taps should be installed. Sensor water taps could also be provided for hand washing. Where paper towels are used, sufficient number of receptacles should be provided. Notices should be pasted at the washing station.
8. Laundry facilities for cleaning of workers uniform should be provided.
9. First aid and medical room for a part time medical doctor be provided for large units. For smaller units emergency call facility should be available.
10. Adequate natural and artificial lighting should be provided throughout the meat processing plants. About 540 lux should be provided at all inspection points, about 220 lux in work room and 110 lux at other places. All bulbs should be covered and protected so as to avoid contamination of meat in case of breakage.
11. Adequate ventilation should be provided to prevent excessive heat, steam, condensation and dust to remove the contamination. Ventilation should be provided with an insect screen or other protective enclosure of non-corrosive material.

Guest House (Optional)

The premises may have a guest house where foreign delegation could stay with all the arrangement for boarding and lodging. This should be well maintained & clean. This should be separated from the processing area.

Laboratory

The in-house laboratory with all the necessary equipments, sterilization room, media preparation room, laminar flow and washing room have to be provided to do the microbiological examination of meat, water, air and personnel working in the plant.

Rendering Plant

A suitable capacity of dry rendering/wet rendering at plant to treat bones and non-edible offals should be provided in the premises to produce value added meat cum bone meal and tallow for feeding poultry and soap manufacturing. This will also check the pollution in the plant. A consent and No Objection Certificate from State Pollution Control Board is mandatory requirement of APEDA for export of meat.

Effluent Treatment Plant (ETP)

A suitable capacity Effluent Treatment Plant (ETP) needs to be provided to treat the effluent both aerobically and anaerobically to check the pollution.

The unit should be suitably equipped with ETP of high quality brand having advanced technology and fulfills the entire norms prescribed by State Pollution Control Board inclusive of relevant enactment and rules framed to control the pollution.

The effluent after treatment with 30 BOD can then be used in the premises to clean and utilize it for irrigation as per the karnal technology for agriculture, so as to have zero liquid discharge (ZLD)

Lecture hall for in-house training

For in-house training of butchers, doctors and other skilled workers, a separate lecture hall with black/green board, audio visual aids be provided.

Hide Room

A separate hide room where salting of hides is performed is to be provided depending upon the capacity of the slaughter house.

General Store

General store should be provided to store all the products.

Work Shop

There should be a work shop for daily repairing and maintenance of the plant.

Generator Room

There should be a stand-by generator room for providing power during the break-down.

The premises should not be used for residential purpose. No personnel belongings like clothing, bedding and shoes should be kept in the premises.

No food should be allowed in the processing hall. Chewing of tobacco and smoking cigarette should strictly be prohibited and notices to this effect be pasted at appropriate locations.



5 PRODUCTION AND PROCESSING OF MEAT

There are 111 modern meat processing plants (Annexure-II) registered by APEDA for export of meat. These plants are eco-friendly and are world class, following the Sanitary and Phytosanitary (SPS) guidelines given in the Codex Alimentarius for production of quality safe meat.

These plants have HACCP, ISO: 9000 and ISO: 22,000 Certifications. All plants follow Good Manufacturing Practices (GMP) and Good Hygienic Practices (GHP). The integrated plants have facilities for holding of animals, lairage, race, knocking box, stunning facilities, abattoir with slaughter line for bleeding, de-hiding, splitting, washing and weighing facilities. The plants have also facilities for chilling, deboning, plate freezing, blast freezing, modern packing and cold storage. The processing plants have bio-security built in the plant where there are two zones, namely, black and white zones.

The Plants have modern facilities for by-products processing, proper and efficient solid waste disposal, effluent treatment, bio-methanation and rendering plants.

PROCESSING

The animals are brought from the disease free area which is about 100 km radius around each export oriented plant where all the disease control programmes are in place and monitored by the State Government Veterinary Department.

The animals are bought by the slaughter house from the local livestock markets with individual identification from the area from which it is brought and registered at the entry in the market. The transport of livestock is as per the guidelines given by the Prevention of Cruelty to Animals and Gol gazette notification by Ministry of Environment and Forestry 2009 which takes care of animal welfare while being transported. The Veterinary Doctor issues the Animal Health Certificate during the transit of the animal from the livestock market to slaughter house, as a Travel Fitness Certificate (TFC).

In the plants, the trucks with live animals are passed through the foot bath with 1% formaldehyde to disinfect the truck tyres from the back zone. The animals have a forward movement in the plant where live animals are passed through to black zone and finished product is packed and dispatched from the white zone. The animals are unloaded at the

unloading area and kept for 24 hours in the resting pens where drinking water is made available ad libitum. Here, ante mortem examination of live animals is conducted by the veterinarians.

The animals passed by the Veterinarian in ante-mortem inspection are passed through lairage and race where they are washed with water before sending for slaughter.

The animals passed by for slaughter are held in the 'Knocking Box', where they cannot see the animals being slaughtered. The animals are slaughtered according to the requirement of importing country/importer.

After slaughter, the animals are allowed to completely bleed, thereafter legs are cut, de-hiding is done and carcass is split into two halves. Here, the Veterinarians conduct the post mortem examination in the abattoir. After it is found fit for human consumption, the carcass is washed, stamped and transferred to chiller. The chiller has a temperature range of 2-4° C where carcasses are kept for 24hours.

When the deboned meat temperature is achieved about 7° and pH has gone down below 6, the carcass is brought to deboning hall having room temperature between 12° C- 15° C for deboning and preparation of prime cuts.

Various prime cuts are prepared in deboning hall as per the specifications given in Chapter 7, or as per the buyer's requirement. Thereafter packed in the packing hall. The packed cartons are passed through the metal detector to check for external contaminants. Thereafter, the cartons are frozen at -40° C for 10-12 hours to bring the deep bone temperature to -18 to -20° C. The cartons can also be frozen in Blast Freezers having a temperature of -40° C. The cartons are labeled indicating:

- (a) Name of producer
- (b) Country of origin
- (c) APEDA Plant Registration Number
- (d) Name of the exporter
- (e) Any other requirement of importing country

After freezing, cartons are shifted to the cold storage. Here, they remain till they are cleared by the in-house laboratory about the safety of the batch after microbial analysis.

The flow diagram of the whole production procedure is given at **Annexure IV**

QUALITY ASSURANCE

The quality and safety are assured by monitoring the Critical Control Points (CCPs) of HACCP and ISO: 9001, 22,000. The in-house laboratory conducts at random the microbial examination of samples of meat, water, air, personal swabs from the worker's hands, etc., so as to keep tabs on the hygienic environment and personal hygiene.

After the clearances from the in-house laboratory, the cartons with frozen meat are loaded in the refrigerator containers having -18°C to -20°C , sealed and transported to the seaports for transmission to the importing countries.

In the production process cold chain is maintained since the carcasses are chilled to the end uses namely, processing plants/individual consumers.

PRODUCTION OF CHILLED CARCASSES (SHEEP AND GOATS)

All the integrated plants have separate line for small ruminants (sheep and goats) where there is an arrangement for holding the animals in the lairage, race, Knocking Box, slaughter line for bleeding, de-hiding, and chilling. Mostly chilled carcasses are split into different cuts, packed in food grade polythene/permitted packing material and sent by air to importing countries. All food safety norms are implemented by conducting the ante-mortem and post-mortem examinations.

BROAD GUIDELINES FOR CAPACITY ASSESMENT OF MEAT PLANT

1. Lairage and Holding

For an integrated meat plant its essential to have sufficient lairage space for resting animals for 12-24 hours prior to slaughter. As per the prescribed standards an area of 2.5 sq. mtr. per livestock is required for movement of the animal. Ideally the lairage should be covered and there should be sufficient arrangement for water to the animal. There should be an ante-mortem area for inspection of the animals and isolation pens for keeping rejected animals.

The total lairage area in sq. meter should be calculated and this should be divided by 2.5 sq. meter to arrive at the total number of buffalo livestock that can be kept in the lairage at one time. There should be a sufficient area of holding before sending the animal to the lairage.

2. Slaughter Line

For the slaughter line, the time has to be calculated physically from the slaughter activity to the time buffalo is hung after slaughter. Sufficient bleeding time is essential and a minimum of 8 minutes bleeding time is recommended to insure a proper drainage of blood which has a direct impact on the Quality of the meat. Therefore, the time taken from the knocking box to the rail per animal has to be calculated and also calculating bleeding time to see how many carcasses can be kept on the bleeding rail before starting other processes.

An abattoirs line operates generally for 16 hours in a day with 8 hours of operation followed by 2 hours of cleaning and again followed by 8 hours of operation and 2 hours of cleaning and the balance 4 hours for repairs and maintenance. In case of more orders, shift time is extended to 10 hours.

3. Chillers

Since India is not free from FMD as per OIE, it is essential that carcasses are chilled for 24 hours to achieve pH below 6. It is mandatory for the carcass to be chilled for a minimum period of 24 hours before the deboning operation commences.

The chilling capacity is calculated on the basis of total meters of conveyor rails in each chiller room. In one meter of the conveyor rail 3 halves or quarter's can be stored. This means for one meter of rail 1.5 carcasses can be hanged for chilling, if the chilling is done in Halves or 0.75 carcasses can be hanged, if the chilling is done for quarter (4 Pcs.)

The internal length and the breadth of the chiller has to be taken and then the total length of the conveyor rails has to be calculated, which should be multiplied by 1.5 carcass / mtr in case of Halves or by 0.75 in case of Quarters being stored.

4. Deboning and Packing Halls

For the deboning, fresh packing hall assessment has to be made on basis of the number of tables kept in the room. Typically each table can accommodate 4 workmen and on an average one butcher can debone maximum of 6 animals per day and one packing person can handle a maximum 800 kgs. per day. This shall have to be physically assessed at the time of inspection of the plant. Basis for the number of tables in the rooms and the numbers of butchers and packing person's assessment has to be made for the capacity that can be packed in the plant.

5. Freezing

- a. **Plate Freezers:** In India typically plate freezers are used with either 90 trays or 120 trays or 150 trays or 180 trays. Each meat tray weighs an average of 10 kgs. Typically a plate freezer takes a freezing time of 2.5 hours per cycle and considering the loading/unloading time each plate freezer can have 8 working cycles in a 24 hours shift. Therefore, each plate freezer of 90 trays can give $90 \times 10 = 900$ Kgs $\times 8$ cycles = 7.2 tons per plate freezer. Similarly, $120 \times 10 = 1.2$ tons $\times 8 = 9.6$ or say 10 tons or 150 tray per Kg. plate freezer will give $150 \times 10 = 1.5$ tons $\times 8$ cycles will give 14.4 tons or say 150 tons per plate freezer per day.
- b. **Blast Freezer:** Typically, in blast / tunnel freezer one load can be obtained in 12-14 hours and considering the loading / unloading time only one load per blast freezer per day can be usually obtained. However, in the case of some modern plants which have PLC based screw conveyors it is possible to get 2-3 blast freezer loads in 24 hours. Typically trolleys that are being used for the blast freezers can accommodate 20 trays and each blast freezer tray can accommodate about 20 Kgs. of product. In some cases upto 25 kgs of product can also be accommodated in the blast freezer tray and therefore each trolley can freeze about 20 trays $\times 20$ kgs = 400 kgs or $20 \times 25 =$ about 500 kgs. Therefore it would be safe to assume that each trolley can accommodate 450 kgs. per blast per day.

Generally, the trolley size is universal in the Industry, however, at the time of inspection it is to be physically assessed regarding the number of trolleys that can be placed in each blast freezer and then it is multiplied by the number of blast freezers available in the plant.

The total freezing capacity would be a total of the plate freezing as well as the blast freezing capacity of the unit.

6. Cold Storage

While it is important to note down the capacity of the cold storage it does not have any direct bearing on the freezing capacity of the plant. Typically the capacity of the cold store can be arrived at by taking the actual floor area in sq. meters and multiply the same by 0.75 MTS per sq. meter provided the product is stacked up to a height of around 2.7 meters. If the cold storage is in the mezzanine floor, then the capacity would increase proportionately.

7. Rendering Plant

Although rendering plant once again do not have any bearing of the capacity of the unit it would be better if it can be ensured that rendering plant of sufficient capacity has been installed to take care of the offal's and the bones that would be available for rendering. Typically, each animal would give 140 kgs. of product that would be available for rendering on an average after considering offal's that are packed for exports.

Suggested Readings

Estimated Calculations

Dr. S.K Ranjhan, Average weight of live animal – 400-500 kg.

Book: Animal Nutrition and Feeding Practices in India.

Dr. Kondiah, IVRI, Average Bone in weight realization – 45-50%.

Research paper:

Average Bone less meat from Bone In – 65%

If we take this $450 \times 47 = 212 = \text{Bone In}$

65% of 212 = 138 - 141 Kg of Bone less meat

Generally salable offals – 49 Kg

Yield – Say 190 kg per animal

Out of all the parameters, whichever area can handle the least number of animals/tons should be assumed as the capacity of the units.



6 FOOD SAFETY MANAGEMENT SYSTEM (FSMS)

All the export oriented units registered with APEDA have a mandatory requirement of accreditation with ISO 22,000, developed by international Organization for standard data dealing with food safety. It is a general derivative of ISO 9001 compiled with HACCP.

ISO 22,000 STANDARDS

The ISO 22,000 international standard specifies the requirements for a food safety management system that takes into consideration the followings:

- Interactive communication
- System Management
- Pre requisite programme
- HACCP Principles

Communication along the food chain is essential to ensure that all relevant food safety hazards are identified and adequately controlled at each step with the food chain. This means communications between the organization both up-stream and downstream in the food chain.

ISO 22,000 integrates the principals of HACCP plan with pre requisite programs. ISO 22,000 requires that all hazards that may be associated with the process of meat and facilities used are identified and expressed.

QUALITY MANAGEMENT

Food Safety and Standards Authority of India (FSSAI) has been providing guidance to the Indian food industry by formulating the national standards and certification systems. The FSSAI is operating Quality Management System Certification Scheme (QMSCS) according to IS/ISO 9001:2000. All meat exporting plants have ISO 9001-2000 or 22,000 certification.

HACCP

It is mandatory that all the export oriented unit (EOU) have to follow the Hazard Analysis and Critical Control Points (HACCP) as a control system designed to identify and prevent microbial and other hazards in meat production.

It includes steps designed to prevent problems before they occur and corrected as soon as they are detected.

The HACCP is mandatory for exports as it reduces contamination, reduces recall of consignment, and provides quality assurance to branded products.

The HACCP addresses all types of hazards, namely, physical, chemical and microbiological and can be integrated in small, medium and large scale enterprises.

Meat.Net

APEDA has developed a web based system "Meat.net" in consultation with various stakeholders. The Meat.net system was launched by Hon'ble Commerce Secretary on 26th November, 2014. The system has following benefits:

- System keeps a tab on overall exports on the basis of approved capacities of the meat plants.
- The system ensures that raw material/meat is sourced from APEDA registered meat plants which is the requirement of FTP.
- Validation of exports of meat from integrated abattoirs approved by respective importing countries.
- QR code embedded secured system generated health certificate is issued by respective State Animal Husbandry Department to prevent forfeiting.
- System integrates stakeholders like State Animal Husbandry Department, Meat Plants/ Exporters and Labs to have real time information/data on meat exports.
- System incorporates inbuilt authorization for supply/receiving of raw material from one source to another.

The system is aiming to elevate the credibility of Indian meat producers to export quality meat in international markets.



7 REGULATIONS FOR SAFE MEAT EXPORTS

The Government of India has laid down standards for export of meat, which include standards for abattoirs, processing plants and for various meat products. Registration and licensing abattoirs and meat processing plants is done by the Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce and Industry, Government of India, Export Inspection Council, Government of India and Food Safety and Standards Authority of India.

Inspection of the meat processing plants is carried out by a Committee of experts as per the standards laid down under export (Quality Control) and (inspection) Act, 1963 by the Government of India. During inspection, focus is on hygiene and sanitary conditions maintained by the plant, ante-mortem and post-mortem inspections, infrastructures, staff hygiene, laboratory facilities, record maintenance etc. The registration of the meat processing plants is renewed periodically after a detailed plant inspection by the Committee consisting of members drawn from Export Promotion Council, Food Safety and Standards Authority of India, Department of Animal Husbandry and Dairying, Government of India, APEDA and Veterinary Department of the State Governments.

According to the current Export and Import Policy of the Government of India, each export consignment is subject to compulsory microbiological and other tests and a comprehensive pre-shipment inspection certificate is issued by the Government veterinarian. Each export consignment is accompanied by the Animal Health Certificate. This certificate also states that meat has been obtained from healthy, disease free livestock which are free from contagious and infectious diseases, including foot and mouth disease and other diseases. A few sample copies of Animal Health Certificates mandated by importing countries have been given in Annexure III. The Health Certificate also confirms that livestock have been subjected to ante-mortem inspection followed by post-mortem examination and that the meat is fit for human consumption. In fact, the procurement of animals from registered markets to the final export of the meat consignment is under the constant monitoring and inspection of government agencies besides having the services of highly qualified and experienced veterinarians, microbiologists etc., employed by the Exporting units.

A. FOREIGN TRADE POLICY FOR EXPORT SHEEP/GOAT/BUFFALO

The Foreign Trade Policy contained in chapter 2 of Schedule 2 of ITC (HS) provides the following:

| S. No. | Tariff HS Code | Item Unit | Item Description | Export Policy | Nature of Restrictions |
|---------------------|--|-----------|---|--|--|
| 18 | 0201 1000 0201 2000 0201 3000 0202 1000 0202 2000 0202 3000 | KG | Beefs of cows, oxen and calf | Prohibited | Not permitted to be exported |
| ³ 19 (a) | 0201 0201 1000 0201 2000 0202 0202 2000 0202 2000 | KG | Meat of buffalo (both male and female) fresh and chilled Other cuts with bone in. Meat of buffalo both (male and female) Frozen Other cuts with bone in. | Prohibited Prohibited Prohibited | Not permitted to be exported Not permitted to be exported Not permitted to be exported |
| 19 (b) | 0201300. 0202 3000 | KG | Boneless Meat of Buffalo (both male and female) Fresh and Chilled Boneless Meat of Buffalo (Both male and female) Frozen | Free | 1. Export allowed on production of a certificate from the designated Vet Authority of the State, from which the meat or offals emanate, to the effect that the meat or offals are from Buffaloes not used for breeding and milch purposes. 2. Quality Control and Inspection under notes 3 and 4 respectively as well as condition stipulated at note 6 above are required to be fulfilled. |

| S. No. | Tariff HS Code | Item Unit | Item Description | Export Policy | Nature of Restrictions |
|-----------------|--|-----------|---|---------------|---|
| ⁴ 20 | 02041000 02042100 02042200 02042300 02043000 02044100 02044200 02044300 | KG | Meat of Indian Sheep | Free | Quality Control and Inspection under note 3 and 4 respectively as well as condition stipulated under note 6 are fulfilled. |
| ⁵ 21 | 0204 5000 | KG | Meat of Indian Goat | Free | Quality Control and Inspection under note 3 and 4 respectively as well as condition stipulated under note 6 are fulfilled |
| 22 | 0206 1000 0206 2100 0206 2200 0206 2900 0210 2000 | KG | Beef in the form of offals of cows, oxen and calf | Prohibited | Quality Control and Inspection under note 3 and 4 respectively as well as condition stipulated under note 6 are fulfilled |
| 23 | 0206 1000 0206 2100 0206 2200 0206 2900 0210 2000 | KG | Offals of buffalo except gonads and reproductive organs | Free | 1. Export allowed on production of a certificate from the designated Vet Authority of the State, from which the meat or offals emanate, to the effect that the meat or offals are from Buffaloes not used for breeding and milch purpose. 2. Quality Control and Inspection under notes 3 and 4 respectively as well as condition stipulated at note 6 above are required to be fulfilled. |
| 24 | 0206 8010 0206 9010 | KG | Offal of Indian Sheep | Free | Quality Control and Inspection under note 3 and 4 respectively as well as condition stipulated under note 6 are fulfilled |

| S. No. | Tariff HS Code | Item Unit | Item Description | Export Policy | Nature of Restrictions |
|--------|------------------------|-----------|----------------------|---------------|---|
| 25 | 0206 8010 0206 9010 | KG | Offal of Indian Meat | Free | Quality Control and Inspection under note 3 and 4 respectively as well as condition stipulated under note 6 are fulfilled |

Note 1: Beef includes meat and edible offal of cows, oxens and calf.

Note 2: Offals includes heart, liver, tongue, kidney and other organs.

Note 3: The export of Chilled and Frozen Meat shall be allowed subject to the provision specified to the gazette notification on raw Meat (Chilled and Frozen) under Export (Quality Control and Inspection) Act 1963.

Note 4: Export of canned Meat product shall be subject to pre-shipment inspection either by the State Directorate of Animal Husbandry or Export Inspection Agency or any other agency notified from time to time by Government of India in accordance with either the standards prevalent in the exporting country or standards prescribed under the Meat Food Product Order, 1973 under Export (Quality Control and Inspection) Act 1963 or orders made thereunder.

Note 5: Export of gonads and other reproductive organs of buffaloes and the germplasm of cattle and buffaloes in heading 0511 require an export license.

Note 6: Export of Meat and Meat products will be allowed subject to the exporter furnishing a certificate to the custom at the time of export that the above items have been obtained/sourced from an abattoir/meat processing plant registered with APEDA.

Note 7: On the cartons for export of meat, the following details shall compulsory be mentioned.

- (I) Name of producer
- (II) Country of Origin
- (III) APEDA plant registration no.
- (IV) Name of the exporter

(II) Export of Meat and Meat Products from India is, inter-alia, governed by the provisions of following Acts, Rules and Orders issued by Government of India:

- (a) Agricultural and Processed Food Products Export Development Authority Act 1985.
- (b) The Export (Quality Control and Inspection) Act, 1963;
- (c) The Export of Raw Meat (Chilled/Frozen) (Quality Control and Inspection) Rules, 1992;
- (d) Provision contained in Government of India Order issued vide S.O. 203 & S.O. 204, dated 15-01-1993;
- (e) ITC (HS) Classification of Import and export Items;

- (f) Prevention of Cruelty Act, 1960 and Rules 2001;
- (g) Various mandatory India Standards such as IS: 1982-1971: Code of Practice for Ante-mortem and Post-mortem Inspection of Meat Animals; IS: 2537: 1995: Meat and Meat Product – Beef and Buffalo Meat- Fresh, Chilled and Frozen – Technical Requirements; and Codex Alimentarius: Judgment Code for Slaughter Animals and Meat.
- (h) FSSAI Regulations.
- (i) The Prevention and Control of Infectious and Contagious Diseases in Animals Act, 2009.

B. PROVISION UNDER ITC FOR EXPORT OF MEAT AND MEAT PRODUCTS

The Chapter 2 of Schedule II of the ITC (HS) Classification of Import and Export items deals with exports of the Meat and edible Meat offals from India. In respect of export of Meat of Buffalo and Sheep, it provides as under:-

BONELESS MEAT OF BUFFALO (BOTH MALE AND FEMALE)

A. Bone-in buffalo meat is prohibited for export. India allows export of only deboned and deglanded frozen buffalo meat. Therefore, buffalo meat from India is safe and risk free.

B. Boneless Meat of Buffalo (both male and female) (Falling under 0201 3000 and 0202 3000- Sr. No. 19 (b) of Schedule II of ITC (HS) Frozen and Fresh and Chilled is allowed to be exported subject to the following conditions:

- Certificate is produced from the designated veterinary authority of the State, from which the meat or offals emanate, to the effect that meat or offals are from Buffaloes not used for breeding and milch purpose.
- Quality Control and Inspection under Note 3 and 4 respectively as well conditions stipulated at Note 6 above are required to be fulfilled. Offals of Buffalo except gonad and reproductive organs is allowed to be exported subject to the same conditions as applicable for export of Frozen or Fresh/Chilled Boneless Meat of Buffalo

MEAT (INCLUDING OFFALS) OF INDIAN SHEEP/GOATS

C. Meat of Sheep is allowed to be exported subject to the condition that Quality Control and Inspection under Note 3 and 4 respectively as well as condition stipulated under Note 6 are fulfilled. [This condition was inserted vide notification No. 46 dated 20-02-2007]

Provisions of the Export of Raw Meat (Chilled/Frozen) (Quality Control and Inspection) Rules, 1992 are as under:

In exercise of powers conferred by Section 17 of the Export (Quality Control and Inspection) Rules, 1963 the Central Government has issued the Export of Raw Meat (Chilled/Frozen)

(Quality Control and Inspection) Rules, 1992 with effect from 15-01-1993. The text of the relevant provisions of the Rules is reproduced below:

'Chilled' means that the core temperature of carcass/cuts/mince does not exceed 4 degrees Celsius at any stage;

'Frozen' means that the temperature of carcass/meat/mince shall reach minus 18 degree Celsius during storage and minus 18 degree Celsius at any other storage;

'Agency' means any agency for quality control or inspection or both established or recognized under Section 7 of the Act;

'Slaughter' means killing of an animal employing a humane method in accordance with the provisions of the Prevention of Cruelty to Animals Act, 1960 (54 of 1969) in a licensed slaughter house where the animal is subjected to through ante-mortem and post-mortem examination;

'Slaughter House/Abattoir' means the building, premises or place which is licensed by the local authority for the slaughter of animals intended for human consumption;

Rule 3: Deals with Quality Control and Inspection

Rule 3.1 provides that the Quality Control of Raw Meat (Chilled or Frozen) intended for export shall be carried out with a view to ensure that the same conforms to the specifications recognized by the Central Government under Section 6 of the Act.

3.2 Condition of ante-mortem and post-mortem inspection:

The animal and carcasses shall be subjected to ante-mortem and post-mortem inspections by a qualified veterinarian of the Central Government or agency.

Rule 5: Procedure of inspection and certification

5.1 Application for inspection: As exporter intending to export Raw Meat (Chilled/Frozen) shall submit an intimation in prescribed performa on time giving particulars of consignment intended to be exported to the nearest office of the agency:

5.2 Issue of Veterinary Health Certificate: on receipt of the intimations under rule 5.1, the Agency on satisfying itself on the basis of inspection carried out as provided for under rule 3 and 4 and the instructions if any issued in this respect that the consignment has been processed and packed according to the standard specifications applicable to it, shall issue a veterinary health certificate. APEDA Meat.net declaring the consignment of Raw Meat (Chilled/Frozen) as fit for human consumption and export worthy;

Provided that it shall be lawful for the agency to supervise, oversee and secure compliance of the requirement of the above provisions and to refuse to issue Veterinary Health Certificate in respect of Meat in any form intended for export not complying with the requirements:

Provided further that it shall be lawful for the Central Government Agency to specify and designate the personnel necessary and responsible for ante-mortem and post-mortem inspections and this shall include the number of personnel necessary for either of both functions per unit of number of carcasses.

Provided further that such personnel may be under the employment of the Agency or any other Public Authority or the Private Agency entitled to and responsible for the use of the premises in question for slaughter of animals and production of Meat for export.

5.3 Refusal to issue Veterinary health certificate: where the agency is not satisfied, it shall within a period for five days to refuse to issue such certificate and communicate, such refusal to the exporters along with the reason thereof.

5.4 Check inspection: subsequent to certificates, the Agency shall have right to reassess the quality of the consignment in storage, transit or at the ports. In the event of consignment being found not conforming to the standard specifications, at any of these stages, the certificate originally issued shall be withdrawn.

5.5 Validity of Veterinary Health Certificate: the inspection shall be valid for five days in respect of Chilled Meat and ninety days for frozen meat and twenty one days for vacuum packed Chilled Meat from the date of passing of the consignment. If more than one consignment approved on different days is presented in one application, the validity of the certificate shall be reckoned for the earliest day of approval.

5.6 Revalidation of Veterinary Health Certificate: If the Consignment is not shipped within the period of validity or the inspection certificate is not issued in stipulated time the exporter shall be permitted to present the consignment for revalidation. In such cases, the validity shall be extended for a further period of three days for Chilled Meat and thirty days for Frozen Meat.

Rule 7 [as amended by S.O. 1989 dated 3rd September 1993]

Inspection Fee: Prescribed inspection fee shall be paid by the exporter/processor to the Agency as under:

Direction of Animal Husbandry of all State Government recognized as agencies for the Inspection of Raw Meat (Chilled/Frozen)

Vide notification S.O.202 dated 15-01-1993, the Central Government has recognized the Directorates of Animal Husbandry of all State Governments, as Agencies for the inspection of Raw Meat (Chilled/Frozen) prior to export, subject to the conditions notified in the Export of Raw Meat (Frozen/Chilled) (Quality Control of Inspection) Rules, 1992.

Government of India order issued by S.O. 203, dated 15-01-1993

Vide S.O.203, dated 15-01-1993, the Central Government in exercise of the powers conferred by Section 6 of the Export (Quality Control and Inspection) Act, 1963, after consulting with

the Export Inspection Council, being of the opinion that it is necessary and expedient so to do for the development of the Export Trade of India, hereby-

1. Notifies that Raw Meat (Chilled/Frozen) shall be subject to Quality Control and Inspection prior to export.
2. Specify the types of Quality Control and Inspection in accordance with export of Raw Meat (Chilled/Frozen) (Quality Control and Inspection) Rules, 1992 as the types of Quality Control and Inspection which shall be applied to such raw meat (Chilled/Frozen) prior to export.
3. Recognize the specifications as set out in Schedule I to VII appended to this order as the standard specifications for raw meat (Chilled/Frozen).
4. **Prohibited the export in the course of international trade of Raw Meat (Chilled/Frozen) unless a mark or seal recognized by the Central Government indicating that it conforms to the standard specifications applicable to it, has been affixed or applied to packages or containers of such Raw Meat (Chilled/Frozen) is accompanied by certificate issued by any of the agencies established or recognized under Section 7 of the Export (Quality Control Inspection) Act, 1963 standard specifications and is export worthy.**
5. Nothing in this order shall apply to the exports by land, sea or air of bonafide sample or Raw Meat (Chilled/Frozen) to prospective buyers, the value of which shall not exceed Rs. 5000/-.
6. In this order, Raw Meat (Chilled/Frozen Means)-
 - (I) Meat and Mineral processed by chilling/quick freezing obtained from buffalo, Carcasses, Veal/Calf meat obtained from Buffalo calves of above four months and up to one year of age; and
 - (II) Indian Goat and Sheep Raw Chilled/Frozen meat and minced meat of Goat, Sheep and processed by Chilling/quick freezing obtained from Goat and Sheep.

Various Schedules mentioned in this order are as under:

| Sr. No. | Schedule | Subject |
|---------|--------------|--|
| 1. | Schedule I | Minimum requirement for an approved Abattoir not conforming to IS 4393-1979. |
| 2. | Schedule II | Method of Sampling and Testing for conforming of Quality |
| 3. | Schedule III | Specification for Buffalo Meat |
| 4. | Schedule IV | Specification of Buffalo Veal |
| 5. | Schedule V | Specification for Sheep and Goat Meat |
| 6. | Schedule VI | Specification of Minced Meat |
| 7. | Schedule VII | Specification of Bacteriological Standards |

Specification in Schedule VII of the Government of India Order issued by S.O. 203, dated 15-01-1993 provides that:

1. General– the standards contained in this Schedule shall apply to the various type of Raw Meat, Frozen products described in preceding Schedules.

2. Prescribed Parameters – normally one sample per consignment by product type shall be drawn and tested for the following factors:

(a) Total plate count – Aerobic plate count shall not exceed 10 micro organisms per gm.

(b) Escherichia coli – the E coli shall be absent in all samples.

(c) Salmonella – absent.

3. Procedures –The method for sampling and testing for conformation with the above standards will be as detailed in Schedule II.

Prevention of Cruelty to Animals (Slaughter House) Rule.

Vide notification S.O. 270 (E), dated 26-03-2010, the Government of India in the Ministry of Social Justice and Empowerment while exercising power under Prevention of Cruelty to Animals Act has issued Prevention of Cruelty to Animals (Slaughter House) Rule.

STATUS OF O.I.E LIST 'A' AND LIST 'B' DISEASES IN INDIA

India is a member country of Office International des Epizooties (OIE), Paris and is mandated to report List "A" and List "B" animal diseases to the OIE Paris at regular intervals. These reports are then consolidated and published in the Bulletins issued by the OIE. The OIE in its Terrestrial Animal Health Code has stipulated guidelines for trade in livestock and livestock products, which are recognized as international norms. India strictly follows these guidelines for export of meat.

RISK ANALYSIS

Hazard Analysis Critical Control Point (HACCP) is a risk management tool which provides a scientific approach to the control of manufacturing and processing products rather than by traditional inspection and quality control of the end product. The Codex Alimentarius Commission has promulgated the concept of HACCP by adopting Guidelines for application of the Hazard Analysis Critical Control Points (HACCP) system during its 20th Session. The Critical Control Points in processing safe and hygienic meat followed at EOUs have been given in **Annexure IV**.

Quality Control Laboratories

Each export oriented meat plant has an in-house microbiological laboratory. Before a consignment is shipped, random meat samples are taken and analyzed for Salmonella, E-coli, Listeria and Coliform bacteria. Each batch has to conform to the international animal

health requirement for the absence of Salmonella and presence of other micro-organisms in the permissible limit.

Among the List 'A' disease of cattle and buffaloes, except for Foot and Mouth Disease, India is free from all other disease namely, Rinderpest, Vesicular Stomatitis, Contagious Bovine Pleuropneumonia and Rift Valley Fever.

For control and eradication of FMD, the Govt. of India has launched National Animal disease Control Programme wherein all susceptible animals are vaccinated every six months.

In addition, for meat exports, the practices followed in India are as per OIE guidelines given in Chapter 8 on FMD of Animal Health Code for Terrestrial Animals which completely eliminates the FMD risk from Indian buffalo meat, as has been demonstrated in the past 50 years in the export. In a study sponsored by APEDA on Indian buffalo meat to assess the risk free status of Indian buffalo meat in respect of FMD, it was reported that acidic pH below 6 in the meat significantly eliminates FMD Virus in the meat. Data of more than 3,000 deglanded lean buffalo meat risk free which was confirmed by the absence of FMD virus using ELISA/as other modern equipments and cell culture isolation tests (Kondaiah et. al, 2005).

In the list 'B' disease, India is free from Anjeszky's Disease, Trichinellosis, Enzootic Bovine Leukosis and notified under negligible risk category of Bovine specification Encephalopathy (BSE).

Vaccination and other control measures, including ante mortem and post mortem inspection, are followed in modern meat processing plants to ensure safety of meat.

FOOD SAFETY REGULATIONS IN INDIA

- The Food Safety and Standards Act 2006 (Food Safety and Standards Authority of India – FSSAI) Act 2011
- Water (Prevention and Control of Pollution) Act 1974
- Air (Prevention and Control Pollution) Act, 1981
- The Prevention of Cruelty to Animal Act, 2011
- Export (Quality Control and Inspection) Act, 1963
- Export (Quality Control and Inspection) Act, 1964
- Export of Raw Meat (Chilled/Frozen) Rules 1992
- The Prevention and Control of Infectious and Contagious Diseases in Animals Act, 2009.



8 STANDARD BOVINE CUTS

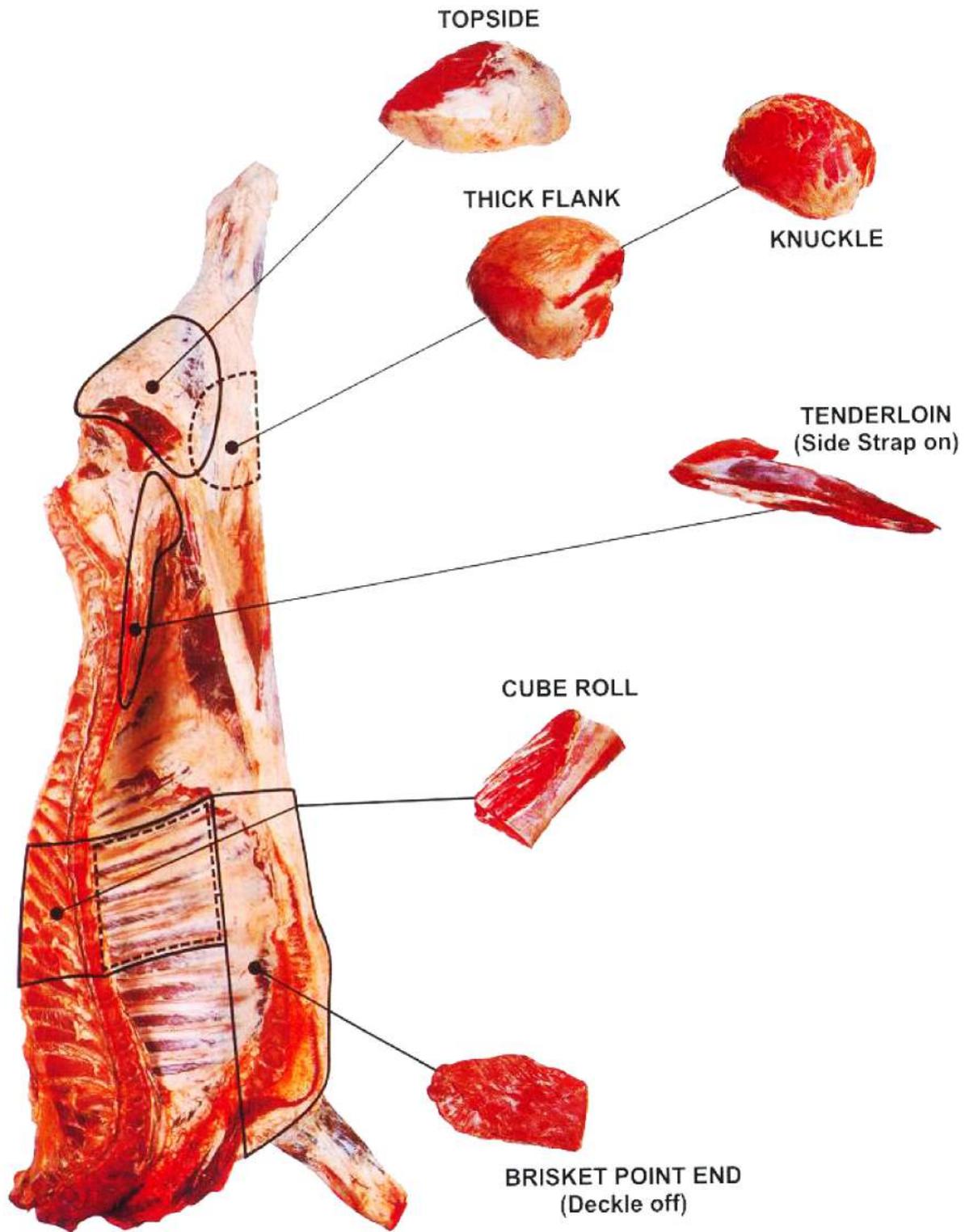
Before export of meat, the pH is invariably determined in the meat after chilling the carcasses for 24 hours, which measures the lactic acid in the muscles. pH is measured by a pH probe which is calibrated daily. The optimum level of pH is 5.7.

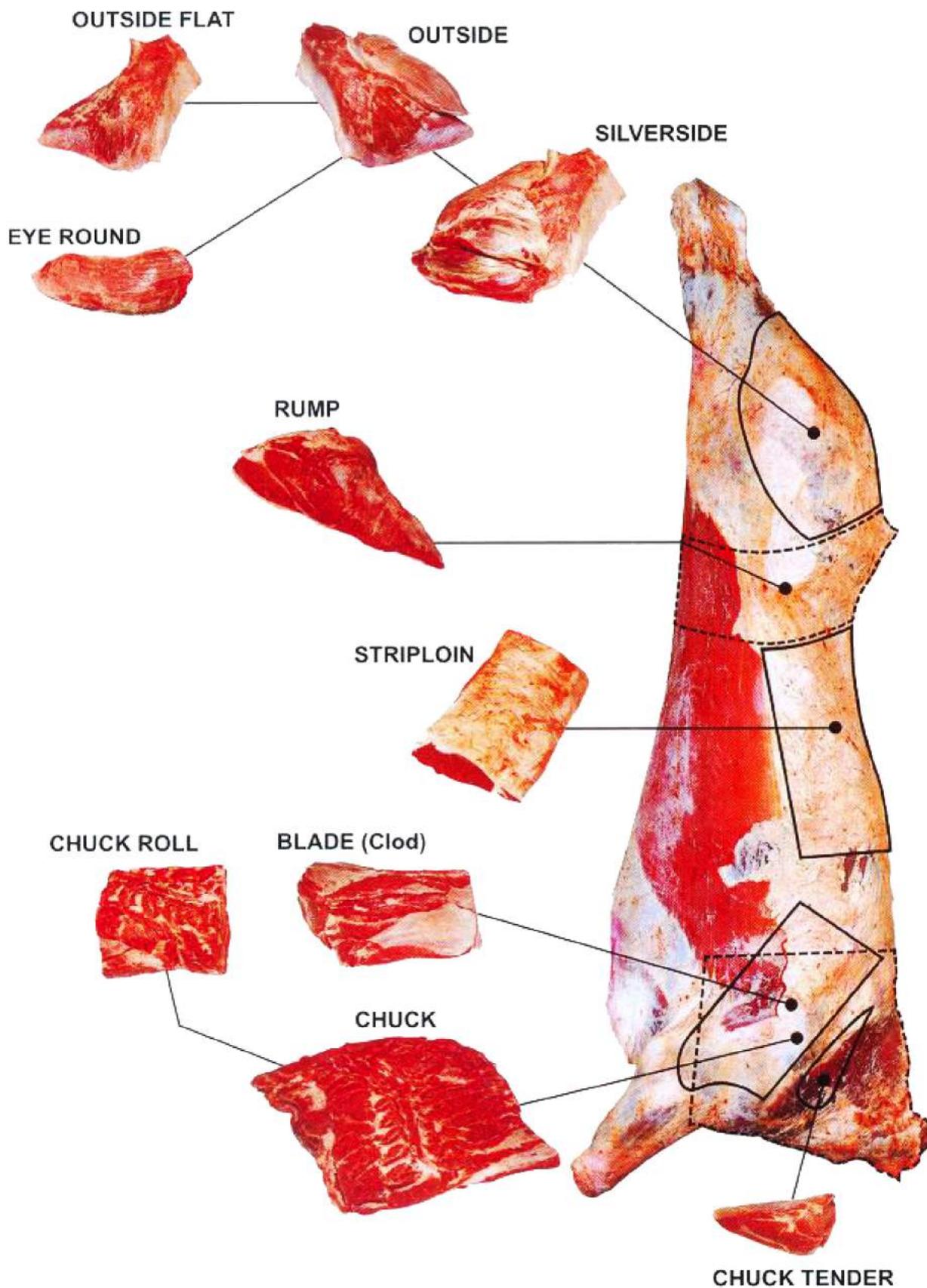
LABELLING

Some of the popular prime cuts of buffalo meat, sheep and goat meat, processed edible offals are given below.



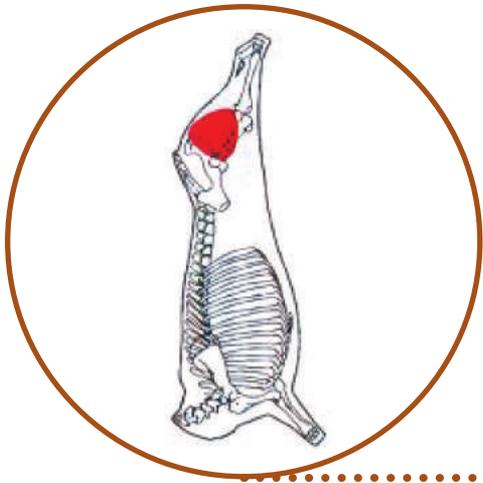
BOVINE MEAT PRIME CUTS





STANDARD INDIAN BUFFALO MEAT CUTS

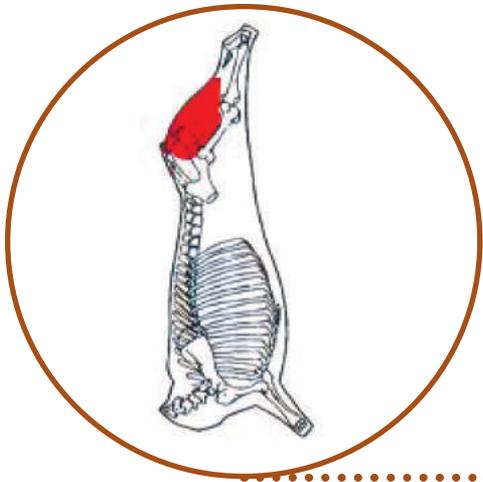
HIND QUARTERS



APEDA 101 - Top Side

List of Muscles

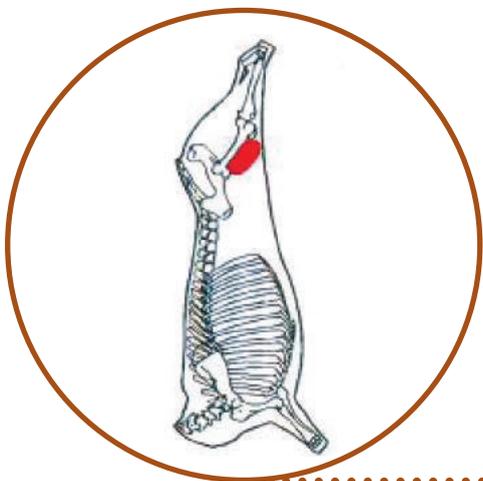
Adductor Femoris
Gracilis
Pactineus
Sartorius
Semimembranosus



APEDA 102 - Silver Side

List of Muscles

Biceps Femoris
Flexor DigitorumSublimis
Gastrpcnemius

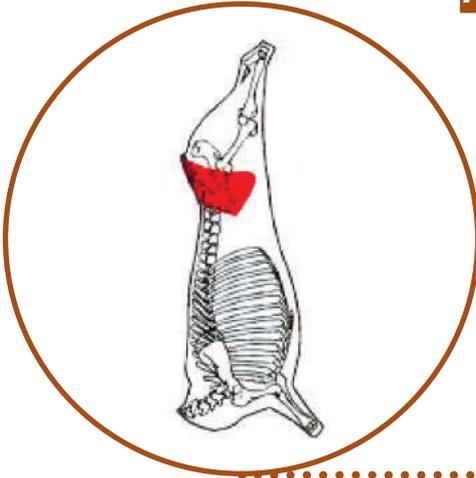


APEDA 103 - Knuckle

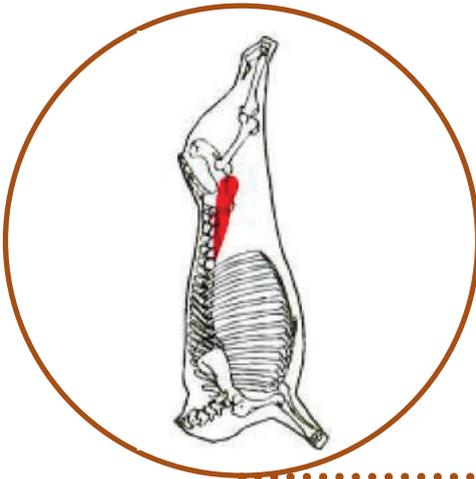
List of Muscles

Rectus Femoris
VastusIntermedius
VasturLateralis
VasturMedialis

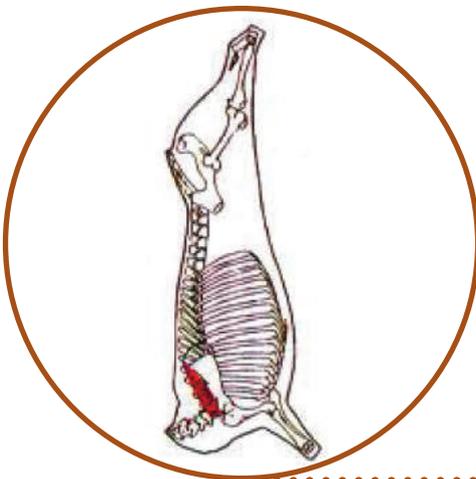


APEDA 104 - Rump (Sirloin Butt)**List of Muscles**

Biceps Femoris Cutaneus Trunci
 Gluteus Accessorius Gluteus
 Medius
 Gluteus Profundus
 Obliquus Externus Abdominis
 Obliquus Internus Abdominis
 Sacrococcygeus Dorsalis et
 Lateralis
 Tensor Fascia Latae
 Transversus Abdominis

**APEDA 105 - Tenderloin****List of Muscles**

Iliacus
 Psoas Major
 Psoas Minor

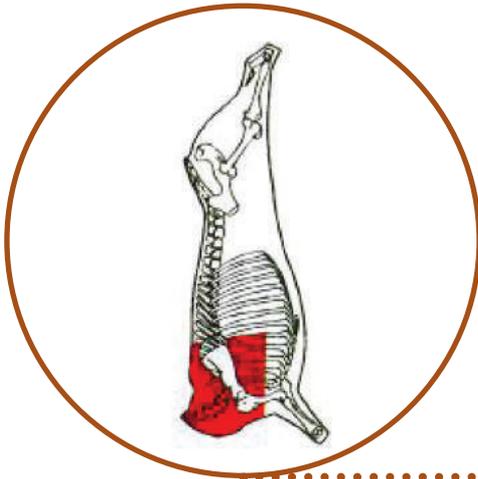
**FORE QUARTERS****APEDA 107 - Chuck Tender****List of Muscles**

Supraspinatus



APEDA 106 - Chuck**List of Muscles**

Lliocostalis
 Longissimus Cervicis
 Longissimus Dorsi
 Multifidi Dorsi
 Rhomboideus
 Semispinalis Capitis
 Serratus Dorsalis Cranialis
 Serratus Ventralis Thoracis
 Spinalis Dorsi Subscapularis
 Trapezius Cervicalis
 Branchialis
 Branchiocephalicus
 Intertransversarii Cervicis
 Intertransversarii Longus
 Longissimus Captis Et Atlantis
 Longus Captis
 Lonus Colli
 Multifidi Cervicis
 Obliquus Capitus Caudalis
 Omotransversarius
 Rectus Capitis Dorsalis Major
 Scalenus Dorsalis
 Scalenus Ventralis
 Splenius
 Sternocephalicus

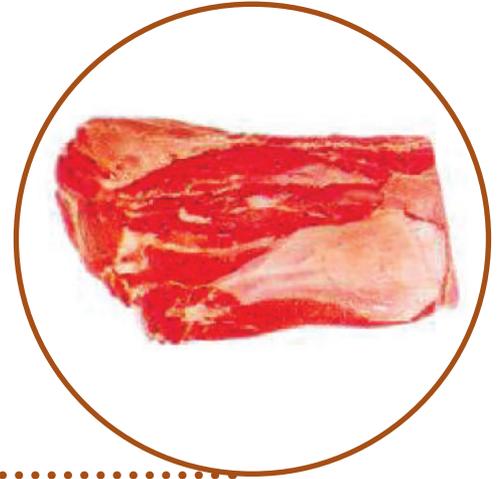
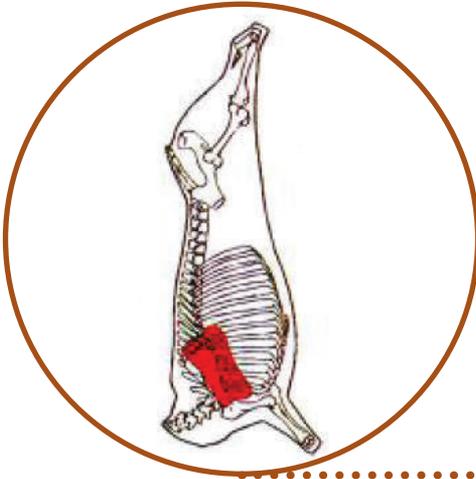
**APEDA 108 - Brisket****List of Muscles**

Intercostales
 Externus et Internus
 Pectoralis Profundus
 Pectoralis Superficialis
 Serratus Ventralis Thoracis
 Transversus Abdominis

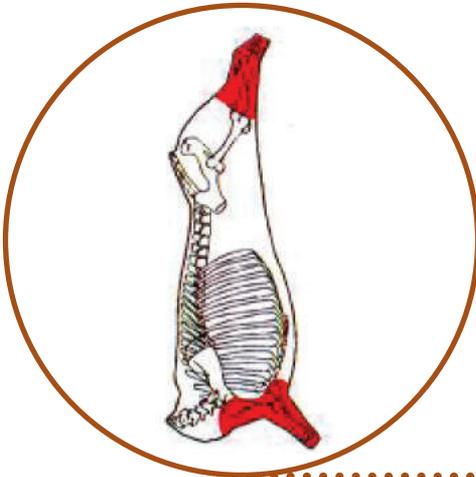


APEDA 109 - BLADE**List of Muscles**

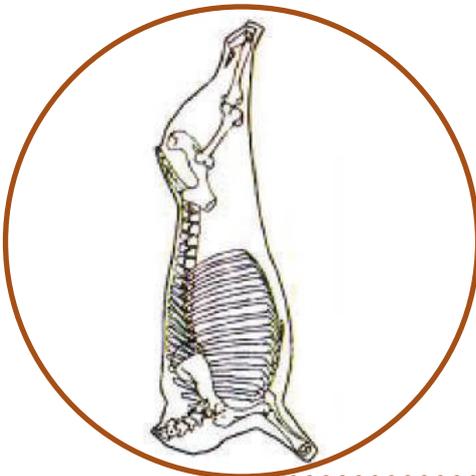
Anconaeus
 Branchialis
 Coracobrachialis
 Deltoideus
 Extensor Carpi Radialis
 Infraspinatus
 Latissimus Dorsi
 Subscapularis
 Tensor Fascia Antibrachii
 Teres Major
 Teres Minor
 Triceps Brachii Caput Laterale
 Triceps Brachii Caput Longum
 Triceps Brachii Caput Mediate

**APEDA 110 - Shin and Shank****List of Muscles**

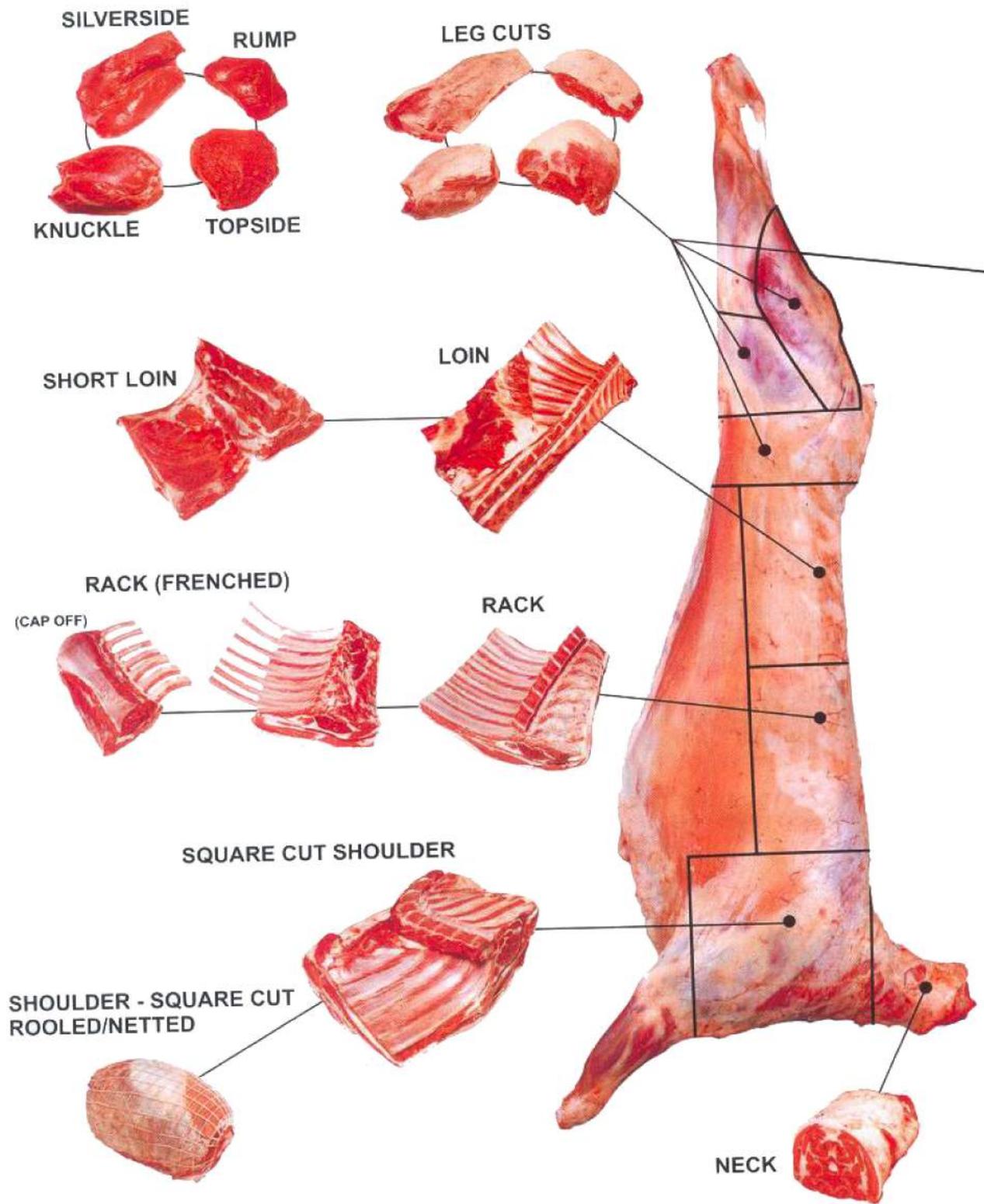
They are prepared from the bone; less exterior and flexor group of muscles of fore and hind legs

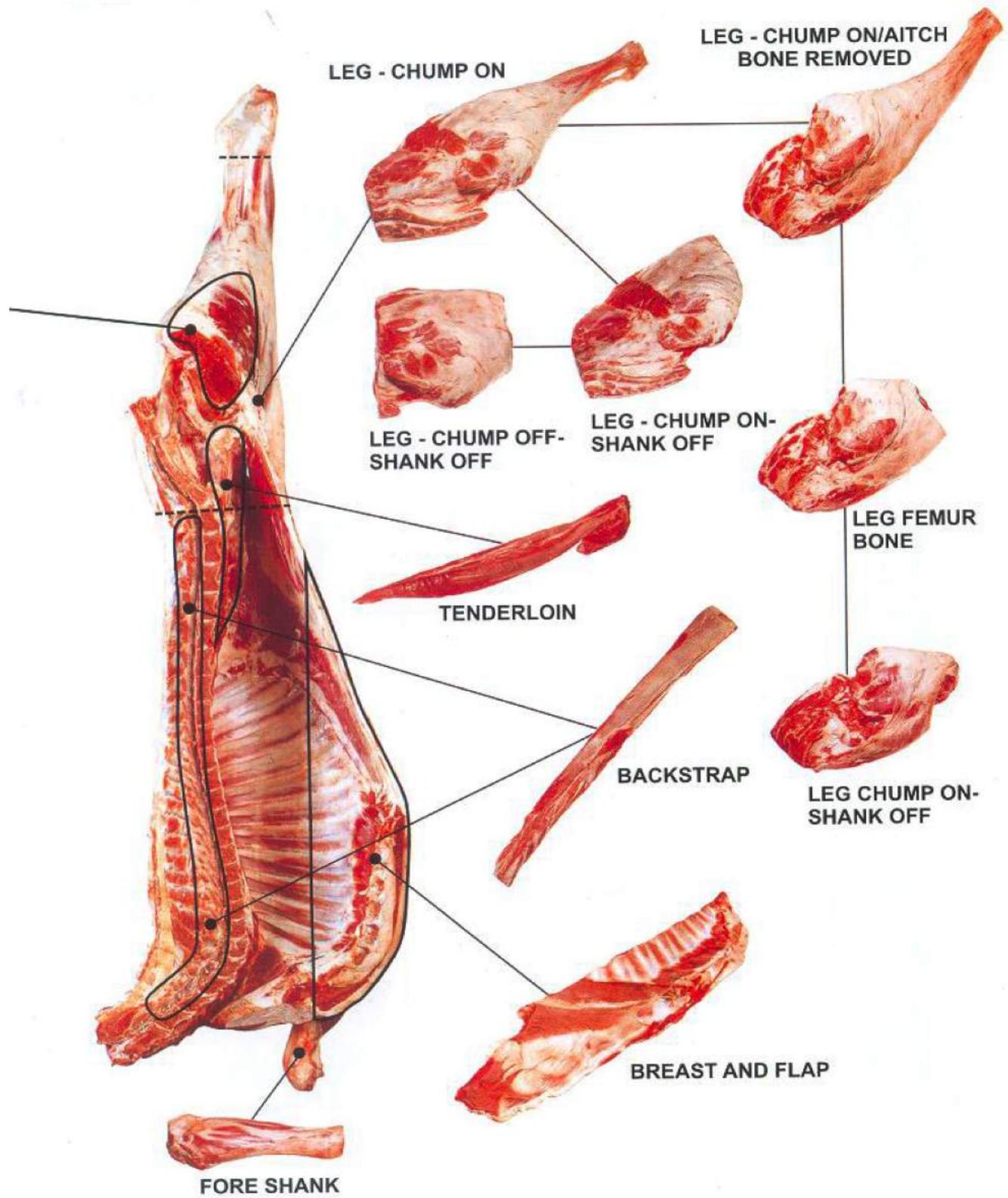
**APEDA 111 - Trimming****List of Muscles**

Trimming are prepared after the removal of Prime cuts from carcass.

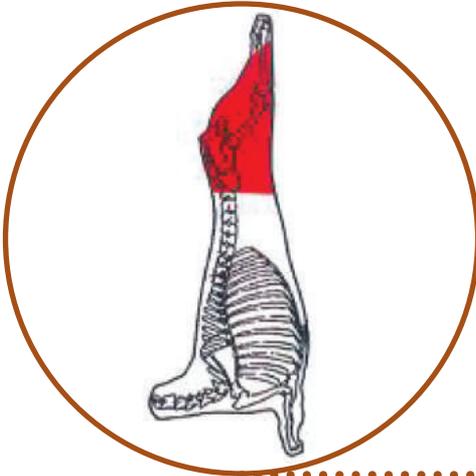


SHEEP AND GOAT MEAT PRIME CUTS





SHEEP AND GOAT MEAT CUTS



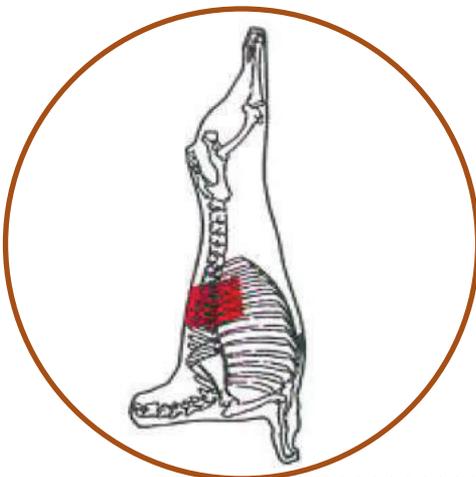
APEDA 201 - Leg-Champ On

Forequarter leg is prepared by a side cut along the Contour of specified rib to the ventral edge.



APEDA 202 - Trunk

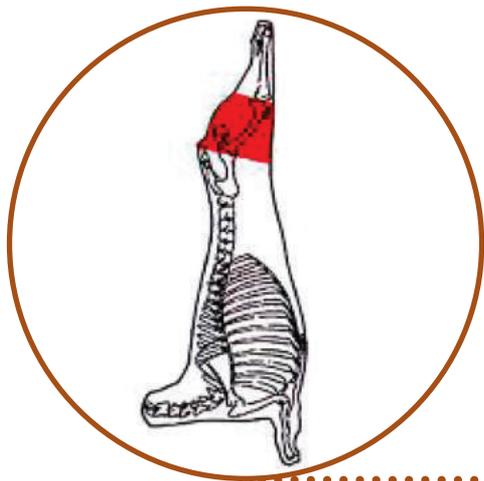
Trunk is prepared by removing the hind quarters of the carcass.



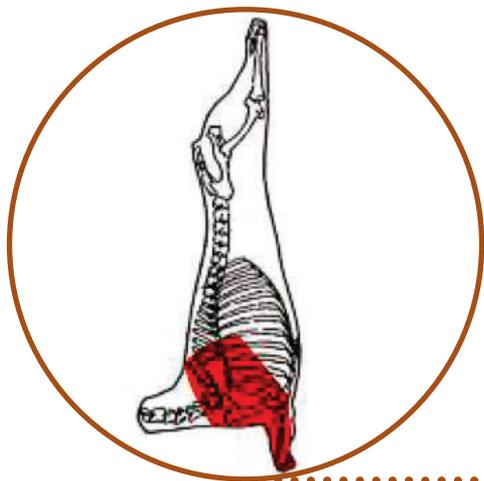
APEDA 203 - Loin End Rack

Loin End Rack is prepared from loin by a cut through long is simusthroacis muscle particular to the 7th ribs and posterior end of 12th ribs.

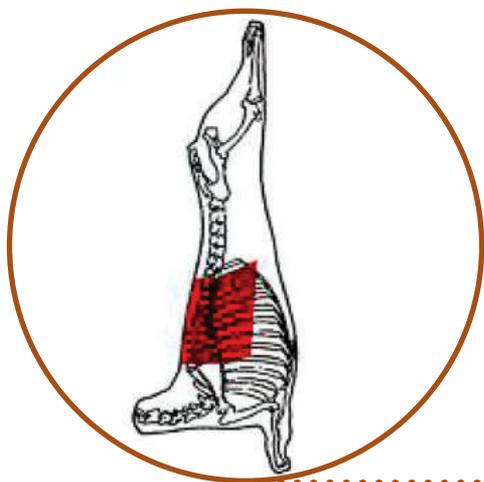


**APEDA 204 - Leg-Chump Off**

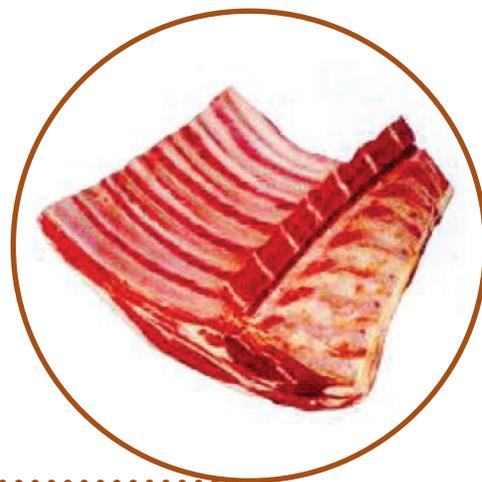
Leg Chump Off is prepared by cutting the hind quarter of the carcass.

**APEDA 205 - Shoulder**

Shoulder is prepared by removing forequarters of the legs from the carcass.

**APEDA 206 - Rack**

Rack is prepared from a 13 rib forequarter by a straight cut of a 1st rib and 1st sternum segment.



9 STANDARD EDIBLE GREEN OFFALS FROM ANIMALS

All the by-products available after slaughter of animals and not included in the dressed carcass are offals. Most of the offals are edible after processing. The approximate yield of the by-products available from the large (buffaloes) and small animals are given below:

Table 9.1

**Approximate yield of the by products from large animals
(Buffaloes Average weight 450 kg)**

| S. No. | Name of the Product | Percent yield |
|--------|--|---------------|
| 1 | Boneless meat | 29.6 |
| 2 | Bones, head, feet included | 22.9 |
| 3 | Paunch content | 15.2 |
| 4 | Hide | 8 |
| 5 | Blood | 3.5 |
| 6 | Lungs and aesophagus | 2.2 |
| 7 | Liver | 1.5 |
| 8 | Stomach (Rumen, Reticulum and Omasum and Abomasum) | 0.8 |
| 9 | Heart | 0.5 |
| 10 | Head meat and brain | 0.4 |
| 11 | Spleen | 0.4 |
| 12 | Kidneys | 0.2 |
| 13 | Fat | 1.8 |
| 14 | Casings | 2.2 |
| 15 | Other offals | 4.5 |
| 16 | Body fluids | 3.9 |
| | Total | 100.0 |

Source: Average yield of 100 Murrah grade buffaloes weighing an average of kg 455±5.5

Table 9.2**Standard Green Offals Production from Buffaloes**

| S. No | Item | Kgs |
|-------|------------------------|-------|
| 1 | Liver | 2.500 |
| 2 | Omasum | 1.250 |
| 3 | Tongue | 0.900 |
| 4 | Heart | 0.900 |
| 5 | Kidneys | 0.500 |
| 6 | Honey Comb (Reticulum) | 0.450 |
| 7 | Tail | 0.850 |
| 8 | Pizzles | 0.130 |

Table 9.3**Approximate yield of by products from indigenous sheep
(Average Live weight 16 kg)**

| S. No. | Meat/By product | Percent yield |
|--------|---------------------|---------------|
| 1 | Dressed weight (Kg) | 6.4 |
| 2 | Dressing percent | 40 |
| 3 | Tripe and gut | 8.0 |
| 4 | Skin | 9.0 |
| 5 | Head | 5.2 |
| 6 | Blood | 2.8 |
| 7 | Liver | 1.2 |
| 8 | Hooves | 0.8 |
| 9 | Heart | 0.4 |
| 10 | Kidney | 0.4 |
| 11 | Spleen | 0.2 |
| 12 | Paunch | 22.9 |
| | Total | 40.0 |

Source: Average yield of 150 indigenous sheep weighing an average weight of 13+1.5 Kg and about 2-3 years.

The standards edible offals prepared from buffalo/sheep and goats are processed and exported as per the detailed specifications given at serial no. APEDA 301 to 321.

Most of the edible by-products are exported fresh and frozen/chilled like liver, kidneys, heart, brains, tongue, tails, etc. whereas other by products like tripe (rumen), honey comb (reticulum) are cleaned and mucous membrane is removed by scalding in hot water. The processed tripe and honey comb are exported.

SHEEP CASINGS

Lamb casings are made from the sub mucosa, a layer of the intestine that consists mainly of collagen. The fat and mucosa lining are removed to produce natural casings. The casings may be hardened and rendered less permissible through drying and smoothening processes.

Lamb casing is more tender than buffalo meat and pork, It is translucent or white in appearance and has a distinct taste to the casings that enhances the flavoring. Natural lamb casings tend to be more rigid or brittle than big and or buffalo meat.

Table 9.4

RECOVERY ANALYSIS REPORT Buffalo Carcass Weight 200 KG (BONE IN)

| Sr. No. | ITEM-MEAT | WEIGHT (Kg.) |
|---------|--------------|--------------|
| 1 | TOP SIDE | 10.97 |
| 2 | SILVER SIDE | 12.58 |
| 3 | THICK FLANK | 7.87 |
| 4 | RUMP STEAK | 7.65 |
| 5 | TENDERLOIN | 3.91 |
| 6 | STRIPLOIN | 5.51 |
| 7 | KASILA | 3.54 |
| 8 | SHIN SHANK | 7.21 |
| 9 | BLADE | 10 |
| 10 | FLANK | 11 |
| 11 | CHUCK TENDER | 2.73 |
| 12 | CUBE ROLL | 3.25 |
| 13 | CHUCK ROLL | 7.21 |

| Sr. No. | ITEM-MEAT | WEIGHT (Kg.) |
|---------|--------------|---------------|
| 14 | NECK | 13.37 |
| 15 | BRISKET | 3.37 |
| 16 | N.E. + P.E. | 4.43 |
| 17 | BLADE BOTI | 0 |
| 18 | SLICES | 12.16 |
| 19 | TRIMMING | 8.6 |
| 20 | RIB TRIMMING | 3.26 |
| | TOTAL | 138.62 |

| | | |
|--------------------|------------------------------|---------------|
| TOTAL Kg | BONES | 41 |
| TOTAL Kg | WASTAGE | 19 |
| Net weight Bone IN | TOTAL WASTAGE BONE IN | 198.62 |

From the slaughter of adult buffalo of a say body weight of 400 Kg, the following products

STANDARD BOVINE EDIBLE OFFALS

APEDA 301 – Brain

Brain is removed from the skull, Dura mater is also removed. It consists of the cerebrum, cerebellum and small portion of the spinal cord.

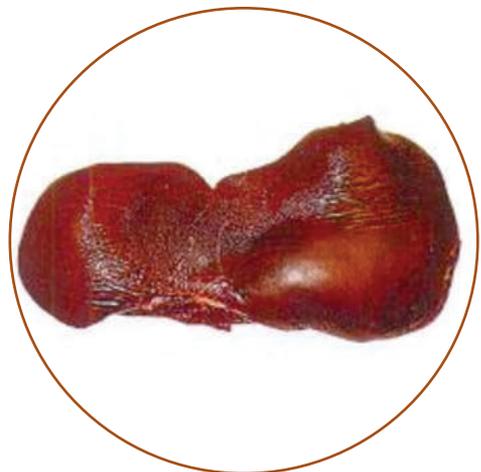


APEDA 302 – Heart

It is prepared by removing the pericardium and blood vessels.

APEDA 303 – Liver

It is prepared by removing all the lymph nodes including hepatic lymph nod, blood vessels and connective tissues.



**APEDA 304 – Kidney**

It is prepared by removing all the blood vessels and ureter.

The kidney capsule is also removed.

APEDA 305 – Tripe

Tripe is scalded and is prepared from rumen (paunch) and reticulum (honey comb). The tripe is cleaned of digesta with water. The mucous membrane is removed by scalding in hot water.

Rumen

**APEDA 306 – Honey Comb**

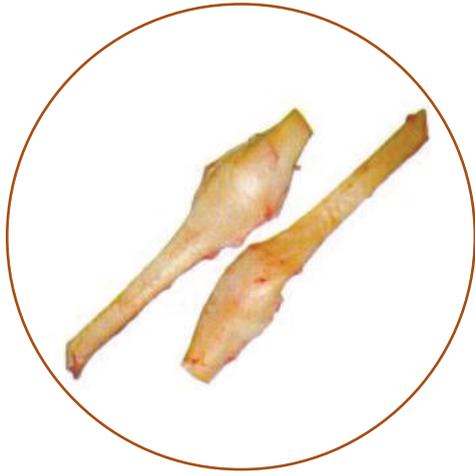
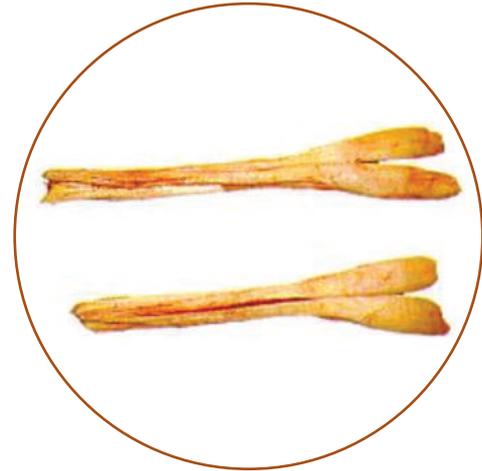
The reticulum is cleaned with water and mucous membrane is removed by scalding in hot water.

Honey Comb

APEDA 307 – Tendons

Flexor tendons of fore and hind feet are prepared.

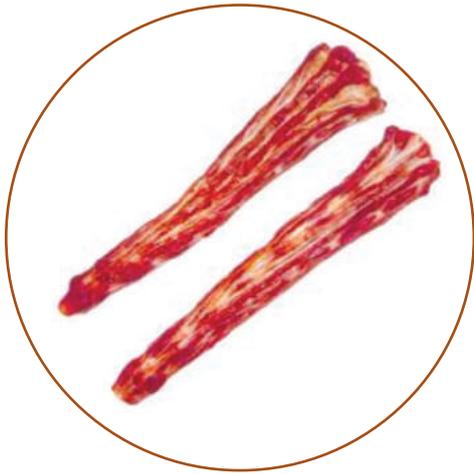
HOCK Tendons

**APEDA 308 – Tendons**

Ligament mical and other small tendons are also prepared.

**APEDA 309 – Short Tendons**

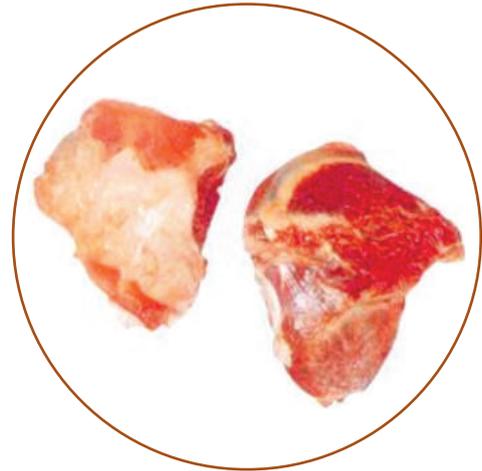
It is prepared after cleaning the skin and switch off the tail.

**APEDA 310 – Tail**

It is prepared after cleaning the skin and switch of the tail.

APEDA 311 – Cheek

Cheek muscles are prepared by slicing meat from the sides of upper & lower jaws.

**APEDA 312 – Aorta**

It prepared by slicing aorta from the heart.

APEDA 313 – Spinal Cord

Spinal cord is prepared by removing the white cord from vertebral column from neck to hind quarters.

**APEDA 314 – Nose Bone**

Nose bone is prepared by removing the upper jaw bones.

**APEDA 315 – Gullet**

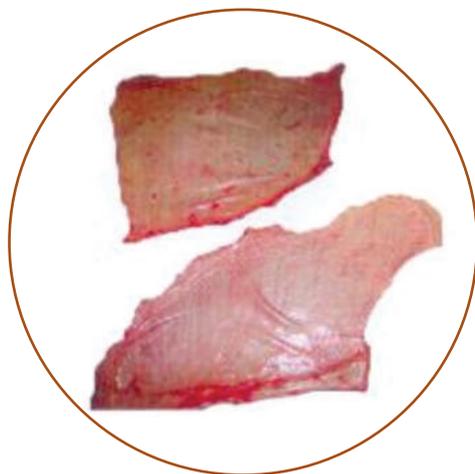
Gullet is prepared after removing the muscles around pharynx.

**APEDA 316 – Trachea**

The wind pipe removed from the gullet up to lungs is completely cleaned.

APEDA 317 – Moon Bone

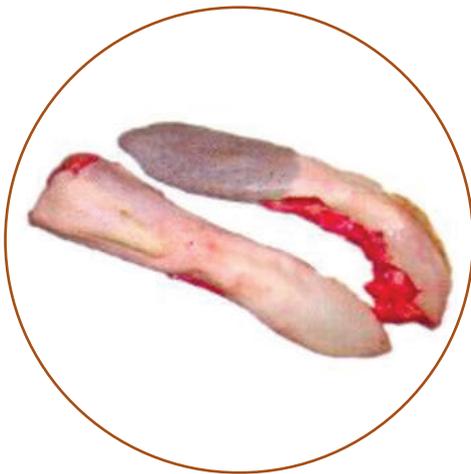
The shoulder cartilage is removed from the shoulder.

**APEDA 318 – Diaphragm Membrane**

The thin portion of the Diaphragm covering the red lean muscle is all white.

APEDA 319 – Loin Back Strip

Loin back strip is prepared from the side and consists of muscles lying on the side of spinous process of lumbar, thoracic and cervical vertebra. It starts from 1st cervical vertebra to lumbo sacral junction.

**APEDA 320 – Tongue**

After removing the hyoid bones and excess muscle from underneath the tongue, the tongue is prepared.

APEDA 321 – Membrane

The fore quarter membrane all white is removed from the FQ meat.



10 STANDARD NON-EDIBLE BY-PRODUCTS

are produced as per the table 10.1

Table 10.1

Recovery of various products from a Live Buffalo Weighing 400 KGS

| S. No. | Item | Weight (Kgs) | % |
|---------------|---------------------------------|----------------|----------------|
| 1 | Boneless Meat | 141 | 32.50% |
| 2 | Bones + Wastage | 95 | 23.75% |
| 3 | Hide (Green Weight) | 42 | 10.50% |
| 4 | Head | 16 | 4.00% |
| 5 | Hooves with Legs | 4 | 1.00% |
| 6 | Horn with Core | 3 | 0.75% |
| 7 | Stomach with Fat lining | 23 | 5.75% |
| 8 | Intestine | 12 | 3.00% |
| 9 | Charat (Ingesta) | 42 | 3.00% |
| 10 | Blood | 9 | 2.25% |
| 11 | Loss in Chiller- shrinkage 2% | 4.500 | 1.13% |
| | Total | 380.500 | 95.13% |
| Offals | | | |
| 1 | Lungs | 3 | 0.75% |
| 2 | Bile | 0.650 | 0.16% |
| 3 | Fleshing/Spinal Cord/Urine etc. | 2.190 | 0.55% |
| 4 | Export Packing | 13.660 | 3.42% |
| | Total | 49 | 4.88% |
| | G Total | 400 | 100.00% |

The non-edible by-products like bones, lungs, connective tissues are utilized in the rendering plant.

By-products in Rendering Plant

The standards by products produced are sterilized meat cum bone meal (MBM), tallow and sludge. The MBM is used for poultry feed and tallow mainly for non-edible products. The standard by-products in the rendering plant are given in table 10.2.

Table 10.2

Standard by-products in Rendering Plant

| S. No. | Particulars | % |
|----------|---|----------------|
| A | INPUTS | |
| | Hard Material (Bones) | 60.00% |
| | Soft Material (Tissues and non edible offals) | 40.00% |
| | Total | 100.00% |
| B | OUTPUT | |
| | Bone Meal (MBM) | 32.00% |
| | Tallow | 16.00% |
| | Sludge | 2.00% |
| | Total | 50.00% |

MEAT-CUM-BONE-MEAL

Sterilized meat and bone meal produced in the state of the art modern plants is the richest source of protein, essential amino acids and minerals like calcium, phosphorus etc. required for growth and egg production. Meat cum bone meal is produced under the world class sanitary and hygienic conditions.

It is free from all the pathogens, including protozoa, fungi and bacteria. It is rich source of energy and provides all the essential amino acids.

India is BSE free and hence can export meat cum bone meal for feeding poultry. There are two types of rendering plants, namely, dry rendering where offals are cooked at 133°C at 4 bar for 20-30 minutes.

The sterilized meat cum bone meal is an excellent and cheaper source of protein, calcium and phosphorus to the poultry. The specifications for the product are given in table 10.3.

Table 10.3

Percentage Chemical Composition on Dry Matter Basis

| | |
|-----------------------|------------|
| Moisture | 6 – 10% |
| Fat | 5 – 8% |
| Protein | 45 – 50% |
| Fiber | 0.5 – 1.5% |
| M.E. (K. Cal/Kg) | 2500 |
| Ash | 35 – 40% |
| Acid insoluble Ash | 0.5 – 105% |
| Calcium | 8.0 – 12% |
| Phosphorus | 4 – 6% |
| Methionine + Cysteine | 0.6 – 1% |
| Lysine | 2.5% |
| Sodium | 0.8% |
| Salmonella | Absent |
| Lesteria | Absent |
| E. Coli | Absent |
| Coliform Bacteria | Absent |

TALLOW

Tallow is a rich source of energy and provides all the essential fatty acids required for growth in the broiler rations. However, tallow is mostly used in non-edible products.

GELATIN BONE CHIPS

Gelatin bone chips are produced from the bones of healthy buffaloes slaughtered according to the requirement of importing country/importer and passed through ante mortem and post mortem examination. Gelatin chips are produced in the rendering plant where the bones are reduced to pieces of 5–10 mm. These pieces are then degreased with hot water, dried and separated into various particle sizes. All the tissues adherent to the bones are removed in the degreasing process. The bone chips thus produced are stored in the silos until required for production of gelatin, which is used in medicines.



ANNEXURES

ANNEXURE - I

PROCEDURE FOR GRANT OF REGISTRATION CERTIFICATE TO THE INTEGRATED ABATTOIRS CUM MEAT PROCESSING PLANT/ MEAT PROCESSING PLANTS / ABATTOIRS

- (i) The Directorate General of Foreign Trade (DGFT), Ministry of Commerce & Industry, Govt. of India under Foreign Trade Policy has made it mandatory that the export of meat and meat products will be allowed subject to the condition that these products have been obtained / sourced from an APEDA registered integrated abattoir or from APEDA registered meat processing plant which sources raw materials exclusively from APEDA registered integrated *abattoir/abattoir*.
- (ii) Registration of exporters for export of meat & meat products is one **of the statutory functions of APEDA under chapter 3 of APEDA Act, 1985.**
- (iii) Further, section 10(20(d) of APEDA Act, 1985 empowers APEDA to carry out inspection of meat and meat products in any slaughter house, processing plant, storage premises, conveyances or other places where such products are kept or handled for the purpose of ensuring quality of such products.
- (iv) In view of this, the following procedure for grant of registration certificate shall be adopted. This notification supersedes the earlier Notification No. APEDA/MPD/Registration/2013 dated 6th December, 2013 issued in this regard:

| | | |
|-----------|--------------------|---|
| 01 | DEFINITIONS | <ol style="list-style-type: none"> 1) APEDA- A statutory body set up under the Agricultural and Processed Food Products Export Development Authority Act, 1985. 2) Integrated abattoir cum Meat processing plant- means the premises housing lairage, slaughter line, carcass dressing, chilling, deboning freezing, packaging and cold storage facilities for meat. 3) Meat Processing plant- means a building, premises or place used for chilling, deboning, freezing, packaging and cold storage of meat. 4) Slaughter house- means the building, premises or place for the slaughter of animals intended for human consumption. 5) Manufacturer Exporter- means a person/Company who exports goods manufactured by him or intends to export such goods from an APEDA registered integrated abattoir cum meat processing plant or meat processing plant or slaughter house. 6) Merchant Exporter – means a person/Company engaged in trading activities and is sourcing meat from a <i>APEDA registered manufacturing unit</i>. |
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| 02 | APPLICATION FOR REGISTRATION/ RENEWAL | <p>2.1 All applications to be made on-line. To access on-line Meat Plant registration / renewal system, applicant has to access APEDA website and click on "Unit Registration tab under "Member Access" section.</p> <p>2.2 The applicant shall fill all columns in Form –I, Form- II and the declarations as provided in the User Manual for Meat Plant on APEDA website. The application shall be complete in all respects.</p> <p>2.3 The application should be accompanied by a fee as under:</p> <p>(a) For integrated abattoir cum meat processing plant- Rs. 1,00,000/- + applicable taxes.</p> <p>(b) For meat processing plant / stand alone abattoir- Rs. 50,000/- + applicable taxes.</p> <p>2.4 The following additional documents should be uploaded along with the online application and all documents should be attested by one of the authorized Directors or Proprietor as the case be.</p> <ol style="list-style-type: none"> 1. Lay out of the premises. 2. Name and address of proprietor/partners/ directors/trustees etc. along with documentary evidence. 3. No objection/clearance certificate from the Pollution Control Board of the State in which the plant is situated for water and air. 4. Permission from the local / municipal / competent body to establish and run the abattoir / processing unit for meat and meat products. 5. Copy of the lease agreement in case the processing unit is being run on lease basis. 6. List of the veterinarians registered under Indian Veterinary Council Act, 1984/ Veterinary Council of India (VCI). 7. List of Laboratory technologists. 8. Copy of valid HACCP certificate / applicable quality safety system certificate. 9. License issued by FSSAI. 10. Copy of testing report of water used in processing as well as of ETP treated water from NABL accredited Lab. 11. Copy of authorization of one of the Directors to submit application along with Power of attorney/copy of the resolution. 12. Proof of submission of export returns to APEDA in case of existing exporters. 13. Copy of the video and photo album showing different operations of the plant. 14. Proof of installation of CCTV in the plant especially at the critical control areas. |
| 03 | PLANT REGISTRATION PROCEDURE | <p>3.1 Scrutiny of the application will be carried out by APEDA and in case the application is in order, APEDA would request the Plant Registration Committee for carrying out physical inspection of the plant. However, in case any document is incomplete, the applicant will be given one chance to submit the same.</p> <p>3.2 As mentioned under Para 2 of the draft notification, the exporter is required to submit a fee of Rs.1.00 lac + taxes for registration of integrated abattoirs and Rs.50,000/- + taxes for registration of meat processing plant/stand alone abattoirs. Each application is required to be accompanied with a fee as indicated above. In case, the application is rejected, the processing fee paid by the applicant shall be forfeited and will not be refunded to the applicant.</p> |

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| | | <p>3.3 Physical inspection of the processing plant will be carried out for registration by a Plant Registration Committee comprising of at least three members of the following:</p> <ol style="list-style-type: none"> 1. Representative from APEDA, who shall be the convener of the Committee. 2. Representative from Department of Animal Husbandry, Dairying, Ministry of Agriculture, Government of India. 3. Representative from Department of Animal Husbandry of the respective State Government. 4. Representative from Export Inspection Council of India (EIC). 5. Representative from Food Safety and Standards Authority of India (FSSAI). 6. Representative from Ministry of Food Processing Industries, Government of India. 7. Expert on Quality & Food Safety System and /or Veterinary Expert nominated by APEDA. 8. Secretary or other authorized Representative from Veterinary Council of India. 9. One of the following reputed veterinary Scientists: <ul style="list-style-type: none"> ➤ Representative from Indian Veterinary Research Institute (IVRI), Izzatnagar, U.P. ➤ Representative from Animal Science Division, ICAR, Krishi Bhawan, New Delhi. ➤ Director, National Research Centre on Meat, Hyderabad. ➤ Professor, Department of Livestock Products Tech. College of Veterinary University, Hyderabad. ➤ Professor or University Head of veterinary public health from Bombay Veterinary College, Mumbai. ➤ Professor/ Head of Tamil Nadu University of Veterinary and Animal Science. ➤ Professor/ Head of Veterinary College Choudhary Charan Singh University, Hissar. ➤ Professor/ Head of College of Veterinary Sciences, Bikaner. ➤ Professor/ Head of West Bengal University of Animal & Fisheries Services, Kolkata, West Bengal. ➤ Professor/ Head College of Veterinary Science, Guwahati, Assam. <p>3.4 APEDA shall inform the applicant atleast one week in advance of the date of inspection, by such time, the integrated meat processing unit/ meat processing plant/slaughter house should be ready along with requisite records in original for verification by the Plant Registration Committee. The plant shall be in running condition and operational.</p> |
| 04 | ISSUE OF PLANT REGISTRATION CERTIFICATE | <p>4.1 In case of major non-conformities observed by the Plant Registration Committee, the compliance so reported shall be physically verified by at least a two members Committee.</p> <p>All those non-conformities which are directly related to food safety are considered as major non-conformity. Others are considered as minor non-conformity.</p> <p>4.2 In case, the Plant Registration Committee is satisfied that the plant conforms to the standards as prescribed under the Export of Raw Meat (Chilled/Frozen) (Quality Control and Inspection) Rules 1992, and recommends issue of a Plant Registration Certificate, then the same shall be issued online by APEDA. The certificate will bear a Registration Number issued by APEDA with digital signature.</p> |

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| | | <p>4.3 Cost of inspection of the Meat Plants – It is proposed to charge a fee of Rs.40,000/- for re-inspection of integrated abattoirs and Rs.25,000/- for re-inspection of the meat processing plants/stand along abattoirs.</p> <p>4.4 The re-inspection of the plant may be carried out in case the plant registration committee observes that the plant does not conform to the required standards. In case during re-inspection also it is found by the Plant Registration Committee that the plant does not conform to prescribed standards, the application shall be closed and the processing fee so paid by the applicant shall not be refunded.</p> <p>4.5 The Plant Registration Certificate shall be prominently displayed in the meat processing unit.</p> <p>4.6 Approval of changes in layout, design or capacity of the processing units by APEDA.</p> <p>4.7 Any major change in the lay out, design or capacity of processing unit shall be approved by APEDA within 60 days of such change. The meat processing plant is required to submit details along with the additional processing infrastructure facilities set up in the unit to APEDA. Thereafter, APEDA will assess the capacities and if required, may also inspect the plant before enhancing the processing capacities.</p> <p>4.8 Validity of the Plan Registration – The integrated abattoirs set up by the exporters are modern and state of the art processing facility wherein all operations for processing the meat are integrated. Therefore, the validity of integrated abattoirs has been kept as three years. However, in case of meat processing plants/stand alone abattoirs, they are not integrated facilities, and receive carcasses from the approved plant. Therefore, the validity of meat processing plant/stand alone abattoirs has been kept for two years.</p> <p>4.9 APEDA would continue to link the validity of APEDA Plant Registration Certificate with that of Pollution Control Board Consent. In case the validity of Pollution Control Board consent expires before the validity of APEDA Plant Registration Certificate, it will be renewed on production of renewed Pollution Control Board certificate without any further inspection by APEDA Plant Registration Committee.</p> <p>4.10 The meat processing plants shall compulsorily be re-inspected by the Plant Registration Committee for the purpose of renewal of the certificate.</p> <p>4.11 Surprise inspection – It is proposed to carry out surprise inspection of minimum 10% of integrated abattoirs and meat processing plants. The plant for surprise inspection shall be selected randomly or against whom complaints have been received. Minimum two members will be deputed for carrying out surprise inspection.</p> <p>4.12 In case the processing of meat and meat products is carried out in a leased plant, the certificate shall be issued to the manufacturer exporter who may be the leasee and not the Lesser of the plant. In case of extension of the lease agreement, the same certificate shall be renewed.</p> <p>4.13 In case of Lease plant, the validity of the plant registration is proposed till the lease agreement is valid. In such cases, validity of the certificate will be limited to the validity of the said lease agreement or as per clause 4.8 whichever is earlier.</p> |
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| | | <p>4.14 The APEDA registered processing plant can source the carcasses only from APEDA registered integrated abattoirs / abattoirs. In such cases, the validity of the Certificate shall be limited to the date of expiry of the agreement with such integrated abattoirs/abattoirs.</p> <p>4.15 The APEDA Registered integrated abattoir can also source the carcasses from APEDA Registered abattoirs provided they have the required processing infrastructure.</p> <p>4.16 The operation of the abattoir/plant shall meet all statutory requirements/regulations in force which would also include the following:-</p> <ul style="list-style-type: none"> ➤ Export of Raw meat (Chilled/Frozen) (Quality control & Inspection) Rules, 1992 under Export (Quality Control and inspection) Act, 1963. ➤ Slaughter House Rules, 2001 under Prevention of Cruelty to Animals Act, 1960. ➤ The license conditions under The Food Safety and Standards Act, 2006. ➤ NoC from Pollution Control Board of respective state under Prevention & Control of Pollution Act 1974 and 1981. ➤ Clearance from the State Administration. <p>4.17 The manufacturer/exporter shall also comply with such other instructions as may be issued from time to time by APEDA.</p> <p>4.18 In order to utilize surplus capacity of plant, the processing unit, in addition to his own export, can tie-up with merchant exporters for supply of meat through executing an agreement. The agreement shall clearly state the quantity of buffalo meat to be sourced and validity of the agreement. The Health Certificate issued through online Meat.net system shall indicate the name of such merchant exporter on health certificate.</p> <p>4.19 Following checks are proposed for sourcing of meat by merchant exporters from a manufacturer exporters.</p> <p>(i) The merchant exporter has to enter into an agreement with the manufacturer exporter which shall clearly state the quantity of buffalo meat to be sourced and the validity of the agreement.</p> <p>(ii) The merchant exporter will also furnish the Bank Guarantee of Rs.5.00 lacs to APEDA for each agreement signed with the manufacturer exporters. In case of receipt of any complaint relating to quality and violation of laid down standards and finding violation after due enquiry, APEDA will forfeit the Bank guarantee as a penalty. In case of false information, APEDA will recommend to DGFT for cancellation of IE code and taking action as per the provision of FTDRACT.</p> <p>However, no action will be taken unless the exporter/meat plant are given opportunity to explain against such complaint.</p> <p>The Meat.net system of such manufacture exporter shall issue the health certificate to only those merchant exporters who have entered into agreement and furnished the Bank Guarantee of Rs.5.00 lakhs to APEDA.</p> |
| 05 | REFUSAL/ SUSPENSION/ CANCELLATION OF PLANT REGISTRATION CERTIFICATE | <p>5.1 Issue of certificate may be refused or, if issued, may be cancelled or suspended. In such cases the name of the plant will be deleted from the list of registered plants on APEDA website and Meat.net and the name will be included in the list of suspended/cancelled cases.</p> <ol style="list-style-type: none"> 1. If the processing unit does not conform to the prescribed standards and the instructions issued from time to time. 2. If the meat is processed in violation of the foreign trade policy of the Govt. of India or any other statutory Regulations. |

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| | | <p>3. If there are adverse reports from the financial institutions/banks/ importing countries against any of the proprietor/ directors/ trustees.</p> <p>4. If there are quality/other complaints from the importing countries / importers against the unit.</p> <p>(i) Non-supply of produce for which advance payment has been received.</p> <p>(ii) Non-supply of goods as per the commitment made to the importers.</p> <p>However, no action will be taken unless opportunity is given to the exporter/meat plant to explain against such complaint so received.</p> <p>5. If the plant is found not following the required quality and food safety procedures.</p> <p>6. If the plant does not have proper and functional quality control laboratory.</p> <p>7. If technically qualified personnel are not available to manage the plant / laboratory.</p> <p>8. In case of unsatisfactory arrangement for disposal of effluents, bones, meat waste etc.</p> <p>9. In case of cancellation of NoC and / or consent issued by the respective pollution control board.</p> <p>10. Withdrawal of valid license / Permission by the local / competent bodies.</p> <p>11. If the Plant Registration Committee feels that the plant is situated at a place where it will be injurious to the inhabitants.</p> <p>12. If the plant is closed / sealed by local Administration for non-conformity of applicable Laws.</p> <p>13. In the case of leased plants, if the lease expires or terminates.</p> <p>14. If the plant is used for purpose other than processing of meat and meat products.</p> <p>15. If the Meat Plant Registration Committee during the inspection or the officers during the surprise inspection are of the opinion that the required health and sanitary norms are not fulfilled by the plant as per Annexure-I (Sanitary and phyto-sanitary requirements in export oriented red meat processing plants).</p> <p>16. If the plant is found to supply meat and offals of buffalo to merchant exporter without entering into valid agreement.</p> <p>17. Any obstruction / refusal to allow surprise inspection will be construed as major non-conformity and liable for cancellation / suspension of meat plant registration certificate.</p> <p>18. It can also be cancelled/suspended for non-submission of regular returns to APEDA in the prescribed format.</p> <p>5.2 Refusal of application for certificate or its cancellation/suspension, as the case may be, shall be communicated to the exporter. The exporter in such cases shall be required to surrender the original certificate in their possession to APEDA.</p> <p>In case of refusal of the application, the exporter may re-apply to APEDA along with the plant registration fee as mentioned at Para 2.0.</p> |
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| 06 | APPEAL AGAINST REFUSAL/ CANCELLATION/ SUSPENSION OF PLANT REGISTRATION CERTIFICATE | <p>6. Appeal :</p> <p>6.1 In case of cancellation/refusal, the applicant can submit appeal before the Chairman, APEDA.</p> <p>6.2 The said appeal shall be submitted to Chairman APEDA within 30 days from the receipt of such order.</p> <p>6.3 In case of cancellation/suspension of certificate, the appeal shall be accompanied by the original certificate of plant registration.</p> <p>6.4 Chairman, APEDA will consider the application on merit if required, he may give personal hearing to the applicant.</p> <p>6.5 Chairman, APEDA may order such measures as required under the circumstances including re-inspection of the unit during which time the anomalies pointed out by the Committee should be rectified.</p> <p>6.6 Decision of the Chairman, APEDA shall be final in this regard.</p> <p>6.7 Intervening Period : Any export made during this period shall be deemed to be without following required procedures and will be considered violation of the Foreign Trade Policy.</p> |
|----|---|--|

PLACE: NEW DELHI

(Paban K. Borthakur)

DATE: 27/05/2019

Chairman

ANNEXURE - II**APEDA REGISTERED INTEGRATED ABATTOIRS
CUM MEAT PROCESSING PLANTS**

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|---|-----------|---|----------|--|
| 1. | APEDA/106 | AL REHMAN FROZEN FOODS | IN | VILLAGE CHIMYAWALI, MORADABAD ROAD, SAMBHAL, U.P. SAMBHAL, UTTAR PRADESH, POSTAL CODE - 244302 | 161241 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 2. | APEDA/108 | INDIA FROZEN FOODS | IN | VILLAGE, BEGUMPUR, CHIMIYAW ALI, MORADABAD ROAD, SAMBHAL, SAMBHAL, UTTAR PRADESH, POSTAL CODE - 244302 | 162044 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 3. | APEDA/117 | AL MARZIA AGRO FOODS | IN | KHASRA NO.677, 679 VILLAGE BHAGWANTPURA BANDA ROAD, JHANSI , UTTAR PRADESH, POSTAL CODE - 284001 | 161858 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 4. | APEDA/119 | HMA AGRO INDUSTRIES LIMITED | IN | 6/1, 15-16, TALASPUR, MATHURA BYE PASS ROAD, TEHSIL KOAL, ALIGARH UTTAR PRADESH, POSTAL CODE - 202001 | 158067 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 5. | APEDA/121 | FRIGERIO CONSERVA ALLANA PRIVATE LIMITED (UNIT 1) | IN | PLOT NO. 14/1. VILLAGE TALASPUR KHURD, TEHSIL KOIL. MATHURA BYPASS ROAD, ALIGARH, UTTAR PRADESH, POSTAL CODE - 202001 | 1847 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 6. | APEDA/125 | MIRHA EXPORTS PRIVATE LIMITED | IN | RANI MAJRA ROAD, , JAULA KHURD, LALRU VILLAGE, , TEHSIL DERABASSI, SAS NAGAR, PUNJAB, POSTAL CODE - 140501 | 11404 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|--|-----------|---|----------|--|
| 7. | APEDA/127 | MOHAMMED SALEEM | IN | MODERN ABATTOIR, CHENGICHERLA VILLAGE, MEDIPALLY MANDAL., MEDCHAL DIST., HYDERABAD, TELANGANA, POSTAL CODE - 500039 | 161260 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 8. | APEDA/132 | RUSTAM FOODS PVT. LTD. | IN | E/28 , SITE 1, UPSIDC INDUSTRIAL AREA, UNNAO UTTAR PRADESH, POSTAL CODE - 209801 | 156529 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 9. | APEDA/133 | AOV EXPORTS PVT. LTD. | IN | D-1 & D-2 INDUSTRIAL AREA, PHASE-I, UNNAO, UTTAR PRADESH, POSTAL CODE - 209801 | 160429 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 10 | APEDA/135 | A.Q Frozen Foods Pvt. Ltd. | IN | KUNDA FEEDER ROAD BACHRAO , JP NAGAR, UTTAR PRADESH, POSTAL CODE - 244225 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 11 | APEDA/137 | AHMEDNAGAR DIST. GOAT REARING AND PROCESSING CO. OP. | IN | VILLAGE: DEWALGAON (SIDHI), RALEGAN ROAD, AHMEDNAGAR NAGAR, MAHARASHTRA, POSTAL CODE - 414001 | 151641 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 12 | APEDA/140 | AL DUA FOOD PROCESSING PVT. LTD | IN | VILLAGE AMARPUR KODLA, TEHSIL, COLE, MATHURA BY PASS ROAD, DISTT. ALIGARH, UTTAR PRADESH, POSTAL CODE - 202001 | 175686 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 13 | APEDA/149 | MEEM AGRO FOODS PVT. LTD. | IN | 993 TO 1005, KANDHLA ROAD, KAIRANA, DISTT. SHAMLI, KAIRANA, UTTAR PRADESH, POSTAL CODE - 247774 | 155978 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 14 | APEDA/150 | MASH AGRO FOODS LTD. | IN | VILLAGE BICHPURI, TEHSIL HASANGANJ, PARGANA AJGAIN, UNNAO, UTTAR PRADESH, POSTAL CODE - 208931 | 164978 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 15 | APEDA/151 | Marya Frozen Agro Foods Pvt. Ltd. | IN | MOHANPUR SAHAJHANPUR ROAD, BAREILLY, UTTAR PRADESH, POSTAL CODE - 243123 | 160739 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
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| 16 | APEDA/16 | AL KABEER EXPORTS PVT. LTD. | IN | VILLAGE RUDRARAM, PATANCHERU MANDAL, SANGAREDDY, HYDERABAD, TELANGANA, POSTAL CODE - 502329 | 138 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 17 | APEDA/161 | AL NASIR EXPORTS PVT. LTD. | IN | 2761, BHOORGARHI, DASNA, GHAZIABAD, UTTAR PRADESH, POSTAL CODE - 201015 | 150108 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 18 | APEDA/164 | FEDERAL AGRO INDUSTRIES PRIVATE LIMITED | IN | VILLAGE BEHRA, BARWALA ROAD, TEHSIL-DERABASSI, DISTT. AJITGARH, PUNJAB, DERABASSI, PUNJAB, POSTAL CODE - 140507 | 172094 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 19 | APEDA/165 | TANYA MARKETING PRIVATE LIMITED | IN | KHASRA NO 81, ALIPUR JIJMANA, HAPUR ROAD, MEERUT, UTTAR PRADESH, POSTAL CODE - 250002 | 168433 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 20 | APEDA/167 | LAHAM EXPORTS INDIA PVT. LTD. | IN | 2, KM STONE, MOONDA KHERA ROAD, KHURJA, UTTAR PRADESH, POSTAL CODE - 203131 | 171614 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 21 | APEDA/170 | ALSAMEER EXPORTS PVT. LTD. | IN | VILLAGE GOGI POTHIA THANA SIMRAHA, DISTT ARARIA BIHAR, BIHAR, FORBESGANJ, BIHAR, POSTAL CODE - 854318 | 161379 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 22 | APEDA/177 | FRESH N FROZEN FOOD TECH PVT. LTD. | IN | SY. NO. 63 GHMC MODERN ABATTOIR, AMBERPET, TELANGANA, POSTAL CODE - 500013 | 173303 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 23 | APEDA/180 | INTERNATIONAL AGRO FOODS | IN | 2764, 2765, 2766, BHOOR GARHI, DASNA, GHAZIABAD, UTTAR PRADESH, POSTAL CODE - 201001 | 165959 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
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| 24 | APEDA/181 | Al-Sami Agro Products Pvt. Ltd. | IN | R.S. NO. 109, RAMANNAPELEM(V) , SANKAVARAM(M), ANDHRA PRADESH, POSTAL CODE - 111111 | 167939 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 25 | APEDA/183 | FAIR EXPORTS (INDIA) PVT. LTD. | IN | GUT NO. 232/233, DAREGAON, , TALUKA MALEGAON, DISTRICT NASHIK, 423203, MAHARASHTRA, NAVI MUMBAI, MAHARASHTRA, POSTAL CODE - 423203 | 4112 | CHILLED BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO MEAT |
| 26 | APEDA/186 | AOV AGRO FOODS PVT. LTD. | IN | VILLAGE TAPKAN, , DISTRICT MEWAT, NUH, HARYANA, POSTAL CODE - 122107 | 177384 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 27 | APEDA/187 | VIZAG FOODS PVT. LTD. | IN | MODERN ABATTOIR COMPLEX, SURVEY NO 162 OZONE VALLEY ROAD MARIKAVALSA, PARADESIPALEM, VISAKHAPATNAM, ANDHRA PRADESH, POSTAL CODE - 530048 | 172905 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 28 | APEDA/189 | AL RAIYAN EXPORT | IN | GUT NO-231/1-2, VILLAGE- DAREGAON, TAL-MALEGAON, , DIST-NASHIK, MALEGAON, MAHARASHTRA POSTAL CODE - 423203 | 189718 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 29 | APEDA/190 | MAHARASHTRA FOODS PROCESSING AND COLD STORAGE | IN | GAT NO.21-2B ALGUDEWADI, GANESH NAGAR, TAL. PALTHAN, DIST. SATARA, PHALTAN, MAHARASHTRA, POSTAL CODE - 415523 | 178711 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 30 | APEDA/193 | M.U.N. AGRO INDUSTRIES PVT. LTD. | IN | GUT NO. 102/3P, 98/2P, VILLAGE KURNZE. TAL. VIKRAMGADH, DIST. PALGHAR, VIKARAMGADH, MAHARASHTRA, POSTAL CODE - 401403 | 179829 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 31 | APEDA/195 | ALM FOOD PRODUCTS LTD. | IN | VILLAGE BEHRA, TEHSIL DERABASSI, DISTRICT SAS NAGAR, PUNJAB, DERABASSI, PUNJAB, POSTAL CODE - 140507 | 155075 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 32 | APEDA/196 | Al Nafees Proteins Pvt. Ltd. | IN | VILLAGE SATAKPURI, TEHSIL PUNAHANA DISTRICT MEWAT NUH, HARYANA, POSTAL CODE - 122508 | 151970 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|---|-----------|--|----------|--|
| 33 | APEDA/197 | AL AMMAR FROZEN FOODS EXPORTS PVT. LTD. | IN | VILLAGE AMARPUR KODRA, TEHSIL KOL, DISTRICT ALIGARH, ALIGARH, UTTAR PRADESH, POSTAL CODE - 201001 | 176892 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 34 | APEDA/198 | ZAKARIYA AGRO PVT. LTD. | IN | NH-57, GOGI POTHUYA, SIMRAHA FORBESGANJ, ARARIA, BIHAR, POSTAL CODE - 854318 | 170241 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 35 | APEDA/199 | STANDARD FROZEN FOODS EXPORTS PRIVATE LIMITED | IN | GATE NO. 84, 87, 95, VILLAGE - CHANDPUR, NEAR E-20, SITE I, UPSIDC INDUSTRIAL AREA, UNNAO, UTTAR PRADESH, POSTAL CODE - 209801 | 174683 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 36 | APEDA/20 | FRIGORIFICO ALLANA PRIVATE LIMITED | IN | GEVRAI VILLAGE, PAITHAN ROAD, AURANGABAD, MAHARASHTRA, POSTAL CODE - 431105 | 52 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 37 | APEDA/200 | MARHABA FROZEN FOODS | IN | KHASRA NO. 230, GOGI POTHUYA, , NH-57, SIMRAHA, , FORBESGANJ, ARARIA, BIHAR, POSTAL CODE - 854318 | 181684 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP OFFALS |
| 38 | APEDA/201 | Al Super Frozen Foods Private Limited | IN | D-6 TO D-10, SITE-II, , INDUSTRIAL AREA, UNNAO, UNNAO, UTTAR PRADESH, POSTAL CODE - 209801 | 157818 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 39 | APEDA/202 | AL HALAL INTERNATIONAL PRIVATE LIMITED | IN | VILLAGE AMARPUR KONDALA, MATHURA BYEPASS ROAD, KOIL, ALIGARH, UTTAR PRADESH, POSTAL CODE - 202001 | 184054 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 40 | APEDA/21 | Frigerio Conserva Allana Private Limited | IN | SURVEY NO.325, IDA, ALGOLE ROAD, ZAHEERABAD, MEDAK, TELANGANA, POSTAL CODE - 502220 | 1847 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
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| 41 | APEDA/210 | SWAD AGRO COLD CHAIN PVT. LTD. | IN | GUT NO. 397 VILLAGE KURZE, TALUKA VIKRAMGAD, DISTRICT PALGHAR, MUMBAI, MAHARASHTRA, POSTAL CODE - 401403 | 184089 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 42 | APEDA/211 | MARYA FROZEN AGRO FOOD PRODUCTS PRIVATE LIMITED | IN | NH-24, VILLAGE MOHANPUR, NEAR R.T.O, SHAHJAHANPUR, BAREILLY, UTTAR PRADESH, POSTAL CODE - 243123 | 184431 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 43 | APEDA/212 | MASH AGRO FOODS LTD. | IN | THANA NO. 120 CHILAMARI, POTHIA, , KISHANGANJ, BIHAR, POSTAL CODE - 855117 | 164978 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 44 | APEDA/216 | AL FAIZ ENTERPRISES | IN | GUT NO.190/1, 190/2, AT POST DAREGAON, SHIVER DAREGAON, TALUKA, MALEGAON, MAHARASHTRA, POSTAL CODE - 423203 | 194937 | FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 45 | APEDA/23 | FRIGORIFICO ALLANA PRIVATE LIMITED | IN | GEVRAI VILLAGE, PAITHAN ROAD, AURANGABAD, MAHARASHTRA, POSTAL CODE - 431105 | 52 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 46 | APEDA/24 | HIND AGRO INDUSTRIES LIMITED | IN | CDF COMPLEX, ANOOPSHHR ROAD, ALIGARH, UTTAR PRADESH, POSTAL CODE - 202122 | 10669 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 47 | APEDA/36 | INDAGRO FOODS PRIVATE LIMITED | IN | PLOT NO. B 1 - 5, SITE II, UPSIDC, INDUSTRIAL AREA, UNNAO, UTTAR PRADESH, POSTAL CODE - 209801 | 5089 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
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| 48 | APEDA/38 | ALM INDUSTRIES LTD | IN | KHASRA NO. 460, VILLAGE HARORA, ATHMAL DEHRADUN ROAD, SAHARANPUR (U.P.), SAHARANPUR, UTTAR PRADESH, POSTAL CODE - 247001 | 100383 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 49 | APEDA/42 | AMROON FOODS PVT. LTD. | IN | 1310/6, 7, 9, 11 KURSI-AGASAN ROAD, KURSI, BARABANKI, UTTAR PRADESH, POSTAL CODE - 225302 | 100641 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 50 | APEDA/47 | ABBOTT COLD STORAGE PVT. LTD. | IN | HADBAST NO. 196, VILLAGE SAMGAULI, DERABASSI, MOHALI, PUNJAB, POSTAL CODE - 140507 | 151633 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 51 | APEDA/48 | AL NAFEEES PROTEINS PRIVATE LIMITED | IN | VILLAGE SATAKPURI TEHSIL PUNAHANA, DISTRICT MEWAT AT NUH, HARYANA, POSTAL CODE - 122508 | 151970 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 52 | APEDA/49 | AL SAQIB EXPORTS PVT. LTD. | IN | 11 KM MILESTONE OPP. NAUGAZA PEER, HAPUR ROAD MEERUT, UTTAR PRADESH, POSTAL CODE - 250002 | 100891 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 53 | APEDA/50 | DEONAR MUNICIPAL ABATTOIR | IN | SHEEP UNIT, GOVANDI, MUMBAI, MAHARASHTRA, POSTAL CODE - 400043 | | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 54 | APEDA/54 | MEDINA FROZEN FOOD EXPORT PVT. LTD. | IN | MUNDAKHERA ROAD, KHURJA, BULANDSHAHAR, UTTAR PRADESH, POSTAL CODE - 203131 | 416 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 55 | APEDA/55 | M. K. OVERSEAS PVT. LTD. | IN | 7KM STONE, VILLAGE SAMGAULI, DERABASSI LINK ROAD, DERABASSI, PUNJAB, POSTAL CODE - 140507 | 1126 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
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| 56 | APEDA/56 | AL NOOR EXPORTS | IN | 9TH KM JANSATH ROAD, MUZAFFARNAGAR, UTTAR PRADESH, POSTAL CODE - 251002 | 192970 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 57 | APEDA/61 | HMA FOOD EXPORT PRIVATE LIMITED | IN | PLOT NO. 293-295 & 297, VILLAGE KUBERPUR, TEHSIL-ETMADPUR, AGRA, UTTAR PRADESH, POSTAL CODE - 282006 | 162052 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 58 | APEDA/66 | AL HAMD AGRO FOOD PRODUCTS PVT. LTD. | IN | UDLA ILYASPUR, SARSOL, G.T. ROAD, ALIGARH, UTTAR PRADESH, POSTAL CODE - 202001 | 154036 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 59 | APEDA/67 | Agricom Foods Private Limited | IN | B-32 TO B-47, LEATHER TECHNOLOGY PARK, UPSIDC, INDUSTRIAL AREA, BANTHAR, UNNAO, UTTAR PRADESH, POSTAL CODE - 209801 | 150554 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 60 | APEDA/68 | FAIR EXPORTS INDIA PVT. LTD. | IN | VILLAGE AHMAD NAGAR PAHARI, TEHSIL SADAR, DISTRICT RAMPUR, UTTAR PRADESH, POSTAL CODE - 244901 | 4112 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 61 | APEDA/71 | AL QURESH EXPORTS | IN | C/O SON ANKUR EXPORTS PVT. LTD., GAT NO. 67, MULEGAONTANDA, N H NO. 9, SOUTH SOLAPUR, MAHARASHTRA POSTAL CODE - 413006 | 1066 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 62 | APEDA/72 | AL NAFEEES FROZEN FOOD EXPORTS PRIVATE LIMITED | IN | HASANPUR BUS STOP, HAPUR ROAD DASNA, DISTRICT GHAZIABAD, UTTAR PRADESH, POSTAL CODE - 201302 | 2665 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 63 | APEDA/78 | VARSHA FRESH MEAT PRODUCTS LTD. | IN | 11/957 M PUDHUR, GOVINDAPURAM POST, PALAKKAD, PALAKKAD, KERALA, POSTAL CODE - 678507 | 154262 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|-----------------------------------|-----------|--|----------|--|
| 64 | APEDA/85 | AL HAMD FROZEN FOODS (P) LTD. | IN | MUNDA KHERA ROAD, KHURJA, KHURJA, UTTAR PRADESH, POSTAL CODE - 203131 | 100494 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 65 | APEDA/95 | AL FALAH FROZEN FOODS | IN | VILLAGE CHIMYAWALI, MORADABAD ROAD, SAMBHAL, UTTAR PRADESH, POSTAL CODE - 244302 | 160457 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 66 | APEDA/109 | CHAUDHARY SKIN TRADING CO., | IN | D-34, SITE-B SURAJPUR INDUSTRIAL AREA GAUTAM BUDH NAGAR NOIDA, UTTAR PRADESH POSTAL CODE - 261306 | 182892 | CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 67 | APEDA/128 | AL TABARAK FROZEN FOODS PVT. LTD. | IN | MATHURA BYPASS ROAD, VILLAGE MULLAPARA, BHUJUPURA, ALIGARH, UTTAR PRADESH POSTAL CODE - 202001 | | BONELESS BUFFALO CHILLED/ FROZEN MEAT BUFFALO OFFALS CHILLED/ FROZEN |
| 68 | APEDA/166 | RELIABLE AGRO FOODS | IN | GUT NO.160-161, AT KANADKHEDE, TQ, PURNA DIST - PARBHANI, AURANGABAD, MAHARASHTRA POSTAL CODE - 431511 | | BONELESS BUFFALO CHILLED/ FROZEN MEAT- BUFFALO OFFALS CHILLED/FROZEN |

APEDA REGISTERED MEAT PROCESSING PLANTS

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC No. | Product |
|--------|--------------|--|-----------|---|----------|--|
| 1. | APEDA/06 | M.K. OVERSEAS PVT. LTD. | PR | B-63-64, SITE IV, SAHIBABAD INDUSTRIAL AREA, GHAZIABAD, Uttar Pradesh, Postal Code - 201010 | 1126 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN SHEEP MEAT |
| 2. | APEDA/103 | AL ANAM AGRO FOODS PVT. LTD. | PR | TALASPUR KHURD, DELHI MATHURA BYPASS ROAD, ALIGARH, Uttar Pradesh, Postal Code - 202001 | 164487 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 3. | APEDA/123 | AL AQSA FROZEN FOOD EXPORTS | PR | 11 KM STONE VILLAGE ALIPUR, JIJWANA MEERUT, Uttar Pradesh, Postal Code - 250002 | 163663 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 4. | APEDA/130 | KARAN FROZEN FOODS | PR | KHASRA NO. 2770-72 NEAR GANGA PAPER, MILLS BHOORGARHI DASNA, GHAZIABAD, Uttar Pradesh, Postal Code - 201015 | 163102 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 5. | APEDA/134 | ZAM ZAM FROZEN FOODS | PR | PAHARI GATE KAIMRY ROAD, 1.7 KM DISTT RAMPUR, Uttar Pradesh, Postal Code - 244901 | 159354 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 6. | APEDA/156 | MARK INTERNATIONAL FOODS STUFF PVT LTD | PR | Plot No. 31/33, Mafco, APMC Yard, Sector - 18, Vashi, Maharashtra, Postal Code - 400703 | 169505 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS |
| 8. | APEDA/159 | ASVINI AGRO EXPORTS | PR | PHASE III, PLOT NO 12, IDA, ADB ROAD, PEDDAPURAM, Andhra Pradesh, Postal Code - 533437 | 10594 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC No. | Product |
|--------|--------------|--|-----------|---|----------|--|
| 10. | APEDA/176 | FRESH n FROZEN FOOD TECH | PR | Sy. No. 580/581, Mangalpalle Village, Ibrahimpatnam Mandal, R R District, Ibrahimpatnam Mandal, Telangana, Postal Code - 111111 | 159913 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 11. | APEDA/18 | FRIGORIFICO ALLANA PRIVATE LIMITED | PR | A-15, SITE IV, INDUSTRIAL AREA, SAHIBABAD, GHAZIABAD, Uttar Pradesh, Postal Code - 201010 | 52 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS |
| 12. | APEDA/192 | TELANGANA FOODS PRIVATE LIMITED | PR | SURVEY No. 422, NH-44, KALLAKAL VILLAGE TOOPRAN MANDAL, MEDAK DISTT., TELANGANA STATE TOOPRAN, Telangana, Postal Code - 502336 | 176547 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 13. | APEDA/203 | BARKAT FROZEN FOODS PVT.LTD. | PR | MUNDA KHERA ROAD KHURJA, Uttar Pradesh, Postal Code - 203131 | 160305 | CHILLED BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO MEAT |
| 14. | APEDA/207 | Bismillah Frozen Food Exports | PR | Plot No. G-14/3, MIDC Padgha Village, Taloja, Panvel, Raigad, Maharashtra, Postal Code - 410208 | 160220 | FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 15. | APEDA/208 | D.D. MARINE EXPORTS PVT. LTD. | PR | Plot No. 25, APM Mafco Yard, Sector 18, Vashi, Navi Mumbai, Maharashtra, Postal Code - 400703 | 153661 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 16. | APEDA/209 | Frigerio Conserva Allana Private Limited (Unit 2) | PR | Plot No. 182, Amarpur Kondla, Tehsil Koil, Mathura Bypass Road, Aligarh, Uttar Pradesh, Postal Code - 202001 | 1847 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 17. | APEDA/213 | AL HABEEB FOOD PROCESSING PLANT | PR | 58, DHIKOLI, ALIPUR, Meerut, Uttar Pradesh, Postal Code - 250002 | 175182 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC No. | Product |
|--------|--------------|-------------------------------------|-----------|--|----------|--|
| 18. | APEDA/22 | ALLANA COLD STORAGE PRIVATE LIMITED | PR | PLOT NO. D- 38, TTC MIDC INDUSTRIAL AREA, THANE BELAPUR ROAD, TURBHE, NAVI MUMBAI, Maharashtra, Postal Code - 400705 | 116 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 19. | APEDA/35 | MIKI EXPORTS INTERNATIONAL | PR | M-43, MIDC, TALOJA (GROUND FLOOR), DISTT. RAIGAD, NEW BOMBAY, Taloja, Maharashtra, Postal Code - 410208 | 325 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 20. | APEDA/51 | MIRHA EXPORTS PRIVATE LIMITED | PR | B-36, Site-IV, Sahibabad Industrial Area, Ghaziabad, Uttar Pradesh, Postal Code - 201010 | 11404 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 21. | APEDA/70 | FNS AGRO FOODS LIMITED | PR | Plot No. 290, Sector-6, IMT Chowk, Manesar, Gurgaon, Mewat, Haryana, Postal Code - 122050 | 9432 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 23. | APEDA/76 | SRK COLD STORAGE PVT LTD | PR | Plot 7,8,34,35, I.D.A, Peddapuram, EG District., East Godavari, Andhra Pradesh, Postal Code - 433437 | 154871 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 24. | APEDA/79 | CHARIS AGRO COLD STORAGE | PR | PLOT NO. 1313, (P) Auto Nagar, K.I.A.D.B., NEAR : TATA POWER PLANT, Belgaum, Karnataka, Postal Code - 590015 | 157695 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 25. | APEDA/82 | AL YASIR EXPORTS PVT. LTD. | PR | VILL. ALIPUR JIJMANA, HAPUR ROAD, MEERUT, Uttar Pradesh, Postal Code - 250002 | 159935 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 26. | APEDA/87 | AGRIOTEK FOODS LTD. | PR | 2 KM STONE MUNDA KHERA ROAD KHURJA, DISTT. BULANDSHAHR, Uttar Pradesh, Postal Code - 203131 | 159971 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC No. | Product |
|--------|--------------|--|-----------|--|----------|--|
| 28. | APEDA/94 | ANNA ASSOCIATES PVT. LTD. | PR | PLOT NO. 108 SITE IV, SAHIBABAD INDUSTRIAL AREA, GHAZIABAD, Sahibabad, Uttar Pradesh, Postal Code - 201010 | 155103 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS |
| 29. | APEDA/96 | Prime Natural Frozen Foods Exports Pvt. Ltd. | PR | E-17, RICCO LEATHER COMPLEX MANPURA, MACHERI, Rajasthan, Postal Code - 303805 | | CHILLED BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO MEAT |
| 30. | APEDA/215 | AL AKHLAQ EXPORTS LIMITED | PR | ALIPUR JIWANA HAPUR ROAD MEERUT KHASRA No. 104 MEERUT, UTTAR PRADESH, Postal Code - 250001 | | BONELESS BUFFALO CHILLED/ FROZEN MEAT- BUFFALO OFFALS CHILLED/FROZEN |
| 31. | APEDA/73 | ALLANA INVESTMENTS AND TRADING COMPANY PVT. LTD. | PR | PLOT NO. M-41/42, MIDC INDUSTRIAL AREA, TALOJA, NAVI MUMBAI, MAHARASHTRA, Postal Code - 410208 | | BONELESS BUFFALO CHILLED/ FROZEN MEAT, BUFFALO OFFALS CHILLED/FROZEN |
| 32 | APEDA/172 | AL AALI EXPORTS PVT. LTD. | PR | B-37, SITE-IV, INDUSTRIAL AREA SHAHIBABAD, UTTAR PRADESH Postal Code - 201010 | | BONELESS BUFFALO CHILLED/ FROZEN MEAT, BUFFALO OFFALS CHILLED/FROZEN |

APEDA REGISTERED STAND ALONE ABATTOIRS

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|--|-----------|---|----------|---|
| 1 | APEDA/139 | ICHALKARANJI AGRO FOODS | SL | R.S. NO. 613, SITE NO.116, SHANTI NAGAR, NEAR SHANTI HOTEL, THORAT CHOWK, ICHALKARANJI DIST-KOLHAPUR, Maharashtra, Postal Code - 416115 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 2 | APEDA/143 | MODERN SLAUGHTER HOUSE | SL | AGRA NAGAR NIGAM, PLOT NO. 287, VILL. KUBERPUR, TEHSIL AITEMADPUR, Agra, Uttar Pradesh, Postal Code - 282006 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 3 | APEDA/144 | NAGAR NIGAM SLAUGHTER HOUSE SAHARANPUR | SL | KAMELA COLONY, SAHARANPUR, Uttar Pradesh, Postal Code - 247001 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 4 | APEDA/154 | SANGLI MIRAJ KUPWAD CITY MUNICIPAL | SL | Bedak Road, Miraj, Dist. Sangli, Miraj, Maharashtra, Postal Code - 416420 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 5 | APEDA/155 | TAPI VALLEY AGRO FOOD PRODUCTS COMPANY | SL | 123-MOHAMMEDIYA NAGAR, DHULE ROAD, DONDAICHA, DISTRICT DHULE, TALUKA SHINDKHEDA, DONDAICHA, Dhule, Maharashtra, Postal Code - 425408 | 171335 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |

| S. No. | Approval No. | Unit Name | Unit Type | Address | RCMC NO. | Product |
|--------|--------------|---|-----------|---|----------|---|
| 6 | APEDA/157 | AL HASAN AGRO FOODS PRIVATE LIMITED | SL | PLOT NO. 219 MI, VILLAGE AMARPUR, KONDLA MATHURA BYPASS ROAD, Aligarh, Uttar Pradesh, Postal Code - 202001 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 7 | APEDA/182 | AL FAIZ ENTERPRISES | SL | GUT NO. 190/1, 190/2, AT POST DAREGAON, SHIVAR, DAREGAON, MALEGAON, DIST NASHIK, MALEGAON, Maharashtra, Postal Code - 423104 | 194937 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 8 | APEDA/191 | AL SAAD EXPORTS PVT. LTD. | SL | GHMC RAMNASTHPURA SLAUGHTER HOUSE, Hyderabad, Telangana, Postal Code - 500064 | | CHILLED BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO MEAT |
| 9 | APEDA/194 | FRIGORIFICO ALLANA PRIVATE LIMITED | SL | (C/O. ALLANASONS PRIVATE LIMITED), SURVEY NO.108/2, NAVAPURA, Malegaon, DIST - NASHIK, Maharashtra, Postal Code - 423203 | 52 | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 10 | APEDA/81 | MCD GHAZIPUR SLAUGHTER HOUSE GHAZIPUR DELHI | SL | FOOD PROCESSING COMPLEX, PACKET B, LEASED TO M/S FRIGORIFICO ALLANA PRIVATE LIMITED, A-15, SITE IV, INDUSTRIAL AREA, SAHIBABAD, Uttar Pradesh, Postal Code - 201005 | | CHILLED BONELESS BUFFALO MEAT, CHILLED BONELESS BUFFALO OFFALS, CHILLED SHEEP MEAT, CHILLED SHEEP OFFALS, FROZEN BONELESS BUFFALO MEAT, FROZEN BONELESS BUFFALO OFFALS, FROZEN SHEEP MEAT, FROZEN SHEEP OFFALS, REGISTERED AS STAND ALONE SLAUGHTER HOUSE |
| 11 | APEDA/160 | ASVINI AGRO EXPORTS | SL | R.S NO.129, ANANTHA SAGARAM (V) VATTIGUDUPADU(P), AGRIPALLI MANDALAM(M) KRISHNA DISRTICT ANANTHA SAGARAM ANDHRA PRADESH Postal Code - 521211 | 10594 | CHILLED BONELESS BUFFALO MEAT, |

ABBREVIATIONS

- IN ... Integrated Abattoir cum Meat Processing Plant
 PR ... Meat Processing Plant
 SL ... Standalone Slaughter House

The updated list of Apeda Registered Meat Plants is available on APEDA website: www.apeda.gov.in

ANNEXURE - III**MODEL VETERINARY CERTIFICATE FOR INTERNATIONAL
TRADE IN PRODUCTS OF ANIMAL ORIGIN**

(AS PER OIE)

Spicemen 'A'**COUNTRY:**

| | | | |
|--|---|---|--|
| Part 1: Details of dispatched consignment | 1.1 Consigner: Name: | 1.2 Certificate reference number | |
| | Address | 1.3 Veterinary Authority | |
| | 1.4 Consignee: Name: Address: | | |
| | 1.5 Country of origin | ISO code* | 1.6 Zone or compartment of origin** |
| | 1.7 Country of destination | ISO code* | 1.8 Zone or compartment of destination** |
| | 1.9 Place of origin Name: Address: | | |
| | 1.10 Place of Shipment | 1.11 Date of departure | |
| | 1.12 Means of transport Aero plane <input type="checkbox"/> Ship <input type="checkbox"/> Railway wagon <input type="checkbox"/> Road vehicle <input type="checkbox"/> Other <input type="checkbox"/> | 1.13 Expected border post: 1.14 CITIES permit No (s)** | |
| | 1.15 Description of commodity | 1.16 Commodity code (ISO code) | |
| | | 1.17 Total quantity: | |
| 1.18 Temperature of product Ambient <input type="checkbox"/> Chilled <input type="checkbox"/> Frozen <input type="checkbox"/> | 1.19 Total number of packages: | | |
| 1.20 Identification of container/seal number | 1.21 Type of packages | | |
| 1.22 Commodities intended for use as Human Consumption <input type="checkbox"/> Animal feed <input type="checkbox"/> Further processing <input type="checkbox"/> Technical use <input type="checkbox"/> Other <input type="checkbox"/> | | | |
| 1.23 | | | |
| 1.24 Identification of commodities | | | |
| Species (Scientific name) | Nature of commodities | Treatment type | |
| | Approval number of Establishment | | |
| Number of Packages | Net Weight | Lot ID/date code | |

Article 5.10.4. O.I.E

The undersigned, official veterinarian certify that:

There hasn't been any outbreak of FMD or any contagious – infectious disease in the previous 90 days at the area of production & around which within a radius of 25 KM.

The Buffalo / Livestock from which the products were obtained:

- Were subjected to FMD vaccination programs.
- Born, raised and slaughtered in the Republic of India
- Have not been sacrificed as a consequence of infectious & contagious or parasitic diseases eradication programs, not precede from areas subject to quarantine control measures that imply risk for its commercialization, in compliance with the recommendations of the INTERNATIONAL – ZOO SANITARY CODE OF THE OIE.
- Feeding animals on MBM has been forbidden since 1998.
- Gave a right to the pre slaughtered & handled and prepared in an approved establishments (slaughter house) No..... that has been accredited by Govt. of Egypt/Malaysia/Importing Country.
- The Buffalo meat has emanated from Buffaloes not used for Milch and breeding purpose.

The meat described before, originated from carcasses:

- Which matured at an ambient temperature between 2°C & 4°C for at least 24 hours before the bones were removed and the pH value measured electronically in the middle of the longissimus dorsi muscles was recorded at less than 6.0 & the visible lymph node & blood vessels have been removed?
- Was hygienically handled – deboned – packed & transported.
- Has not been subject to ionizing radiation.
- Has been obtained from healthy animals, shows no symptoms of any infectious contagious or zoonotic disease in ante-mortem inspection.
- Slaughtered in licensed premises.
- Were found fit for human consumption.
- In our area, there is no practice of giving growth hormones to animals. They graze on natural fodder resulting in no antibiotic residues.

The meat / offals confirmed to following bacteriological specifications:

1. Total bacterial count was within limit of 1 to 10 million per gram.
2. E-coli count was within limit of 100 per gram.
3. The Buffalo meat/offals are free from Salmonella.

Official Inspector

Specimen 'B'

Ref. No..... of

Dated:

HEALTH CERTIFICATE

This is to certify that at the request of M/s I have examined the under mentioned goods to be shipped todescription:

Marks:.....

The representative samples collected from the above material were subjected to biological tests/microbial investigation and found the following:

- A. 1. Total Plate Count :
- 2. E.Coli :
- 3. Salmonella :
- 4. Staphylococcus Aureus :
- 5. Yeast and Mould Count :

B. Sample is tested for Biological test found

In my opinion there is no danger in importing the material into

The goods are in good sanitary and preservatory state

Receipt No.

Date

The Certificate is valid for days from the date of issue provided material stored in condition.

H.C. No.**PRE-SHIPMENT CERTIFICATE FOR FROZEN BUFFALO MEAT:**

1. This is to certify that buffalo meat has emanated from buffaloes not used for milch and breeding purposes.
2. The buffalo meat has been obtained from healthy animals slaughtered in licensed premises and was subjected to ante-mortem and post-mortem inspections according to prescribed procedures.
3. The meat has been prepared under hygienic conditions and is wholesome and fit for human consumption.
4. The meat is free from parasitic infestations.
5. (i) The meat is free from pathogenic organisms.
(ii) The meat conformed to following bacteriological quality specifications.
 1. Total bacterial count was within limit of 1 to 10 million per gram.
 2. E.Coli count was within limit of 100 per gram.
 3. The Buffalo meat is free from Salmonella.

ADDITIONAL REMARKS:

“Certified the animals are free from Foot and Mouth Disease, Rinderpest, Andthraz and any other contagious disease before slaughter (as per approved AM/PM certificate from Frigorifico allana Ltd., Slaughter House, Gevrai, Aurangabad). A meat Inspection Certificate, certifying ante mortem and post mortem had been carried out and that the meat is free from any contagious disease and infectious disease and that it is fit for human consumptions.”

Reputed and Govt. approved/recognized Veterinary Institutes in India based on their experience/investigations have confirmed non usage of chemicals such as Beta agonists, Nitrofurans or Chloramphenicol, in any manner, in buffalo raising/treatment in the country. Further monitoring, through periodic testing of buffalo meat, reconfirms the absence of these chemicals and based on these facts/conclusions the certifying authority has no reason to suspect that the above listed buffalo meat products contain any of the three prohibited chemicals (Beta – agonists, Nitrofurans or Chloramphenicol)

Lot No.

Establishment No. 222/A

ANNEXURE – IV

PROCESS FLOW CHART OF SAFE AND HYGEINIC MEAT PRODUCED IN MEAT PLANTS



CCP – Critical Control Points of HACCP

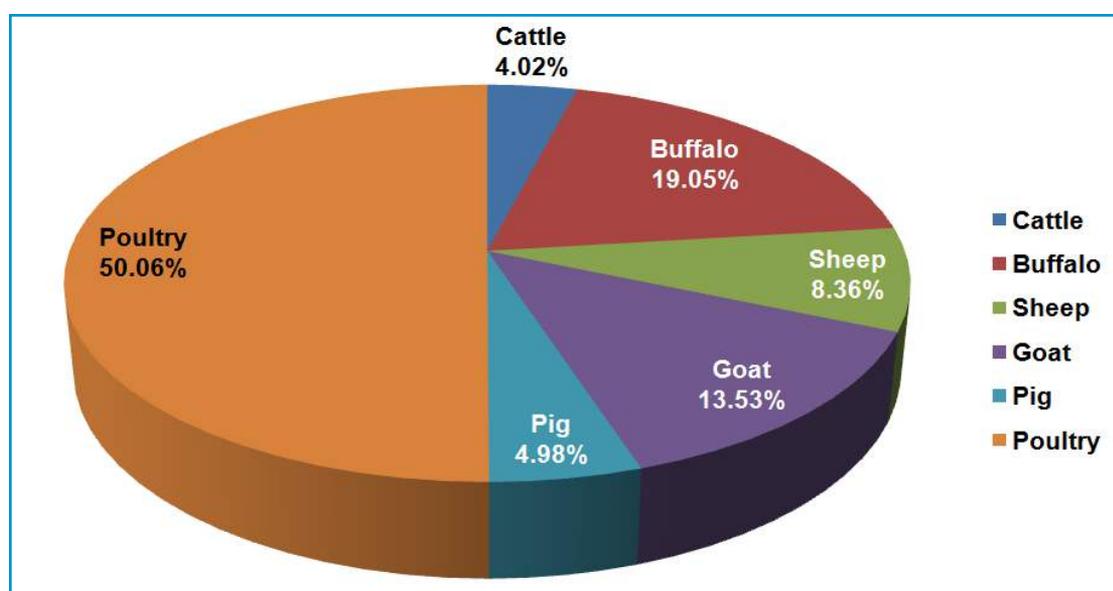
Table No. 1

Trends in Livestock Production and Meat Production in India

| Livestock Species | Population (Million Numbers) 2012 | Population (Million Numbers) 2019* | % of change |
|-------------------|-----------------------------------|------------------------------------|-------------|
| Cattle | 190.90 | 192.52 | 0.85 |
| Buffaloes | 108.70 | 109.85 | 1.06 |
| Sheep | 65.07 | 74.26 | 14.13 |
| Goats | 135.17 | 148.88 | 10.14 |
| Pigs | 10.29 | 9.06 | -12.03 |
| Poultry | 729.21 | 851.81 | 16.81 |

Source: Basic Animal Husbandry statistics 2019, Table 43 & 44 Livestock Census, Directorate of Economics & Statistics and Animal Husbandry Statistics Division, Department of Animal Husbandry & Dairying; *Provisional.

Species-wise Meat Contribution in 2018-19



Source: Basic Animal Husbandry statistics 2019, Graph 2.18, Directorate of Economics & Statistics and Animal Husbandry Statistics Division, Department of Animal Husbandry & Dairying)

The Graph shows the contribution of meat production from cattle, buffalo, sheep, goat, pig and poultry in the total meat produced across the country during 2018-19. The diagram shows that nearly 50% of meat production is contributed by Poultry. Buffalo, Goat, Sheep, Pig and Cattle contributes nearly 19%, 14%, 8%, 5% and 4% of meat production respectively to the total meat production of the country.

Table No. 2

Buffalo Meat Exports from India

| Country | 2016-17 | | 2017-18 | | | 2018-19 | | | |
|-----------------|----------------|---------------|------------------|----------------|---------------|------------------|----------------|---------------|--|
| | Rs. Crore | US\$ Million | Qty in MT | Rs. Crore | US\$ Million | Qty in MT | Rs. Crore | US\$ Million | |
| Vietnam Soc Rep | 13579.5 | 2029.3 | 741173.7 | 14770.1 | 2289.8 | 565854.0 | 11914.5 | 1711.7 | |
| Malaysia | 2377.6 | 355.8 | 114415.2 | 2389.0 | 370.6 | 124413.2 | 2574.6 | 369.6 | |
| Indonesia | 1532.3 | 228.1 | 26264.0 | 618.4 | 95.5 | 94500.0 | 2267.0 | 324.5 | |
| Iraq | 859.6 | 128.6 | 63071.6 | 1005.7 | 156.0 | 67514.6 | 1192.8 | 171.0 | |
| Myanmar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 45745.4 | 883.5 | 124.5 | |
| Philippines | 673.7 | 100.8 | 44318.4 | 757.9 | 117.6 | 44709.1 | 838.9 | 120.1 | |
| Egypt A Rp | 2026.8 | 304.0 | 90019.6 | 1645.6 | 255.6 | 47128.0 | 821.6 | 117.7 | |
| Saudi Arab | 998.5 | 149.7 | 32939.3 | 759.0 | 117.8 | 33232.3 | 785.9 | 112.8 | |
| U Arab Emts | 688.3 | 103.0 | 31596.8 | 583.4 | 90.5 | 37852.2 | 756.0 | 108.5 | |
| Algeria | 716.3 | 107.2 | 18192.0 | 361.1 | 56.0 | 17286.0 | 354.9 | 50.9 | |
| Russia | 181.7 | 27.2 | 15544.0 | 325.2 | 50.5 | 14428.0 | 330.1 | 47.6 | |
| Oman | 258.4 | 38.7 | 14023.4 | 281.4 | 43.7 | 13597.1 | 293.9 | 42.0 | |
| Jordan | 221.2 | 33.2 | 11409.6 | 195.6 | 30.3 | 10250.2 | 202.7 | 28.9 | |
| Angola | 92.6 | 13.8 | 12402.8 | 150.6 | 23.4 | 15584.0 | 189.9 | 27.4 | |
| Georgia | 23.6 | 3.5 | 1232.0 | 24.4 | 3.8 | 8929.0 | 164.2 | 23.1 | |
| Other Countries | 1931.6 | 289.3 | 133961.2 | 2166.5 | 335.9 | 95615.3 | 1597.9 | 228.5 | |
| Total | 26161.5 | 3912.0 | 1350563.5 | 26033.9 | 4036.9 | 1236638.4 | 25168.3 | 3608.7 | |

Source: DGCIS

Table No. 3
Sheep and Goat Meat Exports from India (Top Importing Countries)

Value in INR crore and US\$ million

| Country | 2016-17 | | | 2017-18 | | | 2018-19 | | | Percentage (%) growth on previous year | Percentage (%) share in 2018-19 |
|---------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|--|---------------------------------|
| | Qty in MT | Rs. Crore | US\$ Million | Qty in MT | Rs. Crore | US\$ Million | Qty in MT | Rs. Crore | US\$ Million | | |
| U Arab Emts | 13003.17 | 500.00 | 74.76 | 12619.70 | 466.50 | 72.39 | 11717.29 | 501.04 | 72.03 | 7.40 | 63.37 |
| Saudi Arab | 4550.69 | 194.00 | 29.05 | 4239.58 | 17.75 | 27.55 | 1849.24 | 85.00 | 12.29 | -52.16 | 10.74 |
| Qatar | 2102.87 | 82.00 | 12.31 | 2119.43 | 80.02 | 12.41 | 1896.41 | 81.00 | 11.64 | 1.20 | 10.24 |
| Kuwait | 1612.95 | 65.00 | 9.72 | 1925.70 | 75.00 | 11.62 | 1779.95 | 77.39 | 11.13 | 3.34 | 9.79 |
| Oman | 363.87 | 13.00 | 1.95 | 539.39 | 20.31 | 3.15 | 610.38 | 25.00 | 3.57 | 22.25 | 3.14 |
| Baharain Is | 274.91 | 12.00 | 1.73 | 296.69 | 11.70 | 1.82 | 297.19 | 12.84 | 1.85 | 9.81 | 1.62 |
| Maldives | 80.98 | 2.00 | 0.36 | 143.48 | 41.00 | 0.63 | 223.06 | 69.20 | 0.99 | 69.16 | 0.88 |
| Seychelles | 16.00 | 0.45 | 0.07 | 17.11 | 50.73 | 0.08 | 28.42 | 10.33 | 0.15 | 103.73 | 0.13 |
| Nepal | 0.64 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 14.00 | 38.61 | 0.06 | 100.00 | 0.05 |
| Bangladesh Pr | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.00 | 18.98 | 0.03 | 100.00 | 0.02 |

Table No. 4

Buffalo Meat Exports from India (Top 10 Countries)

| Country | 2017-18 | | | 2018-19 | | | 2019-20 upto November | | |
|-----------------|----------|-----------|--------------|---------|-----------|--------------|-----------------------|-----------|--------------|
| | Qty | Rs. Crore | US\$ Million | Qty | Rs. Crore | US\$ Million | Qty | Rs. Crore | US\$ Million |
| Vietnam Soc Rep | 741173.7 | 14770.1 | 2289.8 | 565854 | 11914.5 | 1711.7 | 202874 | 4161.15 | 594 |
| Egypt A Rp | 90019.56 | 1645.61 | 255.56 | 47128 | 821.63 | 117.69 | 70841 | 1342.89 | 192.81 |
| Malaysia | 114415.2 | 2388.99 | 370.59 | 124413 | 2574.63 | 369.56 | 60442.4 | 1276.29 | 182.67 |
| Indonesia | 26264 | 618.4 | 95.5 | 94500 | 2266.99 | 324.45 | 43764 | 1009.16 | 143.38 |
| Iraq | 63071.62 | 1005.66 | 156.02 | 67514.6 | 1192.79 | 171.02 | 36312 | 630.72 | 89.82 |
| Myanmar | 0 | 0 | 0 | 45745.4 | 883.46 | 124.51 | 16750.1 | 312.51 | 44.86 |
| Saudi Arab | 32939.32 | 759 | 117.76 | 33232.3 | 785.9 | 112.8 | 13454.5 | 312.75 | 44.73 |
| U Arab Emts | 31596.77 | 583.42 | 90.53 | 37852.2 | 756.03 | 108.47 | 13676.6 | 269.16 | 38.41 |
| Algeria | 18192 | 361.05 | 55.95 | 17286 | 354.85 | 50.91 | 11624 | 241.82 | 34.61 |
| Philippines | 44318.4 | 757.87 | 117.59 | 44709.1 | 838.88 | 120.14 | 13522.9 | 239.83 | 34.32 |

