OTC Document

# Frequently Asked Questions(FAQs) Goat Fattening Farm





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#### **Disclaimer**

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#### Introduction to SMEDA

Small and Medium Enterprises Development Authority (SMEDA) is an apex SME development agency working under the Ministry of Industries and Production (MoI&P), Government of Pakistan. In pursuit of its mission, SMEDA has adopted an integrated strategy that comprises SME sectors & clusters development, Business Development Services (BDS), and Policy advocacy to protect and promote SME interests.

SMEDA offers a broad spectrum of business development services to SMEs which include prefeasibility studies, identification of experts and consultants, delivery of need based capacity building programs in addition to business guidance through help desk services.

#### **Purpose of the Document**

This document is a demonstrative set of information in the form of Frequently Asked Questions (FAQs) for new / start-up entrepreneurs who are interested in 'Goat Farming 'particularly businesses categorized as Small & Medium Enterprises (SMEs). The document aims at helping understand the factors to be considered when making mind for new goat farming business. Fewer new SMEs today ever visit model goat fattening farms but that doesn't mean they don't have questions. Following is a list of some Frequently Asked Questions (FAQs) to help potential investors and SMEs understand the complex set of operations desirable at modern goat fattening farm to make it a profitable enterprise. For more information about goat fattening farm, please visit <a href="https://www.smeda.org.pk">www.smeda.org.pk</a>.

#### **FAQs on Goat Fattening Farm**

# 1. Can I Start Goat Fattening Farm Without Previous Background?

Yes, you can invest in goat farming and utilize it as a potential investment opportunity by implementing good farming practices. Factors affecting farm productivity depend upon timely decision making in:

- Layout design and construction of farm / housing
- Farm production
  - Selection of healthy goats
  - Feeding and nutrition
  - Disease prevention
  - Record maintenance etc.
- Efficient farm labour
- Compliance with law or local convention
- Market exploration for sale of goats
- Customer feedback mechanism.

Please read SMEDA prefeasibility study on 'Goat Fattening Farm', available on SMEDA website www.smeda.org.pk.

# 2. What are Good Animal Husbandry Practices (GAHP) for Goat Farming?

GAHP refers to proper implementation of recommended practices on farm. These practices ensure that the farm enterprise is viable in the future in terms of economic, social and environmental perspectives. Goat farmers should apply GAHP in the following areas to achieve the desired outcome;

- Selection of site for farm with availability of basic necessities e.g. water
- Housing
- Selection of animals based on breed, age, sex, weight and health
- Nutrition (feed and water)
- Disease management, animal health and welfare
- Record keeping
- Environment protection
- Marketing of goats.

#### 3. What Is A Suitable Location to Establish Goat Fattening Farm?

It should be established 10-50 KM away from a main city i.e. in peri urban areas. Proper location and housing is conducive to good health, comfort and protection from extreme weather and enables the animals to utilize their genetic ability and feed for optimal production.

For construction of farm buildings, site selection is most important. Before selecting a site, consider the following points;

- Suitable soil condition for strong foundation
- Sufficient area to construct all components of farm building, allowing space for future expansion
- Provision of proper drainage of rain and subsoil water to maintain a healthy environment and protection from dampness
- Availability of water for farm operations like washing, cleaning, drinking etc.
- Availability of electricity preferred as a light source for farm operations
- Protection of farm from wind and solar radiation through plantation and vegetation; advisable to grow trees around farm building to reduce wind velocity and solar radiation
- The farm site should be away from noise producing factories / chemical industries, sewage-disposing areas, etc. The industrial effluents in the form of gases or liquids may pollute surrounding resources. Noise is also found to affect animal production, hence the farm should be away from the main city
- The farm should be easily accessible by target customers through good road networks. This will reduce transportation costs and avoid spoilage of farm related products.

# 4. What are Important Goat Breeds of Pakistan?

#### I. Beetal

Beetal is a dual type breed i.e. kept for both milk and meat. It is generally found in a large size with average adult body weight of 45-55 kgs. It has a large head, roman nose, long, broad & pendulous ears, spiralled horns which are longer in males, long stout legs, and a short tail. Beetal males





**Beetal Female** 

**Beetal Male** 

raised especially for sacrifice on Eid-ul-Azha may have a body weight of approximately 70-80 kgs.

Beetal breed is found mainly in Punjab province characterized by following strains and concentrations throughout the region;

Sr. No.	Strain	Home Tract (Districts)	Picture
1	Faisalabad, Sahiwal, Okara, Lahore, Sheikhupura, Gujranwala, Jhang, Sargodha, Toba Tek Singh, Khanewal		
2	Makhi Cheeni	Bahawalpur, Bahawalnagar Muzafargarh	
3	Nuqri	Dera Ghazi Khan, Rajanpur, Bahawalpur	
4	Gujrati	Gujrat, Sargodha, Mandi Bahauddin, Jhelum Sialkot	
5	Nagri	Faisalabad, Okara, Sahiwal, Pakpattan	
6	Rahim Yar Khan	Rahim Yar Khan	

<sup>&</sup>lt;sup>1</sup> M.S. Khan and A.M. Okeyo. 2016. Judging and Selection in Beetal Goats. GEF-UNEP-ILRI FAnGR Asia Project, University of Agriculture Faisalabad (Pakistan).

#### II. Teddy

This breed is kept mainly for meat purposes and is found in Sargodha, Gujrat, Jhelum

& Rawalpindi districts in Punjab & adjoining areas of Azad Kashmir. It has creamy-white, brown, black or patched skin. It has a small size with average adult body weight of 25-30 kgs. It has a compact body; small droopy ears, slightly prominent nose, horns may have spirals; however, both





Teddy Male

Teddy Female

horned & polled specimens are found. Bucks often have beard and feature early maturity & high prolificacy.

# III. Dera Din Panah (DDP)

This is a dual type breed i.e. kept for both milk and meat. It is found mostly in Muzaffargarh and Multan districts of Punjab. It is large in size with adult body weight of 45-50 kgs on an average. It is characterized by a large head with a roman nose, hair on the chin, long broad ears; cartilaginous appendages on the sides of the neck,



Dera Din Panah Male

Dera Din Panah Female

long and thick spiralled horns; hair on the body. Its tail is medium in length and is covered with rough hair.

# IV. Nachi

It is also a dual type of breed i.e. kept for both meat and milk purposes. It is mainly found in Bahawalpur, Multan, Muzaffargarh and Layyah districts. It has black coloured outer coat but black and white-spotted coat is also seen in this breed. Nachi goats have a medium to large size with average adult body weight of 40-50 kgs. It has





Nachi Female

Nachi Male

a medium sized head, roman nose, small & thin horns and medium sized ears. The breed is called Nachi due to its dancing gait.

#### V. Pothwari

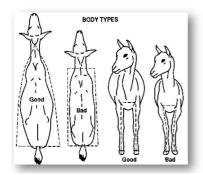
Pothwari goats are kept mainly for meat purposes and are found in Pothwar area of Punjab & adjoining parts of Kotli and Mirpur districts in Azad Kashmir. It has black, grey or white coloured skin and often comes in small sizes with adult average body weight of approximately 25-30 kgs. The head and ears of this breed are of medium size, they have a hairy growth on the chin, horns are found to be spiralled in males but smooth in females.

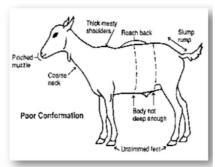
#### 5. What Is the Selection Criteria of Healthy Goats?

Goats (preferably male) of local goat breeds such as Beetal, Barbari, Chapper or Teddy may be selected for fattening purposes based on age, health and Body Condition Score (BCS) of the animal.

#### A. Body Condition Score (BCS)

Generally, BCS of 1.0 is an extremely thin goat with no fat reserves and a BCS of 5.0 is a very over-conditioned (obese) goat. In most cases, healthy goats should have a BCS of 2.5 to 4.0. Initial live body weight should be approximately 20 kgs at 7-8 months of age. Following figures show some practical tips for physical selection of a healthy goat.







#### **B.** Eyes Inspection

Observe the eyes of the goat carefully for anaemia which is caused by internal parasites. The reference colour and condition of goat eyes are as follows:

Table 2: Judging Goat's Health Through Eyes Inspection					
Eye Colour	Health Condition	Reference Pics			
Dark pink or pink colour	Adequately good condition, Normal, Non-anemic	ANAEMIA GUIDE  OPTIMAL - 000 DOSS  ACCEPTABLE - 800 DOSS)			
Light pink colour	Guess for anemic condition	BORDEFLINE - DOSE?			
Very light pink nearly white colour	Anemic and needs urgent treatment	DANGEROUS - DOSE!			

# C. Dentition Pattern and Teeth (Body Development Stage and Age)

Mature goats have 32 teeth of which 24 are molars and 8 are incisors. Like other ruminants, all incisors of goats are in the lower jaw. The two central incisors are called 'Pinchers', the adjoining ones are, 'First Intermediates', the third pair is called, 'Second Intermediates', and the outer ones are 'Corners'. Until 4 years of age, the front teeth of the lower jaw furnish a fairly reliable guide to the animals' development.

- The lamb/kid has small narrow teeth that are known as, 'Milk/ Temporary Teeth'
- At 12 to 14 months of age, the two central incisors are replaced by two large, broad, permanent teeth
- Each succeeding year, an additional pair of permanent teeth appears on either side of the first pair, until four years of age when there is a full mouth
- It must be remembered that dentition pattern and condition of teeth represent the degree of development rather than the exact age according to birth
- All teeth in young goats are small and sharp which will be gradually replaced by larger and permanent teeth.

• This phenomenon is used to help determine the development phase or age of the goat as described below:

Table 3: Judging Goat's Age through Inspection of Dentition						
Age	Teeth	Description	Reference Pic			
0-1 Year	Incisors-8 front milk teeth (2 front fixed and 6 milk teeth)	All teeth are small and sharp.	he considered			
Second Year (Yearling)	4 front fixed and 4 milk teeth	2 middle front teeth lost at the age of around 12 months, and replaced by larger and permanent teeth.	Eco Durad			
Third Year (2-3 years old)	6 front fixed and 2 milk teeth	Teeth next to the middle pair replaced by permanent teeth at 24 months of age.				
Fourth Year (4 years old)	8 front, fixed teeth	6 permanent teeth, with only one pair of milk teeth remaining.	Cun Cun			
Fifth Year (4-year-old and over)	Grinded and loos front, fixed teeth	Set of 8 permanent front teeth is complete.	Ericolo			

#### 6. How Can Animal Welfare Be Ensured on my Goat Farm?

The following five key points can ensure animal welfare. These are related to freedom from:

- Thirst, hunger and malnutrition
- Discomfort
- Pain, injury and disease
- Fear
- Engaging in abnormal animal behaviours.

# 7. What are Important Aspects of Good Housing Management on A Goat Farm?

Efficient housing leads to good management practices and ultimately optimum production. Generally, housing should be:

- · Less expensive
- Well ventilated, comfortable and dry with hygienic environment
- Clean using timely drainage of dung, urine and waste material
- Protected from extreme environmental conditions
- Well-lit through maximum sun exposure: axis of length to be east to west
- · Self-reliant in round the clock availability of feed and water
- Planned to accommodate future expansion as and when required.

Following points should be kept in mind for planning the sheds:

- The housing consists of constructed sheds and open paddock with ample supply of fresh and clean drinking water for animals with proper drainage system to maintain hygiene at the farm
- It should be airy to protect the animals from extreme temperatures and blowing winds. A storeroom is required to keep first aid medicines, record registers, etc. Goats can easily live in ordinary sheds with soil grounds, hence farmer must provide them fodder and concentrate in case grazing fields are not available nearby
- Shed should be at least 20 feet wide and 80-90 feet long for housing of 100-110 goats. The length of a wooden manger should be at least 5 feet with a height of 1.5 to 2 feet. This type of manger is enough for feeding of 8 to 10 animals. There is also a fixed manger, which is normally of 6 feet length and 1.5 feet depth from inside.
- Roof of the shed should be 9 ft high from the sides and 11 ft high from the middle so as to give it a sloppy shape to avoid accumulation of rainwater and heat stress. Roof can be made of tiles or wood
- The required covered area of 12-15 Sq. Ft in shed per goat and 24-30 Sq. Ft. for open paddock is recommended
- Water trough should be at least 5 feet long and 2 feet deep with a width of 2-2.5 ft
- Isolation shed for quarantine is also needed where infected or ill animals are isolated for 20 to 30 days until they get cured.

# 8. How Can I Ensure Effective Disease Prevention and Management at my Farm?

A good and effective disease management program at a goat fattening farm is always needed to minimize disease risk and provides least exposure to infections by maintaining the immunity of animals. It also limits the animal's exposure to internal/external parasitic infestations.

Preventing disease is much less costly than curing the disease, so preventive health care measures, such as vaccinations and hoof trimming, should be encouraged and practiced routinely. Farmers should develop a herd health plan that addresses nutrition, parasite control, breeding selection criteria, disease prevention, diagnosis, and treatment. Management practices such as conducting physical examinations and quarantining sick animals to minimize the introduction of infectious diseases in sheds.

Following points should be considered while focussing on the Disease Management and Prevention Program on farm;

 Choose goats well suited to the environment and farming system. Buy goats of known health status and control their introduction to the farm using quarantine measures. The most effective way to prevent the spread of infectious diseases is to keep a closed flock, i.e. no new animals enter the herd and previously resident animals do not re-enter after they have left the herd. This is difficult to achieve in practice, so strict control of animal introductions is needed.

- All animals should have an ear tag with identification system to enable trace back to their source
- Determine herd size and stocking rate based on management skills, local conditions, availability of land & infrastructure, feed, and other inputs. Larger herds and higher stocking rates generally require a higher level of organisation, infrastructure and skills to manage. The risks are high in these specialised goat farming systems. Disease burdens can be higher and individual animals requiring intervention can be more difficult to identify and treat. Good planning and management skills are required to manage risks that have serious consequences.
- Drastic seasonal changes such as monsoons, high temperatures, high humidity or heat etc. may require modifications in housing system, depending on the time of year.
- Feed supplies must be carefully planned for all contingencies as goats require a constant source of good quality feed and water throughout the year.
- Vaccinate all goats as recommended and required by local veterinary health departments. Vaccination is a useful tool to limit the impact of disease by increasing the immunity of the animal herd to specific pathogens. Animal health departments can provide information about vaccines recommended for a specific area.
- Treat all introduced animals for internal parasites on arrival. Keep records of animal movements to and from the farm.
- Inspect the animals frequently to monitor for obvious clinical signs of disease or injury and to assess body condition and hoof health. Any goat isolating or showing clinical signs of weight loss, limping, injury, or atypical behavior should be removed from the herd for further evaluation and treatment.
- Sick animals should be rejected. Ensure that animal transport on / off the farm does not introduce diseases. A suitably trained veterinarian / technician should carry out any relevant test required on-farm.
- The disposal of diseased and dead animals should be done in a way that minimizes the risk of disease spread and must be in line with GAHP guidelines. Monitor risks from adjoining land and neighbours and have secure boundaries. Be aware of local (endemic) diseases and/or exotic diseases which have the potential to affect the health of the herd, especially from neighbouring farms. Contain animals appropriately to ensure there is no risk of disease spread between farms and within farms.
- Where possible, limit access of people and wildlife to the goat farm. People (and vehicles) visiting a number of farms may spread disease between the farms.
- Keep public tracks clear of faecal contamination. Restrict access to 'as needed' basis and put in place appropriate processes to minimize disease spread. Visitors to the farm should wear clean protective clothing and clean, disinfected footwear if entering areas that pose a high risk of transferring

- disease onto or from the farm. Records of all visitors should be kept as appropriate. Disease can be spread both from and to humans and wildlife.
- Always have a vermin control programme in place. Ensure that appropriate vermin controls are in place in all areas where vermin could breed, introduce disease and/or affect animal. Vermin breeding sites should be eliminated, especially if those sites also harbour disease pathogens, such as manure heaps and disposal sites etc. Vermin control measures may be required in the feed and water storages and housing areas. Vermin species vary geographically but can include indigenous animals, rodents, birds and insects.
- Only use clean equipment from a known source. Ensure all agricultural and veterinary equipment introduced on the farm is clean and steps have been taken to prevent the introduction of disease.

#### 9. What Are Some Common Diseases of Goats on a Farm?

Some common diseases in goats are Anthrax, Pleuropneumonia, Enterotoxemia, Contagious Pustular Dermatitis (CPD), Goat Pox, Foot Rot, Foot and Mouth Disease (FMD) etc. Some common parasitic infestations are due to internal parasites such as roundworms, tapeworms, liver flukes etc. Indigestion and nutritional deficiencies also cause illness in goats.

	Table 4: Common Infectious Diseases of Goats					
Disease	Symptoms	Preventive measures	Medication			
Anthrax	Fever, grinding of teeth, release of blackish blood from natural openings, which doesn't clot.	Vaccination in February. Dead animal buried in 6 ft. deep pit w/o postmortem.	Antibiotic therapy			
FMD	Excessive salivation, Pustules on lips, tongue and cleft of hooves, staggering gait, weakness, inability to ingest.	FMD vaccine after every 4 months esp. before rainy season.	FMD Serum, cleaning of pustules by potassium permanganate solution, cleaning of hooves by phenyl solution			
Entero- toxaemia	Fever, grinding of teeth, bloating, staggering gait,	Vaccination January and July	5-10 ml of Sulfa-methazone (33.5% solution) in 20 ml water orally OR Chloromycine powder 20mg/kg of feed for 2 weeks			
Pleuropneu monia	Fever, difficult and laboured breathing with voice, coughing, weakness	Vaccination May and November	Liquomycine , 1cc/10 kgs of body weight			
CPD	Lowered appetite, pustules on lips, fever in severe condition with eruptions on other body parts	Vaccination April and October	Clean pustules with 0.1 % of potassium permanganate solution or glycerin or limewater (1 part), mustard oil (2 parts) and noshader solution (1 part), apply on wounds.  Inj. Combiotic 1 gm for 3-4 days.			
Goat pox	Fever, swelling on eyes, pox eruptions on hairless body parts	Twice vaccination/ year in March and September	Ointment of boric acid on eruptions, Inj. Combiotic 1 gm for 4-6 days.			

Non-Contagious Diseases					
Indigestion	Loss of appetite, watering from mouth, stiffening of rumen, bloating, severe pain in stomach		5 grams Stomach powder (mixed in feed or dissolved in water) twice a day		
Bloating	Difficult breathing due to air trapped in stomach, animal may die due to suffocation	Avoid grazing early in morning esp. on fodder with dewdrops.	Mustard oil & turpentine oil mixed with chloral hydrate mixed in drinking water.		
Dysentery	Diarrhea, smelling faeces, weakness	Avoid wheat straw or stiff feed during dysentery	Calcium carbonate, magnesium carbonate and bismuth carbonate dissolved in water or entox tablets or nimkol with sulfademadine (4-5 cc). Rice gruel intakr		
	In	ternal Parasites			
Liver flukes	Weakness, off feed, jaundice in severe cases, swelling on joints	No grazing around stagnant water	Zanil or Carbon tetra chloride or nilzan plus, oral administration		
Round worms	Weakness, diarrhea, anemia, hair fall from body coat	Faecal samples should be examined for roundworms.	Systamax or rental, oral administration		
External Parasites					
Flies, ticks, maggots	Irritation on body coat, sometimes holes in skin, loss of hair from body coat	Cleanliness in sheds, Spray of DDT in shed	Apply sulfur oil, tetmasol or ecoflax on wounds and dipping of herd with 0.15 % solution of neguvon.		

# 10. What is The Tentative Vaccination Schedule Recommendation For a Farm?

Farmers should follow the yearly tentative vaccination schedule as a prophylactic measure, which is as under:

Table 5: Tentative Vaccination Schedule for Goats						
Disease	Vaccine	Quantity/ Goat	Time	Duration of Immunity	Preventive Measures	
Foot and Mouth Disease (FMD)	FMD Vaccine	5 ml	Start of spring	4 months	Vaccinate 4 months prior to expected disease spread	
Contagious Pustular Dermatitis (CPD)	CPD Vaccine	2-5 ml	April- October	4 months		
Anthrax	Anthrax Spore vaccine	0.5 ml	March-April or monsoon season	1 year	Vaccination done every year.	
Rabies	Anti rabies vaccine	10 ml	According to need	1 year	Vaccinate immediately.	
Goat Pox	Goat pox vaccine	1 ml	March- September	4 months (repeated after 4 months then effective for 1	Vaccinate with in 2 hours.	

				year).	
Enterotoxaemia	Enterotoxa emia vaccine	2-3 ml	January- July	6 months, to 1 year	
Pleuro- pneumonia	Pleuro- pneumonia vaccine	1 ml	October- November	4 months	

## 11. What Are Feeding and Nutritional Management Practices on A Goat Farm?

Goat fattened for meat have high nutritional requirements and meeting these requirements in terms of energy and protein, is challenging. Goat Fattening Ration or Total Mixed Ration (TMR) must have sufficient nutrient concentrations to support daily live body weight gains through feed efficiency and improvements in feed efficiency, rumen health, digestion and metabolism. Goats are fed ad libitum i.e. freely available as per choice.

The agriculture wastes such as citrus pulp, sugar beet pulp, postharvest waste of fruits and vegetables may be freely offered additionally in the days of abundant supplies. However, only TMR is enough to fulfil the requirements of animal for desirable body weight gains.

In addition, goats require 24 hours supply of fresh and clean drinking water and salt as well. The water intake requirement can be determined from feed dryness and weather conditions. On the other hand, salt helps in digestion and ensures good health.

Feed intake is usually characterized as Dry Matter Intake (DMI) to compare diets of variable moisture concentrations. The daily DMI of goats may be 3.5-4% of live body. Factors affecting dry matter intake include;

- Animal's body size and weight, age and daily weight gains in addition to type
  of feed and environment.
- Moisture content in ration. Generally, moisture content less than 50% decrease DMI. High fibre rations having less than 30% moisture may even limit feed intake.
- Environment; temperatures above the thermo neutral zone i.e. 20-25°C results in reduced DMI.

Hence, monitoring DMI, when possible, is a useful tool in diagnosing nutritional problems in goats.

# 12. What Is The Importance of Animal Identification and Record Keeping on A Farm?

Record keeping is an essential part of good livestock and farm business management which can be done easily if animals have some form of identification. Thus, animal recording and identification are inseparable.



The objectives of animal identification and recording are to:

- Identify animal's ownership to farmer
- Use as a management tool for:
  - performance evaluation and accurately measure daily weight gains and feed consumption
  - ✓ selection and culling
  - √ health, deworming and vaccination records
  - ✓ other important management functions such as labour management, sale and purchase of farm inputs etc., to run an effective and efficient farm enterprise



On-farm records are essential in evaluating and improving the performance of goats within a farming system. Farmers should keep the simple and readily understood records in a file which should be stored with safety from any damage by water or soil. The record book should be written in a language understood by farmers in the area and must contain any type of regional-specific records or information that needs to be kept. Following is a list of important records:

- Individual Goat Record including identity number, age, sex, Initial Live body weight, sourcing etc.
- Growth or weight records kept periodically by recording the body weight of goats.
- Health records including morbidity, mortality, signs and symptoms, diagnosis, treatments and vaccinations, etc.
- Feed consumption, including the amount of concentrate fed to calculate profitability.
- Carcass yield or dressing percentage is a factor that has tremendous economic value, particularly in meat goats. This information could be obtained from slaughterhouses/abattoirs.

#### 13. What is Dressing Percentage; Why Is It Important to Understand?

Goats are typically sold on the basis Live Body Weight or Carcase Weight basis. When selling on a carcase weight basis, it is critical that producers understand how to estimate the carcase weight of animals before they are consigned. Even if goats are sold on a live weight basis, it is important to compare the price received with other marketing opportunities quoted on carcase weight basis.

Dressing percentage is a factor used to describe the carcase weight (meat and bone) based on live weight.

#### Dressing percentage (DP) = Carcase weight / Live weight X 100

The desirable dressing percentage ranges between 50-60%. It varies throughout a goat's life and fluctuates depending upon the condition of goat.

Once the dressing percentage and live weight are estimated with a reasonable degree of accuracy, the carcase weight can be determined as following;

# Carcase weight (cwt) = Live weight x Dressing percentage (DP)

For example, a dressing percentage of 45 means that a goat weighing 30kg will dress to 13.5kg of meat and bone and 16.5kg of other products including the skin, hooves, head and gut.

## 14. Is There Consistent Supply of Skilled Manpower for Goat Fattening Farm?

Yes, competent and skilled manpower is available without any issue in all provinces. Many academic institutions and industry offer various levels of courses i.e. degree, diploma, certificate programs on goat and livestock farming. Some of the relevant academic institutions are:

- University of Agriculture, Faisalabad, Punjab
- University of Veterinary and Animal Sciences, Lahore, Punjab
- Cholistan University of Veterinary and Animal Sciences, Bahawalpur
- Sindh Agriculture University, Tandojam, Sindh
- University of Agriculture, Peshawar, Khyber Pakhtunkhwah
- Lasbela University of Agriculture, water and Marine Sciences, Lasbela, Balochistan
- National Agriculture Research Centre, Islamabad

# 15. What Is the Role of Government Departments and Other Relevant Institutions For Development of Livestock Businesses?

Government institutions such as Provincial Livestock Departments are working for improvement of farming systems. Some initiatives are disease preventive measures which include Mass vaccination Program against Foot and Mouth Disease, Enterotoxaemia, Caprine Contagious Pleuropneumonia and Anti-tick and deworming program.

They provide information and capacity building programs on various aspects of goat farming such as housing, feeding, vaccination, deworming, marketing etc. For contacting these departments, please refer to section 11 'Useful Links' in SMEDA's Prefeasibility Study on 'Goat Fattening Farm' available on official website <a href="https://www.smeda.org.pk">www.smeda.org.pk</a>.

# 16. What Is the Role of SMEDA for Livestock Business Development?

SMEDA provide Business Development Services such as prefeasibility studies, business counselling, training and capacity building, networking with experts and service providers, etc. to all sectors, including the Livestock Sector.