

Raising Goats: Housing, Care and Reproduction



fh
food for the hungry



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Raising Goats: Housing, Care and Reproduction

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All picture icons and activities are explained in full in the Lesson plan that complements this flipchart. Please refer to the Lesson Plan prior to teaching.

Acknowledgements:

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Resources used to create the materials can be found at the end of the flipchart.

Lesson 1: Benefits of Owning Goats

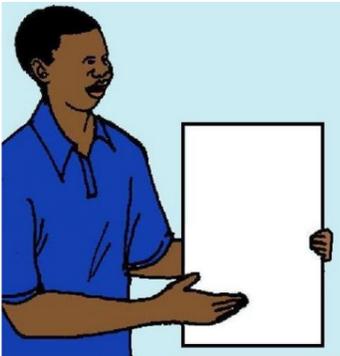


Attendance and troubleshooting



Ask about current Practices

- ? What are some of the benefits for a family who owns goats?
- ? How many of you have owned (or cared for) goats? Tell me about the benefits you experienced.



Share the Meaning of Each Picture

- ▶ Goats and Family Wealth (picture 1.1)

With proper care, goats reproduce twice a year increasing your wealth.

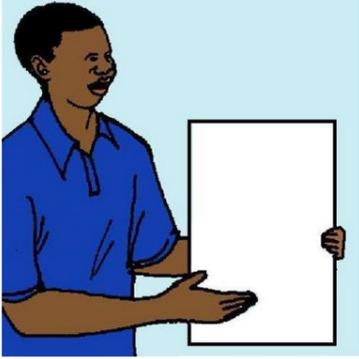
- Keeping goats is like putting 1 franc in a bank. Every 6 months the banker adds 2 more francs, multiplying your wealth.
- Keeping goats is like planting one seed that bears two or more trees for you to harvest each year.

Additional goats can be sold in the market when money is needed at home.

- After the two years of breeding, each household will have more than one goat.
- Sell additional goats to pay for school fees for your children.
- Sell additional goats to pay for seeds or irrigation equipment.
- Sell additional goats to pay for medicine or food for the family.

? If you had an additional goat to sell, what would you use the money for?

Goats and Improved Crops (Picture 1.2)



? What do you think these pictures mean?

Goat manure added to compost will increase the health and productivity of your farmland.

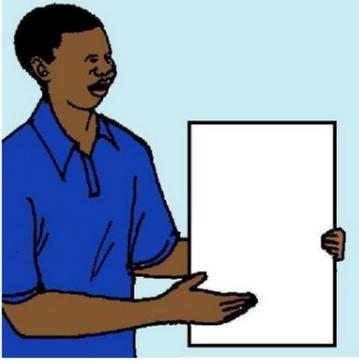
- Goat manure can be added to the compost pile as “green material,” or fresh, wet materials.
- Manure will help the compost pile to decompose more quickly.
- Use compost when planting to produce larger plants with greater yields.

Instead of burning crop residue, goats can be used to clear land.

- Crop residue is a good food to offer goats in the dry season.
- Allowing goats to graze on the land protects the land from the damage of burning.
- Burning the land kills off insects, birds and wildlife.
- Allowing goats to eat the crop residue saves the farmer’s time and energy.
- After the goat gleaning, farmers can add a cover crop to replenish the land for the next planting season.

? If your field produced bigger, better crops, how could that help you and your family?

Goats and Family Health (Picture 1.3)



? What do you think these pictures mean?

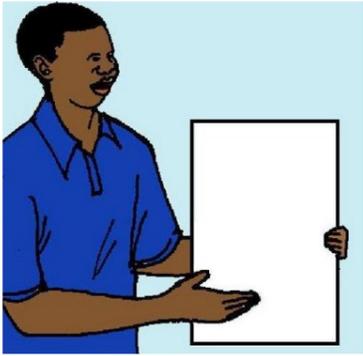
Goat's meat contains iron and protein for healthy blood, bones and muscles.

- Goat's meat is high in iron which gives the body strong blood.
- Goat's meat is rich in protein which builds strong bones and muscles.
- Meat helps pregnant women to prevent anemia; it gives them strong blood to support the growing infant.
- By checking the inner lid of the eye, or the inner skin of the lip, you can check for strong blood.
- Dark pink means you have strong blood; pale lids mean that your blood is weak.
- Children who eat goat's meat are stronger and taller than children who don't eat meat at all.
- Some goat's meat can be eaten by the family while the rest is sold for food in the market.

? When was the last time you and your children ate meat?

? Who in the group has the strongest blood? What foods do they eat to help their blood stay strong?

FH Goat Distribution (Picture 1.4)



? What do you think these pictures mean?

Two female goats and one male goat will be given to every four households.

- Two households will own one female goat each.
- These owners will provide shelter and food to the does.
- They will protect the goats from theft and sickness.
- The four households will feed and shelter the male goat.
- The male goat will breed with the two female goats for the first offspring.

When the first litter is born, the female goats will be given to families who do not own a female goat.

- This way all households will own one female goat.
- Male kids can be bartered and traded with another family so each family has at least one female goat.
- The male goat will be traded for a new male to breed for the next litter.

Activity: Goat
Distribution

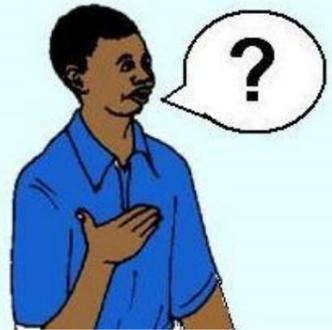
Discuss Ways to
Overcome Barriers

Practice and
Coaching

Discuss
Commitments

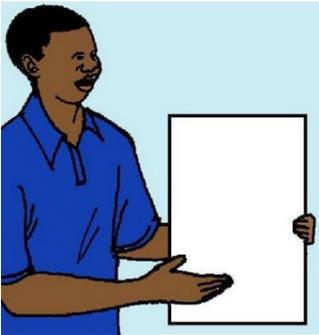
Lesson 2: Goat Breeding and Reproduction

Attendance and troubleshooting



Ask about current Practices

- ? Tell me about your experiences breeding goats.
- ? How should a household care for a pregnant goat?



Share the Meaning of Each Picture

- ▶ Age of Sexual Maturity (Picture 2.1)

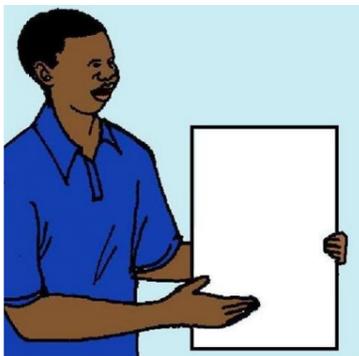
Wait until the doe has two adult teeth before allowing her to mate.

- All goats are born with eight small teeth.
- By the first year, the middle two teeth will be replaced with two adult sized teeth.
- Breeding too early will stop the goat's growth and increase the risk of goat death.
- Bucks are ready to breed at four months of age when both testicles have dropped into place.
- Separate young does from bucks to prevent mating before they are mature.

Never breed a male goat with one of its offspring.

- Mating a goat with its offspring will result in weak and mal-formed animals with low productivity.
- Keep records so you know the parents of each goat.

Signs the Doe is in Heat (Picture 2.2)



? What do you think these pictures mean?

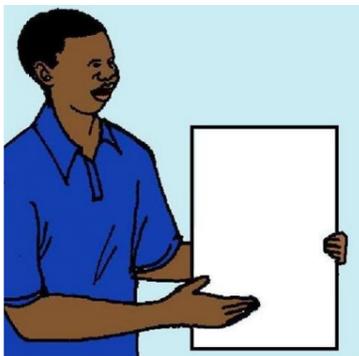
Does are in heat when they cry loudly, mount other goats, wag their tail and have red and swollen labia.

- These are signs that the goat is ready for servicing and that new pregnancy is possible.
- A healthy, well fed female will show these signs every 17 to 21 days.
- The signs will last only two or three days.
- When the goat is no longer in heat, new pregnancy is not possible.

Bring the male to service the female on the same day that the signs are seen.

- Leave the male and doe together in the shelter overnight or for one entire day.
- Does remain in heat for only 2-3 days.
- After this time, if she is not serviced, you will have to wait until the next time she shows signs of being “in heat.”

Signs of Goat Pregnancy (Picture 2.3)



? What do you think these pictures mean?

Twelve weeks after servicing, feel for an enlarged abdomen and movement in the right flank.

- At 8 weeks the enlarged vulva is seen.
- At 12 weeks, the enlarged abdomen can be seen.
- Count 21 weeks from the day of servicing to estimate the date of your goat's delivery.

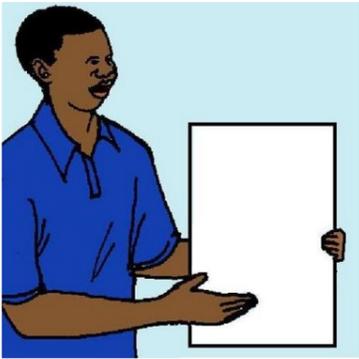
Separate pregnant goats from all others.

- Make a separate enclosure to ensure they are not bothered by other goats.
- Stress from other goats and competing for food can cause the goat to abort her kids.
- Provide special feed to pregnant goats in a separate trough.

If the goat does not get pregnant after three months of servicing, sell or trade her for another.

- Only keep goats that multiply your investment.
- Feeding and caring for a goat that does not birth new kids, will not multiply your investment.

Goat Birth (Picture 2.4)



? What do you think these pictures mean?

Let the doe birth on her own.

- The kid is surrounded by two bladders (a food and water bladder) which stretch and widen the birth opening.
- Do not puncture the bladders or pull on the kid to remove the body.
- The mother will lick the infant clean after delivery.
- The afterbirth will come out on its own after 12 hours.

Let the newborn gather milk graze with its mother each day and night.

- The first milk is thick in nutrients and helps prevent sickness.
- Do not separate the doe from her newborn

After four months, wean the kid from its mother.

- Separate the kid from its mother each day and night.
- This allows the mother to have extra energy and strength for new pregnancy.
- Always wean the kids when the mother shows signs of new pregnancy.

Activity: Record
Keeping

Discuss Ways to
Overcome Barriers

Practice and
Coaching

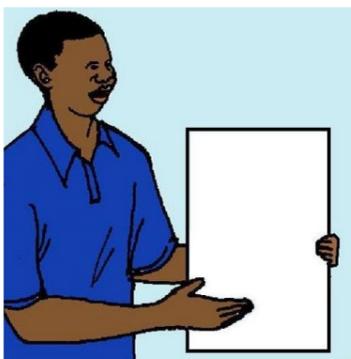
Discuss
Commitments

Lesson 3: Goat Care and Feeding

Attendance and troubleshooting

Ask about current Practices

- ? How should a household feed their goat?
- ? What types of foods did you offer to your goat yesterday?



Share the Meaning of Each Picture

- ▶ Day and Night Feeding (Picture 3.1)

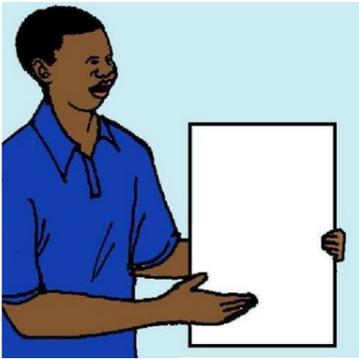
Tether goats during the day so they can access a variety of foods.

- Allow goats to access trees leaves, shrubs, and grass.
- Tether them in a new location each day to let them eat a variety of foods.
- Move goats to new areas regularly to reduce parasite infection.
- Tether the goat in areas where they cannot disturb home gardens and farmer plots.

Cut and carry additional foods to the goats each evening.

- Plant Napier, potato vines, and Tagasaste trees near your home so you can cut and carry food to the goat shelter.
- Offer kitchen scraps, cut grasses and crop residue.
- Always provide fresh plants and leaves when possible.
- Well fed goats have better meat, are healthier and more likely to have twins or triplets.

Protein and Energy Foods (Picture 3.2)



? What do you think these pictures mean?

Offer vegetable leaves, plants with pods, and grass for healthy growth and reproduction.

- Offer plants with pods like pigeon pea and Tagasaste leaves.
- These foods are rich in protein.
- Pregnant goats, kids and bucks all need protein to grow well.

Do not let the goat eat plants with pods each day; it will poison the goat!

- High protein foods are good for the goat, but they must be eaten with many other foods.
- Only offer plants with pods two times a week.

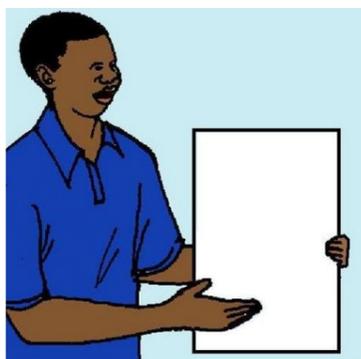
Offer thick stalks and fruit peels to give the goat energy.

- Offer banana and mango peels and rotten fruit that has fallen from the trees.
- Offer crop residues, stalks and vines to give energy.

? What energy and protein foods did you offer your goat last night?

? Is your goat at risk of being poisoned by too many pod bearing plants? How do you know?

Water and Iodized Salt (Picture 3.3)



? What do you think these pictures mean?

Offer at least 4 liters of clear water to goats each day.

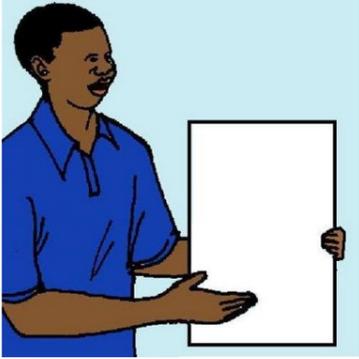
- If your water is not clear, strain it through a cloth before giving it to the goat.
- Water kept in ceramic bowls will keep cool and encourage drinking.

Provide iodized salt for goats to stay health, come into heat sooner and have healthy kids.

- Like humans, goats need special salt with iodine added.
- Without iodine, goats may develop goiter (lump on the neck).
- Goats with too little iodine may birth dead or malformed infants.

? What can you do to improve the food, water and nutrients that you give to your goat?

Feeding of Pregnant Goats and Kids (Picture 3.4)



? What do you think these pictures mean?

Provide more food than normal to pregnant goats and goats suckling their young.

- Pregnant and nursing goats need to eat more than other goats (kids).
- Offer plants with pods, vegetable leaves and grass.
- Offer foods high in energy such as fruit peelings and stalks.
- A thin, malnourished goat is more likely to birth only one kid who struggles to survive.
- A strong, healthy goat is more likely to birth multiple kids.

Provide fresh grass, leaves, and herbs to young goats in their own feeding troughs.

- Chop long grasses into small pieces for kids.
- Fresh leaves are needed to help the goats break down the milk in their belly.
- Put food in a separate trough so the other goats cannot reach it.

Activity: Making a
Salt Lick

Discuss Ways to
Overcome Barriers

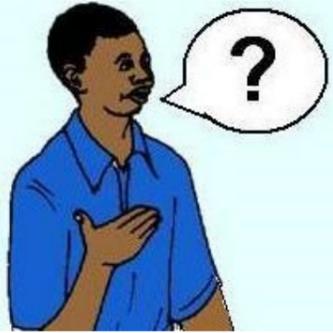
Practice and
Coaching

Discuss
Commitments

Lesson 4: Treating and Preventing Goat Illness

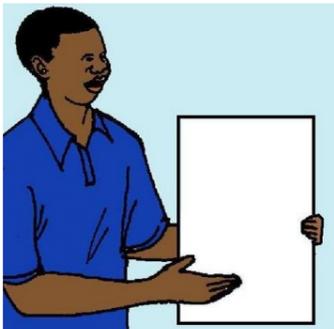


Attendance and troubleshooting



Ask about current Practices

- ? What are some common sicknesses in goats?
- ? How can these illnesses be treated? What can you do to prevent them?



Share the Meaning of Each Picture

- ▶ Parasites (picture 4.1)

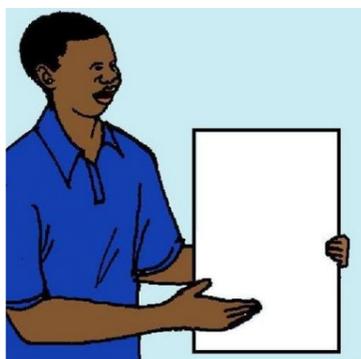
Signs of parasites include anemia, weight loss and poor growth.

- Two types of parasites are worms and blood flukes.
- They live in the goat's body stealing blood and food.
- They cause the animal to lose weight and strength.
- Signs of anemia (weak blood) are seen in paleness around the eyes, inside the mouth and the edge of the skin under the tail.

Give each animal a deworming pill after weaning and before and after rainy season.

- Deworm all goats in the herd.
- Pills are put in the goat's mouth followed by a bottle of water causing the goat to swallow the pill.
- Deworming pills kill parasites in the goats body.
- Deworming prevents your goat from giving worms to other goats as well as your family members.

Sore Mouth (Picture 4.2)



? What do you think these pictures mean?

Signs of Sore Mouth include thick scabby sores on the lips, gums and udders.

- Kids may have scabs covering their rear legs.
- The sickness will spread quickly from one animal to another.
- Goats with Sore Mouth will eat less and lose weight quickly.
- Keep sick animals separated from others.

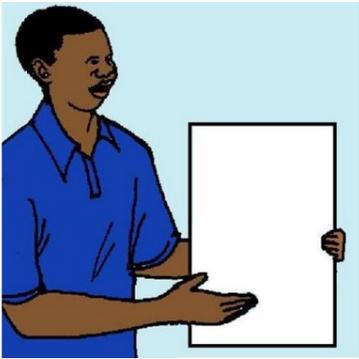
Wash the animals with soap and water, cleaning the sores often.

- Soap helps to kill germs and will encourage healing.
- Wear gloves when cleaning the sick animal.
- Ask IPAPEL worker for ointments to rub on the scabs.
- Goats will heal on their own in one to four weeks unless they develop an additional illness during this time.

Offer soft leaves to encourage eating.

- Encourage sick animals to eat to help them stay strong.
- Provide clean water regularly and make sure animals are eating well.

Foot Rot (Picture 4.3)



? What do you think these pictures mean?

Signs of foot rot include limping, overgrown and bad smelling hooves.

- Foot rot is common during rainy season.
- Hooves are sore and cause pain when walking.
- Infected animals contaminate the soil causing infection to other animals who walk on the same soil.

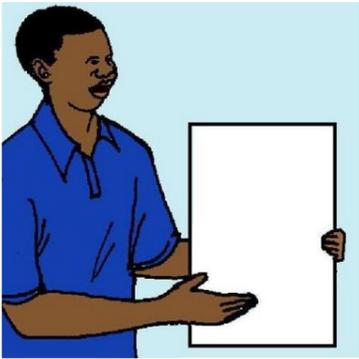
Cut ragged hooves exposing the sole of the foot.

- Remove dirt between the toes and hooves until you can see the sole of the goat's foot.
- Trim the toe down to the sole.
- Bring the toe of the foot to the same height as the sole.
- Trim hooves every four to six weeks.
- Hoof trimming prevents foot rot.
- Do not cut into the sole of the foot! If the foot bleeds, you have trimmed too much.

? When was the last time you trimmed the hooves of your goat?

? How do you hold the goat when trimming?

Pneumonia: CCPP (Picture 4.4)



? What do you think these pictures mean?

Signs of infection include mucus flowing from nose, coughing and difficulty breathing.

- Goats may lay on the ground and grunt while breathing.
- Goats with pneumonia may eat very little and lose energy.
- Many animals die within a few days after signs are seen.

Vaccinate goats to prevent pneumonia (CCPP).

- Contact IPAPEL immediately if signs of CCP are seen.
- Separate sick goats giving them soft leaves and additional water to encourage eating.
- Vaccines will not cure a sick goat.
- Vaccinate healthy goats to prevent them from getting CCPP in the future.

? What should you do if your goat becomes sick with an unknown illness?

- Meet with IPAPEL staff to discuss the illness.

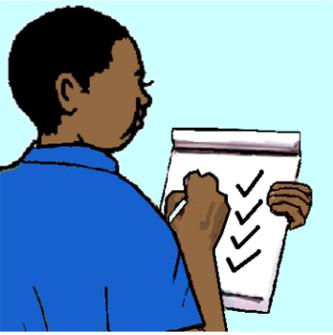
Demonstration:
Hoof Trimming

Discuss Ways to
Overcome Barriers

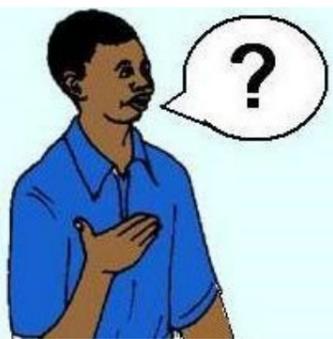
Practice and
Coaching

Discuss
Commitments

Lesson 5: Building a Goat Shelter

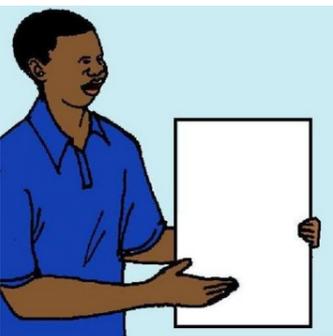


Attendance and troubleshooting



Ask about current Practices

- ? Tell me about the size and shape of shelters that you have built for your animals.
- ? What are some things that every goat owner should include in his shelter?



Share the Meaning of Each Picture

- Size of the Goat House (Picture 5.1)

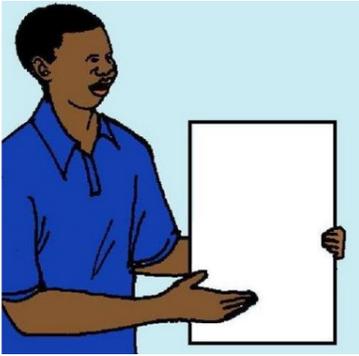
Build a shelter one meter long and one meter wide for each goat.

- One meter can be measured by taking two long strides.
- Every two strides, place a stick to measure one meter.
- Do this for the length and width of the shelter.
- This is enough space to shelter one goat overnight.

For each additional goat add one more meter to the length and width of the shelter.

- You may also shelter the male when your doe is in heat.
- Soon you will have kids which will need to stay overnight in your shelter.
- Plan ahead; consider building a 4 meter by 4 meter shelter for your goat, the male and kids that may be born this year.

Floor and Roof (Picture 5.2)



? What do you think these pictures mean?

Build a raised floor so you can sweep out the feces underneath.

- Raise the floor knee height or above.
- The floor should be high enough so feces can be collected from under the entire shelter.
- Collect feces once a week to add to the compost pile.

Leave two centimeters between each stick.

- Two centimeters is about the width of your thumb.
- Leaving small gaps in the floor lets feces and urine drop to the ground.
- This prevents diseases such as foot rot, parasites and pneumonia.

Cover the shelter to protect the animals from sun and rain.

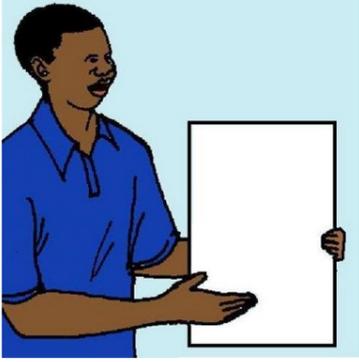
- Animals left in the sun, rain and wind are more susceptible to sickness, disease and death.
- Cover the shelter with cut grass or tin to keep them strong and healthy.
- Make a ramp to let goats in and out of the shelter.

? What type of local materials can you use to build a shelter?

Where can you find these materials?

? What size of house would you like to build? Why?

Food and Water (Picture 5.3)



? What do you think these pictures mean?

Make a raised feeding trough on one side of the shelter.

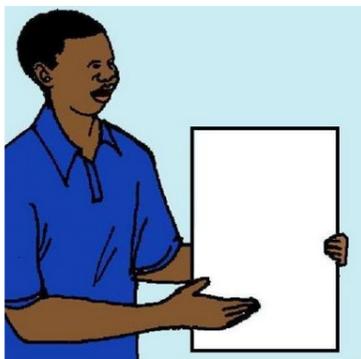
- A raised trough keeps food off the ground so it won't be stepped on, kicked over or spoiled by feces.
- A trough made from sticks lets air reach the food so it does not become wet and moldy.
- This trough will hold the food that is given to the goats for night feeding.

Secure a bucket of water at least 30 cm off the ground on a different side of the shelter.

- Thirty centimeters reaches the middle of your calf (lower leg).
- A raised bucket keeps the goat from stepping in it, kicking it over or spoiling the water with feces.
- Secure the pale with string or a stick trough so it will not be turned over by the goats.
- Keep the water and food on separate sides of the goat shelter to prevent the food from becoming wet and moldy.

? How does this teaching compare with how you have built your shelter in the past?

Shelter for Multiple Goats (Picture 5.4)



? What do you think these pictures mean?

Make a separate area in your shelter for young goats and sick goats.

- Separate sick goat from others at the first sign of sickness.
- Illnesses like pneumonia and sore mouth are spread from goat to goat when they are housed together.
- Young goats need to stay with their mother and nurse as often as possible.

Provide separate food and water in each area.

- Sick goats may spread sickness through water and saliva left on leaves when eating.
- Young goats need special food.
- If they are housed with other goats, the special food will be eaten by the faster, more dominant goats.

Activity: Build a
Goat House

Discuss Ways to
Overcome Barriers

Practice and
Coaching

Discuss
Commitments

Resources used in creating the materials include:

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- Thedford, Thomas E. DVM. 1983. *Goat Health Handbook: A Field guide for Producers with Limited Veterinary Services*. Winrock International.
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Photographs:

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- (Drawing of Hoof Trimming) Kaberia, Bonface K. MD, Mutia, Patrick, Ahuya, Camillas. 2003. *Farmers Dairy Goat Production Handbook*. Farm Africa. Page 19.
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