

Attending Veterinarian

Date

UCD Goat Facility Vaccination Protocol

COLOSTRUM:

At birth, each kid should get a minimum of 8oz of high quality colostrum within the first 12 hours of birth (the sooner the better). The colostrum should come from does who were vaccinated against Clostridium perfringens C&D and Tetanus during the last month of their pregnancy. The colostrum should be heat-treated @ 135 degrees F for 60 minutes.

TETANUS:

Tetanus Toxoid; 1ml SQ

Initial dose should be followed by a booster dose 3-4 weeks later. Subsequent doses should be given annually. Pregnant does should be boosted 3-4 weeks before kidding.

Kids should be vaccinated at 3, 6, 9 & 12 weeks of age

CLOSTRIDIUM PERFRINGENS C&D:

Cl perf. C&D Toxoid; 2ml SQ

Initial dose should be followed by a booster dose 3-4 weeks later. Subsequent doses should be given annually. Pregnant does should be boosted 3-4 weeks before kidding.

Kids should be vaccinated at 3, 6, 9 & 12 weeks of age.

CHLAMYDIA:

Chlamydia Psittaci Bacterin; 2ml SQ

Initial dose should be given 60 & 30 days prior to breeding. (for previously unvaccinated does)
Booster dose given annually, 30 days prior to breeding.

Breeding bucks should get two initial doses, 30 days apart, and annual booster doses, 30 days prior to breeding season

CORYNEBACTERIA:

Corynebacteria Autogenous Bacterin; 2ml SQ

DOES CANNOT BE PREGNANT!

Kids @ 2 months and 3 months

Adults 1 month after freshening & again 1 month prior to breeding

SOREMOUTH:

1 time only

Should be done in small groups post-weaning

Administer under good weather conditions (avoid wet/rainy days)

PASTEURELLA:

AOne Shot@ vaccine; 2ml SQ

Should be given under advisement of herd veterinarian only

Given to kids 30 days of age or older; give at least 30 days prior to a potential exposure, such as showing or regrouping of animals.

MINERAL SUPPLEMENTS:

BoSe (Selenium & Vitamin E): Dose according to weight of animal, SQ. Give at birth, weaning, and 30 days prior to breeding and kidding. Dry stock should be given supplements at least every 6 months. In addition to BoSe injections, Selenium is included in the trace mineral salt supplement. Monitor tissue Selenium levels whenever an animal is necropsied.

Copper: Supplement in the form of trace mineral salt, free choice. This should be available to all animals at all times. Monitor tissue Copper levels whenever an animal is necropsied.

UC Davis Goat Facility Health Protocols

Everybody is expected to observe the animals for signs of injury or illness. If you notice something, please report it to the facility manager or one of the barn residents or employees. The daily log book has space to note any observations that are noticed during routine milking and feeding chores. Each person doing milking or feeding during any given shift must complete the form in the log book, and will note any significant observations.

In the case of any illness or injury that requires treatment or observation, start an “Individual Goat Treatment Form” in the green treatment book. Record all treatments and observations in this book. When the treatments are complete, the form may be transferred to the animals’ individual record.

Following are guidelines for treatments. If at any time there are questions or concerns, contact Dr. Rowe, who is the goat facility’s Clinical Veterinarian. She may be contacted through Large Animal Field Services at **530-752-0292**, during regular university hours. Her other contact numbers are posted in the Lab. If Dr. Rowe is not available contact the VMTH Large Animal Clinic at **530-752-0290**. Animals that require extensive diagnosis or treatment may be transported to the Large Animal Hospital any time, day or night. Call **530-752-0290** before you transport the animal, and also clear it with the facility manager whenever possible.

Pneumonia:

Symptoms; Depressed, not eating, labored breathing, temperature is usually elevated (over 103.5 degrees F). Nasal discharge, cough.

Protocol:

Temp goat daily & record on treatment record

Give Banamine (1cc/100lbs body weight) Sub-Q once a day if the goat has an elevated temperature, is depressed and off feed. Banamine can be continued for up to 3 days if needed.

First treat with Naxcel (1cc/50lb bw), Sub Q once a day. Storage of Naxcel: Whenever a new bottle of Naxcel is reconstituted, it must be used or frozen within 3 days. We normally buy the 4 gram bottles and freeze the reconstituted drug in 1, 2 and 3cc aliquats. These are labeled and stored in zip lock bags in the freezer in the lab. If we are running low on Naxcel, please note it on the list so we can purchase more before we run out. *There is no meat or milk withdrawl for Naxcel.

If symptoms still occur after 48hrs, that may mean that Naxcel is not effective against this organism. The second drug to try is Nuflor. Give 3cc/100 lb SubQ every other day. *The meat withdrawl for Nuflor is 28 days, Nuflor is not approved for lactating dairy animals*

LA200 may be used as a second alternative. The dose is 5cc/100lb body weight, given Sub-Q every other day. *The meat withdrawal for LA-200 is 28 days, and the milk withdrawal is 96 hours after that last treatment*

Diarrhea in young dairy kids (less than 2 weeks of age):

Diarrhea in very young kids can be caused by some very infectious agents, so any kid under 2 weeks of age that shows severe diarrhea should be isolated. Kids will still be in their individual boxes at this age, all that is needed is to move the box and indicate that the kids in that box should be fed and handled last. Gloves and protective clothing should be worn to prevent contamination to people or other kids. If the symptoms go away within 24 hrs, and the kid eats and acts normally, it is likely that the symptoms were the result of being overfed.

Procedure for young kids with diarrhea; Isolate, label the box with instructions to feed last and wear protective clothing. Depending on severity of symptoms, reduce the amount of milk, or feed electrolytes instead of milk. If the kid has no appetite, skip one feeding, if still no appetite, tube with electrolytes. In severe cases, give electrolytes in place of milk for 2 or 3 feedings, then give milk and electrolytes alternatively at each feeding until all symptoms are gone.

Diarrhea in growing kids (> 2 weeks of age):

The most likely cause of diarrhea in older kids is coccidiosis. Diarrhea that lasts less than 24 hrs need not be treated. Diarrhea that persists for more than 24 hrs should be treated with one of the following:

SMZ tablets orally for a minimum of 3 days:

Size of kid:	Day 1	Day 2-5:
< 25lbs	1 tablet	½ tablet
25-50 lb	2 tablets	1 tablet
>50 lb	3 tablets	2 tablets

Albon (12.5% Sulfadimethoxine) orally for 5 days:

Day 1:	1cc/5# body weight
Days 2-5:	1cc/10# body weight

If possible, check a fecal sample for the presence of oocysts

Digestive upsets in adult animals:

Symptoms of digestive upsets in older (> 3 months of age) ruminant animals may be diarrhea, not chewing their cud, not eating, bloat, depression or excess salivation. If this occurs, put the goat in an individual pen, provide clean water and/or electrolyte solution and provide grass hay. Limit or eliminate concentrates and legume hays until the issue is resolved. In the case of bloat, relieve the gas by passing a tube into the rumen, or by administering “Ther-a-Bloat”. If the

symptoms are severe, consult the veterinarian. This condition may be secondary to an infectious disease, or may be so severe that it can quickly lead to death. In the case of an acutely painful abdomen, administer Banamine and Clostridium perfringens C&D antitoxin (1/2 SQ and 1/2 orally).

Pinkeye:

Symptoms: One or both eyes are red, swollen, weeping, and may be cloudy or opaque. Check the eye for a foreign object. If the lesion is in the center of the eye, that may indicate an infectious cause, if the lesion is off-center, it could possibly be caused by irritation. In any case it should be treated with Terramycin eye ointment. Treat 2 or 3 times a day if possible, wear gloves and keep the Terramycin tube clean.

Mastitis:

At every milking, the milkers should watch for signs of heat, swelling, pain or abnormal milk. If any of the above are observed, immediately perform a CMT. If the CMT is positive, collect a sterile sample of the milk, label it and freeze the sample. Notify the facility manager that there are samples, and they will be submitted for culture. After sampling, treat any goat with a positive CMT test or abnormal milk with “Today” treat each 1/2 with one tube, treat for 3 milkings in succession. Place a red leg band on the goat being treated, so the milk will be withheld. Continue withholding milk for 96 hours (4 days) after last treatment.

Abscesses:

If a goat is seen to have an abscess, start a treatment form for that animal. The animal does not have to be isolated until the abscess looks ready to lance. At that time, follow the separate abscess protocol, and isolate the animal until the lesion is completely healed.

Pre or post partum diseases:

Does are most susceptible to metabolic and other problems at kidding time.

Pregnancy toxemia: The best prognosis is to detect this condition very early. Check urine with “Ketostick”, if ketones are moderate or higher, start by providing extra glucose to the doe. Add molasses or electrolytes to the water, drench with molasses or propylene glycol, and give extra concentrates. Make the doe get up and exercise periodically. If the doe is within 7 days of her due date, and is not responding to supplementation, parturition may be induced. If the condition is severe, and it is determined that it is preferable to save the doe than to get live kids, a c-section may be considered.

At Parturition: See separate kidding protocol.

Dystocia: Observe doe for about 45 minutes during stage 2 labor. If no progress is made, first wash the doe and check first with a vaginal speculum to determine if the cervix is dilated. With gloves and sterile lube, put your hand inside the doe to straighten out the kids and manually pull

them. After assisting with a birth, place one or two Tetracycline boluses inside the doe's uterus.

Always make sure all the kids are delivered.

Observe post partum does carefully for:

Mastitis

Metritis

Metabolic disorders (toxemia, milk fever)

Musculo-Skeletal disorders (laminitis, pelvic abnormalities)

Retained Placenta:

After any prolonged dystocia, give a doe Calcium (25-60 cc Sub-Q) and Oxytocin (1cc SQ). If the doe does not pass her placenta within 24 hrs, take her temperature and start her on Penicillin (5 cc/100lb body weight) and give more oxytocin. Oxytocin may be given up to 48 hours post partum.

Dystocia:

During routine kidding, a doe may need assistance with a difficult birth. Employees, students or interns who have been taught to handle this situation by the facility manager or by the clinical veterinarian may proceed to assist the doe. The person assisting the doe must wear gloves and use aseptic techniques as much as possible. If the person is not able to diagnose and relieve the dystocia within 15 minutes, they should seek help from Large Animal Field services during regular business hours, or the VMTH after hours.

Polioencephalomalacia:

Any goat showing neurologic abnormalities may be treated with Thiamine. The dose is 10mg/kg bw SQ, repeated every 6 hours for 24 hours. In severe cases, begin treatment with Thiamine immediately, and contact the clinical veterinarian or the VMTH immediately after treatment. Treatment with Thiamine should not be delayed.

Skin Diseases:

Any lesions of the skin should be closely monitored. Anyone handling an animal with skin lesions should wear gloves. If the lesions are similar to Soremouth or to Fungus, the animal should be isolated. Treatment of ringworm (fungus) can be topical bleach, iodine or one of the Benzimidazole anthelmintics. Soremouth has no treatment and must be allowed to run its course. In the case of a soremouth outbreak in the herd, the clinical veterinarian will be consulted and the vaccination protocol will be reviewed.

Diagnostic Procedures:

Routine collection of blood, feces, urine and other samples for diagnostic and herd survey purposes will be done in accordance with the herd protocol and under the recommendation of the clinical veterinarian. These procedures may be done by the facility manager and other facility

employees/student/interns who have been properly trained in the techniques.

Feed Additives:

Ammonium Chloride is added to the goat pellets that are made at the UCD feed mill. This helps to prevent urinary calculi. Decox (decoquinate) is also added to the pelleted ration, to help control coccidiosis. The kid grain ration contains Rumensin for the control of coccidiosis. Care is taken when labeling the feed bins to be sure the feeds are fed only to the proper class of goats, and not to milking animals.

UCD Goat Barn Milking Protocol

SETUP:

Fill 2 blue buckets with warm water; add some udder wash to each bucket (solution should be strong tea colored) & place on parlor floor next to vacuum shut-off valve.

Set up milk buckets; Attach vacuum, milk and pulsator hoses. Bring out 2 strip cups, and 4 teat cup plugs.

Check grain, teat dip & paper towels to be sure there are enough.

All milk to save must be filtered. Set up milk strainer and enough buckets and lids for the amount of milk you plan to save. Keep the lids on the buckets at all times (to keep the flies off). If the milk is to be pasteurized immediately, you may set the strainer on top of the pasteurizer and filter the milk directly into the pasteurizer. Remember it only holds about 15 gallons, so don't over fill it

Check salt/mineral feeder, and add salt mineral or bicarb as necessary.

Especially during the summer months, keep a bucket filled with fresh water in the outgoing holding pen.

Check the oil level in the vacuum pump. Add oil if necessary, then turn pump on. Instructions for the pump are posted next to it on the wall.

Check the vacuum gauge. It should read at the level indicated by the red mark.

Check the "check valve" on the vacuum line drain in the parlor.

Bring in the first group of does.

MILKING PROCEDURE:

Each doe should be fed 1 soup can of grain, unless otherwise noted. If the previous doe didn't eat all her grain, don't add the full amount to bucket for the next doe. Allow each doe enough time in the parlor to eat her full amount of grain.

Start at the first doe to the left of the parlor. Wipe off her teats and udder with a paper towel, and then dip with teat dip. Proceed to do this to each doe in line, then go back to the first doe and towel off her teats, strip 2-3 squirts into the strip cup, and apply the milking unit. Look carefully *at the milk as it goes through the strip cup. Also palpate the udder to check for heat,*

inflammation, abrasions, etc. It is necessary to wait at least 40 seconds between the time the teat dip is first applied, until it is toweled off and the teat is stripped. This allows time for the teat dip to disinfect the skin of the teat. As soon as the doe starts milking, drape the milk and pulsator hoses over the bracket made for this purpose. The hoses should always come straight forward from the does' udder. This will keep them from being uncomfortable and help avoid uneven milking. It is important not to wait longer than 90 seconds from stripping to applying the milking machine to stimulate proper milk letdown.

Watch the does carefully while they are milking. If a doe is finished milking on one side but not the other, do the following: 1) turn off the vacuum. 2) insert a teat cup plug on the side of the milking unit that is finished milking, 3) put the milking unit back on the side that still needs to be milked and turn the vacuum back on.

When the doe is finished milking, turn off the vacuum to her milking unit take the unit off, and turn the vacuum back on for about 3 seconds to suck all of the milk into the bucket Then dip each individual teat cup separately into the iodine disinfectant water. It is necessary to dip them separately. If you don=t the water won=t get up into the cups. After disinfecting the teat cups, hang them back up on the snap.

After machine milking is complete, hand strip the does to make sure they are milked out completely on both sides. Alternately, if a doe does not milk out all the way, you may put the machine back on her. It is important that you be sure each doe is milked out completely on each side, and to milk the slower side longer, if necessary. It is just as important not to overmilk. Overmilking can cause teat end damage. Since we have the clear shells and liners, it will be easier to tell when a doe is finished milking. Do not leave the machine on the teat if there is no milk flow! As soon as a doe is done milking dip her teats with teat dip. Be sure to apply an adequate amount. Dip the entire teat if possible. When each doe is done milking and has finished eating her grain, she can be let out of the parlor, and another doe can be brought in.

Depending on how much the does are milking, you will need to empty the milk buckets periodically. The simplest way to do this is to first turn off the shut-off valve on the vacuum line (lower PVC pipe). Then also open up the vacuum to one of the milking units. Once this is done, you should be able to unlatch and remove the bucket lid. Hang the lid on one of the hose brackets, and be careful not to drop it Additional dents in the lids will make it harder for them to create an airtight seal. Dump the milk through the milk strainer and into a plastic bucket if it is to be saved, or down the toilet if it is not needed. Be sure to cover the bucket with a lid immediately. We don=t want any FLIES in the milk!

CLEAN-UP:

First, all the milk should be placed in the walk-in or the pasteurizer, if it is to be saved, or dumped if not.

Next, move all the does back to their pen.

Fill one blue bucket with warm water, and the other blue bucket with warm soapy water. Place the milking units from one side into the bucket of clear water and suck up 2 the water into the milk bucket Then place the units into the soapy water and suck up 2 of it. Repeat this procedure on the second side. Then remove the hoses from the bucket and carry them into the lab and place them into the dairy sink to soak in warm water with acid wash. Remove the pulsators and place them in the drawer of the desk with the paper towels. The milk buckets may be dumped onto the floor of the parlor and then carried into the lab to be washed in the sink.

The grain feeders should be emptied. Dump the leftover grain into the garbage can. It is important to empty the grain feeders at every milking. This will help keep the rats and birds out of the barn. If there is nothing in the barn to attract them, they won=t be so likely to come in (we hope).

Sweep up the parlor and holding pen. Sweep the manure and spilled grain and put it into the wheelbarrow. THEN EMPTY the wheelbarrow! Here again, the manure will attract flies. Also, the wet manure will rust the wheelbarrow if left there.

Now, hose down the parlor and both holding pens. Hose it all down very thoroughly. Hose down under the ramps, the alleys and behind the milking stanchion. Dump the water out of the teat dip cups and dry them with a towel and leave a paper towel inside the teat dip cup until the next milking. When you leave the parlor, try to leave it cleaner than when you found it. Lastly, empty both drain traps. This is another place that will attract flies if left dirty between milkings. After the parlor has been cleaned, sprinkle some "Golden Malrin" fly bait on the wet floor. Just sprinkle it lightly. If this is done daily, the flies will be kept to a minimum.

MILKERS CHECKLIST FOR PROPER MILKING SANITATION

WASH YOUR HANDS THOROUGHLY BEFORE MILKING OR, WEAR GLOVES

Rinse your gloves/hands frequently in the udder wash solution, especially if they get contaminated with milk or manure

Before every milking, check the level on the vacuum gauge, and the "check valve" on the vacuum line drain in the parlor.

****Towel off udder with a single-use paper towel (this step is optional if the udders are clean & dry when they come in the parlor**

****Pre-dip. Use plenty of dip, at least 2 way up the teat**

WAIT at least 40 seconds

****Towel off udder again.**

****Strip milk thru strip cup.**

Check the milk and feel the udder for proper texture, or the presence of heat, pain, inflammation or abrasions.

If the milk and/or the udder are abnormal, perform a CMT.

If the CMT is positive, collect a sterile sample, label and freeze it.

****Attach machine right after striping teats (within 90 seconds).**

Leave milking unit on each side for only as long as it takes to milk out completely.

Use the plugs if does don't milk evenly.

Teat cup plugs should be dipped in udder wash and hung on hook (or left in udder wash bucket) after each use.

Make sure all goats are completely milked on both sides

****Post-dip**

Again, cover the teat thoroughly

Dip the milking units into the udder-wash/water solution between every goat. Dip one side at a time. Drain as much wash solution from the lines as possible.

Milk from any goat wearing a leg band must be dumped.

A good check to see if you are properly prepping udders during milking is to look at the milk filter when you are done. If it has lots of dirt and hair in it, you need to improve your sanitation practices. When the filter is nice and clean at the end of your milking shift, you are doing a **GOOD JOB!**

Write all observations in the milking log book. If you see really abnormal milk and Jan is not around to ask, collect a sterile sample, put it in the freezer, and treat the udder with "Today". As soon as a goat starts treatment she should get a red leg band. The treatment

should continue for a minimum of 3 milkings. Milk from treated does should be dumped for at least 4 days following the last treatment. The does whose milk is to be discarded will wear blue leg bands.

Directions for administering intra mammary infusion: Milk doe out completely. Wipe the teat end with an alcohol swab. Wait until the alcohol on the teat has evaporated. Use the "partial insertion" method, which is shown on the "Today" package. Use a full tube for each udder 2. Under no circumstances use the same tube on both sides of the udder. Also, if the end of the syringe becomes contaminated, discard it (or keep it for topical applications) and get another clean one.

**BY FOLLOWING THESE GUIDELINES, YOU WILL HELP OUR
DOES TO HAVE HEALTHY AND PRODUCTIVE MILKING
LIFETIMES!!**

!!THE GOATS THANK YOU!!

UC Davis Goat Teaching & Research Facility Kidding Protocol

- 1). The due dates for the pregnant does are marked on the calendar in the office/lab, and a listing of pregnant does, by due dates is in the front of the current “Kid Book”.
- 2). Does that are due to kid within two weeks will be housed in or near the barn and should be checked several times each day. Watch for:
 - a). Udders filling with milk
 - b). Does acting overly affectionately (licking your hand, etc), bleating, or restless
 - c). Urinating often.
 - d). Ligaments on either side of the tail head will become looser, and eventually relax completely.
 - e). Pawing in bedding, “nesting”
 - f). Mucous discharge from vulva.

If a doe exhibits these signs, she should be brought in to a kidding pen, if she’s not already in one. The pen should be clean and have fresh water and hay available.

- 3). Check the fridge for thawed, heat-treated colostrum. If there is none, then take a bottle out of the freezer and set it out at room temperature to thaw. If you need colostrum in a hurry, you may thaw it in a warm water bath. BUT, make sure the water in the bath is not too hot. Extremely hot water may denature the antibodies in the colostrum. Also, never thaw colostrum in a microwave.
- 4). There will be a “kidding kit” in a designated area, check to be sure it contains all the necessary supplies (there will be a list attached to the container), and take it over near the doe’s pen.
- 5). Stay *quietly* nearby the doe, near enough that you can observe, but not so close that she diverts her attention from kidding to worry about you.

The birth process should proceed as described and shown in the kidding video.

The doe will be restless and paw, get up/lay down, etc while she is in the first stages of labor. The amount of time will vary greatly between animals, but the less the doe is disturbed, the faster she will progress.

At some point, the doe will progress to more active labor, and will be seen pushing hard,

breathing hard, and sometimes crying out. This means that some part of the kid is in the birth canal and hopefully progress is being made. Continue to watch the doe thru this stage, you should expect to see some progress within 30 to 45 minutes. A doe is progressing if you can sometimes see the placenta with a nose or foot protrude thru the vulva. When you start to see parts of the kid appear, try to identify which parts you see. The ideal presentation is to see two front feet, right side up (soles of the feet pointing downward), with a nose between them. If you see any other presentation, and haven't handled this situation before, call someone to help you. Also, if the doe is in hard labor for over 40 minutes and you see no progress, call someone who has the experience to deal with the birth.

It is sometimes necessary to check on the doe's progress. If you have been shown how, you may do it. First, clip the doe to the fence, or put her on a milk stand. Wash the vulva area of the doe, and wash your hands, put on gloves, use some of the OB lube on your hand. Put your hand in gently and slowly and try to "see" what is being presented. Check for feet and nose (good), or other parts such as hocks, crown of head, tail, butt or shoulder (not too good)! Don't panic, though. When dystocias are identified early they can usually be straightened out with no trouble. Call for help whenever you are in doubt.

There will be a list of names to call posted by the phone in the office and also in the kid book. There will always be an experienced person on call, so check the schedule to find out who it is.

When the kid(s) is born, take it away from the doe immediately. Have clean towels nearby and clear the mouth and nose first, then rub and dry the kid all over. As soon as you have the nose and mouth clear and the kid is breathing well, you should take the kid, wrapped in the towel, to the newborn kid area. From this point on, no one who has been handling older animals should contact the newborn kids in any way without changing coveralls, boots and washing hands. More about our biosecurity procedures will be written in a separate protocol. At births, however, we will try whenever possible to have two people present. One person will be in charge of the doe's pre and post-partum care. The other person will handle the kids only, and will not handle the adult animals at all.

If the kids being born are on a Murray trial (check the due date list in the kid book). You must take care to save umbilical samples when the kids are born. Instructions for this are in the kid book as well.

After the appropriate samples are taken and the kid is breathing well and is clean and dry, cut the navel to a length of about 1 ½", then dip it in a 7% iodine solution. Wear gloves when you do this. Iodine can burn your skin (or just stain it for about a week).

Remember, the doe may be having more kids (check due date list for number of kids expected). The Vets have sonnogrammed all the does, and are quite accurate in counting kids, during certain phases of gestation, but it's not 100% accurate. Most commonly, more kids can be born than were counted. The "doe" person should keep watching the doe for more kids, and alert the

“kid” person when the next births are eminent.

Meanwhile, the person caring for the kid(s) should be warming colostrum and try to feed the kids when they are about ½ hr old. You will be shown the best way to help a new kid to nurse, 90% of them learn rapidly and get the ideal start on life, but there is a small number of kid who need extra help.

While you are waiting for colostrum to warm, note the birth in 1) the log book (doe #, time, # and sex of kids) and, 2) fill in the kid book. First, go the doe list first. This is important, for we assign kid numbers from this list. On the next blank line, write, doe #, sex of kid, kid number (use the next consecutive one), birth date, time, and any comments. The most important comments to note are whether or not the birth was observed, or whether the kid might have been born on it’s own and might have nursed the doe! This happens, it’s not good, but not the end of the world. It is vital to know this for our CAEV prevention program.

As soon as the kid has a number, get a kid ID neck band and write on it, dam #, kid # and date of birth. Use a sharpie pen and write on the dull side of the neck band, not the shinny side.

When kids are dry and identified, place them in their pen (cardboard box). Usually all the kids from one doe will go into a box together. If a doe has a single, it will be paired with another single or a triplet from another doe. All new kids must go into a new, clean box.

Meanwhile, back to the doe. The “doe” person should be dealing with this part, no going back & forth between does and kids! After all kids are born, give the doe a bucket of fresh water. Then, milk the colostrum out of the doe. Take care while milking to not get the milk contaminated with dirt, feces or hair. Since colostrum is so thick, it is hard to strain thru a normal milk filter. This colostrum is very valuable for the next kids born, so take care to save it every time. Put it in the ‘fridge, label it “raw colostrum”.

The doe can stay in the kidding pen until she has passed her placenta, is eating normally, and has no fever or other complications. When you see any doe pass a placenta, write it in the log book. Wear gloves and remove it from the pen. It can be placed in the dumpster.

UC Davis Goat Teaching and Research Facility Embryo Transfer and Assisted Reproduction Protocols

Embryo transfer is a valuable tool to create genetic improvement in a herd. It allows the producer a method whereby the animals with the greatest genetic merit produce the most offspring in the herd in a single year.

Protocol:

Donor and recipient animals are identified and will receive progestin pessaries per vagina to synchronize their heats. These pessaries are left in place from 12-18 days. In addition, the donor animals are superovulated using a source of Follicle Stimulating Hormone (FSH) for 4 days prior to progesterone removal. The progesterone is removed from the recipient does approximately 12 hours before removal from the donor does. The donor does are bred and the heat cycles of the recipient does are monitored. 6-7 days after the donor does are bred, a surgery (sometimes laparoscopic-aided) is performed to flush the embryos from the uterus of the donor does. These embryos are recovered in media, and then transferred into recipient does who have been identified as suitable. The recipient surgery may also be laparoscopic-aided, and is less invasive than the donor surgery. The embryo recovery and transfer surgeries are performed under the supervision of VMTH Large Animal Field Service. Both donor and recipient does are recovered and retain full reproductive function. The recipient animals are scanned for pregnancy by ultrasound anytime after day 35-40 of pregnancy.

Out of Season or Synchronized Breeding is important to both dairy and meat goat operations, since goats are typically seasonal in their breeding habits. The best market for goat meat and for wether kids as 4H and FFA projects is in the early spring. In order to have market weight animals at that time, it is necessary for the kids to be born in the fall months. The seasonal nature of dairy goats makes milk less prevalent in the winter months, and when out of season breeding is accomplished, a steady milk supply can be provided during winter months as well as spring & summer. The natural breeding season of goats is in the fall, with kids normally being born in the spring. Out of season matings may be accomplished by the following method

Protocol:

Progestin pessaries are placed per vagina and left for 13-18 days. This provides a source of progesterone to the doe, which is not present during normal anestrus. A dose of commercially available pregnant mare serum gonadatropin (PMSG) with chorionic gonadotropin (HCG) is given to the does, along with Prostaglandin. Then the pessaries are removed and the does are observed for signs of estrus and bred.

The same protocol may be used for synchronized matings, when it is necessary to have a group of does in heat at the same time, or to have animals cycle and mate on an exact day in order to have kids born for specific classes or events. In the case of synchronized matings during the regular breeding season, the serum gonadotropin and HCG are omitted from the protocol.

Artificial Insemination is a technique whereby frozen or fresh semen is used to breed a doe via an insemination pipette. Does may be programmed to cycle on a specific day, or out of season, or may be bred during a natural heat. Frozen semen from genetically superior males is available and may be stored indefinitely in liquid nitrogen.

Protocol:

Does may be programmed by one of the above methods, or may be in natural heat. The doe is restrained on a milking/grooming stanchion. A vaginal speculum is inserted, and a light source is used to visualize the cervix. An A.I. pipette is passed through the cervix and the semen is deposited into the uterus.