UK COOPERATIVE EXTENSION SERVICE
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KSU COOPERATIVE EXTENSION PROGRAM
Kentucky State University

The Kidding Edition!!

Goat Producer's Newsletter

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2008 - Hopes for a Good Year for Kentucky Goat Producers

Terry K. Hutchens,
Extension Goat Specialist, UK

The German philosopher Friedrich Nietzsche (1844-1900) once wrote, "What doesn't kill you makes you strong". These same words can be used to describe the year of 2007. Last year was plagued with high corn prices resulting from projected corn needs for ethanol production. This in turn resulted in high feed prices and these prices will likely carrying over into 2008 and beyond.

The year 2007, gave farmers a mid-spring surprise in the form of a late freeze that set back an entire first cutting of hay, delayed pasture growth and reduced kid survival rates due to uncommonly cold weather. The freeze was followed by a record-breaking drought that lasted well into the fall of 2007. The dry weather further hammered the pasture and hay crop leaving Kentucky farmers faced with limited quantity, yet very expensive hay and feed prices going into the winter of 2007 and 2008.

Furthermore, in response to these high feed costs, slaughter goat prices were depressed as a result of the massive unloading of does and kids in the fall of 2007. Slaughter plants and feedlots were full, and movement of the animals through a rather simplistic marketing system was slow and costly to all sectors of the industry. Many farmers were faced with no alternative other than to reduce animal numbers in an effort to cope with the feed situation.

Rebuilding may be slow prices for commercial breeding does going back into the herds will likely be higher than they have been for some time. Make sure you get good ones, avoid buying commercial does at the stockyard.

Answer this question: Why do farmers sell breeding stock at the stockyard? The answer to this question is: They usually don't want them any more due to some problem.

Locate farm fresh does that are disease free, in good health, with good feet and legs, good mastitis free high standing udders (standing above the hock) and good body condition (2.5-3.5).

This is good news for Kentucky farmers who have successfully managed to hold the better part of the herd together. Slaughter kid prices will likely return to normal or above normal due to the increasing demand for goat meat and lower numbers of kids available for market. The same is likely true for breeding stock producers; prices for doelings and young bucks will be high in the coming year.

Let's get ready for success in the coming year! "What doesn't kill you makes you strong" and successful.

National Outlook in Review

Lee Meyer, Extension Livestock Marketing Specialist, UK

Sheep and Goats: Small ruminant enterprises have found a place in Kentucky. Both sheep and goat markets have been favorable. The national average lamb price increased about 12percent from the 2006 level as production dropped slightly. For goats, slaughter was up about 11percent for the first half of 2007 but prices still increased about $7 per cwt. For both goats and sheep, about half of the U.S. consumption is imported, reducing the impacts of changes in domestic production levels. And, at the small consumption levels, (less than one pound of goat meat for each per person annually), much of the production is sold directly to consumers.

2008 Kid Price Outlook

Tess Caudill, Marketing Specialist
Kentucky Department of Agriculture

Like most other livestock species, at the present time the goat market is unsteady at best. Heavy rainfall in Texas, the largest goat producing state, combined with severe drought throughout much of the Southeast has the typical supply pattern of goat kids in turmoil. This coupled with ever-rising grain prices and astronomical hay prices in the drought regions paints a somewhat bleak picture for profitability in 2008.

However, due to the seasonal nature of goat production, the kid supply is destined to dry up at some point this winter, and we should see prices increase sharply in the face of the short supply. Typically we see our highest prices for the year in February through early May and this pattern should hold true.

The question remains as to what will happen to the kid market as summer approaches. Typically we see a sharp drop in the market as warmer temperatures prevail and the late winter/early spring kids hit the market. Due to the large reduction in doe numbers we have seen with the drought in this area, there may not be as large a supply of kids to hit the market at this time, which could help keep prices higher farther into summer. Of course, this will likely depend on what effect wet weather in Texas has had on doe numbers there.

We will most certainly, however, still suffer through the “summer slump” which happens in summer and fall. Kid supply will likely determine the severity and length of this price slump.

At best, the kid price outlook for 2008 is uncertain. While we will still likely see the definite price pattern of higher prices during the colder months, and lower prices during the warmer months, the gap between the high and low prices will depend largely on weather patterns and how these patterns affect the number of kids reaching the marketplace.

Assisting in the Kidding Process

Ken Andries, Animal Science Specialist
Kentucky State University

There are three basic stages of labor: start of labor, birth process, and cleaning out. The whole process should be completed within 12 to 14 hours. Once the water sack is presented the doe should deliver a kid within 1 hour. If this does not occur or the doe delivers but continues to show signs of labor, you may need to assist her in delivery. Remember that if you are going to assist with birthing of a kid, you should wear protective gloves and give the doe an antibiotic shot to help prevent infections after kidding. It is also important for all producers to have people they can call for help when necessary and be prepared to take an animal to the veterinarian if necessary or perform euthanasia in extreme cases.

Birthing difficulty is most often the result of a kid not being presented, or not entering the birth cannel in a proper manner. Most often one of the front legs will be back; however, more serious cases do occur. These can include both (2) front feet back, the head back, or the tail-first situation. On rare occasions, multiple kids may be presented at the same time. The size of the

rarely the problem in most commercial herds; however if does are overconditioned this may be more common.

Producers should have on hand a kidding/lambing snare to assist with pulling when necessary. However, most cases can be handled without it. The first step in assisting is to make sure you are able to keep the doe still; this is most often achieved by tying the animal or having someone hold her for you. Clean your hands and arms, remember to remove any jewelry and watches and then put on a protective glove. Check the position of the kid and make sure you have only one kid being presented at a time.

If you have a leg back or head back situation, simply pull the leg or head up and into position, you may need to push the kid back somewhat to achieve this. Once the kid is positioned properly, pull using the snare or by hand on the legs to assist when the doe contracts. If this does not work, check again that you only have one kid and apply more pressure; use the snare if necessary. If two kids are entering the birth cannel at once, simply push one back. Then treat the situation as a kid with a leg or head back.

If you have a kid being born rear first, breach, you may need to turn the kid around. To do this, push the kid back into the doe and pull the front feet and head up into the birth cannel. Passing a kid backwards is more difficult because the rib cage tends to catch in the birth cannel.

If you pull a kid, you need to help clear its air passages. This is most easily achieved by holding the kid by the rear legs and swinging or shaking it a few times. Make sure your grip is good on the legs so you don't drop the kid. In the normal birth process the air wary is cleared during delivery, this may not have occurred if you pull the kid. Make sure the kid is breathing and place the kid where the doe can lick it dry.

The final step in assisting at birth is to make sure all kids are out of the doe. To do this, allow the doe, and yourself, a chance to have contractions watch to make sure she delivers the remainder of her kids without assistance. If you have had to reposition a kid or the doe appears tired or weak, go in and check the uterus for additional kids. This may not only save a kid but may also save the doe. The final step is to give the doe a shot of antibiotics and oxytocin to help prevent uterine infections. As always check with your veterinarian for proper dosing and administration methods of all drugs and hormones. Follow label directions and meat withdraw times. Milk withdraw time applies to dairy operations; the milk will be safe for the kids to nurse.

Bottle Feeding Kids

Terry K. Hutchens, Extension Goat Specialist, UK

1. Newborn kids needs to receive 10 percent-20 percent of its body weight in colostrum, preferably within 3-12 hours after birth.
2. After the initial amount of colostrum is fed, additional feeding should be withheld from newborns that are to be bottle-raised for as long as 5 hours.
3. Bottle feeding: feed 10-20percent of their body weight in the form of good-quality milk replacer divided into 4 equal feedings.
4. By the third week of life switch to twice daily feeding.
5. Creep feeding: Kids should have access to an extremely palatable dry feed. A mixture of corn, oats, alfalfa pellets, molasses and soybean meal that provides 14 percent-16 percent CP works well. Topdressing the feed with dry milk replacer may stimulate intake. Other palatable ingredients suitable for young ruminants are soybean hulls and various sources of bran, including wheat bran.

Composition of goat milk replacer on DM bases should be: Protein 25 percent, Carbohydrate 31percent, Fat 34 percent, Total solids as fed 13 percent

Creep Feeding Kids

Terry K. Hutchens, Extension Goat Specialist, UK

1. Need dry well-lit location, inviting to the kid
2. Pelleted or coarse ground feeds give better intake
3. Pellets should be 5-7mm in length.
4. Cheapen feed, once consumption begins if desired.
5. For gain, kids must consume 0.5 lb/day from 3 weeks of age until weaning.
6. Added salt 0.05 percent, ammonium chloride 10 lbs/ton and a coccidistat (page 6) to the homemade rations.

Homemade creep feeds are seen in Table1.

Table 1. Homemade Creep Feeding Rations

Feeds	1	2	3	4
Ground Corn	33%	60%	63%	40%
Oats				11%
Soyb. Hulls			10%	
Soyb. Meal	6%	8.5%	10%	6.5%
Alfalfa Hay	55%	25%		35%
Bran			10%	
Molasses	5%	5%	5%	6%
Trace min. salt	0.05%	.05%	0.5%	0.5%
Ammonium chloride	0.05%	.05%	0.5%	0.5%
Limestone		.05%	1%	0.5%

Resource: Sheep and Goat Medicine, D.G. Pugh

Steps to Improve Kid Survival

Ken Andries, Extension Animal Science Specialist
Kentucky State University

Survival of your kids is very important to the financial success of your goat enterprise. There are several steps to be taken during and shortly before kidding to help increase the survival rate of your kids.

Steps Four to six weeks before kidding is expected to start:

- Booster vaccine for Clostridium type C&D and Tetanus (CD&T shot)

- Insure mineral mix has adequate Se and if you have had problems with weak kids, retained placentas or Se related abortions in the past, or are unsure of the mineral status of your does, give does a Se shot.

- Increase feed to the does to meet higher nutritional requirements and remember that the volume of feed she can consume is reduced during this time.

- Make sure you have kidding pasture/pens ready and good shelter for the does before and after they kid.

Doe Care at Kidding:

- Check to make sure milk is available for kids and that each teat is not blocked by stripping some milk from each.

- If you have not done so before this is a good time to trim feed on the does

- Treat for parasites because there is generally an increase in fecal egg output when does kid.

- Increase feed to meet demands related to milk production.

- Make sure the doe has cleaned out and afterbirth is expelled within 24 hours of birth.

- If you had to assist with the birth, make sure the doe has delivered all kids and give an antibiotic shot to help prevent infections.

- If possible give the doe and her kids two days in an individual pen to make sure she has bonded well with her kids.

Kid Processing:

- Dip or spray the navel with 7 percent iodine at birth.
- The kid must receive a minimum of 2 oz of colostrum within the first 6 hours and 4 to 6 oz within 24 hour of birth. If the doe has milk and kids are nursing, they will consume this amount; if they appear weak you may need to tube feed the kids.
- Give kids a Se shot at birth to help prevent white muscle disease.
- Take birth weight, birth date, birth type, dam ID, and sex information for records.
- Kids are very susceptible to cold for the first 24 to 48 hours after birth, make sure they are protected from cold, wet conditions and out of the wind until they are 48 to 72 hours old, longer in very cold or bad conditions.
- Keep an eye on kids and look for those that may start to get weak; bottle feed only if necessary. Keep records to help cull does that do not raise good kids.

Feeding Does and the 50:50 Rule

Terry K. Hutchens, Extension Goat Specialist, UK

Small ruminants need only forage-roughages or high fiber feeds for maintenance and productivity of all goat classes. However forage quality is highly variable and often needs supplementing in order to achieve an adequate nutrient regiment. In all cases and for assurance of good rumen health a large portion of the diet should be high in fiber. This then introduces the 50:50 rule of feeding concentrates.

A 50:50 ratio of concentrate to fiber is an ideal ratio for maintaining good rumen health. Rations of 40:60 and 20:80 are common, functional and inexpensive to feed. Where high starch grains or pelleted feeds are fed as concentrates, concentrate: fiber ratios should be at 50:50 and should not exceed a ratio of 60:40 otherwise feed costs will increase dramatically, productivity will decline and metabolic disorders are likely.

There are two basic reasons for using a 60:40 ratio. The first is to compensate for extremely poor quality forage. *Remember that the only way to truly know forage quality is through testing.* Secondly, the female is overweight, high in body condition and/or carrying large offspring or triplets and she does not have enough internal space to consume enough forage roughage to supply the correct amount of nutrients.

An Exception to the 50:50 rule is when high starch grains are replaced with highly digestible fiber feeds. These feeds, typically by-product or sometimes labeled coproduct feeds are contain alternative energy and protein sources. Most of these products are course feeds; however some are available in a pelleted form. Ratios of 70:30 have been successfully fed to feeder kids consuming 3.5 percent of body weight in concentrates made up of highly digestible fiber feeds. In all cases hand feeding of these products is by far more efficient than self-feeding. Self-feeding of course mixed concentrates is likely to have an undesirable outcome.

Table 2 Estimated Dry Matter Intake

Animal Classes Females	percent of Live Body Weight	Live Body Wt. lbs	Lbs Feed Fed/day lbs
Mature female late pregnancy gain, lactation, 2 young	5.0	120	6.0
Mature female late pregnancy, gain, 2 young	3.0	120	3.6
Mature does, dry, early pregnancy,	1.5	120	1.2
Replacements, growth, slaughter kids, gain	4.0	45	1.8
Growing yearlings, gain	3.0	80	2.4

Adapted from NRC, 2007

Goat Health Management Tips

Patty Scharko, DVM, MPH
University of Kentucky, Extension Ruminant Veterinarian

Normal: Temperature 101.5 - 103°F
Respiratory rate 10-30 breaths/min (kids- 20-40 breaths/min)

Routine Procedures

Trim feet every 4-6 months; depending on housing & environment

Castration Beware of tetanus- vaccinate doe & kids described below; count 2 if band

Vaccination Follow manufacturer's instructions; use ¾ to 1 inch 18-20 gauge needle
Prefer subcutaneous (SQ) method if label directions permit; tent skin for SQ.
SQ in neck area in meat goats, behind elbow in breeders/show goats
Tetanus toxoid & Clostridium perfringens C&D (overeating disease)

Initial dose	>1 month of age
Immunize	3-4 weeks later
Yearly booster	To pregnant does 30 days before kidding

Goat vaccines: Bar Vac CD/T (Boehringer Ingelheim), Essential 3+T (Colorado Serum Co.), Vision CD/T (Intervet)
Sheep/cattle vaccine: Covexin 8 (Schering Plough)

Deworming

PERMANENT PASTURES PROMOTE PARASITES-
Promote Grazing High and Browsing

- **POINTS** Pasture rotation important- at least 3 times each year; EVERY 3 days best.

  Do not graze grass below 4 inches.

  Parasite resistance exists to many dewormers, especially Ivomec

  Fecal Egg Counts (FEC) help monitor parasites- FEC at deworming & repeat FEC in 14 days (need controls for FEC reduction test.)

  Beware of diatomaceous earth- does not effectively deworm

  Need 1.5-2 times higher dose than cattle/sheep oral products; do NOT underdose. Caution with levamisol. Do not use injectable formulation in goats.

  Choose one product & use for at least one year; if suspect dewormer resistance, do FEC reduction test and change to a different class of drug

Classes of Dewormers

Class	Benzimidazole	Imidazole/ Pyrimidine	Macrolide
Trade Names	Safeguard/ Panacur Synanthic/ Benzelmin Valbazen*	Levasole/ Tramisol Rumatel StrongidT	Ivomec ~~Dectomax~~ ~~Eprinex~~ Cydectin**

*Do not use in first trimester pregnancy
** Minimize use to preserve efficacy

Deworming Tips

Select parasite-resistant goats- FAMACHA and FEC (Fecal Egg Count)
ISOLATE new additions on dry lot for 3 weeks; dry lot & NO access to grass.
Deworm simultaneously on arrival with anthelmintic from each of the 3 classes;
Do Fecal Egg County (FEC) 14 days later- can enter herd if negative.
FAST- improves efficacy of some oral dewormers. Hold in dry lot or feed only dry hay for 12-24 hours before and 8-12 hours later. (Ad lib water)
Avoid "salvage" deworming- showing signs (bottle jaw)

Strategic Deworming Method

Deworm 30 days before kidding
Follow with 2 to 4 more dewormings at 3 week intervals
Treat kids at weaning and utilize "safe" pastures {hay pasture, new pasture, not grazed for 3 months (spring) or 6 months (fall), grazed by cattle/horses}

Symptoms of coccidia infection in weanling kid.

Summer Tactical Deworming – remove parasites from goats before the worms contaminate pasture

Examples: Treat goats 10-14 days after rain, especially during a drought
High fecal egg counts in spring (500 eggs per gram) or fall (1,000 EPG)

FAMACHA© "Smart drenching"; selective treatment based on pale eye color in the summer. System does not treat all goats; promotes identifying those that are resilient to internal worms.

DISEASES

Lice control; cattle pour-on's (example- Ivomec) as pour-on will get lice but NOT internal worms!

Coccidia- associated with stress and over-crowding

Prevention:	Rumensin	Beware in horses	
	Bovatec*	Beware in horses	*** Extralabel in goats**
	Deccox		
Treatment:	Corid (amprolium)*		*** Extralabel in goats**
	Sulfamethazine, sulfadimethoxine*		*** Extralabel in goats**

Meningeal worm (Parelaphostrongylus tenuis) from white tail deer; goat weak in rear legs.

Lungworms Occur in Kentucky

PNEUMONIA Do NOT use Micotil in goats. ILLEGAL to use Baytril in goats.
Improve ventilation (best to keep on pasture, out of barn)
Isolate new arrivals for 2-4 weeks; do not share waterers with herd

Enterotoxemia/ over-eating disease Prevent with vaccination

White muscle disease = selenium deficiency; use good mineral; may need to inject

Polioencephalomalacia Blindness/ seizure; B1 (thiamine) vitamin deficiency

Listeria "Circling disease"; prompt treatment with antibiotics

Caseous Lymphadenitis "Contagious abscess", "cheesy gland"; isolate goat; consider vaccinating with Case-Bac or Caseous D-T (NOT labeled for goats)

Johne's disease Wasting disease, usually no diarrhea; affected usually over 1 year of age

Soremouth "Orf"; wear gloves- contagious to humans

Ringworm Contagious to humans

Q Fever Bacteria *Coxiella burnetti* in placenta/fluids & milk; usually not a problem in goats; mild to serious flu symptoms in humans

Tetanus Prevent with good vaccination protocol

Late Tem Abortions Toxoplasma, Chlamydia, Campylobacter, Leptospirosis. Send to lab for dx

Pinkeye Chlamydia, Mycoplasma, or other agents; isolate; systemic and/or topical treatment with oxytetracycline

Clouded and weeping eyes indicating a *Moraxella* species (pinkeye) infection.

Biting, chewing, skin irritation and hair loss associated with the leg area may indicate a mange mite or lice infestation.

Planning Goat Forages for 2008
Shaun Jackson, Extension Associate for Goat Forages

Last year (2007) was a poor year for forages. The late frost combined with the extreme drought across Kentucky hindered forage production to say the least. Many producers resorted to feeding their already short hay supplies during the drought to provide for their goat's needs. Let's make this year a little better by planning our forages in 2008.

The first step in planning forages for goats is to take an inventory of plants in your goat paddocks and pastures. Walk your fields and determine what type and species of plants are present. Your county agricultural extension agent can help you identify unfamiliar plants. Remember goats can utilize plants that are sometimes considered to be weeds. Next, visit your county extension and local NRCS offices and obtain a copy of the soil survey of your property. The soil survey will provide information on soil types and will tell you which plants are suited to grow on your land. You can then match the types of plants that will grow well on your pastures to the types of plants that goats prefer.

Be aware of plants that goats prefer to graze and browse. Goats utilize plants that other livestock species will not eat. Some examples include multiflora rose, iron weed, red root pigweed, honeysuckle, and various other "weed" species. Goats will also eat traditional forage crops. UK Robinson Station is conducting grazing preference studies using traditional forage crops. The preliminary results indicate that our UK goats prefer sorghum sudan grass, legumes (white and red clover, alfalfa, sericea lespedeza), forage chicory, forage turnips, reed canary grass, tall oatgrass, orchardgrass, and various warm season grasses. Although not preferred, goats will eat fescue and other traditional forage grasses.

It is also important to understand the different classifications of plants including annual, perennial, warm season and cool season. Annuals are plants that must be planted every year. Examples of annuals that goats will eat are annual ryegrass, oats, sorghum sudan grass, red root pigweed, lambsquarter, and ragweed. Perennials are plants that will grow back without having to be re-planted every year. Examples include alfalfa, red clover, white clover, orchardgrass, tall fescue, kudzu, and sericea lespedeza. Warm season plants grow the most during midsummer and produce little or no forage in spring and fall. Cool season plants grow best during spring and fall. Figure 1 shows the growth curves of warm and cool season plants. It is best to have both warm and cool season forages to compliment each other at different times of the year. For further information on specific forage crops and how to establish them visit you local UK Cooperative Extension Office.

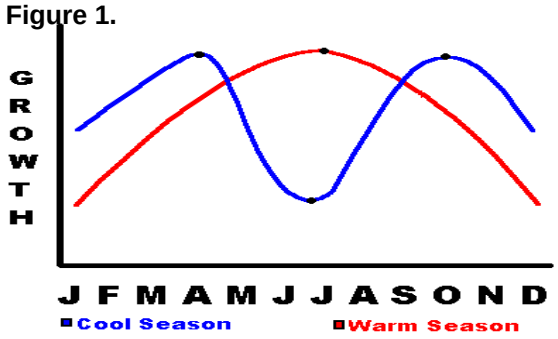
Figure 1. Growth Curves of Warm and Cool Season Plants.

As a final note, here are some tips to improve and stretch your grazing forage supplies in 2008:

- Soil test. Soil tests are available through your local UK Cooperative Extension Office. Soil test results will tell you the least expensive way to fertilize a specific crop for optimal growth and production. Don't guess, soil test!
- Practice rotational grazing. Rotational grazing is a pasture management technique in which animals are moved or rotated from pasture to pasture. The animals in this type of pasture system are allowed to graze the plants to a height of 4-5 inches and are then moved to taller plants. This will allow forage to grow back stronger and faster.
- Utilize a stocking rate of no more than 3-6 goats per acre.

Maintain a rescue area for your goats. A rescue area is a pasture that is maintained specifically for emergency purposes (i.e. goats run completely out of pasture elsewhere). It is better to have at least two of these areas available for use.

Figure 1.



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http://www.uky.edu/Ag/AnimalSciences/goats/goatinfo.html

	Common Feed Additives for Sheep and Goats Diets Use and rate recommendations of off- liable products must be made by a bona fide veterinarian who up on examination of the livestock, may make an off-label recommendation if no labeled products are available or effective.		
Purpose of Additive	**Specie Label for Use**	**Feed Additive**	**Restrictions and Comments**
<u>Additive to creep feeds and finishing diets for lambs and kids</u>: Improve average daily gain, increase feed conversion, reduce diseases pneumonia, enterotoxemia	**Sheep, Goats (off label)**	**Antibiotic: chlortetracycline and oxytetracycline**	**Response is variable depending management and degree of stress**
Feed additive for prevention of abortion: Breeding ewes and does, Campylobacter fetus and bacterial pneumonia, *Pasteurella multocida* and enteritis, *Escherichia coli*	**Sheep, Goats (off label)**	**Antibiotic: chlortetracycline and tetracycline**	**When feed based antibiotics are used, anorexic animals will have insufficient intake and therapy**
Feed additive for the control of coccidiosis, improve weight gain and feed efficiency, aid in prevention of pregnancy toxemia, gas bloat	**Sheep and Goats, for confinement feeding**	**Ionophore: lasalocid and monensin**	**Not to be used for animals whose milk or milk produce is used for human consumption**
Feed additive for the control of coccidiosis	**Sheep and Goats**	**Anticoccidial feed addivtive: decoquinate**	**Not to be used for animals whose milk or milk produce is used for human consumption**
For the prevention of urolithiasis in rams, bucks and wethers	**Sheep and Goats**	**Anionic salts: ammonium chloride ammonium sulfate are urine acidifiers**	**Unpalatable and may result in depressed intake**
For prevention of acidosis when animals are on high grain, low forage diets	**Sheep and Goats**	**Buffers: Salts that resist pH changes, sodium bicarbonate, sodium bentonite, calcium carbonate, sodium sesquicarbonate**	**Results may be variable most effective in dairy animals fed at 1% of diet**
Adapted from: Sheep and Goat Medicine, D.G. Pugh			