

SINCE



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# THREE TIPS TO MAXIMIZE MEAT GOAT RATE OF GAIN

## USE THESE TIPS TO MAKE THE MOST OF YOUR FORAGES AND SUPPLEMENTAL GOAT NUTRITION.

Raising meat goats calls for a sharp pencil when it comes to feed costs since they nearly always account for the largest share of expenses. Balancing feed quality to maximize weight gain is vital to amplify your nutrition investment and bring home more profit.

Placing a focus on providing diets containing proper forage, protein and energy levels that drive efficient gain is a good objective to keep in mind.

Efficient rate of gain maximizes conversion of feed to gain without overfeeding. The goal is to provide enough energy, protein and forages to maximize an animal's genetic potential.

Use these three tips to maximize your nutrition program to support efficient goat growth:

### 1. ENSURE ADEQUATE DIETARY PROTEIN AND ENERGY

Meat goat diets must contain both protein and energy to be productive. Energy from carbohydrates and fats drives growth rates and weight performance while protein is important to support feed intake and digestion.

Insufficient dietary protein levels can negatively affect growth rate, disease resistance and more because not enough amino acids reach the intestines to be absorbed by the body.

Lush forages can provide adequate fat and protein levels, but high-quality forages are not always available or cost-effective when purchased in large volumes. That's when strategic supplementation can help efficiently boost diet effectiveness.

Feeding a supplement high in both protein and fat can help improve appetite, rate of gain and efficient cost of gain. Adding a supplement helps goats get more from their feed, especially when forage quality is low or when goats are in pens and not on pasture. It can be used at every stage of a goat's life and in all aspects of production.

Make sure to choose a supplement with the right balance of dietary fat since excess fat (generally more than 5% of the total diet) can suppress rumen fermentation.

### 2. MAINTAIN FORAGE QUANTITY AND QUALITY

Goats need plenty of high-quality forage for efficient growth – between 1.5% and 2% of a goat's body weight. High forage levels are important even in dry lots when you may be supplementing diets more heavily to increase gains and reduce days on feed.

When goats don't receive enough forage, they aren't as efficient at converting supplemental protein or energy into meat because the rumen isn't getting scratch value to stay healthy.

### 3. AIM FOR CONSISTENT, ACHIEVABLE WEIGHT GAINS

Whether raising meat goats for market or as replacement females, steady growth is the goal.

Achievable daily gains depend on goat genetics, but gains of 0.25 to 0.3 pounds per day is a good benchmark. On full feed, it takes about 3.75 to 4 pounds of supplemental feed per head per day to reach that goal.

On the flip side, it's important to understand when goats have reached their maximum efficient growth potential.

Producers should recognize when goats are no longer growing but are only gaining fat. Monitoring body condition score (BCS) and not letting goats get above a 3 out of 5 BCS will help. Getting goats to market at the right time is more efficient and will save on unnecessary feed costs.

*Clay Elliott, Ph.D.*



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# URINARY CALCULI IN GOATS

In goats, clinical obstructive urolithiasis, or urinary calculi, is most frequently seen in young, early-castrated male goats fed high-grain diets, although it can also occur in intact males and may result in their destruction as breeding animals.

## WHAT ARE URINARY CALCULI?

Urinary calculi are “stones” formed by an agglomeration of minerals (primarily phosphorus) in the ureter, the tube which leads from the bladder to the exterior of the animal. Males have a long ureter with a sharp curvature which makes them much more prone than females to develop urinary stones.

## SIGNS OF URINARY CALCULI IN GOATS

Clinical signs of urinary calculi include restlessness and anxiety. Tail twitching is an early sign. There may be excessive vocalization and animals will strain frequently and forcefully to urinate. Marked abdominal pressure may produce some degree of rectal prolapse. Inexperienced owners may assume that the goats are constipated and medicate goats inappropriately rather than seeking veterinary attention. Drops of bloody urine and (or) crystals may be seen attached to preputial hairs. Goats with partial obstruction may be able to void small intermittent streams of urine, but show discomfort. This is an incredibly painful and life-threatening situation that will not resolve on its own – if you see any of these signs, immediately seek the services of a veterinarian.

When the obstruction goes uncorrected, rupture of the bladder or urethra usually results within 24 to 48 hours, allowing urine to leak into the surrounding tissues. At this point, only surgical intervention will save the animal, and the success rate is low. It is far better to intercede before the condition gets this far.

## CAUSES OF URINARY CALCULI IN GOATS

There are many predisposing factors which contribute to urinary calculi formation in goats:

- **Early castration.** The hormone testosterone influences diameter growth of the ureter, so the earlier the goat is castrated, the slimmer the ureter and the more prone it will be to blockage by a stone. It is recommended to wait until at least 4 months of age – and preferably 5 or 6 -- to castrate young bucks.
- **Decreased water intake.** Anything that causes the goat to drink less water will result in more concentrated urine and a greatly increased chance of urinary calculi development. Withholding water from show goats to enhance their muscular appearance has been known to have fatal results. Always provide goats with an unlimited supply of clean, fresh water. Provide salt to enhance water intake – the minerals in salt do not contribute to development of urinary calculi. Since water sources can occasionally be high in minerals, it may be wise to have your water source tested and then take steps to alleviate any problems.
- **High phosphorus intake.** Grains and grain-based feeds tend to be higher in phosphorus, the main mineral in calculi formation.
- **Breed.** Pygmy goats, due to their diminutive size (and therefore smaller ureters), are especially prone to this condition. Avoid grain-based diets and do not feed high-grain treats to pygmy goats.
- **Forage that has been fertilized with high-phosphorus sources.** It is common in many areas to fertilize with chicken litter, resulting in forages that are quite high in phosphorus. It is always wise to have forages tested so that, if necessary, calcium sources can be added to the diet to ensure that the ratio of phosphorus to calcium does not become unbalanced. Calcium content of the total diet should be 2 to 2.5 times that of the phosphorus.

Providing a feed which contains a urinary acidifier such as ammonium chloride can aid in addressing stone formation. Later castration, plentiful water and salt, good forage, and exercise are all good management techniques. The condition is seen far more often in confined goats on high-energy diets than in pastured animals consuming large amounts of forage and getting considerable exercise moving around.

Feed manufacturers have developed goat feeds with optimal calcium-to-phosphorus concentrations and added ammonium chloride, however, it is important to keep in mind to use all of the management options to optimally control incidence of urinary calculi – relying on just one, such as the presence of a urinary acidifier in the diet, may provide disappointing results.

### Augusta Co-op Solution

## 16% Goat Grower/Developer Pellet, Medicated, 50 lbs.

A general purpose pelleted feed for growing kids, nannies, and bucks. Also contains Rumensin for the prevention of coccidiosis caused by *Eimeria crandalis*, *Eimeria christenseni* and *Eimeria ninakohlyakimovae*. Monensin (as monensin sodium) 20 gram/ton. Crude Protein min 16.0% (contains not more than 1.0% protein from non-protein Nitrogen). Crude Fat min 2.5%. Crude Fiber max 16.0%. Feed with good quality forage and fresh, clean water. DO NOT Feed To Horses Or Other Equines. Ingestion of Monensin or Lasalocid by equines has been fatal. This feed contains medication. Please read label carefully.



SKU -  
GOATGROW

# FOUR TIPS TO SUPPORT SHEEP FERTILITY IN THE FALL

SHEEP PRODUCERS CAN SUPPORT BREEDING SUCCESS THROUGH HIGH-QUALITY NUTRITION.

The quintessential signs of fall – leaves changing colors, temperatures dropping, holiday décor on store shelves.... grass that once was soft and green turns brown, dry and dormant.

The transition from green to brown pasture is a key indicator that forage quality is on the decline. Providing your flock with supplement before forages turn and throughout the fall and winter ensures ewes receive the nutrition, they need to support breeding and reproduction.

Reliance on grass as the sole nutrition source can take a toll on everything from ewe body condition to breeding and reproduction. Adding supplement to the diet, even in the short-term, can positively impact the flock's productivity and your profitability.

## MAXIMIZE FALL FORAGES AND SUPPORT SHEEP FERTILITY WITH THESE FOUR NUTRITION TIPS:

### 1. Make mineral the foundation

The foundation of any sheep nutrition program is a high-quality mineral. It ensures ewes have all the nutrients they need to support a healthy pregnancy, parturition and more.

Even the highest quality forages can fall short in providing ewes with necessary mineral nutrition, specifically calcium, magnesium, cobalt, vitamins A and E and selenium. It's important to remember pasture quality can change on a dime and forages that contained ample mineral levels last week might not today.

### 2. Act quickly when forage conditions change

Quality forage will contain somewhere between 18 to 21% protein. When that grass starts to go dormant, protein can drop to around 5%.

Ewes would have to consume more forage to make up for the steep drop in protein value, which isn't feasible or cost-effective in most real-world scenarios.

Feeding a mineral and protein supplement can help provide additional nutrients needed to support sheep fertility, especially when forage quality and quantity decline. A good rule of thumb is to start supplementing protein 30 to 45 days before grass starts to visually decline.

### 3. Make the most of your forages

A key to profitability for nearly any sheep operation is using their home-grown or purchased forages as efficiently as possible. Maximizing forages are especially important as many producers face persistent drought in the Western states.

That's where strategic supplementation comes in. Selecting a supplement with intake modifying properties can help ewes get more out of the forages they consume. Purina® Accuration® Hi-Fat Block was designed so sheep only consume what they need and nothing more.

As forage quality declines, Purina® Accuration® Hi-Fat Block supplement consumption will rise. Conversely, if forage quality is good, ewes won't consume as much.

### Augusta Co-op Solution

## Augusta, Sheep Mineral, 50 lbs.

This premix is designed to be provide vitamins and minerals to sheep in addition to those provided by grains and roughages in the ration. Always refer to the product label for complete feeding and mixing directions.

DO NOT permit intake of supplemental Selenium to exceed 0.3 ppm on a complete ration basis.



SKU - SHEEPMIN

### Augusta Co-op Solution

## Purina, Accuration Sheep & Goat Hi-Fat Tub, 200 lbs.

Sold by the tub. A version of Purina's popular Accuration hi-fat tub that is designed specifically for those producers that want a tub labeled for sheep and goats only. This version contains no added copper compared to the regular cattle and sheep version. Both versions can still be used for sheep. Features Intake Modifying Technology for controlled consumption of multiple meals to ensure proper intake. Designed to be fed free-choice along with adequate amounts of forage. The only version labeled for use in both sheep and goats. 10% fat to support body condition and reproduction. Controlled consumption helps to better match forage resources and maintain consistent body condition. High protein level of 25% supports proper protein intake when forage quality is sub optimal. Convenient, weather-resistant product form. Refer to the product label for complete instructions.



SKU - 3004804-634

continued on page 4



#### 4. Monitor supplement consumption

Once you set out supplement, check in and ensure ewes are hitting target consumption on a weekly basis.

Don't forget supplementation is an ongoing process. It's important to keep an eye on consumption to make sure ewes receive the full benefits of supplementation.

Keep consumption on track with these best practices:

- Set out one supplement tub of Purina® Accuration® Hi-Fat Block per 20-25 head.
- Monitor consumption, it should be approximately a half pound to one pound per ewe per day.
- If consumption is too low, move tubs to frequently trafficked spots like loafing areas, next to the water source, near shelter and underneath sheds.
- If consumption is too high, spread tubs out and move them further away from heavy traffic areas.

Investing in a high-quality sheep nutrition program before forages start to decline is an investment in your flock's overall productivity.

## EVENTS / CALENDAR

### HAPPY HOLIDAY PRE-BLACK FRIDAY SALE

**Friday, November 12** 7:30 AM – 6 PM

**Saturday, November 13** 7:30 AM – 5 PM

Augusta True Value Staunton location

1205B Richmond Road

Additional information: [www.AugustaCoop.com](http://www.AugustaCoop.com)

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Staunton location only.

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All in-stock Carhartt and Wrangler apparel (men, women & kids)

### AGRONOMY CUSTOMER APPRECIATION DAY

**Friday, February 4** 11 AM – 2 PM

Verona Greener Valley Supply

963 Laurel Hill Rd, Verona, VA 24482

Additional information: RSVP to Staci Alger at (540) 885-1265 x 253

or [SAlger@AugustaCoop.com](mailto:SAlger@AugustaCoop.com)

### AUGUSTA CO-OP VENDOR DAY

**Wednesday, February 23** 3 PM – 8 PM

Weyers Cave Community Center

682 Weyers Cave Rd.

Additional Information: [www.AugustaCoop.com](http://www.AugustaCoop.com) or (540) 885-1265

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# DEALS LEADING UP TO CHRISTMAS

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25% off all Ariat apparel & footwear  
25% off Wolverine apparel & footwear  
25% off all giftware (including flags & décor)  
\*in-stock items only / excludes clearance items\*

## WEEK OF NOVEMBER 22-30

25% all Cruel Girl apparel  
25% off all Cinch apparel  
25% off all accessories  
25% off all in-stock boots (excludes Muck & Dryshod)  
\*in-stock items only / excludes clearance items\*

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	AUGUSTA STOCK FEEDS			AUGUSTA SHOW FEEDS		
	Lamp Creep	Sheep & Lamb	Goat Grower	Show Lamb	Show Lamb Plus	Show Goat
<b>SKU</b>	40101	40161	GOATGROW	SHOWLAMB	SHOWLAMBPLUS	SHOWGOAT
	Pellet	Texture	Pellet	Texture	Texture	Texture
<b>BULK</b>	X	X	X	X	X	X
<b>BAGGED</b>	X	X	X	X	X	X
<b>PROTEIN, %</b>	16.0	12.5	16.0	18.0	16.0	17.0
<b>FAT, %</b>	2.0	2.5	2.5	3.5	2.5	4.0
<b>FIBER, %</b>	6.5	4.5	16.0	12.0	12.0	10.0
<b>BRAND</b>	AUGUSTA	AUGUSTA	AUGUSTA	AUGUSTA	AUGUSTA	AUGUSTA

*\*\*Featured products only. Additional feed and mineral options are available. Please contact your local store or sales representative with questions.\*\**

# SHEEP & GOAT LINEUP



MINERALS			BLOCKS			
Augusta Sheep	Supreme Sheep	Supreme Goat	Sheep & Goat	Accuration	Sheep-lyx	Goat-lyx
SHEEPMIN	96297	96216	624	3004804-634	7248	749B60
Mineral	Mineral	Mineral	Block	Tub	Tub	Tub
			25 lbs.	200 lbs.	60 lbs.	60 lbs.
50 lbs.	25 lbs.	25 lbs.				
CARGILL	TFC	TFC	TFC	PURINA	CRYSTALYX	CRYSTALYX