

# The Scoop on Poop

By Charlcie Gill

Rabbits produce two types of droppings: fecal pellets and cecotropes. The latter are produced in a region of the rabbit's digestive tract called the ceacum. The ceacum contains a natural community of bacteria and fungi that provide essential nutrients and possibly even protect the rabbit from harmful pathogens. By consuming the cecotropes as they exit the anus, the rabbit takes in nutrient-packed dietary items essential to good health. Though often referred to as "night droppings", cecotropes can be produced at almost any time of day.



Unlike the small brown "bunny marbles" we know as fecal pellets, normal CECOTROPES resembles a dark greenish brown mulberry, or tightly bunched grapes. Composed of small, soft, shiny pellets, each is coated with a layer of rubbery mucus, and pressed into an elongate mass. Cecotropes have a rather strong odor, as they contain a large mass of beneficial cecal bacteria. When a rabbit ingests cecotropes, the mucus coat protects the bacteria as they pass through the stomach, then re-establish in the ceacum.

## When things go wrong...

### Diarrhea

True diarrhea is more common in young kits than older rabbits. One of the most common causes is coccidia. In a kit, dehydration caused by diarrhea can rapidly result in death. It is wise to consider incidences of diarrhea a true emergency. Common antibiotics used to treat coccidia include *Albon™* and the potentiated sulfas, such as Trimethoprim Sulfa (TMZ) or *Bactrim™*. Another cause of diarrhea in kits is stress at weaning. Very young rabbits have a sterile lower intestine until they begin to eat solid food at the age of 3-4 weeks. It is during this time that their intestines are at their most critical phase. Weaning too early or weaning under stressful conditions, can make kits susceptible to enteritis (inflammation of the intestinal lining), which can cause fatal diarrhea. When I wean kits, I always offer good grass hay. Adding rolled oats to the ration at a rate of 20% in relation to pellets for about a week is also a helpful preventative.

### Unformed Cecotropes

The ceacum is a delicately balanced ecosystem. If the intestine is moving too slowly, or if the rabbit is getting a diet too rich in digestible carbohydrates and too low in crude fiber, the complex population of bacteria in the ceacum can become unbalanced. In this condition, known as CECAL DYSBIOSIS, beneficial bacteria (e.g., *Bacteroides* spp. and a variety of others) are outnumbered by less desirable inhabitants such as yeast or harmful bacteria. A rabbit suffering from cecal dysbiosis will produce cecotropes that are mushy, pasty or even liquid. They are usually foul-smelling and often stick to the vent area, causing quite a nasty mess. Methods of treatment include replacing the concentrate with grass hay for a few days and limiting or eliminating high protein-type supplements. I have noticed that certain lines of rabbits seem more predisposed to cecal dysbiosis than others. It is important (especially during the warmer months) to clean dried cecotropes stuck from the rabbit's rear end because it is not only smelly and uncomfortable, it is also a fly attractant which can result in a life-threatening fly strike. Within a 24-hour period an otherwise stable rabbit can enter a terminal state of shock due to maggot infestation.

Hidden health problems can also result in a loose stool condition. The most common physiological response when a rabbit is ill or stressed, is a slowing of the normal peristaltic movements of the intestine, with all the accompanying problems of runny stool, and possible inflammation of the intestinal lining (enteritis). Common health problems that may be accompanied by loose stools include: malocclusion, urinary tract disorders, upper respiratory infections, and torticollis (wry neck).