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Below is an article by Gerry Lavigne to go along with David Trahan's testimony on LD 638, An Act To Legalize the Use of Supplemental Minerals to Assist with Wildlife Nutrition.

Why deer and moose crave salt in the springtime.

By Gerry Lavigne

As winter loosens its grip on Maine, fields and meadows begin to lose their blanket of snow. Chances are you will soon notice deer feeding in these fields. This is a sure sign that spring green-up has begun, as lush new growth of grasses and herbs has emerged. In short order, snow will melt in the hardwoods and a little later, in the shade of softwood forests. Spring freshets will clear snow and ice from wet meadows and marshes. For sure, spring green-up has arrived throughout Maine.

As each habitat warms, new growth of grasses, herbs, and the leaves of trees and shrubs emerges, creating lush, nutritious forage for deer, moose, beaver, snowshoe hare and other herbivores. And what a contrast from the scant forages that were available during winter! New spring growth is higher in protein, carbs, digestibility and water content than the dormant twigs of winter. It's kind of like the comparison of a meal of spinach vs. cinnamon sticks for us.

During spring, deer and moose feed heavily on all this nutritious forage. By early spring they typically are at the lowest point in body condition, having subsisted on low-quality winter browse which may also have been in chronically short supply. With fat and body protein reserves nearly depleted, pregnant deer and moose must ingest enough food to recover body condition and to sustain the growth of their rapidly-developing young in utero. Bucks and bulls are not off the hook either. They begin antler growth in early April, a process that demands sound nutrition above and beyond what is needed to recover from winter weight loss.

The switch from woody browse to lush greenery in spring is not all roses (literally) for deer and moose. Spring foods tend to be highly digestible, so they can process a lot of it every day. These foods also have a high water content, requiring deer and moose to excrete a lot of it in the urine and feces. (Ever see cow patties in a spring pasture? Same goes for deer and moose in May.) In addition, newly emerged spring forages tend to be high in potassium and low in sodium. All of these factors can disrupt the sodium/potassium balance at the cellular level during spring.

Sodium and potassium in the right concentrations are crucial for the physiological well-being of all warm-blooded animals. Sodium tends to be a part of the blood, while potassium is a component of the fluid inside and around individual cells throughout the body. These two minerals enable

cells to take in nutrients from the blood, and to remove wastes. Sodium and potassium also have important roles in proper function of nerves and the brain. The body is constantly trying to optimize the right amount of each of these two minerals. Sodium arrives in deer or moose's body in the form of salt (sodium chloride) ingested as part of plant matter, or from other sources. The primary source of potassium is from the plant matter they eat.

Spring diets which are high in water and potassium cause deer and moose to excrete excess potassium in the urine. Problem is, they flush away some of their sodium as well. This leads to a sodium deficiency that must be brought back into balance. Time to find more salt to eat! Sometimes food cravings are a good thing.

During late spring, deer and moose seek salt wherever they can find it. There are places where salts naturally accumulate in the soil. Then there is brackish water near the ocean. Same with salt-sprayed vegetation. Some aquatic plants are higher in sodium than others. And then there are our roadsides. Ever wonder where all that road salt goes? Deer and moose know - it's in the ditch at the bottom of the hill! Then too, deer may take advantage of the salt licks farmers establish in their cattle or sheep pastures. Finally, sportsmen may be doing some good to provide salt and other essential minerals to the deer residing in their area during spring green-up.