





# THEY DUG A BIG HOLE: SO WHAT?

Sometimes, land managers misconstrue signs as evidence their mineral is working. Actually, that determination requires more analysis than simply seeing a hole in the ground.

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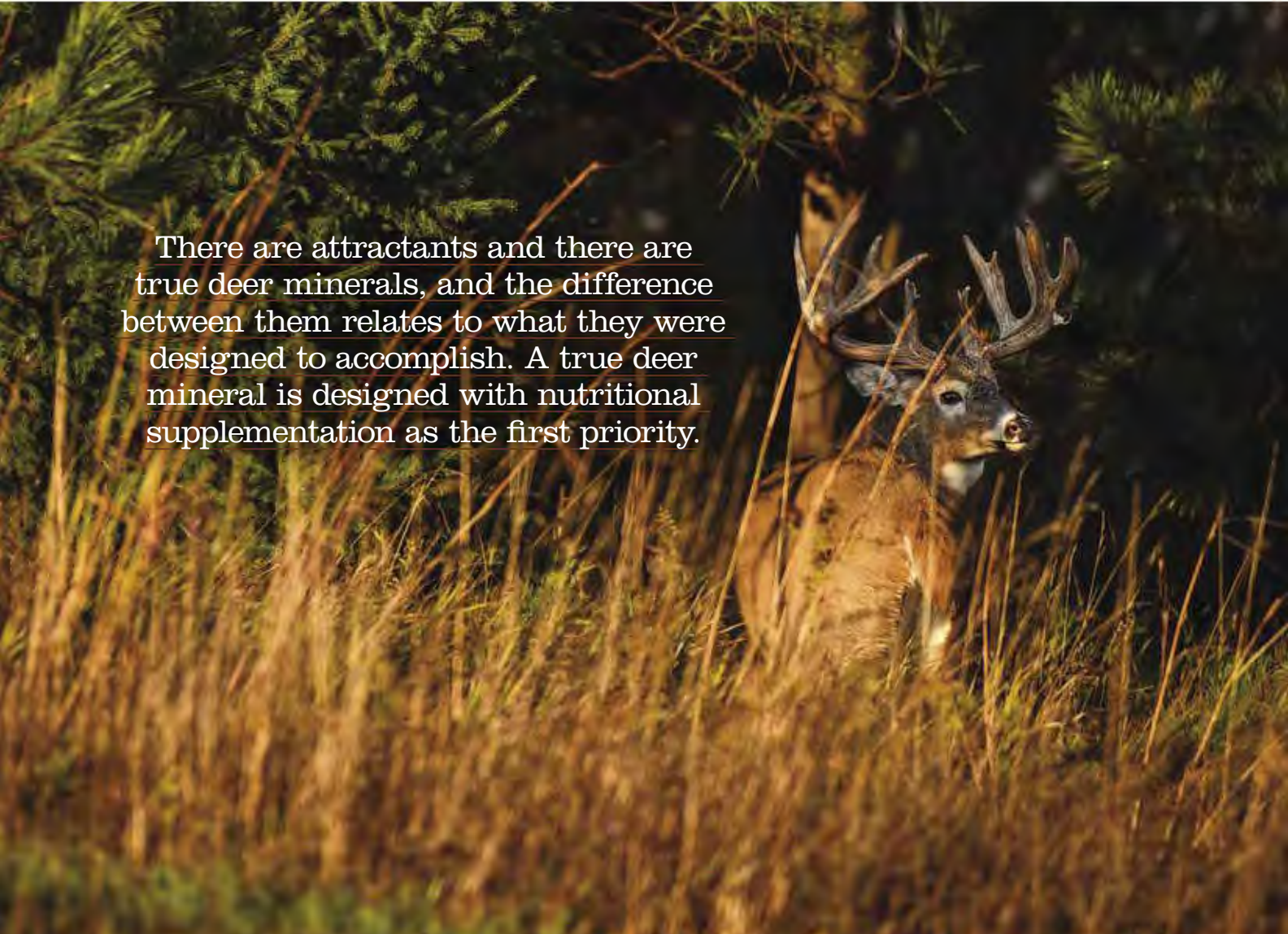
**T**I'm not particularly scared of spiders, mice, bugs, snakes and the like. That doesn't mean I would keep any of those as pets, but I'm also not prone to jumping out of my skin if I see one skitter or slither across the floor.

But one varmint really gives me the heebie-jeebies: rats. Maybe that's because as a child, I was constantly worried about them running up my pant leg when I was cleaning the corn crib. But for whatever reason, I think they're disgusting, evil little critters.

This hatred manifested into a full-on war a couple of years ago, when I went to battle against rats after they invaded my barn. Barns will always have rats, but thanks to a bad decision in the form of an open grain feeder too close to barn, I was suddenly swarmed. I tried everything short of blowing the barn up (which I actually considered), but nothing worked. Then one day, I had the idea to flood them out. I ran a hose down several rat holes and pumped several hundred gallons

right into their faces. Wet, soaking rats ran everywhere as I swung my scoop shovel like a battleax, hoping to smash a few to show as an example to the others. After a while, when all but a few had escaped, it appeared my rat problem was finished. However, that was delusional, as they soon moved back in and dug deeper, more extravagant tunnels thanks to the wet dirt. It wasn't until I spent several thousand dollars in concrete and sealed grain bins that the problem was fixed.

Often, we arrive at a conclusion based solely on what we see in that situation. The human brain wants to find answers and then move to the next matter, so if we witness what appears to be conclusive, we file it away as a determined subject. Sometimes, as in the case with my rats, I wanted the result to be something so badly that I used only one visual example to decide the matter. Somewhere in the back of my mind, I knew the rats would come back, but I stomped the thought down with what I saw.



There are attractants and there are true deer minerals, and the difference between them relates to what they were designed to accomplish. A true deer mineral is designed with nutritional supplementation as the first priority.

Likewise, through the years, I've been involved in hundreds if not thousands of conversations, stories and debates about the use of mineral. The particulars vary, but one common thread woven through almost all of those interactions is the question, "Is it working?" After all, you can't see antlers growing as a buck eats mineral. There's no way to immediately tell if a herd is improving a couple of weeks after you create a mineral site.

Granted, you can keep good records and throughout a year to two try to analyze whether you're seeing heavier body weights, improved fawn survivability and increased antler growth. But that takes time, and most of us are too impatient to wait that long for an answer, so we seek other ways to get more immediate confirmation. What does that involve? Simple. We check out the mineral site a few days later to see if deer are eating it. I'm guessing most of us have

looked at a mineral site, saw that deer were digging a hole and thought, "That stuff must really be working."

Usually, when I ask someone if their mineral is working, they say, "Well the deer are digging a big hole," which apparently must correlate to the effectiveness of the mineral. In truth, it only relates to the effectiveness of consumption and doesn't prove any other benefits minerals can produce. I can throw a dozen doughnuts and bag of chips in front of my hunting buddies, and they would be cleaned up before I can get back with the beverages. They would eat the heck out of the food, and depending on the time in the evening, I could probably throw it on the ground and they would dig a hole for it. What good did they get nutritionally? Not much. However, many folks use the same type of thinking when analyzing the effectiveness of a mineral.

### **WHY DO THEY DIG A HOLE?**

You might think that deer digging a big hole is what you want, because the mineral is attracting deer to one location. That's fine if you're most concerned about attraction, but let's make sure we're using appropriate terminology. There are attractants and there are true deer minerals, and the difference between them relates to what they were designed to accomplish. An attractant is designed primarily to attract deer, with little consideration for nutritional supplementation. The purpose of attractants is to bring deer to a specific spot but not necessarily to improve the nutritional plane of the herd. Some attractants purport to be deer minerals, but their product formulation is designed primarily for attracting deer, regardless of how the product is marketed.

A true deer mineral, conversely, is designed with nutritional supplementation

## Domestic livestock operations have seen the dramatic effects of mineral supplementation for decades, and deer managers and hunters have witnessed them with deer mineral supplements such as Imperial 30-06.

as the first priority. Of course, deer must eat it for it to have positive effects, so an attractant must be part of its makeup. However, only enough is used to ensure adequate consumption. In either case, you will often see a hole in the ground, especially if the spot is used during several years.

So, why do deer dig a hole? That involves a combination of several factors. In spring and summer, deer consume lush, green growing vegetation. That vegetation is high in water content (especially in spring), and many growing plant species are also high in potassium. Potassium has many functions, including muscle contraction, but it's also part of a unique regulatory process called osmoregulation, which helps to maintain the electrolyte balance in the body. Maintaining osmotic pressure is essential for the control of optimal electrolyte and non-electrolyte concentrations inside cells. Sodium, also an electrolyte, is involved in osmotic pressure, and in general terms, potassium and sodium work together to help maintain proper osmotic balance. With the high level of potassium coming from fresh, green growing plants, the body starts to crave sodium to maintain that balance.

Lush plants are extremely low in sodium, so deer must look for sodium anywhere they can find it. In some cases, it can be found naturally, which is the attraction to natural mineral licks. Farmers and ranchers call it "salt hungry," and nearly all grazers and browsers will be in that condition when eating green, growing plants, which is why salt blocks or mineral mixes containing salt are found in most cattle pastures. Salt (sodium chloride) provides the sodium needed to balance potassium, and deer will be attracted to it regardless of the form in which it comes. That's why salt is the main attractant in most deer minerals and attractants.

However, sodium can come in other compounds, which is why some products claim to have little salt in the product. Although that might be true,

the reality is that product simply uses a different sodium compound to provide attraction. With moisture and rainfall, sodium tends to leach into the soil. Particle size of the product will affect the speed in which the product leaches, with small particles leaching more quickly than larger particles. Deer dig, eat and lick the sodium-rich soil and continue to chase the leaching sodium deeper in the ground by digging it out — that is, digging a big hole. In fact, deer are more likely to dig for sodium than lick a block on the surface. That might be because licking dirt instead of a block is a more natural way of getting sodium, but if you find an old cattle salt block, you will typically see deer digging dirt around the block more than using the block itself.

Several years ago, a manufacturer introduced a product with such a fine granular size it was nearly powder. It was composed of a sodium compound, and the instructions were to pour water on it when you put it out. Because of its small particle size, the water caused it to almost immediately leach into the soil. In a brief time, deer would dig into the soil to go after the sodium, thus digging a hole. People would say, "That stuff must really work," because it appeared that deer were going crazy about it. Really, the product particle size along with water encouraged rapid leaching and the subsequent digging for sodium, which is why it appeared to be almost addictive.

### **A TRUE DEER MINERAL**

If you're looking only for an attractant and not concerned about improving the nutritional plane of your deer herd, you probably don't need to read the rest of this article. You can simply put an attractant out and wait for deer to do some excavating. But if you want to attract deer and provide them with minerals that will help to grow body size, increase lactation, improve fawn growth and survivability, and improve antler growth, you might want to continue. We have established that sodium is the most common attractant used in deer products, and the

most common form it comes in is sodium chloride, or salt. The functions salt provides are important, but it does little for improving the aforementioned functions and characteristics.

Instead, minerals such as calcium, phosphorus, magnesium, zinc, manganese and copper are examples of macro and micro minerals that beneficially contribute to body, antler and fawn growth, as well as lactation. These minerals can be found in varying levels within vegetation, but in nearly all cases, one or more will be at suboptimal levels. Minerals in plants are derived from soil, and all soils are deficient in some minerals to some degree. That's why it's wise to supplement those minerals in the form of free-choice mineral.

Domestic livestock operations have seen the dramatic effects of mineral supplementation for decades, and deer managers and hunters have witnessed them with deer mineral supplements such as Imperial 30-06. The trick is to identify whether a product is a true deer mineral or mostly an attractant. The best way to determine that is to look at the product label to see if the product is primarily salt or some other form of sodium. If a product is comprised of 50 percent salt or more, it's likely an attractant more than a true deer mineral.

### **CONCLUSION**

An old saying holds that seeing is believing, and that's true in many cases. If you see a deer dig a big hole in the ground, you believe a product must be working. But you have to be more specific on what working really means. Are deer merely attracted to it, or is it helping to develop a more productive deer herd?

Make sure to understand the product that's the catalyst to that hole, and you can determine what that hole means to quality of the deer herd.