The Wonders of Rock Salt

According to Mark Wolfe, in total, $92.7 million worth of salt was sold in Ohio in 1999 and $105 million in 2003 (Wolfe, “The Ohio Mineral” 3; Wolfe, “Ohio” 90). The major companies which produce salt, as of 2003, are Cargill and Morton International (Wolfe “Ohio” 90). Silurian age rock salt is found in Ohio and neighboring states, and the rock salt found in this area is superior in class, huge in its coverage, and supplies two-thirds of the rock salt in the country (Bleimeister 1243). As one can see, the rock salt industry is big and booming, and rock salt isn’t in demand for no reason. Rock salt’s value and usage is both vast and diverse.

Ohio uses rock salt in many ways. There are over 14,000 uses for salt, some used in one’s own home and others in chemical and industrial ways (Nordahl). Farmers feed salt to cattle, homeowners use it to help soften water, and industries use it to make various products, such as explosives, detergents, and fertilizers (Nordahl). One of the most common things that rock salt is used for is de-icing the roads during the winter months ("Rock Salt Mining"). Because the ice melts faster when it is introduced to salt, it allows for safer, less slippery travel (Dean 72). Without this use of rock salt, Ohio would be up a creek and our everyday travel would be curtailed during the winter months. Since Ohio has fairly hard winters, rock salt is a great commodity. However, one must ask, is the amount of damage caused by the amount of rock salt used during the winter to clear the roadways worth the benefits? Of course, drivers need to be safe, but at what cost to the world around us?

Salt also affects everything it touches—sometimes for the worse. Although there are many useful things that we can use salt to create, it also sometimes hurts more than helps. In the U.S., around thirteen million tons of salt are used during the winter months to ensure safe passage (Friederici). Thirteen million tons is a lot of salt to be slathering all over the roads, and when any compound is pushed upon nature in such high numbers, there is bound to be harm done (Friederici). Cars are rusted through and through, bridges are being eaten away, and many environmental prices have been paid, as well (Friederici). Rock salt also affects animals, the air, the water, plants, and everything it touches (Friederici). Salt’s effect on plants is drastic. Salt dries out plants and makes them unable to take in water, which

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This essay was written for Earth Dynamics, taught by Dr. Schweitzer. The assignment was to write a natural resource report on a mineral.

All throughout time, man has had to depend on the land to help him survive. Today, in our modern society, we remain unchanged when it comes to using what the earth freely gives us. Ohio has been blessed with having many natural resources. A natural resource in Ohio, which is utilized greatly and is often taken for granted, is salt. It is an evaporate mineral, which gets its name from how it is formed. When saltwater evaporates, it leaves an ultra-concentrated salt behind (Marshak 206). Salt, which is just sodium chloride, is usually clear to white in color, and its grains are coarse (Friederici & Carlson 13). Rock salt forms when a lot of salt gathers in a crack or crevice and is then covered over with sediment. After it hardens and turns crystalline, it is later mined out (Marshak 207). In Ohio, rock salt is prevalent, used in many ways, and affects Ohio environmentally and economically.

Ohio has a great supply of salt, and, in fact, has one of the principal Salina Basin rock salt deposits in the country (Dean 74). The rock salt in Ohio has come primarily from Cuyahoga, Summit, Medina, Wayne, and Lake counties (Carlson 11). Cleveland, in Cuyahoga County, has supplied a significant amount of salt to Ohio, and by 1979, Cleveland had already given Ohio over 500,000 tons of its rock salt (Nordahl).
they need to survive. Once plants don’t have the water they need, they die. Salt affects water because of run-off from roadways into bodies of water making life unbearable for many animals and vegetation. Also, it has been revealed that in the vicinity of Chicago, salt strength in man-made wetlands, which were used as retention basins, was up to 650 parts per million, whereas normal, ordinary wetlands usually have salt strengths 8 to 20 parts per million. On a similar note, to go beyond 250 parts per million in regular drinking water stores would be unacceptable (Friederici).

Rock salt not only affects our environment, it also affects our economy. Supply and demand is a huge factor when dealing with salt. When rock salt is short, the price goes up. Many counties may or may not have the funds to pay market price because of the high demand for it. Shortages of salt definitely cause problems. The overuse of salt would cause a shortage, and with Hurricanes like Ike and Gustav, it only makes salt shortages worse by causing transportation problems (“Road Salt Shortage,” Antoniotti). In 2007, Ohio bought road salt for $47 a ton, and in some places, people are saying that the fees are three times higher than what they paid last year and are becoming a reality. Some places in Ohio might not have sufficient salt storhouses to readily put salt down as needed in winter of 2008. Because a lot of salt was used in the winter of 2007, salt stores have diminished, and many salt producers are blaming the rise in prices to the greater than before hauling and construction costs (“Road Salt Shortage”).

Salt is a great industrial mineral in Ohio that can be used in many ways. Salt is dug from the ground, marketed to make money, and used for manufacturing purposes to make many things (“Industrial Minerals”). Salt is a great commodity that Ohio often undervalues and uses without thinking. In order for salt to be there for Ohio when it truly needs it, it needs to be used wisely and sparingly. Ohio needs to think of its residents, but it also needs to take into consideration its environment, plants, animals, air, and water, along with its economy. Ultimately, balance is the answer. People need to be safe, but so does our earth. Rock salt is a great resource when used responsibly.

Works Cited


