LEARN ABOUT FOOD GRADE FOSSIL SHELL FLOUR DIATOMACEOUS EARTH (with approval of www.diatomitecanada.com)

If as much time was spent applying diatomaceous earth (DE) to insect infestations as is spent writing about it, the pesticide companies would go out of business However, if someone doesn't keep writing about DE it seems to fade into the background. This could be explained by the fact that Dow, Monsanto, Union Carbide and other manufacturing companies don't really want their profitable poisons replaced by an inexpensive, non-tonic, naturally occurring, low margin material found in many countries of the world. Diatoms are the grass of the oceans and lakes. Just as green grass is the staple food of earth animals, Diatoms (algae) are the food of the ocean or fresh water grazers. These tiny organisms are protected by a crystal shell which looks like a miniature sand dollar. When DE organisms die, the shells pile up on the bottom to form deposits. These deposits are then mined from underwater beds or from ancient dried lake bottoms. Once DE is mined, it can be milled or processed into a myriad of types for an even greater variety of uses.

Fossil Shell Flour DE used in agriculture must be milled until it is almost completely amorphous. This means it has no crystalline form left to cause damage to larger organisms instead it has small sharp edges which can damage tiny parasites, larvae, on stored grain, in animal manure, on infected plants and in the stomachs of livestock and people. The microscopic shells in Fossil Shell Flour diatomaceous earth are composed of silica and at least 14 trace minerals. Being formed under water, they will not dissolve in water. In fact, even in the stomach of animals or birds, surrounded with powerful digestive juices, they pass all the way through the body almost complete. A very small amount is leached out. As it passes through the stomach and intestinal tract, a number of important things happen. These happenings occur as physical actions, not CHEMICAL, not NUTRITIONAL - JUST PHYSICAL! AND SAFE!

The shape of these shells and the size of the holes in the surface of these shells are very important. In addition, each individual shell has a strong negative charge and it is very fortunate that many harmful things entering the body have a POSTITIVE CHARGE. Acting as a magnet, the negatively charged shell attracts and absorbs positive things that are small enough to go through the holes.

Because of the strong charge, each shell can absorb a large number of positively charged substances. Whether they be chemical or in the form of bacteria or viruses. They pass on through the stomach and intestine, taking these harmful substances out of the body. In today's world, most of all food, (animal or human), all water and air contains harmful substances, which taken internally causes stress on the immune system.

Since it also has an attractive mineral composition, food grade fossil shell flour DE users have reported four distinct uses on the farm: parasite control, mineralization, deodorization/absorption, and grain protection. Each use has its own folklore, facts and fiction associated with it so each will be discussed. Any uses other than those presented her, are strictly reports of what people have done with the food grade fossil shell flour diatomaceous earth.

PARASITE CONTROL

Fossil Shell Flour DE has been used for at least two decades as a natural wormer for animals. It is believed that the Fossil Shell Flour DE scratches and dehydrates parasites. Some scientists believe that the Fossil Shell Flour DE is a de-ionizer or de-energizer of the worms or parasites. Regardless of the method of operation, farmers report definite control. For effective use, the Fossil Shell Flour DE must be fed long enough to catch all the newly hatching eggs or cycling of the worms through the lungs and back to the stomach. A minimum of 60 days is suggested at 2% of dry weight of the grain ration. Caution: do not give to very small pregnant animals such as cats, guinea pigs, etc. and do not feed continually to babies or very

small adult animals such as cats, hamsters, etc. The material may be fed on a continuous basis to larger livestock for continuous parasite control and mineralization which is the next major use.

MINERALIZATION

If you began feeding Fossil Shell Flour DE to your poultry or livestock and noticed a gain in production, what could the gain be attributed to? The obvious answer would be that the Fossil Shell Flour DE reduced the parasite population which resulted in decreased stress on the animal and increased food assimilation. But what about the "mineral" content of the Fossil Shell Flour DE? If oyster shell meal provides calcium, then finely ground Fossil Shell Flour DE may also provide a broad-spectrum of naturally occurring chelated minerals. These include calcium, magnesium, iron, phosphate, sodium, titanium, potassium and others. Numerous reports of gain have been reported when adding DE: to a ration. With lack of mineralization in modern grains, it isn't hard to conceive of mineral benefits from a finely ground natural mineral product. An Alabama study on hogs showed complete stopping of wood feeder chewing when Fossil Shell Flour DE was added to the feed ration. Feeding at 2% of grain ration can take care of both de-worming and mineralization. Most livestock will acquire a "taste" for the mineral if a small amount is mixed in with other feed. After acquiring a "taste" for Fossil Shell Flour DE they may take it free-choice. Test results (University of Illinois) in 1966 show that the use of the product does not harm animals or leave residues in milk or meat.

DEODORIZATION/ABSORPTION

The third major farm use can be an added benefit from the first two uses. Deodorizing and absorption are natural functions of Fossil Shell Flour DE. These will continue to happen as undigested Fossil Shell Flour DE passes through with manure. Reduced fly hatching is usually observed in manure from livestock fed Fossil Shell Flour DE. Some dairy and hog farmers are also spreading it in bedding (for odor and moisture control) in addition to that coming through the manure.

GRAIN PROTECTION

The last use to discuss is grain and flour storage. Fossil Shell Flour DE offers the only easy answer to chemical contamination of stored grain. Irradiation could be used, but cost and negative health effects make it very undesirable. This writer has kept wheat, oats, and spelt in open bins for two years or more with no insect damage by applying Fossil Shell Flour DE at approximately 7 pounds pet ton of stored grain. The Fossil Shell Flour DE was sprinkled into the auger by hand As an examination of its effectiveness, it was compared with malathion and untreated grain on 1,000 bushels of wheat by the Agricultural Research Service of the USDA. After 12 months storage, the Fossil Shell Flour DE treated material had 15 insects compared to 4884 for malathion and 16,994 for untreated. Although 7 pounds of Fossil Shell Flour DE may lower the commercial grade of wheat immediately after treatment, the wheat maintained its grade longer than other treated or untreated grain. Flour yielding and bread baking qualities are not affected. The new patents allowing Fossil Shell Flour DE to be used effectively at 1 to 2 pounds per ton instead of 7 pounds should eliminate any grade deterioration problems. Recent grain board tests in Canada have proven in the field what the patents claimed on paper, i.e. Fossil Shell Flour DE protects stored grain without contaminating it. We prefer fresh water diatoms to sea types for several reasons. The bio-activity seems to be better and the health ramifications of breathing the fine white dust seems to be almost negligible because of its 99% plus amorphous structure compared with a higher percentage crystalline structure.